

**Expanded Report to Congress**

**Non-Emergency Medical Transportation in Medicaid, 2018–2021**

**As Required by the Consolidated Appropriations Act, 2021 (Public Law 116-260)**

**June 20, 2023**

**Xavier Becerra, Secretary**

**U.S. Department of Health and Human Services**

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## EXECUTIVE SUMMARY

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In December 2020, the Consolidated Appropriations Act, 2021 (Public Law 116-260) was enacted, formally codifying into statute the long-standing regulatory requirement that states assure necessary medical transportation for beneficiaries to and from providers of covered services. The required assurance includes non-emergency medical transportation (NEMT), which sets Medicaid apart from other sources of health coverage, including private insurance and Medicare; these sources of health coverage generally cover emergency medical transportation and do not cover NEMT.<sup>1</sup> Section 209(b)(5) also directs the U.S. Department of Health and Human Services (HHS), through the Centers for Medicare & Medicaid Services (CMS), to conduct an analysis of and submit to Congress a report on the nationwide Transformed Medicaid Statistical Information System (T-MSIS) data set, identifying recommendations relating to Medicaid coverage of NEMT for medically necessary services.

In June 2022, HHS submitted a report to Congress that met these statutory requirements (HHS 2022). This initial report provided an analysis of the following topics, reflecting data for calendar years 2018, 2019, and 2020:<sup>2</sup>

- Overall, and by a range of beneficiary subgroups:<sup>3</sup>
  - The number and percentage of Medicaid beneficiaries using NEMT
  - The average number of NEMT “ride days” per NEMT user per month enrolled in Medicaid (or “monthly ride days”), a unique count of the number of days the beneficiary received NEMT<sup>4</sup>

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<sup>1</sup> The U.S. Department of Veterans Affairs provides NEMT to certain veterans, and Medicare Advantage plans increasingly offer transportation to enrollees (Medicaid and CHIP Payment and Access Commission [MACPAC] 2021).

<sup>2</sup> Due to the urgency of submitting a report to Congress as quickly as possible reflecting an analysis of the NEMT benefit using T-MSIS data, CMS opted to submit this congressionally mandated analysis in two reports: (1) an initial report and (2) an expanded report. The initial report included a limited set of analyses of the use of the NEMT benefit that could be analyzed quickly and an initial set of recommendations regarding the NEMT benefit. The expanded report included a comprehensive set of analyses of the use of the NEMT benefit, from which a final set of recommendations was drawn. The expanded report also included an additional year of data (2021) to inform the trajectory of NEMT use following widespread COVID-19 vaccine availability.

<sup>3</sup> The initial report examined use of NEMT among beneficiaries in each of five major eligibility categories (children, adults, adult expansion beneficiaries, beneficiaries eligible for Medicaid on the basis of a disability, and those eligible on the basis of age [65+]). The report also examined the use of NEMT among beneficiaries enrolled in several Medicaid programs that support beneficiaries with substantial health care needs, including 1915(c) waiver enrollees, Money Follows the Person (MFP) participants, and beneficiaries dually enrolled in Medicare and Medicaid (dually eligible beneficiaries). For states with usable T-MSIS Analytic Files (TAF) race and ethnicity data, the report examined the use of NEMT among beneficiaries within each major race and ethnicity category. It also examined use of NEMT among beneficiaries with select physical health conditions, mental health conditions, and substance use disorders. Finally, the report examined the extent to which the use of NEMT varies across the urban-rural spectrum and within frontier and remote areas, as well as by the degree of social deprivation in a beneficiary’s area of residence, and presented data on the modes of transportation used and how they vary across these geographic areas.

<sup>4</sup> Due to differences in billing practices across states and providers, for this report, CMS chose to examine the number of NEMT ride days, defined as a unique count of the number of days the beneficiary received NEMT, in

- The types of medical services beneficiaries accessed when using NEMT

The report also provided initial recommendations regarding Medicaid coverage of NEMT.

This second report provides a more extensive analysis of Medicaid coverage of NEMT, covering all topics included in the initial report (listed above), as well as the following additional topics and reflecting data for calendar years 2018, 2019, 2020, and 2021:

- The types of medical services accessed when using NEMT, by beneficiary subgroup
- Monthly trends in the use of NEMT versus telehealth services before and during the COVID-19 public health emergency (PHE), overall, by beneficiary subgroup, and by type of service accessed using NEMT
- A comparison of the volume of NEMT services used (number of NEMT ride days per 10,000 beneficiaries), by type of NEMT delivery model used by the state

The report also provides a final set of recommendations regarding Medicaid coverage of NEMT.

### **a. The data**

Using data from the T-MSIS Analytic Files (TAF)—the research-optimized version of the T-MSIS data—this report presents data for calendar years 2018, 2019, 2020, and 2021.<sup>5</sup> Because the COVID-19 PHE caused a variety of changes to health care utilization patterns, the report presents 2018 and 2019 data alongside the 2020 and 2021 data to provide a baseline picture of NEMT use before the PHE.

The results presented in this report are based on beneficiaries enrolled in Medicaid for at least one day and who had full or comprehensive benefits during the calendar year.<sup>6</sup> It excludes beneficiaries only eligible for the Children’s Health Insurance Program (CHIP) (either a Medicaid expansion CHIP or a separate CHIP program), and those receiving only a limited set of benefits, during the year.

### **b. T-MSIS data limitations relevant to NEMT**

It is important to note that states may claim NEMT as a medical service expenditure, an administrative expenditure, or a combination of the two.<sup>7</sup> However, T-MSIS is designed to

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order to ensure a comparable metric across states and beneficiaries. However, it is important to note that the number of ride days undercounts the total number of NEMT rides taken, as beneficiaries may receive multiple NEMT rides within a single day.

<sup>5</sup> This report is based on the 2018 TAF Release 2, the 2019 TAF Release 1, the 2020 TAF Release 1, and the 2021 preliminary TAF (the most recent versions of each year of data available when the analysis was conducted).

<sup>6</sup> The scope of benefits available to Medicaid beneficiaries can vary depending on factors such as the beneficiary’s state of residence, resources, and citizenship or immigration status, among other factors. In general, Medicaid beneficiaries may be entitled to the following types of benefits: (1) full benefits, which include all services covered under the Medicaid state plan; (2) comprehensive but not full-scope benefits, which would cover most medical and pharmacy services, but not all benefits included in the state plan; or (3) limited benefits, which cover only a small set of services, such as emergency services only or family planning services only. Generally, full benefits and comprehensive benefits meet the definition of minimum essential coverage (MEC), whereas limited benefits do not.

<sup>7</sup> Medical service expenditures are equivalent to those expenditures states report as Medical Assistance Program expenditures on Form CMS-64. On this form, in 2018, Alabama, Massachusetts, Minnesota, and Wyoming reported

capture medical service expenditures, but not administrative expenditures. As a result, not all Medicaid NEMT provided to beneficiaries is captured in the T-MSIS data.<sup>8</sup> Examples of NEMT that may be treated as an administrative expenditure and not reported in the T-MSIS data include qualified reimbursements to beneficiaries who incur out-of-pocket costs when using public transit (for example, buses or subway rides) or a personal vehicle to get to a medical service. An analysis of the Medicaid Budget and Expenditure System (MBES) data reported by states on Form CMS-64 shows that, in fiscal years 2018 and 2019, 83 percent and 82 percent, respectively, of all NEMT expenditures were claimed by states as a medical service expenditure, and 17 percent and 18 percent, respectively, as an administrative expenditure. In fiscal years 2020 and 2021, 91 percent and 90 percent, respectively, of all NEMT expenditures were claimed by states as a medical service expenditure, and 9 and 10 percent, respectively, as an administrative expenditure (for state-level information, see Tables C.3a through C.3d).<sup>9</sup> Because the TAF data provide information on the services that Medicaid beneficiaries receive, CMS identified beneficiaries using NEMT based on Medicaid fee-for-service (FFS) claims and managed care encounter records reported by managed care entities.<sup>10</sup>

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all NEMT expenditures as administrative expenditures; Connecticut, Michigan, Missouri, New Hampshire, North Carolina, Pennsylvania, South Dakota, and Washington reported some, but not all NEMT expenditures as administrative expenditures. In 2019, Colorado, Massachusetts, Minnesota, and Wyoming reported all NEMT expenditures as administrative expenditures; Alabama, Connecticut, Kentucky, Michigan, Missouri, New Hampshire, North Carolina, Pennsylvania, and South Dakota reported some, but not all NEMT expenditures as administrative expenditures. In 2020, Colorado, Minnesota, and Wyoming reported all NEMT expenditures as administrative expenditures; Alabama, Connecticut, Michigan, Missouri, North Carolina, Pennsylvania, and South Dakota reported some, but not all NEMT expenditures as administrative expenditures. In 2021, Colorado, Minnesota, and Wyoming reported all NEMT expenditures as administrative expenditures; Alabama, Connecticut, Georgia, Iowa, Kentucky, Michigan, Missouri, North Carolina, Pennsylvania, South Dakota, and Texas reported some, but not all NEMT expenditures as administrative expenditures.

<sup>8</sup> Each state reports its quarterly Medicaid administrative expenditures and medical service expenditures to CMS on Form CMS-64. CMS uses the Form CMS-64 data to calculate Medicaid payments to states, according to the applicable federal matching rate for each state and expenditure category. The T-MSIS data are not used to determine federal payments to states, but may be used to study state payments to providers and managed care plans. In general, T-MSIS was not designed to capture Medicaid administrative expenditures. However, states have not been given formal guidance regarding the reporting of NEMT expenditures claimed as administrative expenditures into T-MSIS. Therefore, it is possible that some states report NEMT activities that were claimed as administrative expenditures in the T-MSIS data, and there is some evidence that at least a few states are doing so. For example, several states that reported all NEMT expenditures as administrative expenditures on their Form CMS-64 also reported a substantial number of FFS claims for NEMT services in their T-MSIS data.

<sup>9</sup> However, expenditures reported under the NEMT line items on the Form CMS-64, whether reported as a medical service or an administrative expenditure, undercount total NEMT expenditures because NEMT provided under capitated arrangements (such as through comprehensive managed care plans or transportation prepaid ambulatory health plans [PAHPs]) are not reported as NEMT expenditures, but rather are incorporated into the capitated payments the state pays to managed care plans. Capitated payments for transportation PAHPs are captured in the T-MSIS data, but when a state has a comprehensive managed care plan administer the NEMT benefit, the capitated payment to these plans cannot be disaggregated to identify the amount of the monthly capitated payment that covers the plan's NEMT payments.

<sup>10</sup> States are required to report into T-MSIS both FFS claims and encounter records, which represent service use (including NEMT services) provided by managed care entities under capitated arrangements. Essentially, when a provider bills either the state (in a FFS system) or a health plan (in a capitated managed care plan, including transportation brokers) for the provision of NEMT, that billing record should be reflected in the data used for this report.



Additionally, because state Medicaid agencies cannot require that applicants or beneficiaries self-report race and ethnicity information, for many states, these data elements have high rates of missing information in T-MSIS, and CMS’ ability to assess differences across these groups is therefore limited. At the time of this analysis, CMS is working with states to improve the available race and ethnicity data in T-MSIS. Furthermore, because TAF data only provide information on the services that Medicaid beneficiaries receive, data are not available to assess the amount of unmet beneficiary need for NEMT, missed appointments, or on any foregone care due to lack of transportation. Finally, for beneficiaries dually eligible for Medicare and Medicaid, certain transportation services are provided under the Medicare Part B benefit; these services are not captured in the T-MSIS data.<sup>11</sup>

Furthermore, in each year, the TAF data for some states had important data quality issues that precluded their inclusion in the national-level statistics presented in this report. For instance, some states had low rates of NEMT claims that linked back to an eligibility record, an unexpectedly low volume of claims and encounter records, or high rates of missing information essential to identifying claims for NEMT. CMS presents data for these states and territories in the report, but excludes those data from the national-level statistics.<sup>12</sup> For these reasons, the national data presented in this report are incomplete. For additional information on TAF data quality issues, please see Appendix B.

As a result, the T-MSIS data leveraged for this analysis represent only a subset of the NEMT provided by the Medicaid program, and therefore do not enable complete and nationally representative findings from which definitive conclusions may be drawn. Although CMS has made the following recommendations based on the available data, CMS suggests that the recommendations presented in this report be qualified as reflecting a partial set of data representing NEMT services used during a period of time in which a national pandemic emerged. During the analysis period, states also implemented various state-specific countermeasures to stem the impacts of the PHE on access to care. The PHE impacted both beneficiary decision making, availability of medical services, and transportation including NEMT. The data collected for this specific period reflect a combination of factors which contribute to higher than anticipated underutilization of services. CMS suggests these “findings” and “results” be interpreted as evidence which should be further studied at the state level and in the months and years following the end of the PHE.

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<sup>11</sup> Under the Ambulance Fee Schedule (AFS), Medicare Part B covers ground (land and water) and air ambulance transport services furnished to a Medicare beneficiary who meets certain requirements. Appropriate destinations include a hospital; critical access hospital (CAH); rural emergency hospital (REH); skilled nursing facility (SNF); beneficiary’s home; and dialysis facility for an end-stage renal disease (ESRD) patient who requires dialysis (42 CFR § 410.40).

<sup>12</sup> Specifically, CMS excluded Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands from the 2018 national-level statistics; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands from the 2019 national-level statistics; and Puerto Rico, Utah, and the U.S. Virgin Islands from the 2020 and 2021 national-level statistics.

### c. Key findings

Key findings from the analyses of T-MSIS data presented in this report are summarized below. For complete details, refer to the “Key Findings” and “Results” sections of the report.

- **Based on available data, approximately 3 - 4 million Medicaid beneficiaries used NEMT annually between 2018 and 2021.** However, these statistics undercount the total number of beneficiaries using Medicaid NEMT, given that not all NEMT is reported in T-MSIS data (see discussion above) and not all states are included in these national estimates.
- **Overall, between 4 and 5 percent of Medicaid beneficiaries used NEMT each year, but subgroups of Medicaid beneficiaries with substantial health care needs used NEMT at higher rates than the average.** These subgroups included Money Follows the Person (MFP) participants, participants receiving home and community based services through Section 1915(c) waivers, and dually eligible beneficiaries.<sup>13</sup> Across the five major eligibility categories (which include children, adults, adult expansion beneficiaries, beneficiaries eligible for Medicaid on the basis of a disability, and beneficiaries eligible for Medicaid on the basis of age [65+]), those who used NEMT at the highest rates included beneficiaries eligible for Medicaid on the basis of a disability and beneficiaries eligible for Medicaid on the basis of age (65+).<sup>14</sup>
- **NEMT played a key role in enabling access to care for beneficiaries with certain types of physical health conditions, mental health conditions, and substance use disorders (SUDs), who used the benefit at substantially higher rates than the average.** They included beneficiaries with a diagnosis of chronic kidney disease (CKD) with end-stage renal disease (ESRD); opioid use disorder (OUD); any SUD; intellectual disabilities or other developmental delays; and beneficiaries with any mental health condition. These results suggest that NEMT plays an important role in enabling beneficiaries with chronic physical and mental health conditions and SUDs to access medically necessary care.
- **Overall, beneficiaries most often used NEMT to access preventive health care services, services related to the evaluation and management (E&M) of acute and chronic conditions, lab and imaging services, and behavioral health services.**
- **Certain beneficiary subgroups used NEMT most frequently to access vital, life-sustaining services.** For example, beneficiaries with a diagnosis of CKD with ESRD most frequently used NEMT to access dialysis services, while pregnant beneficiaries most frequently used NEMT to access SUD treatment services, as did beneficiaries with any SUD or with OUD more generally. Beneficiaries with OUD also frequently used NEMT to access medication-assisted treatment (MAT) for OUD.

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<sup>13</sup> For the analyses presented in this report, beneficiaries who participated in more than one Medicaid program during the calendar year are reflected in each program category that applies.

<sup>14</sup> Major eligibility categories are mutually exclusive. Each beneficiary is reflected in one eligibility category for the program year, and if applicable, is also reflected in any Medicaid program category in which they participated.

- **Rates of NEMT use changed dramatically during the COVID-19 PHE.** At the start of the PHE, NEMT use dropped sharply as many services shifted to telehealth, and providers and beneficiaries delayed non-urgent medical care (CMS 2021b). Use of NEMT gradually increased in May through October 2020, but declined again in October 2020 through February 2021, which coincided with a resurgence in COVID-19 case levels. On average, the monthly number of NEMT ride days in 2021 remained about 30 percent below pre-PHE levels, and the number of beneficiaries using NEMT remained 23 percent below pre-PHE levels.
- **Use of telehealth<sup>15</sup> increased sharply at the onset of the COVID-19 PHE as NEMT use decreased; since April 2020, demand for telehealth has declined, but remained moderately strong through December 2021.** Less than 1 percent of beneficiaries used telehealth in any given month leading up to the PHE; however, following its onset in April 2020, 10 percent of beneficiaries used telehealth. Monthly telehealth use decreased throughout the remainder of 2020 and in the first half of 2021; in the last six months of 2021, only about 5 percent of beneficiaries used telehealth in any given month.
- **Throughout the COVID-19 PHE, telehealth has been used more than NEMT to access certain service types.** These include preventive services, behavioral health services, services related to the E&M of acute and chronic conditions, and SUD treatment services.
- **Throughout the COVID-19 PHE, use of NEMT to access other service types remained strong.** In contrast, although the average NEMT ride volume declined with the onset of the PHE for accessing lab and imaging services, dialysis, MAT for OUD, care for heart disease and diabetes, cancer treatment services, physical therapy (PT) and occupational therapy (OT), and dental services, by the fourth quarter of 2021, NEMT service volume had outpaced telehealth service volume when accessing these service types.
- **Throughout the COVID-19 PHE, certain beneficiary subgroups have used telehealth more than NEMT.** These groups included children; adults; adult expansion beneficiaries; pregnant and postpartum beneficiaries; and beneficiaries with CKD without ESRD, any mental health condition, any SUD, or OUD.
- **Among other beneficiary subgroups, the demand for NEMT has remained relatively strong throughout the PHE.** In contrast, for several other subgroups—beneficiaries with a diagnosis of CKD with ESRD, beneficiaries with intellectual disabilities and other developmental delays, participants receiving home and community-based services through section 1915(c), MFP participants, dually eligible beneficiaries, and beneficiaries eligible on the basis of age (65+)—NEMT service volume had outpaced telehealth service volume by the fourth quarter of 2021.

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<sup>15</sup> Because states were not required to distinguish telehealth claims in their T-MSIS submissions, they may be under-reported in T-MSIS. However, at least some states require providers to distinguish telehealth visits on claims for Medicaid reimbursement, and rates of telehealth use found in this report are similar to the rates among other non-Medicaid populations before and during the PHE (Whaley et al. 2022).

- **Overall, the T-MSIS data show similar rates of NEMT utilization among beneficiaries who are Black and beneficiaries who are White,<sup>16</sup> but lower rates of utilization among beneficiaries who are Hispanic.** However, the T-MSIS race and ethnicity data have significant limitations and could only be analyzed for about two-thirds of states, which limits the ability to draw conclusions about the use of NEMT across these groups.
- **The data show little variation in the use of NEMT by the social deprivation of a beneficiary’s area of residence.** Beneficiaries residing in an area with a high social deprivation index (SDI)<sup>17</sup> used NEMT at about the same rates and frequencies as those residing in an area with a low SDI.
- **Across geographies, beneficiaries residing in frontier and remote areas used NEMT at the highest rates.** In 2021, about 7 percent of beneficiaries living in frontier or remote areas<sup>18</sup> used NEMT compared to less than 4 percent of all Medicaid beneficiaries. Looking across the broader urban-rural spectrum, those residing in more rural areas depended more on private vehicles, whereas those in urban areas used public transit and taxis more often.
- **In all years and across most beneficiary subgroups, the volume of NEMT service use was highest in states that used a capitated broker model to deliver NEMT.** Across all years and subgroups, beneficiaries in states that used an in-house delivery model had the lowest volume of NEMT service use. However, on average, states using an in-house NEMT delivery model claimed a relatively high percentage of NEMT expenditures as administrative expenditures, and NEMT administrative expenditures generally are not captured in the T-MSIS data. Therefore, NEMT service utilization measures may be underestimated for these states more so than for states using other delivery model types.

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<sup>16</sup> Race and ethnicity information is self-reported by beneficiaries and includes the following mutually exclusive categories: American Indian and Alaskan Native (AIAN), non-Hispanic; Asian, non-Hispanic; Black, non-Hispanic; Hawaiian/Pacific Islander, non-Hispanic; White, non-Hispanic; multiracial, non-Hispanic; and Hispanic. Although state Medicaid agencies ask applicants to self-report their race and ethnicity, it is not mandatory for Medicaid applicants or beneficiaries to provide this information.

<sup>17</sup> Using seven demographic characteristics collected in the American Community Survey, the SDI provides a measure of area-level social deprivation by zip code tabulation areas (ZCTAs). This report uses 2015 SDI scores. The demographic characteristics encompassed in this index are (1) percentage living in poverty, (2) percentage with fewer than 12 years of education, (3) percentage of single parent households, (4) percentage living in a rented housing unit, (5) percentage living in overcrowded housing units, (6) percentage of households without a car, and (7) percentage of non-employed adults under 65 years of age (Robert Graham Center n.d.). In our analyses, CMS separated this continuous measure into quartiles, with the highest quartile representing the greatest degree of deprivation. The highest SDI quartile corresponds to SDI scores greater than 75 to 100, the second-highest quartile corresponds to SDI scores of greater than 50 to 75, the second-lowest SDI quartile corresponds to SDI scores of greater than 25 to 50, and the lowest SDI quartile corresponds to SDI scores of up to 25.

<sup>18</sup> Frontier and remote areas are defined as those more than 30 minutes from an urban area of more than 10,000 people.

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## I. INTRODUCTION

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Since early in Medicaid’s history, states have assured necessary transportation to and from covered services for eligible beneficiaries (Adelberg and Simon 2017). This transportation assurance encompasses both emergency medical transportation and non-emergency medical transportation (NEMT). NEMT may include a broad array of transportation services, including public transit; taxi and van transport; personal vehicle transport; non-emergency ambulance transport; air transport; and, in a small, but growing number of states, transportation network companies (TNCs), such as Uber or Lyft (Medicaid and CHIP Payment and Access Commission [MACPAC] 2021; Silow-Carroll et al. 2021; Ganuza and Davis 2017). NEMT sets Medicaid apart from other sources of coverage, including private insurance and Medicare, which generally cover emergency medical transportation and do not cover NEMT.<sup>19</sup>

Medicaid beneficiaries may use NEMT for any medical service covered by the program, including travel to and from a pharmacy (MACPAC 2021). For a beneficiary to be eligible for NEMT, they must have an unmet transportation need (Centers for Medicare & Medicaid Services [CMS] 2016).<sup>20</sup> By connecting beneficiaries who lack affordable or available transportation with medical care, NEMT has been cited as a promising pathway for increasing access to care, improving equity, and reducing health disparities (MACPAC 2021; Silow-Carroll et al. 2021; Musumeci and Rudowitz 2016). Importantly, the COVID-19 public health emergency (PHE) presented unique barriers to accessing care and has engendered an increase in the use of telehealth services (Gersch et al. 2020; Oluyede et al. 2022). During the PHE, states have relaxed many of the restrictions on Medicaid reimbursement for telehealth visits, which has led to an increase in telehealth use (Chen et al. 2021). Nevertheless, NEMT remains integral to many beneficiaries receiving care.

In December 2020, before enactment of the Consolidated Appropriations Act, 2021, the Medicaid transportation assurance, including NEMT, was not a statutory requirement and was described in regulation only (see 42 CFR § 431.53). This regulation generally requires states to ensure necessary transportation for beneficiaries to and from covered services (CMS 2021a). Furthermore, as part of the Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) benefit, states have been required by 42 CFR § 441.62 to offer EPSDT-eligible beneficiaries from birth to age 21 “necessary assistance with transportation” to and from EPSDT visits (Musumeci and Rudowitz 2016).

The Consolidated Appropriations Act, 2021, passed by Congress in December 2020, formally codified the NEMT assurance requirement into statute. This requirement is set forth in Division CC, Title II, Section 209 of that Act (Public Law 116-260). Section 209(b)(5) directs the U.S. Department of Health and Human Services (HHS), through CMS, to conduct an analysis

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<sup>19</sup> The U.S. Department of Veterans Affairs provides NEMT services to certain veterans, and Medicare Advantage plans increasingly offer transportation to enrollees (MACPAC 2021).

<sup>20</sup> Depending on state law, an unmet transportation need may include (1) lacking a valid driver’s license or a working vehicle; (2) being unable to travel to or wait for services alone; or (3) having a physical, cognitive, mental, or developmental limitation. Most states determine whether beneficiaries have an unmet need for transportation by requiring them to self-attest that they need a ride to medical care and have no other means of transportation, though some states require a medical provider to document this attestation (MACPAC 2021).

of and submit to Congress a report on the nationwide Transformed Medicaid Statistical Information System (T-MSIS) data set, identifying recommendations relating to Medicaid coverage of NEMT for medically necessary services. This report includes the required content set forth in Section 209(b)(5).

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## II. BACKGROUND

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As with most aspects of the Medicaid program, there is substantial state-level variation in NEMT policies and program administration. In all states, most beneficiaries with no other means of transportation are eligible for NEMT. However, several states (for example, Georgia, Indiana, Iowa, Kentucky, and Utah) have Medicaid section 1115 demonstrations that broadly waive or render inapplicable the requirement to assure NEMT for certain low-income adult populations that otherwise receive most other state plan benefits. In Indiana and Iowa, section 1115 demonstrations waive NEMT for adult expansion beneficiaries, but provide it as part of EPSDT for EPSDT-eligible beneficiaries ages 19 to 21 and for medically frail individuals in this population. Utah's section 1115 demonstration renders inapplicable the requirement to assure NEMT for parent and caretaker relatives and adult expansion beneficiaries with dependent children unless they are eligible for EPSDT services; however this authority expires December 31, 2023. Kentucky's section 1115 demonstration waives transportation to methadone treatment services for all beneficiaries except pregnant individuals, former foster care youth, and beneficiaries eligible for EPSDT services. In October 2020, Georgia received approval to extend Medicaid coverage to adults with incomes up to 95 percent of the federal poverty level who are not otherwise eligible for Medicaid. However, the state's section 1115 demonstration renders inapplicable the requirement to assure NEMT for these individuals unless they are eligible for EPSDT services (HHS 2021; MACPAC 2021).

It is important to note that how states claim their matching federal funds for NEMT has implications for the results presented in this report. States may claim NEMT either as a medical service, an administrative expenditure, or both for purposes of federal matching (National Academies of Sciences, Engineering, and Medicine [NASEM] 2018; Musumeci and Rudowitz 2016). This choice has implications for how NEMT may be recorded (or not recorded) in the T-MSIS data.<sup>21</sup> States reporting NEMT spending as an administrative expenditure receive federal financial participation (or federal matching) for general Medicaid administrative activities, which is set at 50 percent (MACPAC n.d.). Claiming NEMT as an administrative expenditure generally gives a state more latitude in program design, but at the cost of a lower federal matching rate. Alternatively, states claiming NEMT as a medical service expenditure receive payment at the

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<sup>21</sup> T-MSIS was designed to capture services and payments that correspond to CMS-64 Medical Assistance Program expenditures, but not to CMS-64 administrative expenditures. Therefore, states claiming NEMT as an administrative expenditure may not be reporting NEMT-related payments or service use in their T-MSIS data.

state’s regular federal medical assistance percentage (FMAP), which ranged from 50.00 to 77.76 percent for fiscal year (FY) 2021, depending on the state and territory (HHS 2019).<sup>22, 23, 24</sup>

States also vary in how they administer NEMT. They can choose many models of NEMT program administration, including combinations of models. For instance, states can contract with NEMT providers directly, typically on a FFS basis, which is known as an “in-house management” model. States can also contract with third-party transportation brokers. NEMT can also be part of risk-based managed care contracts, known as “carved-in NEMT” (MACPAC 2021; Musumeci and Rudowitz 2016). States are to report in T-MSIS those claims for NEMT provided on a FFS basis, including services provided under an in-house management model or broker model. Likewise, states are to report encounter records representing services provided under capitated plans, including capitated models, such as prepaid ambulatory health plans (PAHPs) and comprehensive managed care plans.

Many states use a combination of these approaches. They may, for example, provide NEMT to comprehensive managed care enrollees through a carved-in NEMT benefit, but provide it through a transportation broker for those not enrolled in a comprehensive managed care plan. Alternatively, they may reimburse rides on a FFS basis in rural areas but contract with a broker

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<sup>22</sup> For states meeting certain statutory requirements, the regular FMAP presented here is increased by the number of percentage points provided under section 6008 of the Families First Coronavirus Response Act of 2020 (FFCRA) as amended by section 5131 of the Consolidated Appropriations Act, 2023 (CAA, 2023). These statutory requirements include, but are not limited to, making no more restrictive the eligibility standards, methodologies, and procedures they had in place as of January 1, 2020, and maintaining the Medicaid eligibility, through March 31, 2023, of all individuals who were eligible for Medicaid on or after March 18, 2020. For states that qualify, the FMAP increase is 6.2 percentage points for the period January 1, 2020, through March 31, 2023; 5.0 percentage points for the quarter ending June 30, 2023; 2.5 percentage points for the quarter ending September 30, 2023; and 1.5 percentage points for the quarter ending December 31, 2023.

<sup>23</sup> States that have expanded Medicaid to low-income adults (the “Adult Group”) under the Affordable Care Act (ACA) receive a higher FMAP for the medical assistance provided to such low-income adults who generally would not have been eligible for full Medicaid benefits as of December 1, 2009 (“newly eligible” individuals) (42 C.F.R. §§ 433.202-206). Expenditures for a beneficiary in the Adult Group will either qualify for the newly eligible FMAP, the “1905(z) expansion state” FMAP, or the state’s regular FMAP. Adult Group beneficiaries that are newly eligible are those who would not have qualified for full Medicaid benefits, benchmark coverage, or benchmark-equivalent coverage under the state’s program rules in place as of December 1, 2009. A beneficiary is also considered newly eligible if they would have been eligible, but could not have been enrolled for these benefits or this coverage because the applicable Medicaid waiver or demonstration had limited or capped enrollment as of December 1, 2009. The newly eligible FMAP was set at 94 percent in calendar year 2018, 93 percent in calendar year 2019, and 90 percent in calendar years 2020 and each calendar year thereafter. The FMAP for expenditures for “not newly eligible” beneficiaries in the Adult Group—those who could have qualified for full Medicaid benefits, benchmark coverage, or benchmark-equivalent coverage under the state’s program rules in place as of December 1, 2009—is either the state’s regular FMAP, or in the case of states that meet the criteria set forth in 1905(z)(3) of the Act, the increased 1905(z) expansion state FMAP for expenditures for nonpregnant childless individuals. A 1905(z)(3) expansion state is a state that expanded coverage to nonpregnant childless individuals before the ACA was enacted; therefore, such individuals could not be considered newly eligible and the associated expenditures could not be matched at the newly eligible FMAP.

<sup>24</sup> If a state chooses to report NEMT as a medical service expenditure, it must meet additional federal requirements for providing medical assistance, including statewideness, freedom of choice of provider, and comparability, unless provided under a demonstration project that waives or makes inapplicable some or all of these requirements with respect to providing NEMT. States providing NEMT through a third-party transportation broker (such as a transportation PAHP) are statutorily exempt from meeting these requirements.



in urban areas (MACPAC 2021). In states that contract with brokers, the latter serve as the logistical mediator between beneficiaries, providers, health plans (as applicable), and transportation companies (Ganuza and Davis 2017). States may contract with either regional or statewide brokers, which may be for-profit or not for profit. Statewide brokers are typically for-profit national brokers. Not-for-profit brokers may include human services agencies, public transportation agencies, other governmental entities, or not-for-profit organizations (NASEM 2018). States that contract with brokers typically pay them under a capitated payment arrangement, whereas a smaller number of states instead pay brokers a lump-sum payment or on a FFS basis.

The NEMT administration landscape has changed considerably over the past 15 years, with a strong trend toward using brokers and incorporating NEMT into comprehensive managed care contracts. States' use of brokers was accelerated by the Deficit Reduction Act of 2005 (DRA), which allowed states to contract with brokers to provide NEMT as a medical service expenditure (and receive federal matching at the applicable FMAP—typically higher than the 50 percent general federal administrative matching rate) through a state plan amendment without needing a 1915(b) waiver. Before the DRA, states providing NEMT as a medical service expenditure without this waiver could not restrict beneficiary freedom of choice of provider and were required to provide NEMT uniformly throughout the state (NASEM 2018). As of June 2021, 35 states had contracted with a transportation broker to provide NEMT to at least some populations or geographic areas (MACPAC 2021).

In addition, including NEMT in comprehensive managed care contracts has accelerated in the last six years, which may be related to the trend in many states of covering high-need populations under comprehensive managed care plans (MACPAC 2021; Ganuza and Davis 2017). As of June 2021, 26 states had included NEMT in their comprehensive managed care contracts for at least some populations or geographic areas (MACPAC 2021).

Several studies have suggested that beneficiary awareness of the NEMT benefit may be relatively low, though the available research on this topic is limited. Research conducted in 2020 found that among Medicaid beneficiaries eligible for NEMT in the United States as a whole, only 29 percent were aware of the benefit. Of the 29 percent who were aware, 37 percent had used NEMT personally or for a dependent (Evidation 2021). In a survey of Iowa's Medicaid beneficiaries, roughly half reported having low or very low knowledge of the NEMT process, with lower awareness levels among the population of younger adults without disabilities (Hanley et al. 2008).

States have reported several common challenges related to administering NEMT. One of the most common is maintaining an adequate provider network—specifically, finding enough qualified drivers and having enough vehicles equipped for high-need beneficiaries (MACPAC 2021; Silow-Carroll et al. 2021). The shortage of NEMT drivers has been exacerbated further during the PHE (Kolbe 2021). Customer service concerns pose another challenge, including how to handle drivers not showing up or arriving late, which may result in missed appointments (Ganuza and Davis 2017). States also reported inadequate system responsiveness to beneficiary needs. Although NEMT is well suited to handling service needs that recur or can be scheduled well in advance, it is typically less well equipped to handle time-sensitive needs or those difficult

to schedule in advance, such as transportation to the beneficiary's home or other care setting after a hospital discharge.

States may also face fraud and abuse concerns in administering NEMT (Ganuza and Davis 2017). The U.S. Government Accountability Office (GAO) has identified NEMT as being at a particularly high risk for fraud and abuse, noting concerns about enrolling providers, program inefficiencies, and verifying eligibility (GAO 2016; MACPAC 2019). However, a recent study noted that although fraud and abuse in NEMT was a concern to program administrators, they did not perceive it as a significant problem, particularly with more states shifting to a broker model and increased use of technology (Silow-Carroll et al. 2021).

State program administrators use a variety of options to address these challenges. For example, they cited technology, such as global positioning system (GPS) tracking, as one way to improve timeliness, efficiency, and beneficiary satisfaction. Many states, brokers, and managed care organization (MCOs) are increasingly including technology requirements in broker and provider contracts (Silow-Carroll et al. 2021). To relieve the strain on NEMT provider networks, states reported using strategies such as promoting mileage reimbursement for beneficiaries, family members, friends, and other volunteers who drive beneficiaries (particularly in rural areas); drawing on public transportation and county transit programs where available; using broker-owned vehicles to handle a surge in demand; and negotiating with NEMT companies for service expansions in shortage areas (Ganuza and Davis 2017).

Many states have also begun to use TNCs such as Uber, Lyft, or Veyo (a TNC-like transportation broker) to expand the provider network (MACPAC 2021; Silow-Carroll et al. 2021). There are some studies which indicate favorable statistics for TNC users regarding beneficiary wait times, and timely arrivals compared to other forms of NEMT (Rayle et al. 2014; Chaiyachati et al. 2018; Whorms et al. 2021).<sup>25</sup> However, these results cannot be attributed purely to the use of TNCs versus other forms of transport. For instance, TNCs are generally not available in rural areas, where wait times and timely arrivals would be naturally longer, and TNCs tend to serve beneficiaries with less complex needs, who may require less total time per ride.

Although using TNCs and TNC-like brokers could help states expand their NEMT provider network, their role in delivering NEMT to Medicaid beneficiaries varies by state (MACPAC 2021; Silow-Carroll et al. 2021). At least 14 states and the District of Columbia allow broad use of TNCs as first-choice NEMT providers, but others, such as Georgia,<sup>26</sup> allow their use only when no other transportation provider is available, an NEMT driver is a no-show, or if the beneficiary specifically requests them and the broker approves (MACPAC 2021). Use of TNCs

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<sup>25</sup> For instance, a study of NEMT users in San Francisco showed that most TNC customers (93 percent) waited less than 10 minutes for their NEMT rides, compared with 35 percent of taxi customers (Rayle et al. 2014). Results from a study of Philadelphia NEMT users showed that a ride-share pilot NEMT program increased show rates at primary care appointments (Chaiyachati et al. 2018); another study showed that ride-share use improved timely arrival at magnetic resonance imaging (MRI) appointments (Whorms et al. 2021).

<sup>26</sup> The broker authority granted under 42 CFR § 440.170(a)(4) specifically prohibits a broker from being a transportation provider itself. In a limited number of cases, such as in Georgia, CMS has granted an exception for a state's broker to also be a transportation provider, pursuant to 42 CFR § 440.170(a)(4)(ii)(B).

in rural states such as Vermont is less feasible than in other states because TNC networks are limited in rural areas, whereas TNC driver networks are increasingly robust in urban areas (Smith et al. 2017).

Using TNCs may help alleviate some challenges in NEMT administration but has also introduced new ones. For example, use of TNCs may decrease provider continuity—introducing different drivers for recurring rides—whereas there may be a good reason to prefer a customary transportation provider who has gained familiarity with a particular beneficiary. Though Section 209 of the Consolidated Appropriations Act, 2021, ensures that minimum driver and provider qualifications apply to TNCs, as well as other transportation providers, some states may not require TNCs and their drivers to undergo background checks, have insurance, conduct incident reporting, and/or the credentialing required of other transportation providers, thus raising safety and quality concerns (MACPAC 2021).<sup>27</sup>

When its NEMT program first launched, Uber faced several lawsuits from various stakeholders, some notably stemming from the lack of background checks for drivers (Kelly 2016). However, in recent years, Uber and Lyft have dealt with these concerns by expanding driver requirements to include driving history and criminal background checks. They have also launched specialized health care transportation programs (Uber Health and Lyft Pass for Healthcare), forming partnerships with the health care sector and integrating ride scheduling directly into the electronic health record (Wetsman 2022). The San Francisco Health Plan in California addressed the challenging regulatory environment of TNCs by partnering with FlyWheel, an app-based TNC that employs taxis. FlyWheel taxi drivers must undergo background checks, and the app supports requests for wheelchair-accessible taxis (Ganuza and Davis 2017).

Federal guidelines governing the use of TNCs for NEMT are limited. Accordingly, states have taken different approaches to integrating TNCs into their NEMT networks. Because TNCs are relatively new to the transportation marketplace, the regulatory landscape is evolving and varies substantially by jurisdiction (Ganuza and Davis 2017; MACPAC 2021). Until 2022, it was not possible to distinguish rides provided by a TNC in the T-MSIS data, making it difficult to study their use. However, effective January 1, 2021, the National Uniform Claim Committee issued a new provider taxonomy code specific to TNCs; this new code was incorporated into the T-MSIS data beginning in 2022, which should allow HHS and other stakeholders to use T-MSIS data to study NEMT rides provided by TNCs in the future.

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<sup>27</sup> Section 209 of the Consolidated Appropriations Act, 2021, set forth minimum driver requirements that apply to all NEMT providers, including TNCs. These minimum requirements under the state plan must include that: (1) Each provider and individual driver is not excluded from participation in any federal health care program (as defined in section 1128B(f) of the Act) and is not listed on the exclusion list of the Inspector General of HHS; (2) each such individual driver has a valid driver's license; (3) each such provider has in place a process to address any violation of a state drug law; and (4) each such provider has in place a process to disclose to the state Medicaid program the driving history, including any traffic violations, of each such individual driver employed by such provider, including any traffic violations (CMS 2021a).

The body of literature on the cost-effectiveness and cost savings of NEMT is limited, but promising. Officials from research and advocacy groups<sup>28</sup> interviewed for a GAO report noted that the *exclusion* of NEMT could increase the total cost of care, as patients forego preventive care and utilize more expensive emergency services (GAO 2016). In 2005, NASEM conducted a cost-effectiveness analysis that found NEMT for influenza vaccinations, dental care, end-stage renal disease (ESRD), chronic obstructive pulmonary disease (COPD), and several other conditions proved to be highly cost-effective. Furthermore, providing additional NEMT resulted in a net cost savings for prenatal care, asthma, heart disease, and diabetes (Hughes-Cromwick et al. 2005). A more recent study using the NASEM NEMT cost-effectiveness model to assess the potential cost savings of providing NEMT for transportation-disadvantaged Medicaid beneficiaries found that modern NEMT,<sup>29</sup> when compared to traditional NEMT,<sup>30</sup> saves approximately \$268 per member per year and \$537 million annually (Rochlin et al. 2019).

To assess and improve the Medicaid NEMT benefit, it is important to understand the characteristics of NEMT users. Currently, T-MSIS is the only data source that captures beneficiary-level Medicaid NEMT service use at a national scale. Few studies to date have evaluated NEMT beneficiary characteristics at a national level. One study leveraging FY 2018 T-MSIS data found that those with a diagnosis of chronic kidney disease (CKD) with ESRD used NEMT at the highest frequency, followed by beneficiaries with intellectual disabilities, those with opioid use disorder (OUD), beneficiaries with a diagnosis of CKD without ESRD, and those with serious mental illnesses (MACPAC 2021). Another study, which collected data through group and individual interviews,<sup>31</sup> found that NEMT utilization is highest among Medicaid beneficiaries with disabilities and those requiring multiple visits per week, such as those using dialysis treatments, receiving medications for OUD or cancer treatment, or beneficiaries using adult day health programs (Silow-Carroll et al. 2021).

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<sup>28</sup> GAO interviewed officials from 10 research and advocacy groups representing Medicaid enrollees, underserved populations, and health care providers.

<sup>29</sup> “Modern” NEMT brokers contract with transportation network companies such as Uber and Lyft, but also use specialized modalities, such as vans and ambulettes, and can therefore deploy vehicles based on the needs of the patient.

<sup>30</sup> “Traditional” NEMT includes taxi vouchers, direct provision of transportation, and contracts with local transportation providers.

<sup>31</sup> Health Management Associates (HMA) conducted individual and group interviews with: federal officials; Medicaid officials from six select states (study states); NEMT brokers and providers, including transportation network companies (TNCs); MCOs; beneficiary advocates; and subject matter experts. The six selected study states were Arizona, Connecticut, Georgia, Indiana, Massachusetts, and Texas.

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### III. DATA

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Each state reports data on Medicaid and Children’s Health Insurance Program (CHIP) enrollment, service use, payment, providers, and other information monthly through T-MSIS. For this report, CMS used the T-MSIS Analytic File (TAF) data, the research-optimized version of the T-MSIS data. The report reflects data for calendar years 2018 through 2021.<sup>32</sup> Because the COVID-19 PHE caused a variety of changes to health care utilization patterns, CMS presents the 2018 and 2019 data alongside the 2020 and 2021 data to provide a baseline picture of NEMT use before the PHE. Specifically, the information in this report used data from the Annual Demographic and Eligibility (DE), Inpatient (IP), Long-Term Care (LT), Other Services (OT), and Pharmacy (RX) files.

T-MSIS data are continually improving in completeness and quality as states receive feedback and respond to known data quality issues. For example, in 2019, less than 90 percent of NEMT claims in Rhode Island and Tennessee linked back to enrollment records, so those states are excluded from the national estimates presented in this report. In addition, several other states had severe data quality issues that did not prevent their results from being presented in the report but warrant excluding them from the national totals. These issues include the following, organized by state in Appendix Table C.1:

- The number of individuals eligible for full or comprehensive Medicaid benefits reported in the T-MSIS eligibility data did not align well with benchmark data, an issue that may result in inaccurate estimates of the number of Medicaid beneficiaries eligible for NEMT.
- There was an unexpectedly low volume of OT claims (including FFS claims and managed care encounter records<sup>33</sup>) compared with other states. States report claims for NEMT in the OT file; therefore, an unexpectedly low volume of OT claims may signal

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<sup>32</sup> This report is based on the 2018 TAF Release 2, the 2019 TAF Release 1, the 2020 TAF Release 1, and the 2021 preliminary TAF (the most recent versions of each year of data when the analysis was conducted). The 2018 TAF Release 2, 2019 TAF Release 1, and 2020 TAF Release 1 are fully mature and include at least 12 months of runout for each month of the year. The 2021 preliminary TAF has at least six months of runout for each month of the year, although the majority of months have more than six months of runout. Although the data are not fully mature because states continued to submit records for services delivered in 2021 after the files were produced, the 2021 preliminary TAF includes the majority of OT records for 2021.

<sup>33</sup> States submit two types of records into T-MSIS; FFS claims and managed care encounter records. Managed care encounter records reflect services provided to a beneficiary enrolled in a managed care plan. Historically, in the early years of T-MSIS and its predecessor system, MSIS, state reporting of managed care encounter records was less complete compared with FFS claims. However, the ACA included provisions requiring states to report managed care encounter data to CMS as a condition for receiving federal matching payments for Medicaid. For example, the ACA stipulates that federal matching payments should not be made for individuals for whom a state does not report enrollee encounter data to CMS. CMS has conducted technical assistance with states and issued guidance to help states improve encounter reporting in T-MSIS, many states have modified their managed care contracts to require encounter reporting, and states have made needed systems modifications to accept and report these encounter data to CMS in T-MSIS (CMS, n.d.[c]). Regarding current managed care encounter data quality in T-MSIS, CMS has a low or medium concern about the quality of states’ managed care encounter data reported in the T-MSIS OT file (the file into which states report NEMT data) for 36 of the 40 states with a comprehensive managed care (CMC) program in 2021, 28 of 33 states with a CMC program in 2020, 33 of 42 states with a CMC program in 2019, and 34 of 41 states with a CMC program in 2018 (CMS, n.d.[a]).

that OT claims were underreported, which may also mean that NEMT claims were underreported, in turn possibly resulting in underestimation of the number and percentage of beneficiaries using NEMT, as well as the number of ride days.

- Some states had an unexpectedly high percentage of OT professional claims with a missing or invalid procedure code—an essential component for identifying NEMT services. When this issue was present, CMS further examined whether the state had an unexpectedly high rate of missing or invalid<sup>34</sup> procedure codes on all OT transportation claims, which may result in underestimation of the number of Medicaid beneficiaries who used NEMT, as well as the number of ride days.<sup>35</sup>

Additional information on the completeness and quality of TAF data is available online in the *DQ Atlas* (<https://www.medicaid.gov/dq-atlas/welcome>).

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<sup>34</sup> Some states reported local or state-specific procedure codes on some claims. This report considers local or state-specific codes as valid procedure codes for transportation claims when there is available documentation that either provides the description of the code or crosswalks the code to its corresponding national procedure code.

<sup>35</sup> All transportation claims, including claims for emergency and non-emergency transportation services, were identified using the Type of Service Code data element in T-MSIS. To identify claims specific to NEMT, it is necessary to use the procedure code data elements in T-MSIS.

## IV. METHODS

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The results presented in this report include beneficiaries who were enrolled in Medicaid for at least one day and eligible for full or comprehensive benefits in the calendar year of analysis (2018, 2019, 2020, or 2021, respectively), excluding those eligible only for CHIP (either a Medicaid expansion CHIP or a separate CHIP program) during the year and those receiving only a limited set of benefits.<sup>36</sup> Although some states extend NEMT to certain limited-benefit Medicaid groups (such as individuals eligible for family planning services only), CMS found that on a national scale, very few beneficiaries with limited benefits used NEMT.<sup>37</sup>

CMS identified a beneficiary as using NEMT if they had one or more FFS claims or managed care encounter records in the TAF OT file with a procedure code specific to NEMT during the year of analysis (see Appendix B for details about these codes). CMS excluded those rides meeting these criteria if beneficiaries used them to travel to home- and community-based services (HCBS), because these rides are considered non-medical transportation and not NEMT.<sup>38, 39</sup> However, rides taken by HCBS-eligible beneficiaries to and from medical services qualify as NEMT and are included in this report. Among beneficiaries using NEMT during the year, CMS calculated the number of NEMT ride days used per month enrolled. Because of differences in billing practices across states and beneficiaries (for example, some claims in T-MSIS represent a one-way ride; other claims represent a round-trip; and still others represent a series of rides for recurring scheduled appointments, such as dialysis treatment), CMS assessed the number of ride days instead of the number of rides to allow for a more comparable analysis across states and beneficiaries. To assess the variation in use of NEMT across subgroups, CMS categorized beneficiaries in several ways, based on (1) enrollment, eligibility, and demographic characteristics; (2) geographic characteristics; and (3) physical health conditions, mental health

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<sup>36</sup> Limited-benefit groups excluded from this report include: (1) beneficiaries eligible for restricted benefits for family planning services only; (2) beneficiaries eligible for restricted benefits based on alien status; (3) limited-benefit dually eligible beneficiaries (e.g., QMB, SLMB, QDWI, QI) who are eligible for Medicaid coverage of Medicare premium or cost-sharing requirements only; (4) beneficiaries eligible for Medicaid coverage of COVID-19 diagnostic services only; and (5) beneficiaries who for reasons other than alien, dual-eligibility, or pregnancy-related status, are only entitled to restricted benefits (e.g., restricted benefits based on substance abuse, medically needy, or other criteria) that do not meet the standard for Minimum Essential Coverage.

<sup>37</sup> Nationally, in 2018 and 2019, only about 1,100 beneficiaries eligible for family planning services only used NEMT, about 900 used the benefit in 2020, and about 743 used it in 2021. NEMT use was also extremely limited among beneficiaries eligible for “other” restricted benefits that do not meet the definition of minimum essential coverage (MEC) and, in 2020 and 2021, among beneficiaries eligible only for services related to COVID-19.

<sup>38</sup> Non-medical transportation includes transportation services offered to enable waiver participants to gain access to waiver and other community services, activities, and resources, as specified by the service plan. This service is offered in addition to medical transportation required under 42 CFR § 431.53 and transportation services under the state plan, defined in 42 CFR § 440.170(a) (if applicable), and does not replace them. Waiver transportation services may not be substituted for the transportation a state is obligated to furnish under the requirements of 42 CFR § 431.53 (CMS 2019).

<sup>39</sup> Given that the procedure codes for non-emergency transportation are not specific to medical or non-medical transportation, for those states that cover rides to HCBS under their Medicaid state plan or a waiver, it is possible they may use these codes for both types of transit (medical and non-medical). Therefore, to avoid counting rides to and from HCBS as NEMT, CMS examined OT claims to determine whether each ride was associated with the receipt of HCBS on the same day. If it was, CMS excluded the claim from the analysis.

conditions, and substance use disorders (SUDs).<sup>40</sup> Finally, CMS examined the frequency with which NEMT was used to access various types of medical services.

### **a. T-MSIS data limitations relevant to NEMT**

Because the T-MSIS data provide information on the services that Medicaid beneficiaries receive, CMS identified beneficiaries as those using NEMT based on Medicaid FFS claims and encounter records reported by managed care entities.<sup>41</sup> It is important to note that some states claim some or all NEMT as an administrative expenditure as opposed to a medical service expenditure. As T-MSIS was not designed to capture administrative expenditures, T-MSIS data do not include records for all NEMT expenditures by states.<sup>42</sup> Examples of NEMT that may be treated as an administrative expenditure and not reported in the T-MSIS data include qualified reimbursements to beneficiaries who incur out-of-pocket costs when using public transit (for example, buses or subway rides) or a personal vehicle to get to a medical service. In addition, some states that treat NEMT as an administrative activity deliver it through a transportation broker.<sup>43</sup> An analysis of the Medicaid Budget and Expenditure System (MBES) data reported by states on Form CMS-64 shows that in FY 2018 and 2019, 83 percent and 82 percent, respectively, of all NEMT expenditures were claimed by states as a medical service expenditure, and 17 percent and 18 percent, respectively, as an administrative expenditure. In FY 2020 and

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<sup>40</sup> This report examines use of NEMT among beneficiaries in each of five major eligibility categories (children, adults, adult expansion beneficiaries, beneficiaries eligible for Medicaid on the basis of a disability, and those eligible on the basis of age—65+). It also examines NEMT use among beneficiaries in Medicaid programs that support beneficiaries with substantial health care needs, including 1915(c) waiver enrollees, MFP participants, and dually eligible beneficiaries. For the limited set of states with usable race and ethnicity data (about two-thirds of states), the report examines the use of NEMT among beneficiaries within each major race and ethnicity category. It also examines NEMT use among beneficiaries with select physical health conditions, mental health conditions, and SUDs. Finally, it presents data on the modes of transportation used and how they vary across the urban-rural spectrum, as well as by the degree of social deprivation of beneficiaries' neighborhoods.

<sup>41</sup> States are required to report into T-MSIS both FFS claims and encounter records, which represent service use (including for NEMT services) covered by managed care entities under capitated arrangements.

<sup>42</sup> Although T-MSIS was not designed to capture administrative expenditures, it is possible that some NEMT treated as administrative expenditures still appear in the T-MSIS data. Several states that reported all NEMT expenditures as administrative expenditures in their Form CMS-64 data also reported FFS claims for NEMT services in their T-MSIS data. Therefore, it is possible that these states reported some claims for NEMT into T-MSIS that they had claimed as administrative expenditures on Form CMS-64.

<sup>43</sup> Medical service expenditures are equivalent to the expenditures states report as Medical Assistance Program expenditures on Form CMS-64. On this form, in 2018, Alabama, Massachusetts, Minnesota, and Wyoming reported all NEMT expenditures as administrative expenditures; Connecticut, Michigan, Missouri, New Hampshire, North Carolina, Pennsylvania, South Dakota, and Washington reported some, but not all NEMT expenditures as administrative expenditures. In 2019, Colorado, Massachusetts, Minnesota, and Wyoming reported all NEMT expenditures as administrative expenditures, whereas Alabama, Connecticut, Kentucky, Michigan, Missouri, New Hampshire, North Carolina, Pennsylvania, and South Dakota reported some, but not all NEMT expenditures as administrative expenditures. In 2020, Colorado, Minnesota, and Wyoming reported all NEMT expenditures as administrative expenditures, whereas Alabama, Connecticut, Michigan, Missouri, North Carolina, Pennsylvania, and South Dakota reported some, but not all NEMT expenditures as administrative expenditures. In 2021, Colorado, Minnesota, and Wyoming reported all NEMT expenditures as administrative expenditures; Alabama, Connecticut, Georgia, Iowa, Kentucky, Michigan, Missouri, North Carolina, Pennsylvania, South Dakota, and Texas reported some, but not all NEMT expenditures as administrative expenditures. (Mathematica's analysis of MBES data; CMS n.d.[b])



2021, 91 percent and 90 percent, respectively, of all NEMT expenditures were claimed by states as a medical expenditure, and 9 percent and 10 percent, respectively, as an administrative expenditure.<sup>44</sup> For detailed state-level information on NEMT expenditures reported on Form CMS-64, see Tables C.3a through C.3d. Accordingly, because the statistics presented in this report are based on T-MSIS data, they underestimate the total amount of NEMT use covered by the Medicaid program.

Furthermore, in each year, the TAF data for some states had important data quality issues that precluded their use in this study, and CMS excluded data for these states from the national estimates presented in this report. For instance, some states had an unexpectedly low volume of claims and encounter records or high rates of missing information essential to identifying claims for NEMT. CMS presents data for these states and territories in this report but excludes the data from the national-level statistics.<sup>45</sup> For additional information on TAF data quality issues, please see Appendix B. For these reasons, the national data presented in this report undercount NEMT use.

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<sup>44</sup> However, expenditures reported under the NEMT line items on the Form CMS-64 undercount total NEMT expenditures. The expenditures for NEMT provided under capitated arrangements (such as those provided through comprehensive managed care plans or transportation PAHPs) are not captured in the CMS-64 data. The Form CMS-64 data report the expenditures of a state's Medicaid program, whereas NEMT provided through a capitated arrangement are health plan expenditures. What the state pays to the health plan is reported under the capitated payments line item on the Form CMS-64. Currently the CMS-64 data do not report capitated payments for transportation PAHPs separately from those paid to comprehensive managed care plans that provide the NEMT benefit. In addition, for comprehensive managed care plans that cover NEMT, it is not possible to determine the proportion of a plan's capitated payments that cover the NEMT benefit provided to plan members.

<sup>45</sup> Specifically, CMS excluded Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands from the 2018 national-level statistics; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands from the 2019 national-level statistics; and Puerto Rico, Utah, and the U.S. Virgin Islands from the 2020 and 2021 national-level statistics.

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## V. KEY FINDINGS

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- **Overall, between 4 and 5 percent of Medicaid beneficiaries used NEMT in each year (2018 through 2021); however, these national estimates undercount utilization because not all NEMT is reported in T-MSIS and not all states are included in the national estimates.**<sup>46</sup> In 2018 and 2019, 5 percent of Medicaid beneficiaries used NEMT; due to the impacts of the COVID-19 PHE, this percentage dropped to slightly more than 4 percent in 2020 and decreased further, to slightly less than 4 percent, in 2021. Among those using NEMT paid for by Medicaid, they used this benefit for fewer than two days per month enrolled. The percentage of beneficiaries who used NEMT varied across states, from 1 percent in Maryland to nearly 11 percent in Alaska in 2021, whereas the number of monthly ride days per NEMT user ranged from 0.3 in Alabama and Maryland to 3.7 in Wisconsin in 2021. The total number of annual NEMT ride days per 10,000 Medicaid beneficiaries ranged from slightly more than 200 in Maryland to nearly 31,000 in Wisconsin in 2021.<sup>47</sup>
- **Based on available data, approximately 3 million to 4 million Medicaid beneficiaries used NEMT annually between 2018 and 2021.** However, as noted above, these national estimates undercount total Medicaid-covered NEMT utilization. During this period, state Medicaid programs provided between a high of 81.3 million (in 2019) and a low of 53.1 million (in 2020) NEMT ride days, which translates to between 10,442 ride days per 10,000 beneficiaries (in 2019) and 6,647 ride days per 10,000 beneficiaries (in 2020). As noted, these amounts are lower-bound estimates of use.
- **Several subgroups of Medicaid beneficiaries with substantial health care needs used NEMT at higher rates than the national average, receiving the benefit on multiple days in an average month.** These groups included Money Follows the Person (MFP) participants (41 percent used NEMT in 2021, with an average of 1.4 monthly ride days per user and 64,281 annual ride days per 10,000 beneficiaries); participants receiving home and community based services through section 1915(c) (22 percent used NEMT, with 2.6 monthly ride days per user and 65,645 annual ride days per 10,000 beneficiaries); dually eligible beneficiaries (14 percent used NEMT, with 1.7 monthly ride days per user and 27,774 annual ride days per 10,000 beneficiaries); beneficiaries eligible for Medicaid on the basis of a disability; and those eligible on the basis of age (65+) (14 percent of beneficiaries in each group used NEMT, with 2.0 and 1.4 monthly

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<sup>46</sup> Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 national-level statistics presented in this report; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 national-level statistics; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 national-level statistics. For additional information on data quality issues, please see Appendix C.

<sup>47</sup> Due to differences in billing practices across states and providers, for this report, CMS chose to examine the number of NEMT ride days, defined as a unique count of the number of days the beneficiary received NEMT, in order to ensure a comparable metric across states and beneficiaries. However, it is important to note that the number of ride days undercounts the total number of NEMT rides taken, as beneficiaries may receive multiple NEMT rides within a single day.

ride days per user, and 31,949 and 21,424 annual ride days per 10,000 beneficiaries, respectively).<sup>48</sup>

- **Beneficiaries with certain types of physical and mental health conditions and SUDs used NEMT at substantially higher rates and frequencies than the national average.** They included beneficiaries with a diagnosis of CKD with ESRD, who used NEMT at the highest rate (47 percent used NEMT in 2021, with 5.5 monthly ride days per user and 275,124 annual ride days per 10,000 beneficiaries); OUD (17 percent used NEMT, with 2.7 monthly ride days per user and 52,182 annual ride days per 10,000 beneficiaries); any SUD (16 percent used NEMT, with 1.7 monthly ride days per user and 30,999 annual ride days per 10,000 beneficiaries); intellectual disabilities or other developmental delays (14 percent used NEMT, with 3.2 monthly ride days per user and 51,369 annual ride days per 10,000 beneficiaries); or a mental health condition (11 percent used NEMT, with 1.4 monthly ride days per user and 17,035 annual ride days per 10,000 beneficiaries).
- **Overall, the T-MSIS data show similar rates of NEMT utilization among beneficiaries who are Black and beneficiaries who are White,<sup>49</sup> but lower rates of utilization among beneficiaries who are Hispanic. However, the T-MSIS race and ethnicity data have significant limitations and could only be analyzed for about two-thirds of states, which limits the ability to draw conclusions from the data.** Beneficiaries who are Black used NEMT at higher rates than beneficiaries who are White in slightly more than half of states with sufficient data quality in 2018 (16 of 29 states) and 2019 (16 of 30 states); however, with the onset of the COVID-19 PHE, this number increased to nearly two-thirds of states with sufficient data quality in 2020 (20 of 31 states). Beneficiaries who are Black used the benefit more frequently (with a higher number of monthly ride days per user) than beneficiaries who are White in just 14 states in 2018, 12 states in 2019, and 16 states in 2020. On the other hand, the number of annual NEMT ride days per 10,000 beneficiaries who are Black ranged from 644 to 29,046 in 2020, whereas for beneficiaries who are White, the number ranged from 1,976 to 42,139, depending on the state. Beneficiaries who are Hispanic used NEMT at higher rates than beneficiaries who are White in just one state in 2019 and three states in 2020. It is important to note that race and ethnicity information could be assessed in about two-thirds of states due to data quality concerns, so these findings are not nationally representative, and race and ethnicity data for 2021 could not be analyzed because data quality information was unavailable. Furthermore, the analyses presented in this report do not examine the extent of differences in the level of need for NEMT services or in

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<sup>48</sup> Eligibility categories (children, adults, adult expansion, eligible on the basis of a disability, and eligible on the basis of age (65+)) are mutually exclusive; the results presented in this report reflect the eligibility category in which a beneficiary was enrolled in their last month of Medicaid enrollment in the calendar year. Beneficiaries reflected across the eligibility categories are also reflected in the dually eligible, 1915(c) waiver, and MFP program categories if they participated in one or more of these programs during the calendar year.

<sup>49</sup> Race and ethnicity information is self-reported by beneficiaries and includes the following mutually exclusive categories: American Indian and Alaskan Native (AIAN), non-Hispanic; Asian, non-Hispanic; Black, non-Hispanic; Hawaiian/Pacific Islander, non-Hispanic; White, non-Hispanic; multiracial, non-Hispanic; and Hispanic. Although state Medicaid agencies ask applicants to self-report their race and ethnicity, it is not mandatory for Medicaid applicants or beneficiaries to provide this information.

disparities in access to these services across race and ethnicity groups; additional research in this area is needed.

- **Overall, the T-MSIS data show little variation in the use of NEMT by the social deprivation of a beneficiary’s area of residence.** Beneficiaries residing in an area with a high social deprivation index (SDI)<sup>50</sup> used NEMT at rates and frequencies at about the same rates those residing in an area with a low SDI. For example, in 2021, 4 percent of beneficiaries residing in zip codes within the highest SDI quartile used NEMT, compared to about 3 percent of those residing in zip codes within the lowest SDI quartile.
- **Rates of NEMT use changed dramatically during the COVID-19 PHE.** Following the onset of the PHE, the annual percentage and number of beneficiaries who used the benefit declined from 5 percent in 2019 to slightly more than 4 percent in 2020, and then to slightly less than 4 percent in 2021; and from nearly 3.9 million NEMT users to a little more than 3.5 million in 2020 (a decline of almost 10 percent), to 3.3 million in 2021 (an additional decline of more than 5 percent). Between 2019 and 2020, the total number of annual NEMT ride days dropped by 37 percent (from 81.3 million to 53.1 million) but increased by more than 4 percent (to 55.5 million) in 2021. Even larger declines occurred in the initial months of the COVID-19 PHE; between February and April 2020, monthly NEMT ride days dropped by 65 percent and the number of beneficiaries using the benefit monthly dropped by 61 percent as many services shifted to telehealth and providers and beneficiaries delayed non-urgent medical care (CMS 2021b). Use of NEMT gradually increased in May through October 2020 but declined again in October 2020 through February 2021, which coincided with a resurgence in COVID-19 case levels. In March 2021, there was a slight uptick in monthly use of NEMT (including number of beneficiaries using NEMT, percentage of beneficiaries using NEMT, and total number of NEMT ride days), which may have been linked to widespread COVID vaccine availability and easing of COVID-19 restrictions. However, on average, the monthly number of NEMT ride days in 2021 remained about 30 percent below pre-PHE levels and the number of beneficiaries using NEMT remained 23 percent below pre-PHE levels.
- **Overall, beneficiaries most often used NEMT to access preventive health care services, services related to the evaluation and management (E&M) of acute and chronic conditions, lab and imaging services, and behavioral health services.** Depending on the year, NEMT rides to access these service types accounted for 29 to 31 percent (preventive services<sup>51</sup>), 20 to 21 percent (services related to the E&M of acute

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<sup>50</sup> Using seven demographic characteristics collected in the American Community Survey, the SDI provides a measure of area-level social deprivation by zip code tabulation areas (ZCTAs). This report uses 2015 SDI scores. The demographic characteristics encompassed in this index are (1) percentage living in poverty, (2) percentage with fewer than 12 years of education, (3) percentage of single parent households, (4) percentage living in a rented housing unit, (5) percentage living in overcrowded housing units, (6) percentage of households without a car, and (7) percentage of non-employed adults under 65 years of age (Robert Graham Center n.d.). In our analyses, CMS separated this continuous measure into quartiles, with the highest quartile representing the greatest degree of deprivation. The highest SDI quartile corresponds to SDI scores greater than 75 to 100, the second-highest quartile corresponds to SDI scores of greater than 50 to 75, the second-lowest SDI quartile corresponds to SDI scores of greater than 25 to 50, and the lowest SDI quartile corresponds to SDI scores of up to 25.

<sup>51</sup> Preventive services were identified using procedure and diagnosis codes for services such as new and established patient visits and screening, counseling, and prevention services.

and chronic conditions), 18 to 19 percent (lab and imaging services), and 16 to 19 percent (behavioral health services) of all NEMT ride days in 2018 through 2021. The percentage of all Medicaid beneficiaries using NEMT to access each service type at least once during each calendar year was 2 to 3 percent (preventive services), 2 percent (services related to the E&M of acute and chronic conditions), 2 percent (lab and imaging services), and 1 percent (behavioral health services).

- **Certain beneficiary subgroups used NEMT most frequently to access vital, life-sustaining services.** For example, beneficiaries with a diagnosis of CKD with ESRD most frequently used NEMT to access dialysis services, which accounted for 68 percent of their NEMT ride days in 2021. Pregnant, adult, and adult expansion beneficiaries, beneficiaries with any SUD, and those with OUD most frequently used NEMT to access SUD treatment services, and, depending on the group, rides to access these services accounted for 38 to 69 percent of their NEMT ride days in 2021. Beneficiaries with OUD also frequently used NEMT to access medication-assisted treatment (MAT) for OUD, which accounted for 47 percent of their NEMT ride days in 2021.
- **Use of telehealth<sup>52</sup> increased sharply at the onset of the COVID-19 PHE; since April 2020, demand for telehealth has declined, but has remained moderately strong through December 2021.** In 2018 and 2019, about 2 percent of beneficiaries used NEMT in any given month, but use decreased to around 1 percent following the onset of the PHE. In contrast, less than 1 percent of beneficiaries used telehealth in any given month leading up to the PHE; however, following the onset of the PHE, in April 2020, 10 percent of beneficiaries used telehealth. Monthly telehealth use decreased throughout the remainder of 2020 and in the first half of 2021; in the last six months of 2021, only about 5 percent of beneficiaries used telehealth in any given month. The sustained use of telehealth to access services throughout the PHE is likely due to the easing of state regulations regarding Medicaid reimbursement for telehealth visits that occurred with the onset of the COVID-19 PHE.
- **Throughout the COVID-19 PHE, telehealth has been used more than NEMT to access certain service types.** From the start of the PHE through the fourth quarter of 2021, telehealth service volume (measured as the average number of quarterly service days per 10,000 beneficiaries) was higher than NEMT service volume (measured as the average number of quarterly ride days per 10,000 beneficiaries) for accessing preventive services, behavioral health services, services related to the E&M of acute and chronic conditions, and SUD treatment services. This higher rate of telehealth use may be because these service types are generally well suited to delivery via telehealth. In contrast, although the average NEMT ride volume declined with the onset of the PHE for accessing lab and imaging services, dialysis, MAT for OUD, care for heart disease and diabetes, cancer treatment services, physical therapy (PT) and occupational therapy (OT), and dental services, by the fourth quarter of 2021, NEMT service volume had outpaced telehealth service volume used to access these service types. Even so, NEMT service

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<sup>52</sup> Because states were not required to distinguish telehealth claims in their T-MSIS submissions, they may be under-reported in T-MSIS. However, at least some states require providers to distinguish telehealth visits on claims for Medicaid reimbursement, and rates of telehealth use found in this report are similar to the rates among other non-Medicaid populations before and during the PHE (Whaley et al. 2022).

volume used to access these services remained below pre-PHE levels. These patterns may be because telehealth is not well suited for visits in which in-person lab-work, procedures, or treatment are necessary (Oluyede 2022).

- **Throughout the COVID-19 PHE, telehealth has been used more frequently than NEMT by certain beneficiary subgroups; among other beneficiary subgroups, the demand for NEMT has remained relatively strong throughout the PHE.** From the start of the PHE through the fourth quarter of 2021, quarterly telehealth service volume was higher than quarterly NEMT service volume among children, adults, and adult expansion beneficiaries; pregnant and postpartum beneficiaries; and beneficiaries with CKD without ESRD, any mental health condition, and any SUD or OUD, suggesting that these groups may have substituted some NEMT rides to in-person services for telehealth visits. In contrast, for several other subgroups, NEMT service volume had outpaced telehealth service volume by the fourth quarter of 2021. These subgroups included beneficiaries with a diagnosis of CKD with ESRD, beneficiaries with intellectual disabilities and other developmental delays, participants receiving home and community-based services through section 1915(c), MFP participants, dually eligible beneficiaries, and beneficiaries eligible on the basis of age (65+). However, NEMT service volume in 2021 remained below pre-PHE levels for all subgroups.
- **Across geographies, beneficiaries residing in frontier and remote areas used NEMT at the highest rates.** In 2021, about 7 percent of beneficiaries living in frontier or remote areas<sup>53</sup> used NEMT compared to less than 4 percent of all Medicaid beneficiaries. However, beneficiaries living in frontier or remote areas used the benefit slightly less frequently, with just 1.2 monthly ride days per user (versus 1.4 for all Medicaid beneficiaries). However, the analyses presented in this report do not examine the extent of differences in the level of need for NEMT services across geographic areas; additional research in this area is needed. Looking across the broader urban-rural spectrum, those residing in more rural areas depended more on private vehicles, whereas those in urban areas used public transit and taxis more often.
- **In all years and across most beneficiary subgroups, volume of NEMT service use was highest in states that used a capitated broker model to deliver NEMT.** Except among children, across all years the volume of NEMT service use (measured as the average number of annual ride days per 10,000 beneficiaries) was highest in states that used a capitated broker model to deliver NEMT. Children had the highest volume of NEMT service use in states using more than one delivery model. Across all years and subgroups, beneficiaries in states that used an in-house delivery model had the lowest volume of NEMT service use. However, on average, states using an in-house NEMT delivery model claimed a relatively high percentage of NEMT expenditures as administrative expenditures, and NEMT administrative expenditures generally are not captured in the T-MSIS data. Therefore, NEMT service utilization measures may be underestimated for these states more so than for states using other delivery model types.

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<sup>53</sup> Frontier and remote areas are defined as those more than 30 minutes from an urban area of more than 10,000 people.

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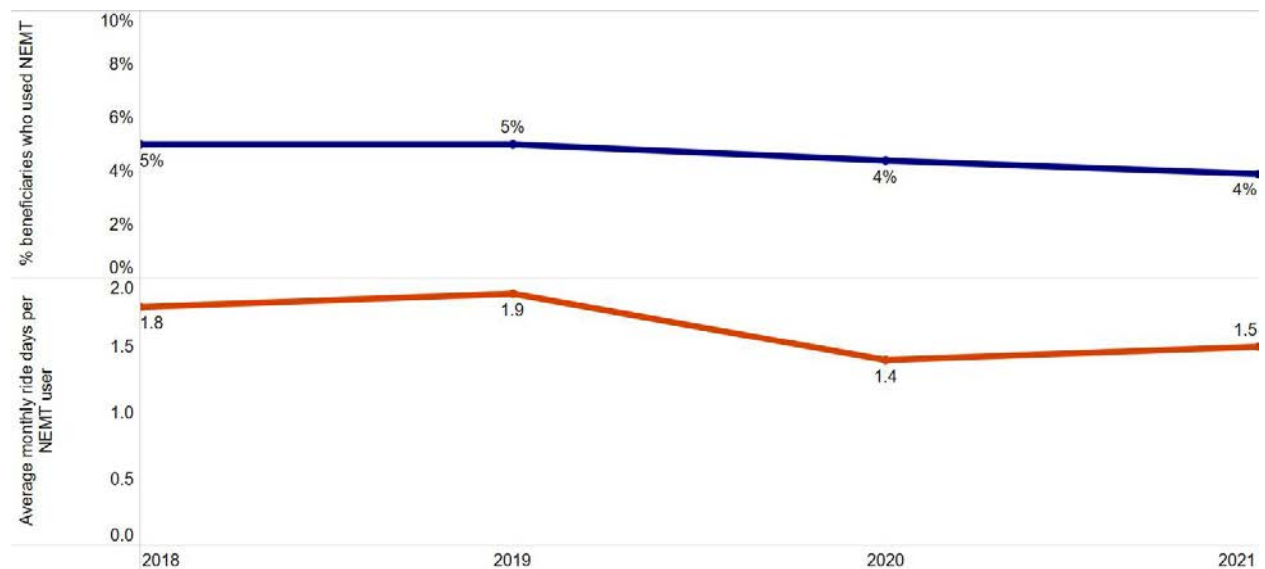


## VI. RESULTS

### a. Overall use of NEMT

- In 2018 and 2019, 5 percent of Medicaid beneficiaries used NEMT; this percentage dropped to slightly more than 4 percent in 2020 and slightly less than 4 percent in 2021 (Figure 1). On average, NEMT users accessed the benefit fewer than two days per month enrolled in Medicaid (1.8 days in 2018, 1.9 days in 2019, 1.4 days in 2020, and 1.5 days in 2021). (For state-specific statistics, see Appendix A, Table B1.1b.)

**Figure 1. Percentage of Medicaid beneficiaries who used NEMT and average monthly ride days per NEMT user by year, 2018–2021**

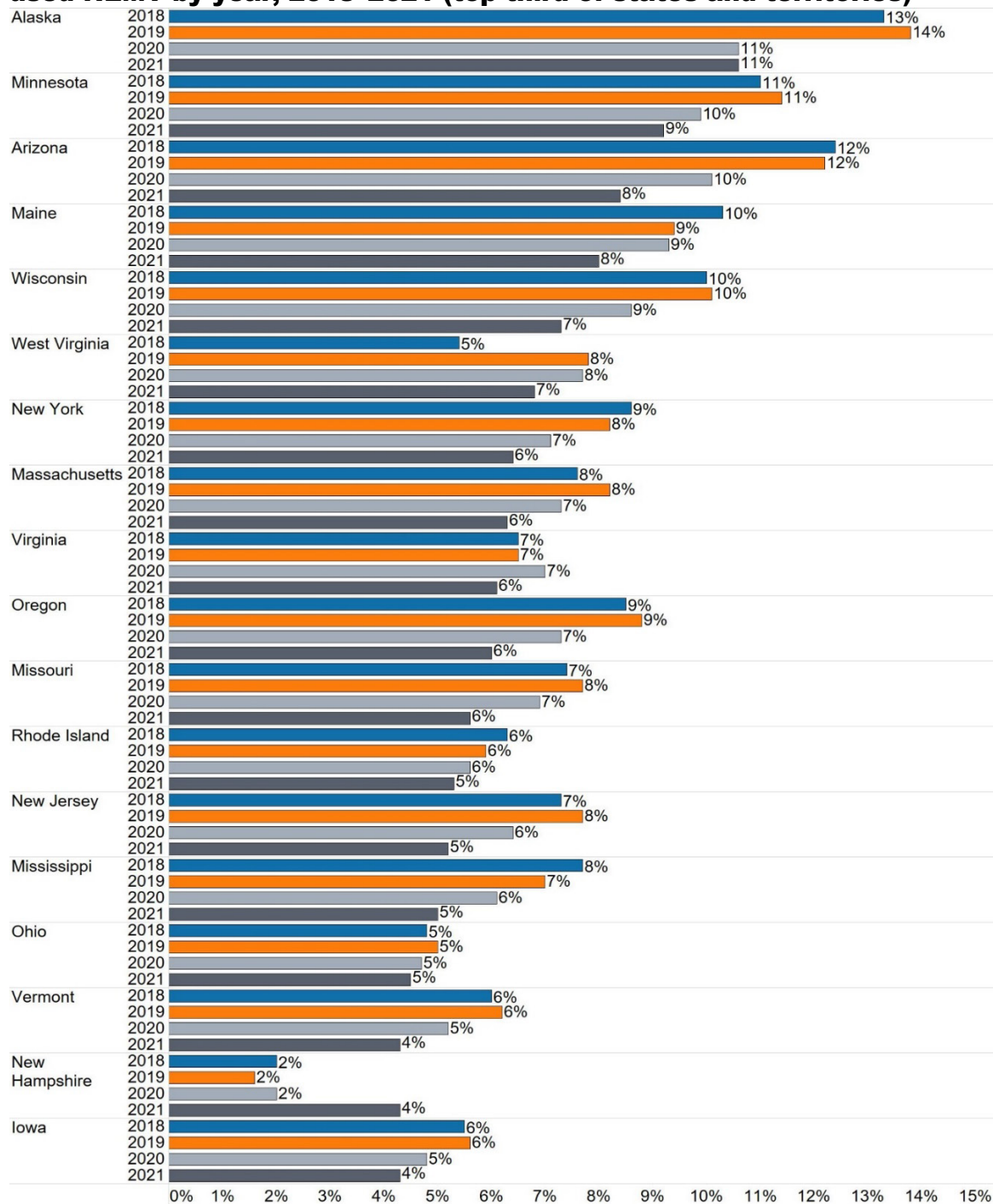


Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Average monthly ride days per NEMT user is an average number of ride days per user per month enrolled. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 2a. State variation in the percentage of Medicaid beneficiaries who used NEMT by year, 2018–2021 (top third of states and territories)**

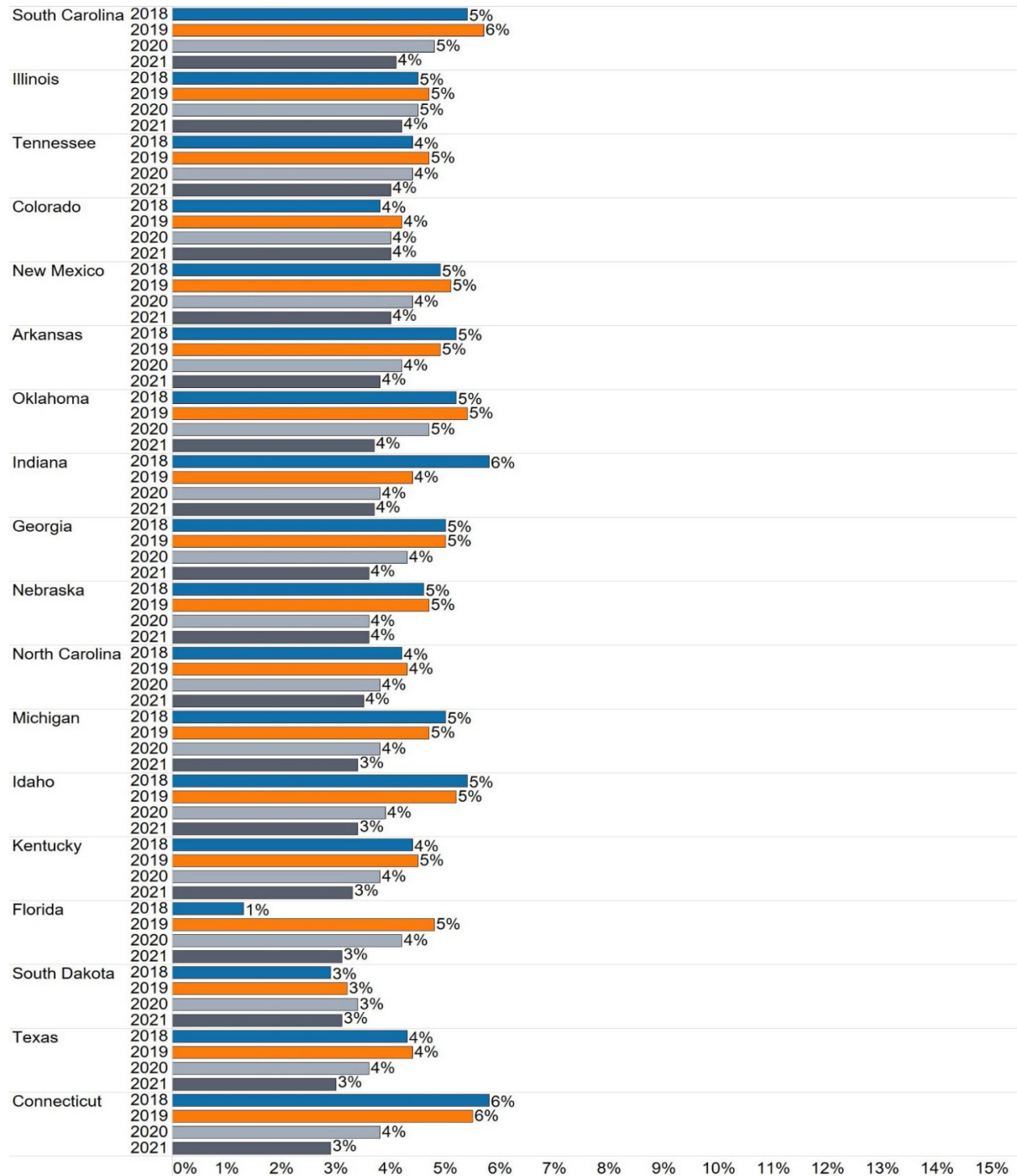


Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT at least one day during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Across Figures 2a through 2c, states are ordered from highest percentage of beneficiaries who used NEMT in 2021 (top of Figure 2a) to lowest percentage of beneficiaries who used NEMT in 2021 (bottom of Figure 2c).

Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 2b. State variation in the percentage of Medicaid beneficiaries who used NEMT by year, 2018–2021 (middle third of states and territories)**

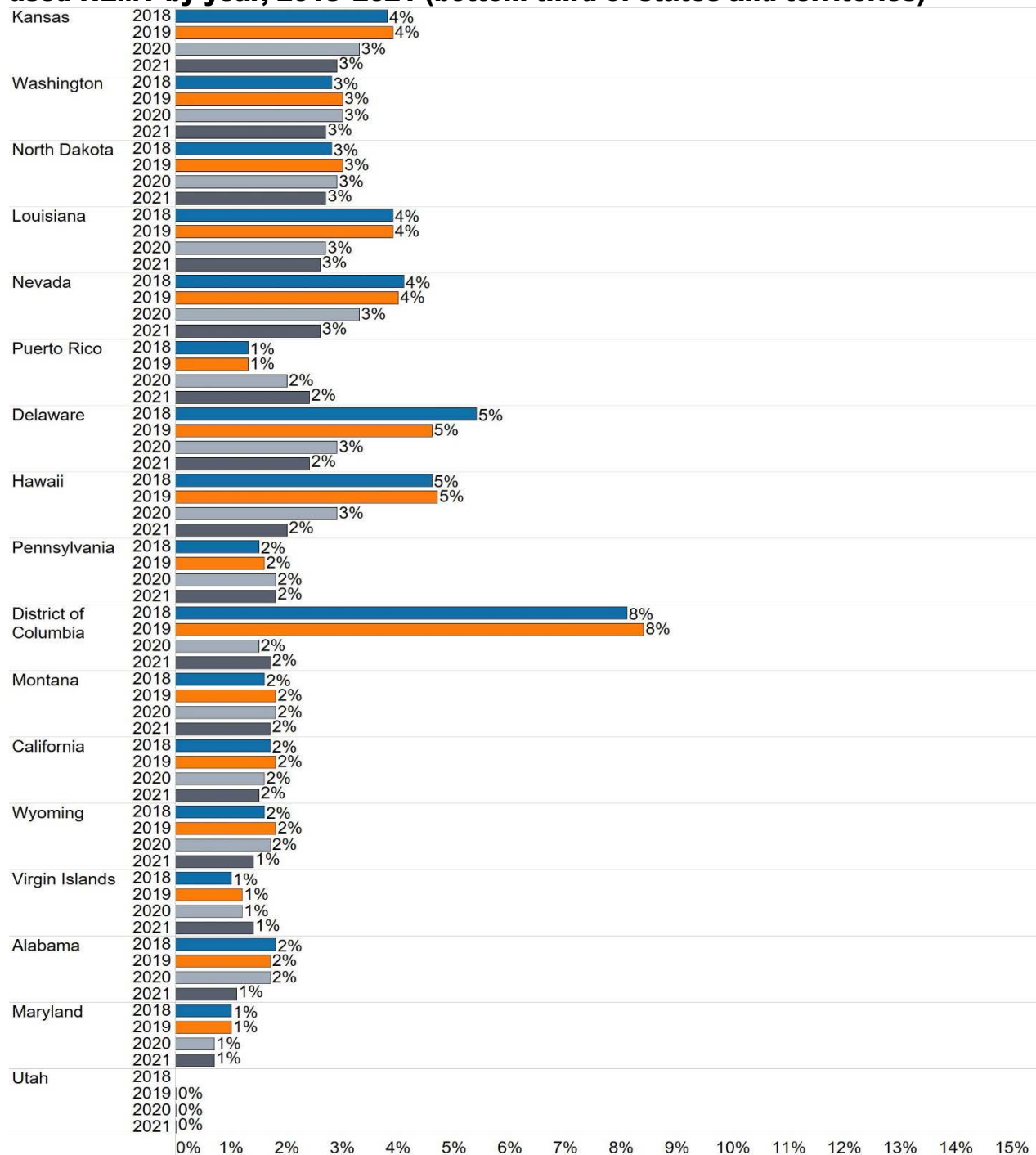


Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT at least one day during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Across Figures 2a through 2c, states are ordered from highest percentage of beneficiaries who used NEMT in 2021 (top of Figure 2a) to lowest percentage of beneficiaries who used NEMT in 2021 (bottom of Figure 2c).

Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 2c. State variation in the percentage of Medicaid beneficiaries who used NEMT by year, 2018–2021 (bottom third of states and territories)**

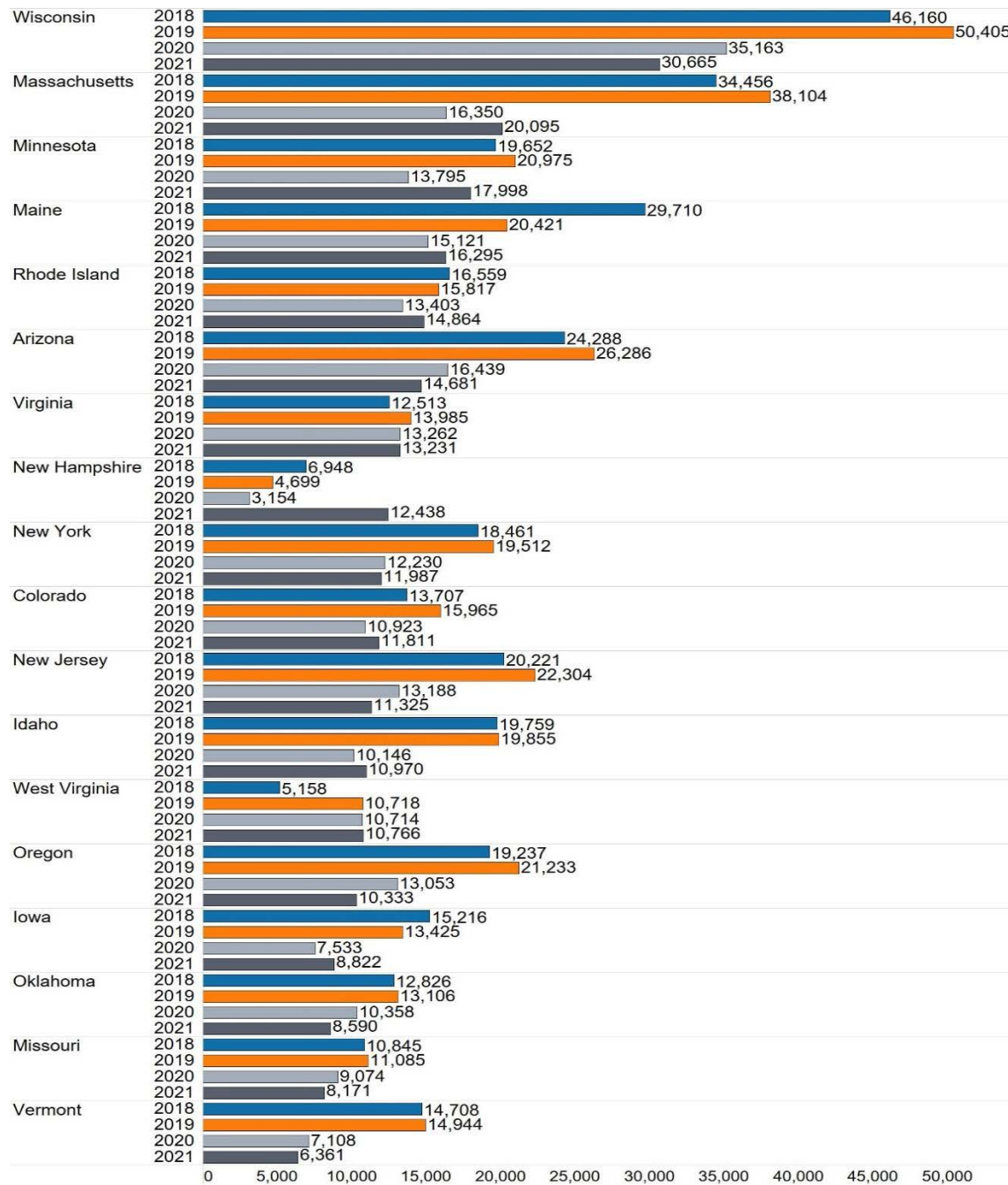


Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT at least one day during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Across Figures 2a through 2c, states are ordered from highest percentage of beneficiaries who used NEMT in 2021 (top of Figure 2a) to lowest percentage of beneficiaries who used NEMT in 2021 (bottom of Figure 2c).

Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 3a. State variation in the average number of annual NEMT ride days per 10,000 Medicaid beneficiaries by year, 2018–2021 (top third of states and territories)**

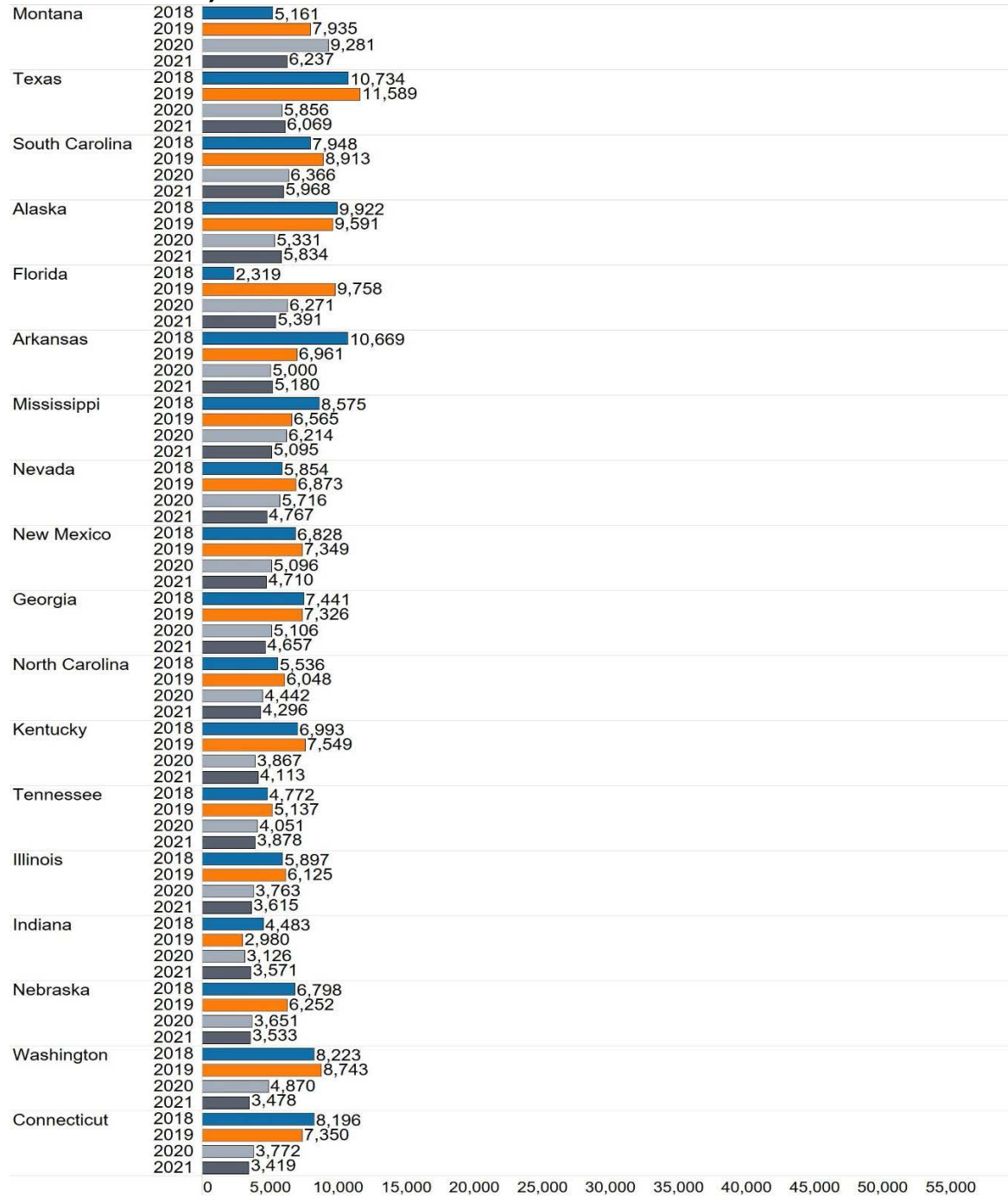


Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Across Figures 3a through 3c states are ordered from highest number of ride days per 10,000 beneficiaries in 2021 (top of figure 3a) to the lowest number of ride days per 10,000 beneficiaries in 2021 (bottom of figure 3c).

Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 3b. State variation in the average number of annual NEMT ride days per 10,000 Medicaid beneficiaries by year, 2018–2021 (middle third of states and territories)**

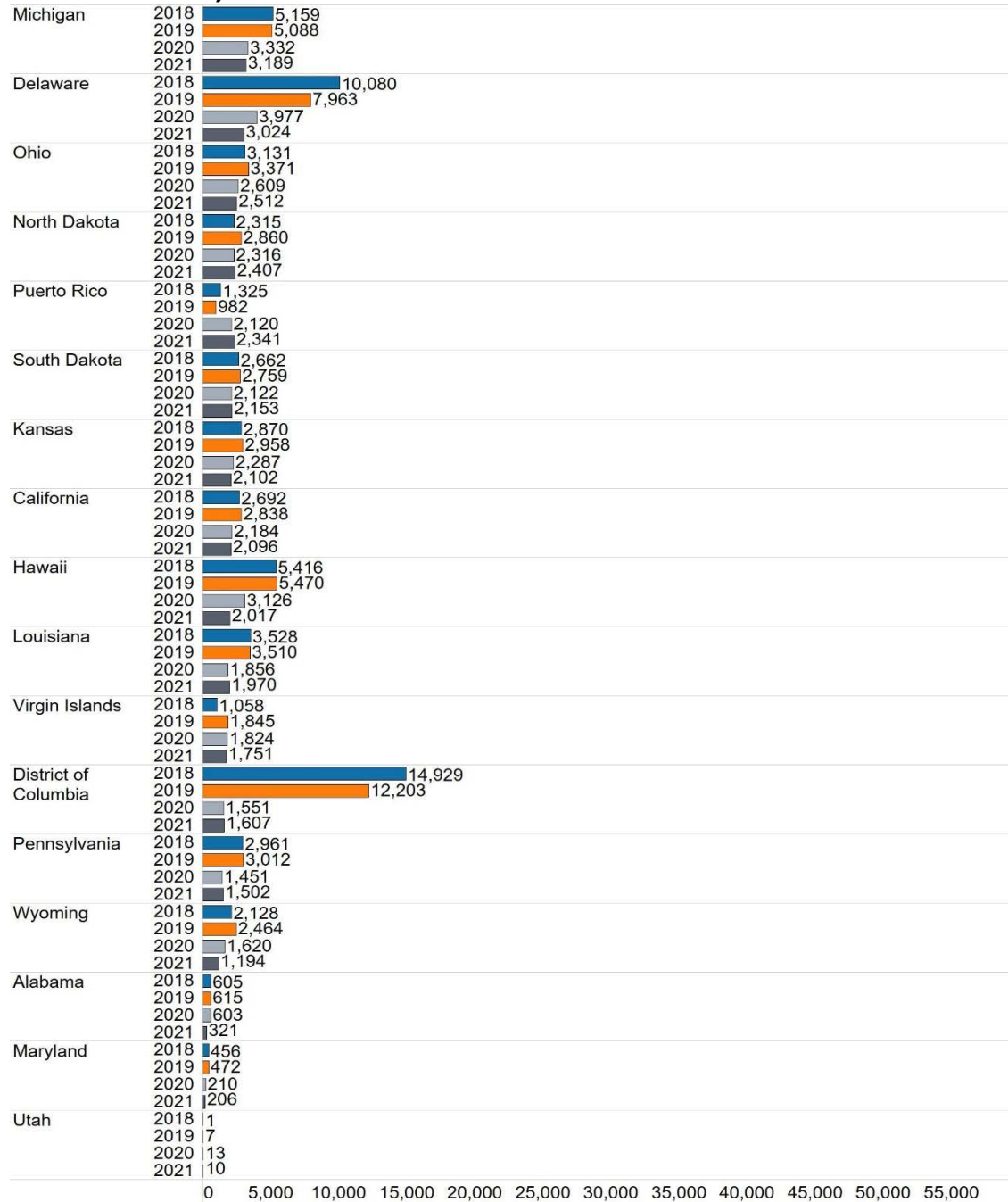


Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Across Figures 3a through 3c states are ordered from highest number of ride days per 10,000 beneficiaries in 2021 (top of figure 3a) to the lowest number of ride days per 10,000 beneficiaries in 2021 (bottom of figure 3c).

Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 3c. State variation in the average number of annual NEMT ride days per 10,000 Medicaid beneficiaries by year, 2018–2021 (bottom third of states and territories)**



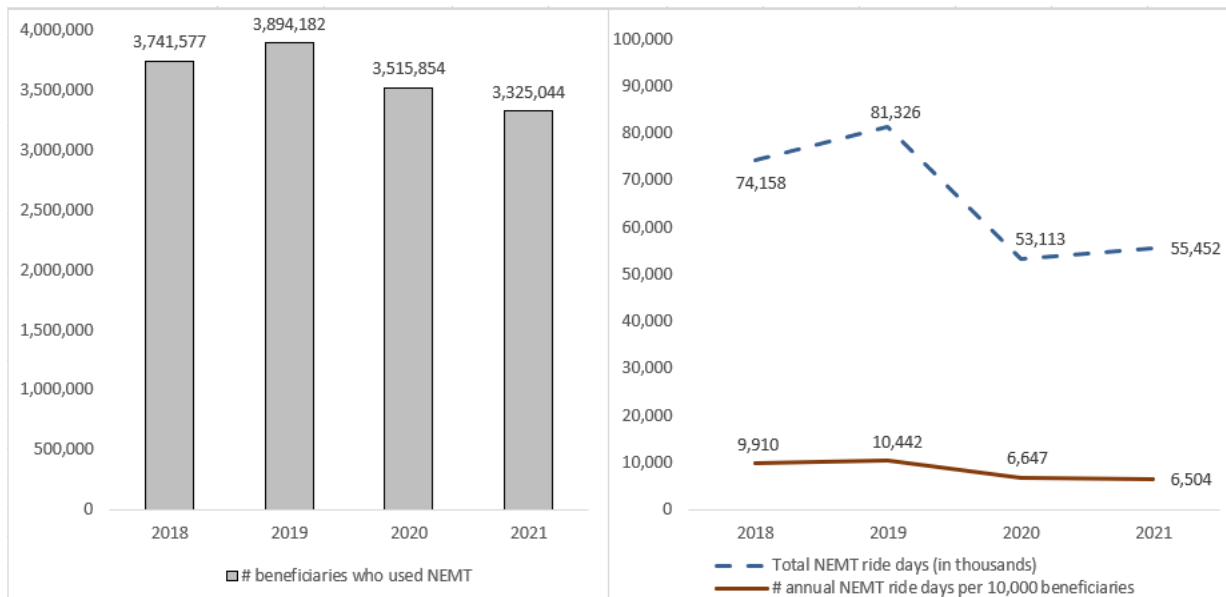
Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Across Figures 3a through 3c states are ordered from highest number of ride days per 10,000 beneficiaries in 2021 (top of figure 3a) to the lowest number of ride days per 10,000 beneficiaries in 2021 (bottom of figure 3c).

Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

- NEMT use varied widely across states. The percentage of beneficiaries who used NEMT ranged from 1 percent in Maryland to nearly 11 percent in Alaska in 2021 (Figures 2a–2c). The average number of monthly ride days per user ranged from 0.3 in Alabama and Maryland to 3.7 in Wisconsin in 2021 (Table B1.1b). The total number of annual NEMT ride days per 10,000 Medicaid beneficiaries ranged from slightly more than 200 in Maryland to nearly 31,000 in Wisconsin in 2021 (Figures 3a–3c).<sup>54</sup>

**Figure 4. Trends in Medicaid NEMT use by year, 2018–2021**



Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Number of beneficiaries who used NEMT includes those who used it at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Annual NEMT ride days per 10,000 beneficiaries reflect the average number of ride days per user during the year per 10,000 Medicaid beneficiaries. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

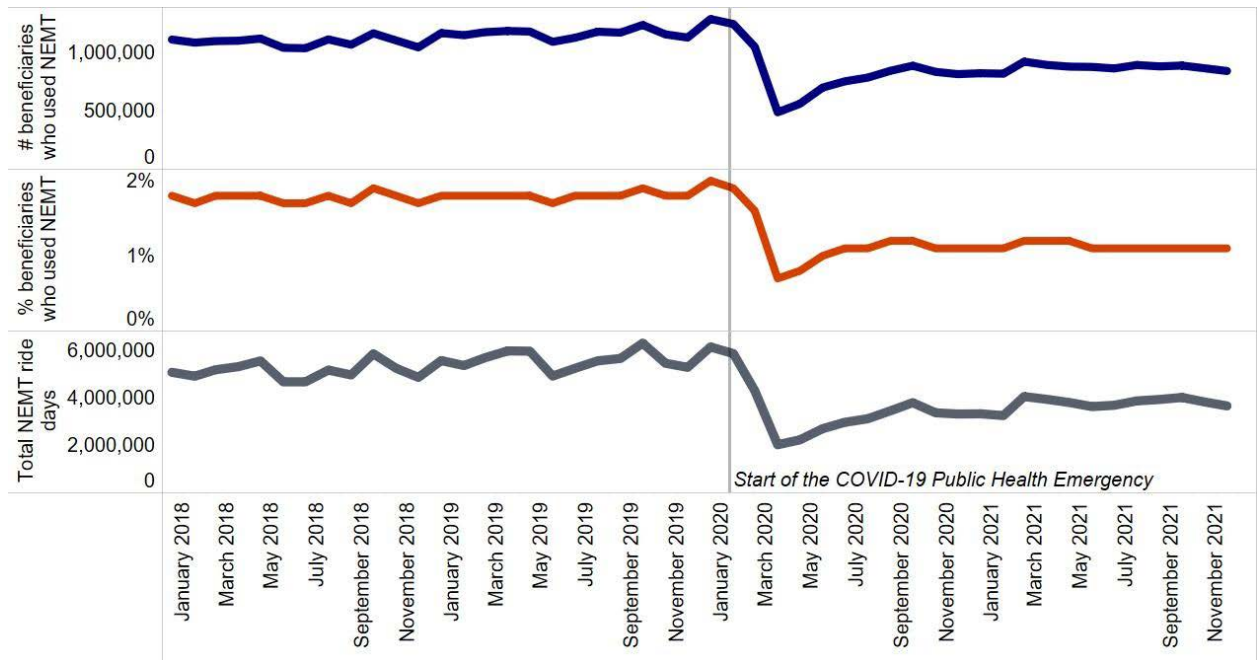
Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

<sup>54</sup> This report does not list Utah as having the lowest NEMT use rates because of concerns about the quality of the state's data. Specifically, depending on the year, between 96.0 and 99.9 percent of Utah's transportation claims and encounter records (indicated by Type of Service 056, which includes both emergency and non-emergency transportation) are reported to a single invalid procedure code, making the types of transportation reported on these claims indistinguishable. In all four years, Utah reported 100 percent of NEMT expenditures as Medical Assistance Program expenses in its Form CMS-64 data, so CMS would expect all NEMT services to show up in the state's T-MSIS data. As a result of this issue and other T-MSIS data quality issues, Utah's data are excluded from the national statistics for this report (see Appendix C for additional detail).



- With the onset of the COVID-19 PHE, which caused a sudden shift in certain types of medical service delivery from in person to telehealth and prompted some providers and beneficiaries to forego or delay non-urgent medical care (CMS 2021b), the annual number of Medicaid beneficiaries using NEMT decreased by 10 percent (from 3.9 million in 2019 to 3.5 million in 2020) and decreased even further, by another 5 percent (to 3.3 million), in 2021 (Figure 4). Notably, this progressive decrease in the number of beneficiaries who used NEMT occurred despite an unprecedented increase in the number of beneficiaries enrolled in Medicaid during the COVID-19 PHE, which was primarily due to the continuous enrollment requirements set forth in the FFCRA. Meanwhile, the annual number of NEMT ride days declined by 35 percent (from 81.3 million in 2019 to 53.1 million in 2020) before increasing slightly to nearly 55.5 million in 2021. Consequently, the average number of ride days per 10,000 beneficiaries decreased by 36 percent (from 10,441 to 6,647) in 2020 before declining slightly further to 6,504 in 2021. (For state-specific statistics, see Table B1.1a.)

**Figure 5. Monthly trends in NEMT use, 2018–2021**



Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT include those who used it at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). January 27, 2020, signifies the start date of the COVID-19 PHE. On January 31, 2020, the Secretary of HHS declared a PHE for the United States, effective January 27, 2020, to help the nation’s health care community respond to the COVID-19 pandemic.

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

- NEMT use declined even more markedly in the initial months of the PHE; between February and April 2020, monthly NEMT ride days dropped by 65 percent, and the number of beneficiaries using the benefit dropped by 61 percent (Figure 5). Use of NEMT gradually increased in May through October 2020 but declined again in October 2020 through February 2021, which coincided with a resurgence in COVID-19 case levels. In March 2021, there was an uptick in NEMT use, which may have been linked to widespread COVID vaccine availability and easing of COVID-19 restrictions. However, on average, the monthly number of NEMT ride days in 2021 remained 30 percent below pre-PHE levels, and the number of beneficiaries using NEMT remained 23 percent below pre-PHE levels.
- NEMT use before onset of the COVID-19 PHE showed some seasonal trends, with the highest number of NEMT ride days occurring in October 2018 and 2019, the lowest number of ride days in June of each year, and declines in the number of ride days occurring in October through December of each year (Figure 5).

### **b. Use of NEMT by beneficiary characteristic**

For this analysis, CMS examined use of NEMT among each of five major eligibility categories: (1) children, (2) adults, (3) adult expansion beneficiaries, (4) beneficiaries eligible on the basis of a disability, and (5) beneficiaries eligible on the basis of age (65+). CMS also examined its use among dually eligible beneficiaries and beneficiaries participating in select Medicaid HCBS programs, such as 1915(c) waivers, and MFP.<sup>55</sup> Finally, for states with usable race and ethnicity data, CMS compared the use of NEMT across major race and ethnicity groups, both overall and among beneficiaries with select health conditions.

- According to the data analyzed in this report, MFP participants and participants receiving home and community-based services through section 1915(c) used NEMT at the highest rates among the select Medicaid programs examined (Figure 6b). For example, nearly 41 percent of MFP participants and 22 percent of participants receiving home and community-based services through section 1915(c) used NEMT in 2021 compared to just 4 percent in the overall Medicaid population. Fourteen percent of dually eligible beneficiaries used NEMT in 2021. (For state-level detail, see Tables B1.2 and B1.8a–d.)
- Among beneficiaries in each major eligibility category, 14 percent of beneficiaries eligible for Medicaid on the basis of a disability or age (65+) used NEMT in 2021 (Figure 6a). Conversely, children used the benefit at the lowest rates (1 percent used NEMT in 2021), whereas adults and adult expansion beneficiaries also used NEMT at rates somewhat lower than the average across all Medicaid beneficiaries—3 percent and 2 percent, respectively, of beneficiaries in each group used NEMT in 2021. (For state-level detail, see Tables B1.3a–c.)
- Beneficiaries who used NEMT at the lowest rates tended to make up a relatively large percentage of all Medicaid beneficiaries, including children (who made up 41 percent of all Medicaid beneficiaries in 2021), adult expansion beneficiaries (26 percent), and adults (15 percent) (Figure 7a). Conversely, beneficiaries who used NEMT at the highest rates

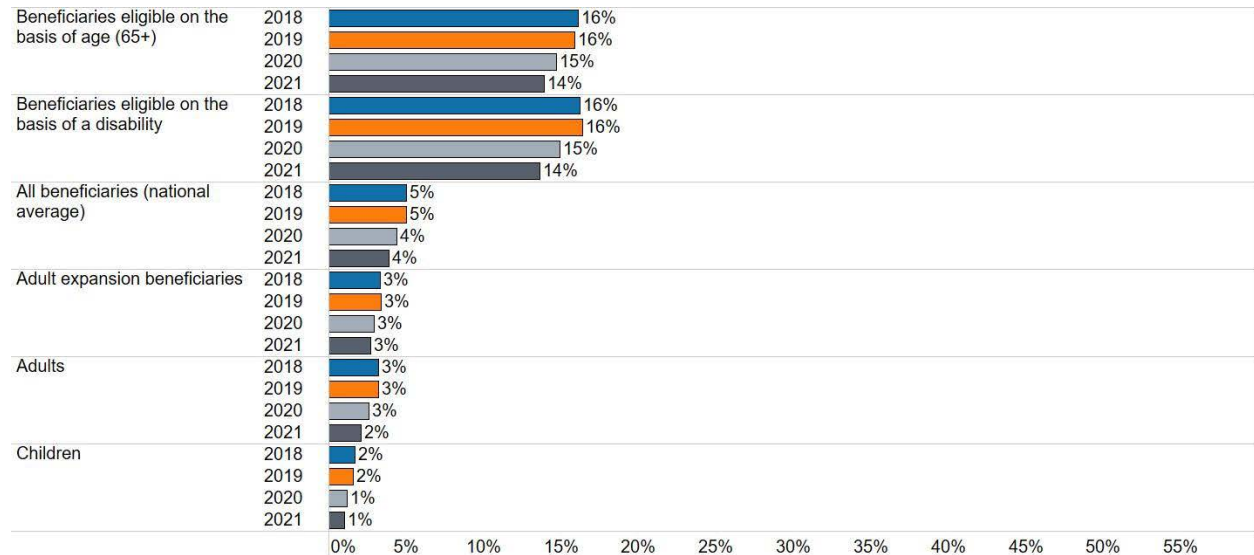
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<sup>55</sup> Beneficiaries were classified as being 1915(c) waiver participants, MFP participants, or dually eligible if they had at least one month of enrollment in one of these programs, respectively, during the calendar year.

tended to make up a very small percentage of all Medicaid beneficiaries, including MFP participants (who made up less than 0.5 percent of all Medicaid beneficiaries in 2021), and participants receiving home and community-based services through section 1915(c) (2 percent) (Figure 7b).

- Among NEMT users in each major eligibility category, beneficiaries eligible on the basis of a disability used the benefit most frequently, according to the data analyzed in this report (1.8 to 2.6 monthly ride days, depending on the year), followed by beneficiaries eligible on the basis of age (65+) (1.3 to 1.8 monthly ride days) (Figure 8a). Among NEMT users in select Medicaid programs, participants receiving home and community-based services through section 1915(c) used the benefit most frequently, according to the data analyzed in this report (2.3 to and 3.5 monthly ride days, depending on the year), followed by dually eligible beneficiaries (1.6 to 2.3 monthly ride days), and MFP participants (1.4 to 2.0) (Figure 8b).
- NEMT users who accessed the benefit least frequently across the four years included adults (1.2 to 1.3 monthly ride days per NEMT user), adult expansion beneficiaries (1.1 to 1.4 monthly ride days), and children (0.7 to 0.8 monthly ride days) (Figure 8b).
- Groups of beneficiaries who used NEMT at high rates also tended to use higher volumes of NEMT. Among major eligibility categories, beneficiaries eligible on the basis of a disability averaged the highest number of annual ride days (ranging from 30,888 to 49,358, depending on the year) followed by beneficiaries eligible on the basis of age (20,506 to 31,957) (Figure 9a). Among beneficiaries participating in the select Medicaid programs examined, participants receiving home and community-based services through section 1915(c) and MFP participants averaged the highest number of annual NEMT ride days per 10,000 beneficiaries (which ranged from 61,223 to 118,035 for participants receiving home and community-based services through section 1915(c) and 64,281 to 93,349 for MFP participants), followed by dually eligible beneficiaries (27,301 to 43,113) (Figure 9b). These volumes of NEMT service use were well above the national average among all Medicaid beneficiaries, which ranged from 6,504 to 10,442.
- Conversely, children, adults, and adult expansion beneficiaries used a considerably lower average number of NEMT ride days per 10,000 beneficiaries compared to the national average (Figure 9a). Adult expansion beneficiaries averaged from 3,380 to 5,061 annual NEMT ride days per 10,000 beneficiaries, adults averaged from 2,987 to 4,609, and children averaged from 754 to 1,442.

**Figure 6a. Percentage of Medicaid beneficiaries who used NEMT, by major eligibility category, by year, 2018–2021**

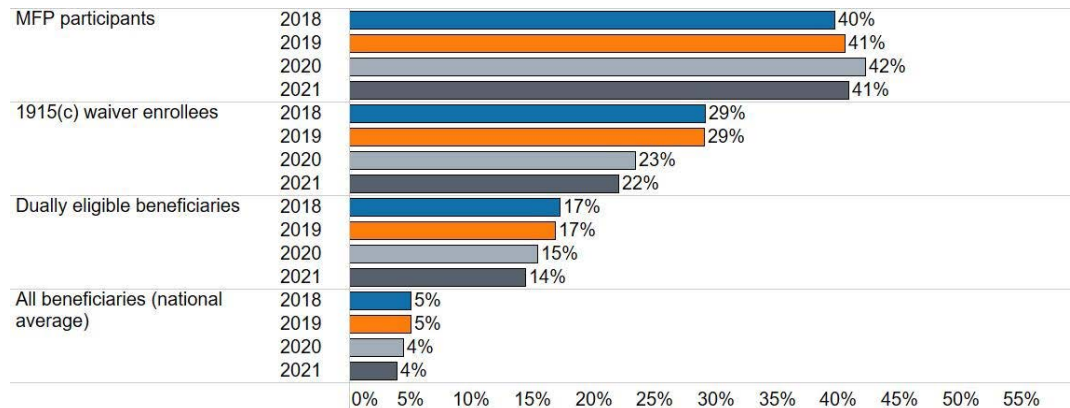


Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT include those who used it at least one day during the year. Eligibility categories are mutually exclusive; the figure reflects the eligibility category in which a beneficiary was enrolled in their last month of enrollment in the calendar year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Beneficiary eligibility categories are ordered from the highest percentage of beneficiaries using NEMT in 2021 (top of figure) to the lowest percentage of beneficiaries using it in 2021 (bottom of figure).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 6b. Percentage of Medicaid beneficiaries who used NEMT in select Medicaid program, by year, 2018–2021**

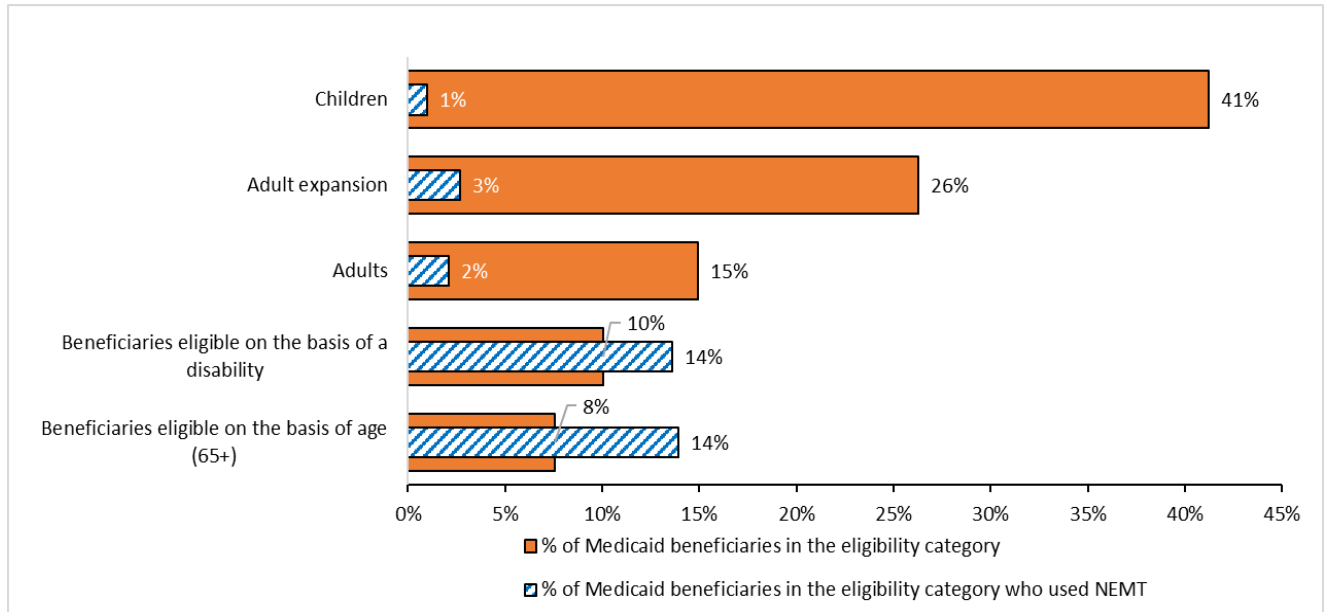


Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT include those who used it at least one day during the year. Beneficiaries may qualify for inclusion in more than one category to the extent they participated in more than one program during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Program categories are ordered from the highest percentage of beneficiaries using NEMT in 2021 (top of figure) to the lowest percentage of beneficiaries using it in 2021 (bottom of figure).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 7a. Percentage of Medicaid beneficiaries in each major eligibility category and percentage who used NEMT, 2021**

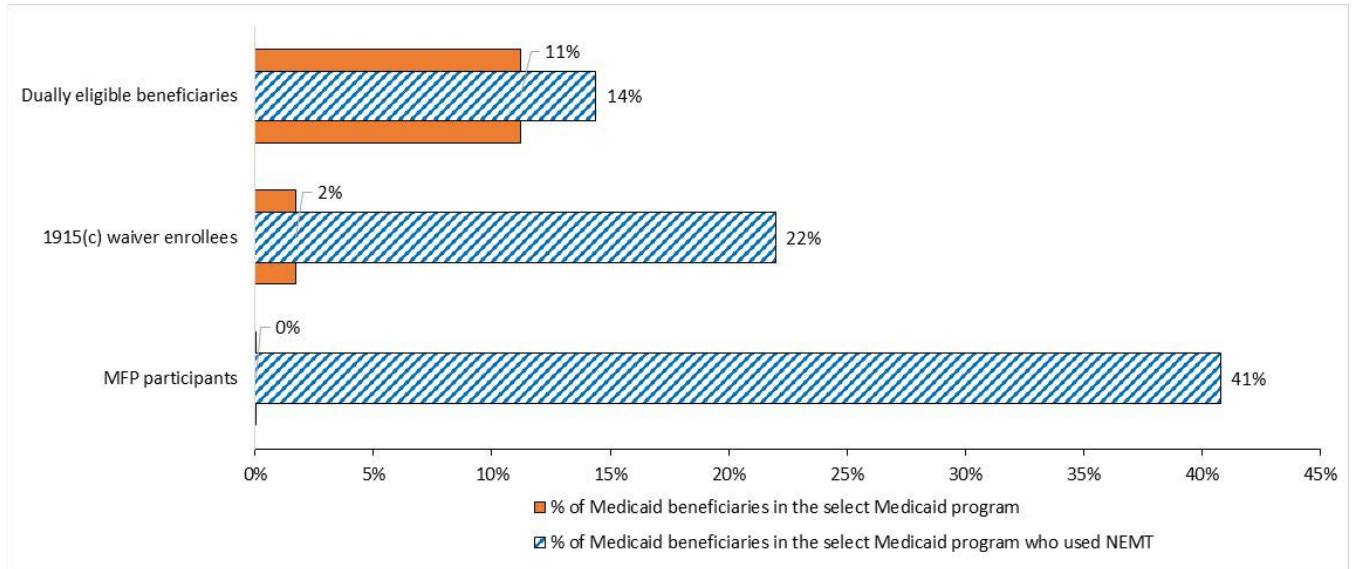


Source: Mathematica’s analysis of the 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT include those who used it at least one day during the year. Eligibility categories are mutually exclusive; the figure reflects the eligibility category in which a beneficiary was enrolled in their last month of enrollment in the calendar year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Beneficiary eligibility categories are ordered from highest percentage of all Medicaid beneficiaries in 2021 (top of figure) to the lowest percentage of all Medicaid beneficiaries in 2021 (bottom of figure).

Due to data quality issues, Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 7b. Percentage of Medicaid beneficiaries in select Medicaid programs and percentage who used NEMT, 2021**

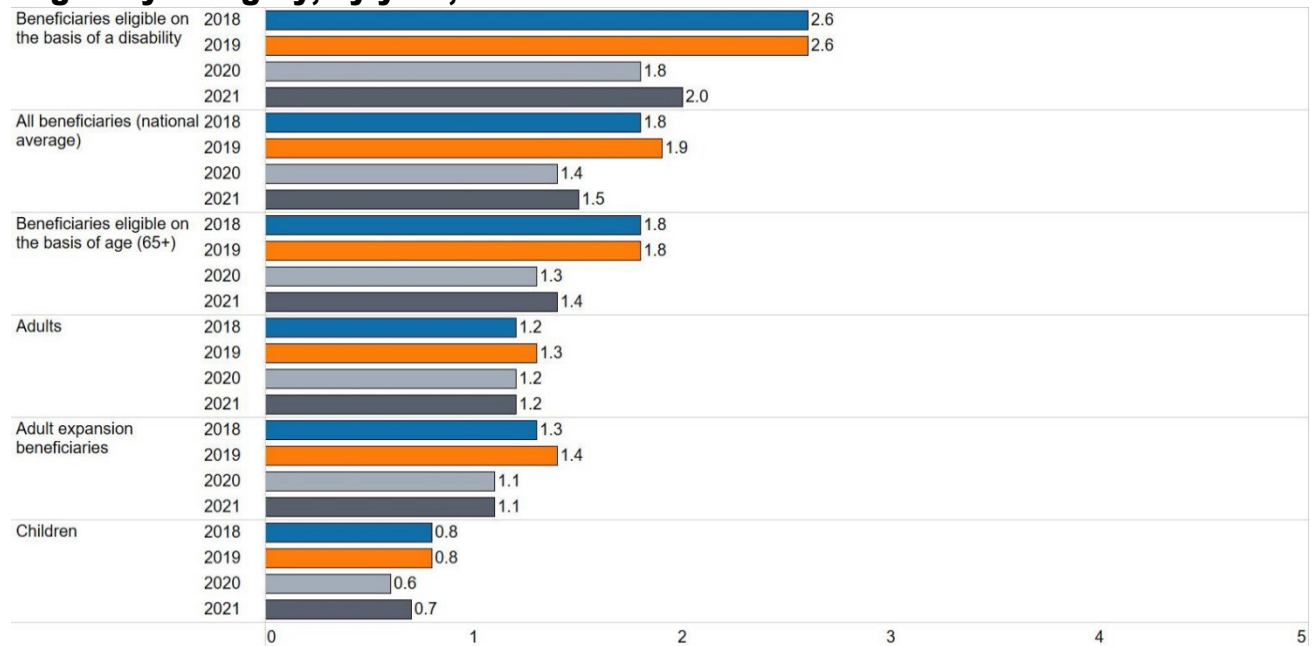


Source: Mathematica’s analysis of the 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one category to the extent they participated in more than one program during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Program categories are ordered from highest percentage of all Medicaid beneficiaries in 2021 (top of figure) to the lowest percentage of all Medicaid beneficiaries in 2021 (bottom of figure).

Due to data quality issues, Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 8a. Average monthly ride days among NEMT users in each major eligibility category, by year, 2018–2021**



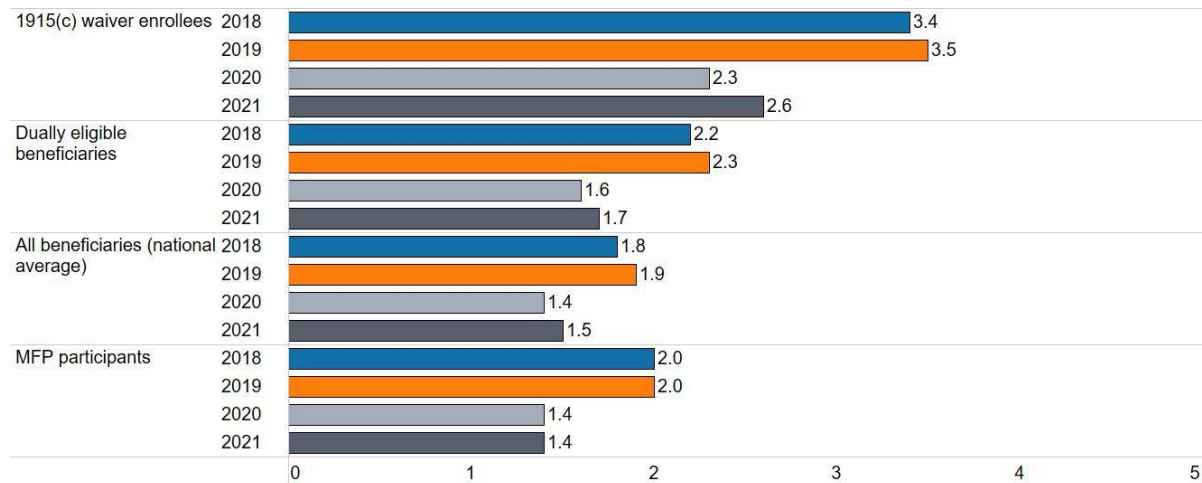
Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users includes those who used it at least one day during the year. Average monthly ride days are a count of the unique number of days on which a beneficiary used NEMT per month enrolled. Months enrolled includes months eligible for full or comprehensive benefits during the year. Eligibility categories are mutually exclusive; the figure reflects the eligibility category in which a beneficiary was enrolled in their last month of enrollment in the calendar year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Beneficiary eligibility categories are ordered from highest average monthly ride days in 2021 (top of figure) to the lowest average monthly ride days in 2021 (bottom of figure).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.



**Figure 8b. Average monthly ride days among NEMT users in select Medicaid programs, by year, 2018–2021**

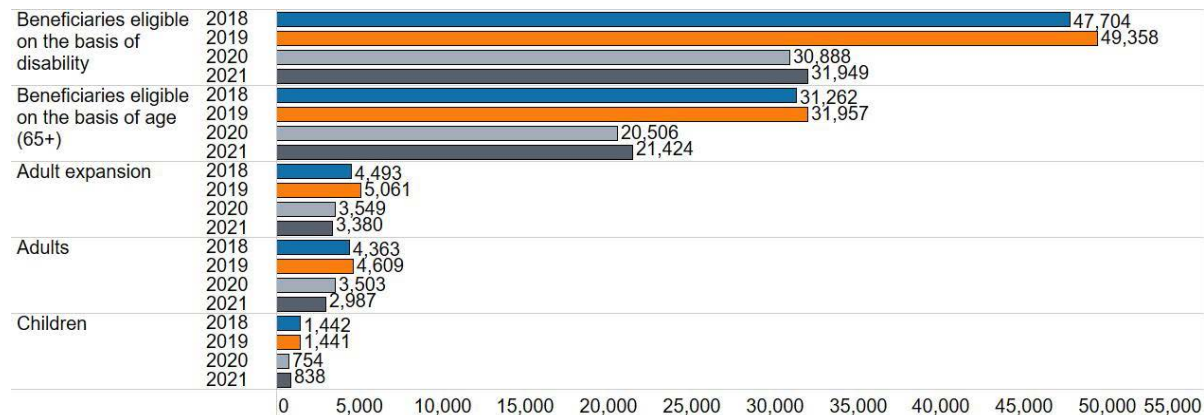


Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users includes those who used it at least one day during the year. Average monthly ride days are a count of the unique number of days on which a beneficiary used NEMT per month enrolled. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one category to the extent they participated in more than one program during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Program categories are ordered from highest average monthly ride days in 2021 (top of figure) to the lowest average monthly ride days in 2021 (bottom of figure).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 9a. Average number of annual NEMT ride days per 10,000 Medicaid beneficiaries, by eligibility category, by year, 2018–2021**

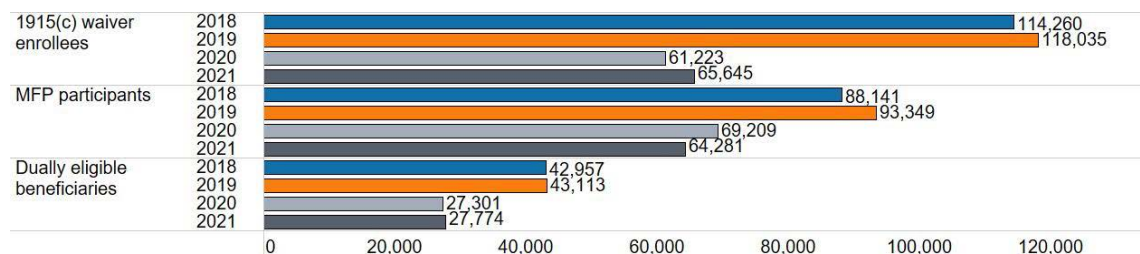


Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Eligibility categories are mutually exclusive; the figure reflects the eligibility category in which a beneficiary was enrolled in their last month of enrollment in the calendar year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Beneficiary eligibility categories are ordered from highest number of annual ride days per 10,000 beneficiaries in 2021 (top of figure) to the lowest number of annual ride days per 10,000 beneficiaries in 2021 (bottom of figure).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 9b. Average number of annual NEMT ride days per 10,000 Medicaid beneficiaries, by select Medicaid program, by year, 2018–2021**



Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Beneficiaries may qualify for inclusion in more than one category to the extent they participated in more than one program during the year. Program categories are ordered from highest number of annual ride days per 10,000 beneficiaries in 2021 (top of figure) to the lowest number of annual ride days per 10,000 beneficiaries in 2021 (bottom of figure).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

Because only about two-thirds of states and territories (31 in 2018 and 2019, and 33 in 2020) met our data quality thresholds for their race and ethnicity information in the TAF, this report presents state- but not national-level results on use of NEMT within each major race and ethnicity group. Readers should note that as a result, these results are not nationally representative, which limits ability to draw conclusions about the use of NEMT across beneficiaries with different race and ethnicity characteristics. Furthermore, the 2021 benchmark data used to assess the quality of the TAF race/ethnicity data element were unavailable as of October 2022 when this report was compiled, so CMS presents only the results for 2018, 2019, and 2020. Furthermore, the analyses presented in this report do not examine the extent of differences in the level of need for NEMT services, or disparities in access to these services across race and ethnicity groups; additional research in this area is needed. For all states that met our data quality thresholds for the race and ethnicity data element in 2018, 2019, or 2020, CMS presents state-level results in Tables B2.1–B2.7.

- Overall, based on the limited race and ethnicity information available in TAF, beneficiaries who are Black used NEMT at somewhat higher rates than beneficiaries who are White, whereas beneficiaries who are Hispanic used NEMT at substantially lower rates than both of those groups. However, as discussed above, these results are not nationally representative, which limits the ability to draw conclusions from the data. Specifically, in 2018 and 2019, a higher percentage of beneficiaries who are Black than beneficiaries who are White used NEMT in slightly more than half of states with data sufficient for analysis (16 of 29 states in 2018 and 16 of 30 in 2019). However, in 2020, a higher percentage of beneficiaries who are Black than beneficiaries who are White used NEMT in nearly two-thirds of states (20 of 31) with data sufficient for analysis. In 2018 and 2019, between less than 1 percent and 16 percent of beneficiaries who are Black used NEMT; in the same years, between 1 and 11 percent of beneficiaries who are White did so. In 2020, between 1 and 14 percent of beneficiaries who are Black used NEMT, and between 2 and 10 percent of beneficiaries who are White did so. In 2018 and 2019, a higher percentage of beneficiaries who are Hispanic than beneficiaries who are White used NEMT in only two and one (respectively) of 30 states with data sufficient for analysis, whereas in 2020, a higher percentage of beneficiaries who are Hispanic than beneficiaries who are White used NEMT in only three of 31 states with data sufficient for analysis. In 2018, between 1 and 9 percent of beneficiaries who are Hispanic used NEMT, depending on the state, whereas in 2019, this percentage ranged from 1 percent to 10 percent. Anywhere from less than 1 percent to 8 percent of beneficiaries who are Hispanic used NEMT in 2020.
- Although beneficiaries who are Black used NEMT at somewhat higher rates than beneficiaries who are White, those who used it did so at somewhat lower frequencies (average number of ride days per month). In just 12 of 29 states (in 2018) and 11 of 30 states (in 2019), NEMT users who are Black accessed the benefit more frequently than users who are White; however, in 2020, NEMT users who are Black utilized the benefit more frequently than users who are White in 16 states. In 2018, beneficiaries who are Black used NEMT with a frequency of 0.4 to 2.8 monthly ride days per user, depending on the state, compared with a frequency of 0.4 to 4.7 monthly ride days per NEMT user who is White. In 2019, beneficiaries who are Black used NEMT with a

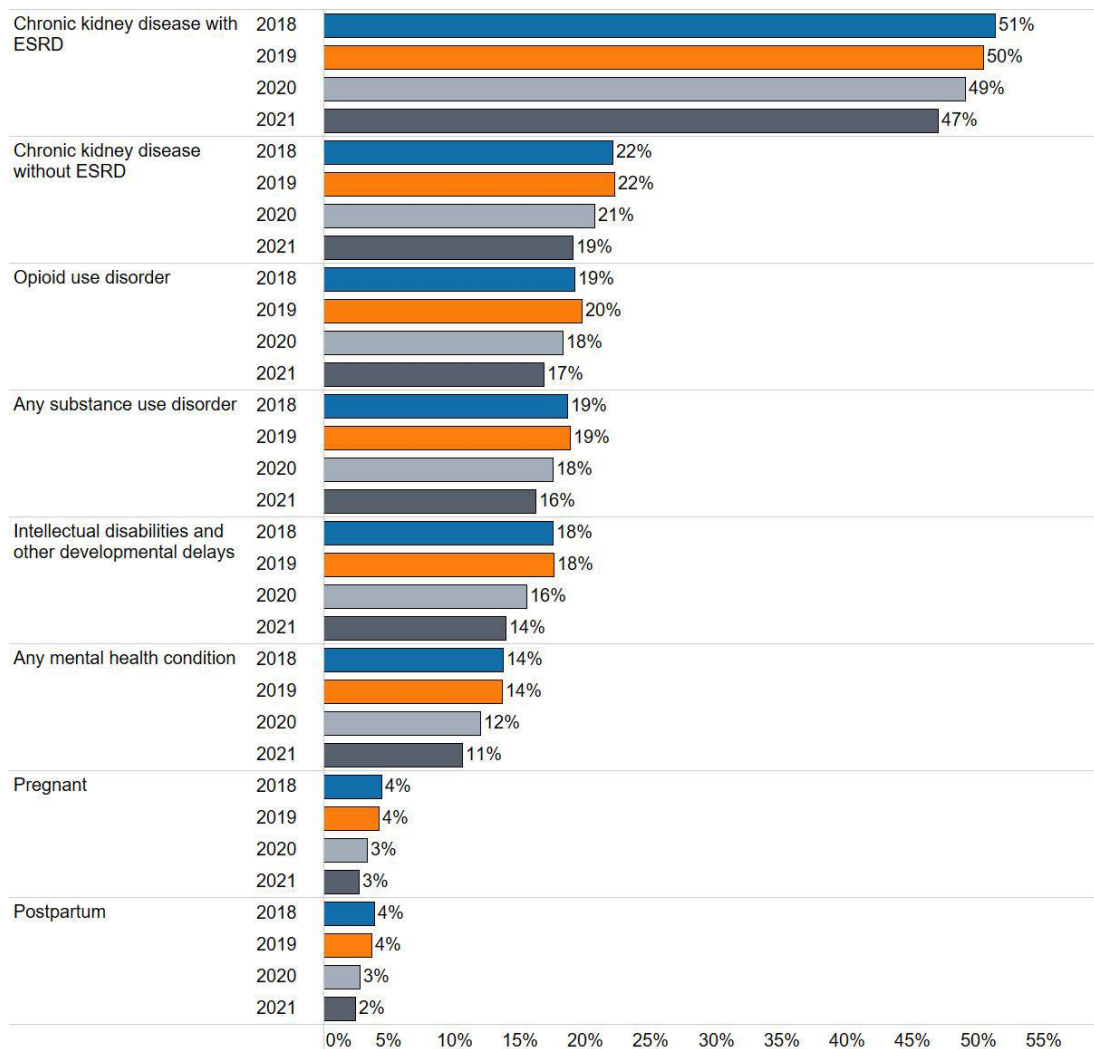
- frequency of 0.6 to 2.9 monthly ride days per user, depending on the state, compared with a frequency of 0.6 to 5.0 monthly ride days per NEMT user who is White. In 2020, beneficiaries who are Black used NEMT with a frequency of 0.4 to 3.6 monthly ride days per user, depending on the state, compared with a frequency of 0.5 to 4.9 monthly ride days per NEMT user who is White. NEMT users who are Hispanic accessed the benefit at higher frequencies than users who are Black, but at lower frequencies than those who are White. In 2018, beneficiaries who are Hispanic used NEMT with a frequency of 0.4 to 3.5 monthly ride days per user, whereas in 2019, beneficiaries who are Hispanic did so with a frequency of 0.4 to 3.7 monthly ride days per user. In 2020, beneficiaries who are Hispanic used NEMT with a frequency of 0.3 to 4.7 monthly ride days per user.
- Overall, beneficiaries who are White used a higher annual volume of NEMT services compared to beneficiaries who are Black, whereas beneficiaries who are Hispanic used the lowest volume of NEMT. Among beneficiaries who are White, the number of annual NEMT ride days per 10,000 beneficiaries ranged from 1,976 to 42,139 in 2020, depending on the state, whereas for beneficiaries who are Black, this number ranged from 644 to 29,046; for beneficiaries who are Hispanic, it ranged from 363 to 12,476 (data not shown). However, among many subgroups of beneficiaries with certain health conditions, beneficiaries who are Black used a higher annual volume of NEMT services than beneficiaries who are White in the majority of states with enough beneficiaries to present data for both groups. These groups included beneficiaries with a diagnosis of CKD with ESRD who were eligible on the basis of a disability or age (65+); adult beneficiaries with heart disease, diabetes, or a diagnosis of CKD with ESRD; and beneficiaries eligible on the basis of a disability or age (65+) with diabetes or heart disease, any mental health condition, any SUD, or OUD. Likewise, among several subgroups of beneficiaries with certain health conditions, beneficiaries who are Hispanic used a higher volume of NEMT compared to beneficiaries who are White in the majority of states with enough beneficiaries to present data for both groups. These groups included adult beneficiaries with heart disease; beneficiaries eligible on the basis of a disability or age (65+) with a diagnosis of CKD with ESRD, diabetes, or heart disease; and beneficiaries eligible on the basis of age (65+) with any mental health condition.
  - Certain states showed particularly high rates of NEMT use among particular racial and ethnic groups. For example, in Alaska, 29 percent of beneficiaries who are American Indian and Alaskan Native, non-Hispanic used NEMT in 2019, with 17,716 ride days per 10,000 beneficiaries—a considerably higher rate compared to all other major race and ethnicity groups in the state (which ranged from 3 percent of beneficiaries who are Hawaiian/Pacific Islander, non-Hispanic, who used 5,160 ride days per 10,000 beneficiaries, to less than 8 percent of beneficiaries who are multiracial, non-Hispanic, who used 4,644 ride days per 10,000 beneficiaries). However, beneficiaries who are American Indian and Alaskan Native, non-Hispanic used NEMT at a relatively low frequency, with just 0.5 monthly ride days per NEMT user in 2019 (compared to a range of 0.6 to 1.4 among all other race and ethnicity groups in the state).

### c. Use of NEMT by health condition

For this analysis, CMS examined use of NEMT among beneficiaries with four general categories of conditions: (1) with CKD, separately for those with and without ESRD; (2) with behavioral health conditions, including mental health conditions, any SUD, or OUD specifically; (3) with intellectual disabilities and other developmental delays; and (4) who were pregnant or postpartum.

- Across all four study years, beneficiaries with a diagnosis of CKD with ESRD used NEMT at the highest rate and frequency of all condition types examined. Forty-seven percent of beneficiaries with this condition used NEMT in 2021; also, among NEMT users, beneficiaries with a diagnosis of CKD with ESRD accessed the benefit using an average of 5.5 monthly ride days per user in 2021 (Figures 10 and 11). Nineteen percent of beneficiaries with CKD without ESRD used NEMT in 2021, but they did so less frequently (using one monthly ride day per month enrolled in 2021) than the national average of 1.5 monthly ride days per user. (For state-specific detail, see Tables B1.6a–d.)
- Beneficiaries with mental health conditions and those with any SUD also used the benefit at substantially higher rates than the average. Seventeen percent of beneficiaries with OUD, 16 percent of beneficiaries with any SUD, and 11 percent of beneficiaries with a mental health condition used NEMT in 2021; the frequency of NEMT use for beneficiaries with OUD, any SUD, and mental health conditions was 2.7, 1.7, and 1.4 monthly ride days per user, respectively. (For state-specific detail, see Tables B1.7a–d.)
- Fourteen percent of beneficiaries with intellectual disabilities or other developmental delays used the benefit in 2021; the frequency of their NEMT use was relatively high, at 3.2 monthly ride days per user.
- Most subgroups of beneficiaries who used NEMT at high rates tended to make up a very small percentage of all Medicaid beneficiaries. Beneficiaries with a diagnosis of CKD with ESRD made up less than 0.5 percent of all Medicaid beneficiaries in 2021 (Figure 12). Beneficiaries with a diagnosis of OUD made up just 2 percent of all Medicaid beneficiaries in 2021, as did those with intellectual disabilities and other developmental delays. Beneficiaries with any SUD made up 5 percent of all Medicaid beneficiaries in 2021, as did those with CKD without ESRD. On the other hand, beneficiaries with any mental health conditions used NEMT at relatively high rates and accounted for nearly one-fifth (18 percent) of all Medicaid beneficiaries in 2021.
- Pregnant and postpartum beneficiaries used NEMT at rates and frequencies that were substantially below the national average. In 2021, just 3 percent of pregnant beneficiaries and 2 percent of postpartum beneficiaries used NEMT; NEMT users who were pregnant or postpartum used an average of 0.8 and 0.6 ride days per month, respectively. (For state-specific detail, see Tables B1.4 and B1.5.)

**Figure 10. Percentage of Medicaid beneficiaries who used NEMT by select physical health conditions, mental health conditions, and substance use disorders, by year, 2018–2021**

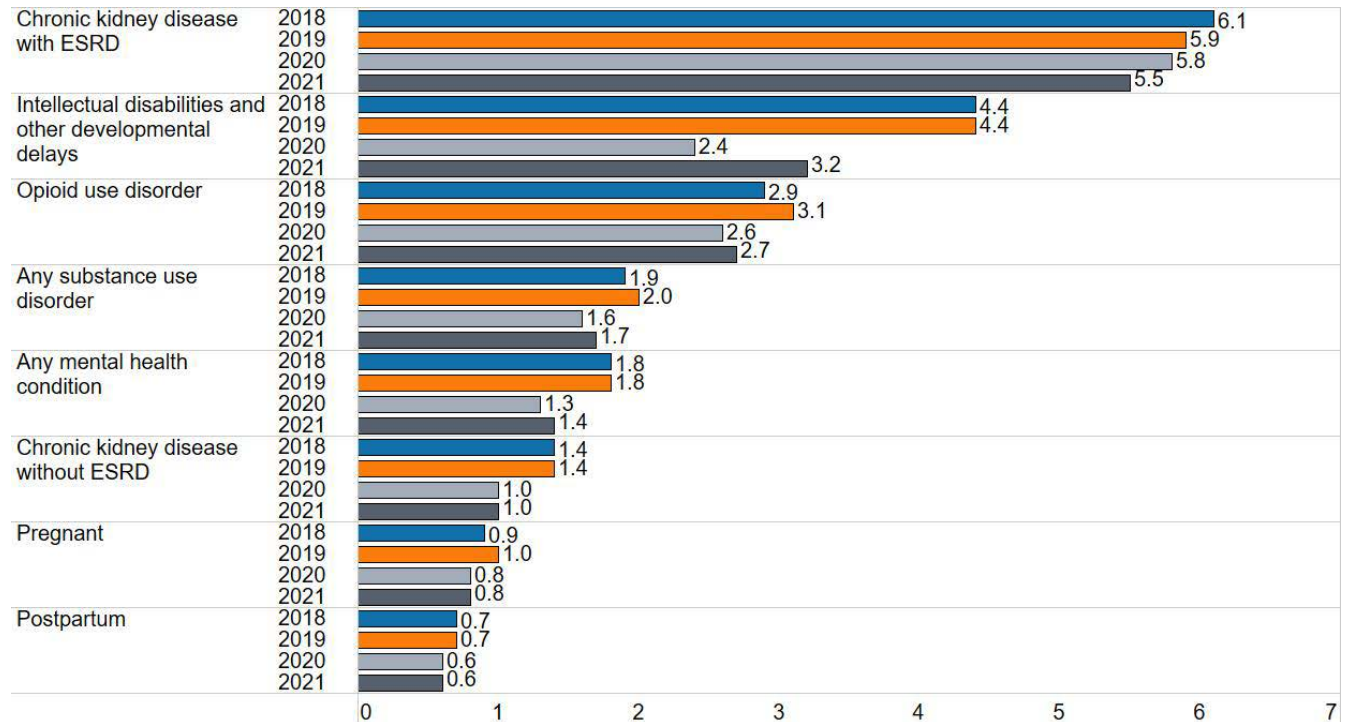


Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT include those who used it at least one day during the year. Beneficiaries may qualify for inclusion in more than one of the condition categories. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Beneficiary condition categories are ordered from the highest percentage of beneficiaries who used NEMT in 2021 (top of figure) to the lowest percentage of beneficiaries who used NEMT in 2021 (bottom of figure).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 11. Among NEMT users, average number of ride days per month enrolled, beneficiaries with select physical health conditions, mental health conditions, and substance use disorders, by year, 2018–2021**

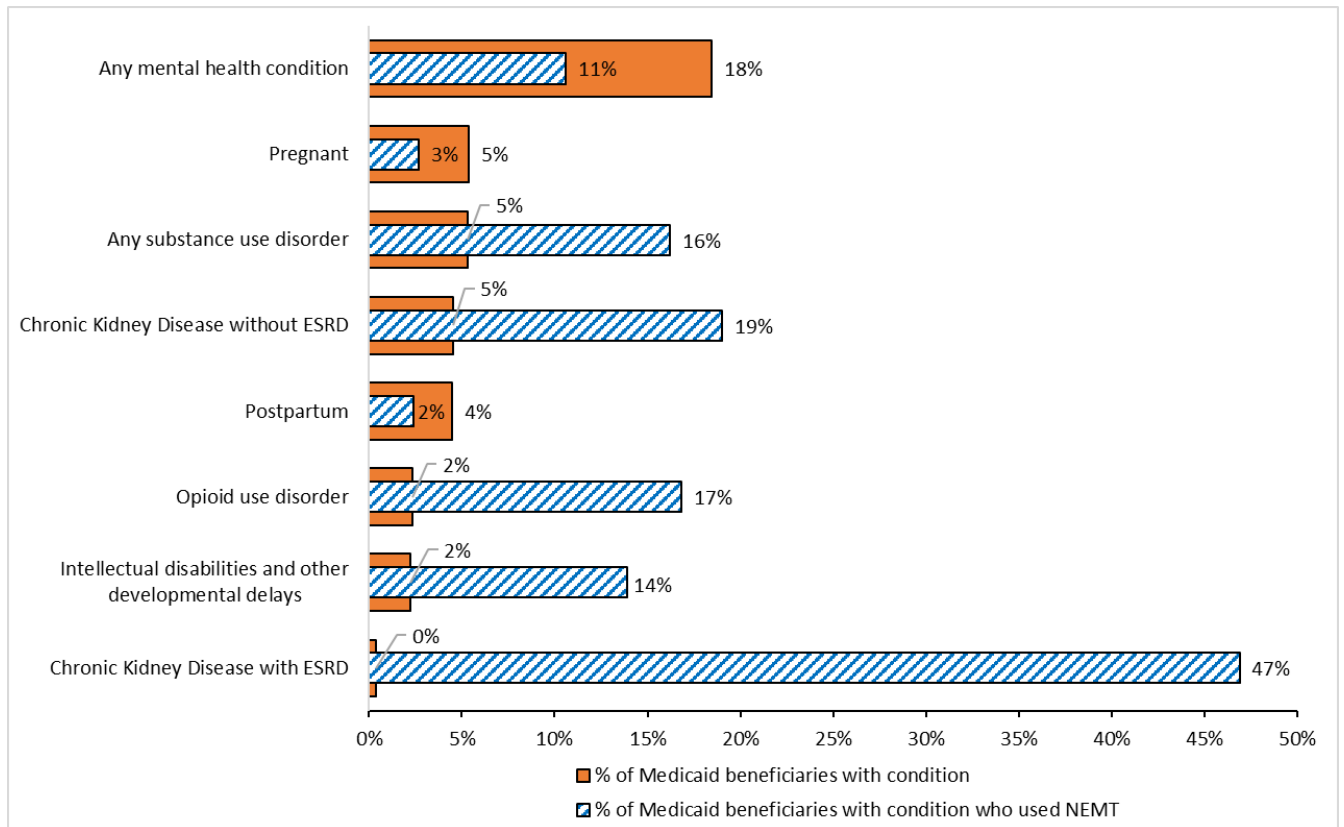


Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users includes those who used NEMT at least one day during the year. Average monthly ride days are a count of the unique number of days on which a beneficiary used NEMT per month enrolled in Medicaid. Months enrolled in Medicaid includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one of the condition categories. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Beneficiary condition categories are ordered from the highest average monthly ride days in 2021 (top of figure) to the lowest average monthly ride days in 2021 (bottom of figure).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 12. Percentage of Medicaid beneficiaries with select physical health conditions, mental health conditions, and substance use disorders, and percentage who used NEMT in 2021**



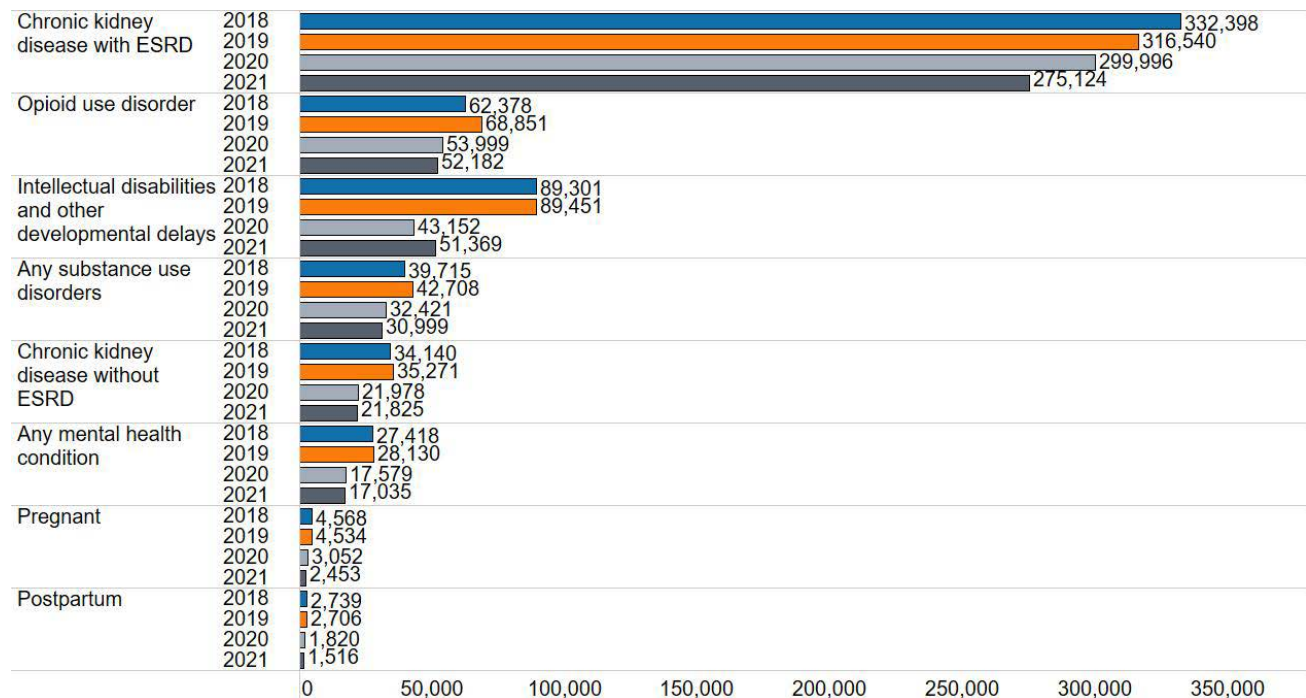
Source: Mathematica’s analysis of the 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT include those who used it at least one day during the year. Beneficiaries may qualify for inclusion in more than one of the condition categories. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Beneficiary condition categories are ordered from the highest percentage of all Medicaid beneficiaries in 2021 (top of figure) to the lowest percentage of all Medicaid beneficiaries in 2021 (bottom of figure).

Due to data quality issues, Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.



**Figure 13. Average number of annual NEMT ride days per 10,000 Medicaid beneficiaries, by select physical health conditions, mental health conditions, and substance use disorders, by year, 2018–2021**



Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Beneficiaries may qualify for inclusion in more than one of the condition categories. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Beneficiary condition categories are ordered from highest number of annual ride days per 10,000 beneficiaries in 2021 (top of figure) to the lowest number of annual ride days per 10,000 beneficiaries in 2021 (bottom of figure).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

- Among beneficiaries with each condition type examined, the percentage of beneficiaries who used NEMT declined between 2019 and 2020 with the onset of the COVID-19 PHE (Figure 10), as did the number of ride days per 10,000 beneficiaries (Figure 13). Among beneficiaries with each condition type examined, the percentage of beneficiaries who used NEMT declined even further between 2020 and 2021, despite the widespread availability of vaccines in 2021 and the easing of restrictions related to COVID-19. Between 2020 and 2021, NEMT volume, defined as the number of ride days per 10,000 beneficiaries, also decreased among beneficiaries with each condition type examined, except for those with intellectual disabilities and other developmental delays. (Among this group, NEMT volume increased from 43,152 in 2020 to 51,369 in 2021.) Among beneficiaries with any SUD and those with OUD, the *number* of beneficiaries who used NEMT increased in 2021, even though the *percentage* of those who did so decreased; the latter trend was likely driven by the continued and unprecedented growth in the Medicaid

population in response to the continuous enrollment provision set forth in the FFCRA (enacted March 2020).

- Beneficiaries who used NEMT at high rates also tended to use the highest volume of NEMT rides, measured as number of annual NEMT ride days per 10,000 beneficiaries. Beneficiaries with a diagnosis of CKD with ESRD had the highest average NEMT service volume (275,124 to 2021 to 332,398) (Figure 13). Beneficiaries with ESRD typically require frequent dialysis (often at a dialysis facility) to sustain life.
- In 2018 and 2019, beneficiaries with intellectual disabilities or other developmental delays averaged the second-highest average volume of NEMT rides (89,301 to 89,451). However, with the onset of the PHE, annual volume of NEMT rides among beneficiaries with intellectual disabilities or other developmental delays dropped considerably (to 43,152 in 2020 and 51,369 in 2021).
- Other beneficiaries who used annual NEMT service volumes well above the national average (which ranged from 10,442 in 2019 to 6,504 in 2021) included those with OUD (53,999 to 52,182), any SUD (30,999 to 42,708), CKD without ESRD (21,825 to 35,271), or any mental health condition (17,035 to 28,130).
- Pregnant and postpartum beneficiaries used a considerably lower average annual volume of NEMT compared to the national average. Pregnant beneficiaries averaged 2,453 to 4,568 annual ride days per 10,000 beneficiaries, whereas postpartum beneficiaries averaged 1,516 to 2,739.

#### **d. Use of NEMT to access select physical health, behavioral health, and SUD treatment services**

For this analysis, CMS examined (1) the percentage of all Medicaid beneficiaries using NEMT to access each of 13 different physical health, behavioral health, and SUD treatment service types; (2) the percentage of all NEMT ride days used to access each service type; and (3) the average number of monthly ride days used to access each service type among beneficiaries who used NEMT to access the service. The service types examined do not include every service type covered by Medicaid; conversely, they are not always mutually exclusive. For state-level results, see Tables B3.1a–c, B3.2a–c, B3.3a–c, and B3.4a–c.

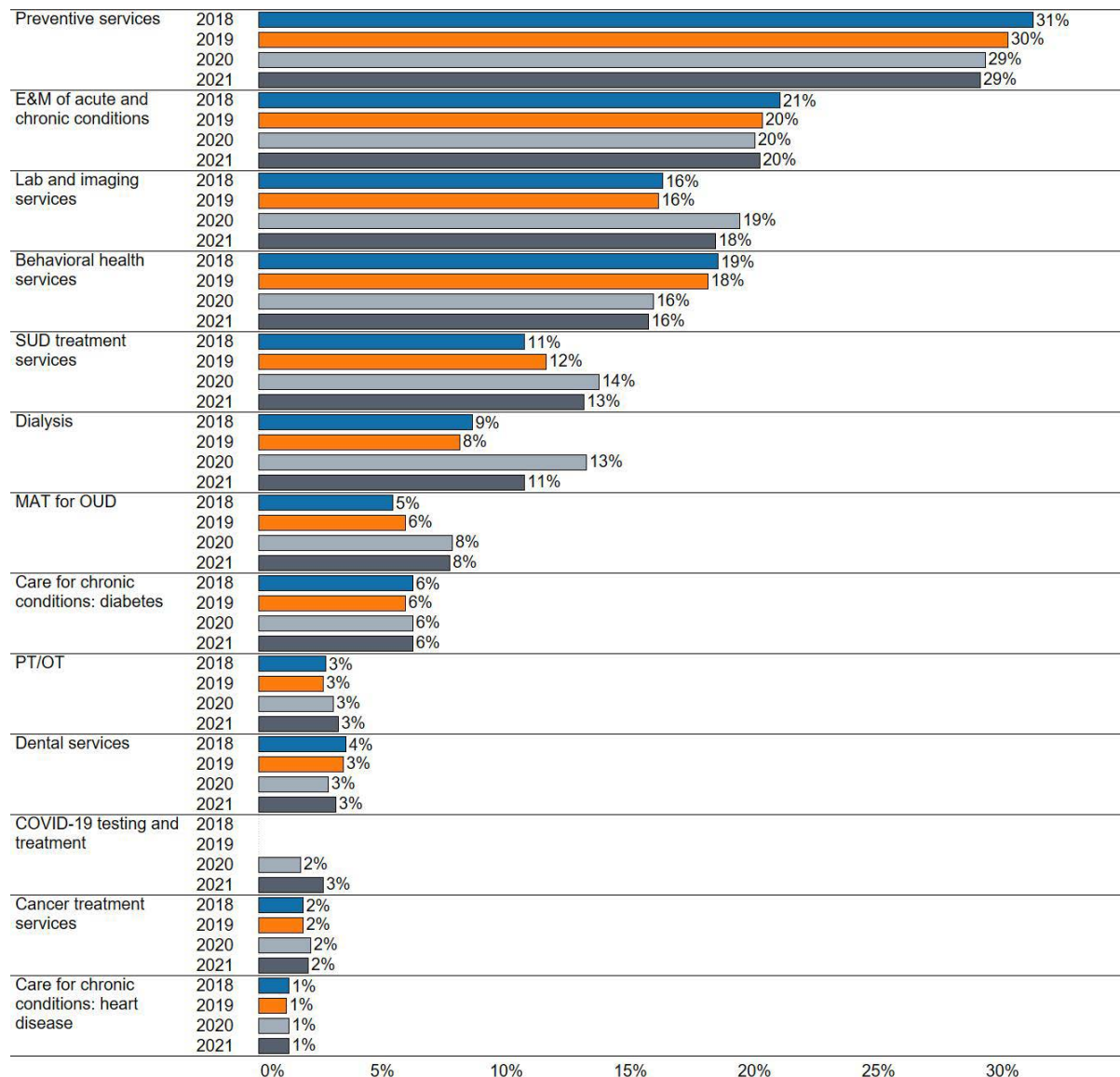
- Beneficiaries most commonly used NEMT to access preventive care services, with between 29 and 31 percent of all NEMT ride days used to access such services in each of the four study years (Figure 14). Notably, the percentage of all beneficiaries using NEMT to access preventive services at least once during the year decreased from 3 percent in 2018 and 2019 to 2 percent in 2020 and 2021 (Figure 15); this decrease may be due to postponement of preventive care (Gonzalez et al. 2021) or the increased availability of telehealth that occurred with the onset of the PHE. Beneficiaries who used NEMT to access preventive services did so relatively infrequently, using just 0.6 to 0.8 monthly ride days to access this service type (Figure 16).
- Services related to the E&M of acute and chronic conditions was the second most commonly accessed service by beneficiaries using NEMT; between 20 and 21 percent of

ride days were used to access these services, depending on the year. In each year, approximately 2 percent of beneficiaries used NEMT to access services related to the E&M of acute and chronic conditions, with only 0.5 to 0.7 monthly ride days used to access the service type.

- Beneficiaries used NEMT to access lab and imaging services at the third-highest rate; 16 percent of all NEMT ride days were used to access these services in the years before the PHE, increasing to about 18 or 19 percent during the PHE years. In each year, approximately 2 percent of beneficiaries used NEMT to access lab and imaging services, with only 0.5 monthly ride days used to access the service type.
- Behavioral health services were the fourth most accessed type of service using NEMT, with 18 to 19 percent of all ride days used to access these services in the years before the PHE, and 16 percent of all ride days during the PHE years. Although rides to behavioral health services made up a relatively large proportion of the total volume of ride days, only 1 percent of all Medicaid beneficiaries used NEMT to access these services in any given year, with only 0.6 to 1.0 monthly ride days to access the service type, depending on the year.
- Beneficiaries used between 8 percent and 13 percent of all NEMT ride days to access dialysis services, depending on the year examined. Those who used NEMT to access dialysis used an average of 4.4 to 4.8 monthly ride days to access the service type—the highest of all service types examined. However, in each year, only 0.1 percent of all beneficiaries used NEMT to access dialysis services.
- Beneficiaries used between 11 and 14 percent of all NEMT ride days to access all types of SUD treatment services, with 5 to 8 percent of all ride days used to access MAT for OUD, a subset of all SUD treatment services. Those who used NEMT to access MAT for OUD did so with the second-highest frequency of all service types examined, using between 3 and 3.5 monthly ride days to access the service. However, just 0.1 percent of all Medicaid beneficiaries used NEMT to access this service type. The average number of monthly ride days to access MAT for OUD decreased in 2020 relative to 2018 and 2019, increasing only slightly in 2021 (but still below pre-PHE levels), potentially because of increased flexibilities in OUD service delivery methods that occurred with the onset of the COVID-19 PHE (including delivery via telehealth), which could allow for service delivery without beneficiary transportation (Frost et al. 2022). Although less than 1 percent of Medicaid beneficiaries used NEMT to access all types of SUD treatment services, users did so with the third-highest frequency among all service types—they used between 1.2 and 1.5 monthly ride days to access this service type, depending on the year.
- Beneficiaries used a relatively small proportion of all NEMT ride days to access care or treatment for three of the most common physical health conditions affecting Medicaid beneficiaries (Chapel et al. 2017): heart disease, diabetes, and cancer. In each year, beneficiaries used 6 percent of all NEMT ride days to access care for diabetes, whereas they used 2 percent to access cancer treatment services and 1 percent to access care for heart disease, respectively. Less than 1 percent of Medicaid beneficiaries used NEMT to access each service type annually, and they used less than one ride day per month to access each service type.

- Although 3 to 4 percent of all NEMT ride days were used to access dental services, less than 1 percent of all beneficiaries used NEMT to do so. Beneficiaries used 0.4 to 0.5 monthly NEMT ride days to access dental services, depending on the year.
- Across the four years examined, about 3 percent of all NEMT ride days were used to access PT and OT services. The percentage of beneficiaries using NEMT to access PT/OT services (0.5 to 0.6) and the average monthly ride days used to access these services (0.3 to 0.4) remained very consistent across the four study years.
- In 2020 and 2021, beneficiaries used between 2 and 3 percent of all NEMT ride days to access COVID-19 testing and treatment services. Less than 0.4 and 0.5 percent of beneficiaries used NEMT to access these services, with an average of 0.2 monthly NEMT ride days to do so.
- Between 2019 and 2020, the share of total NEMT ride days used to access each service type shifted; these shifts are likely related to the PHE. The percentage of total NEMT ride days used to access preventive care, behavioral health services, and services related to the E&M of acute and chronic conditions decreased between 2019 and 2020, likely due to both postponement of these services (Gonzalez et al. 2021) and the increased availability of telehealth options. Conversely, the percentage of total NEMT ride days used to access services for lab and imaging, SUD treatment, MAT for OUD, and dialysis—services that often or always require an in-person visit—increased in 2020 and 2021 compared to 2018 and 2019. The percentage of all NEMT ride days used to access dialysis services increased the most between 2019 and 2020, from 8 percent to 13 percent.

**Figure 14. Percentage of total NEMT ride days used to access select physical health, behavioral health, and substance use disorder treatment services by year, 2018–2021**

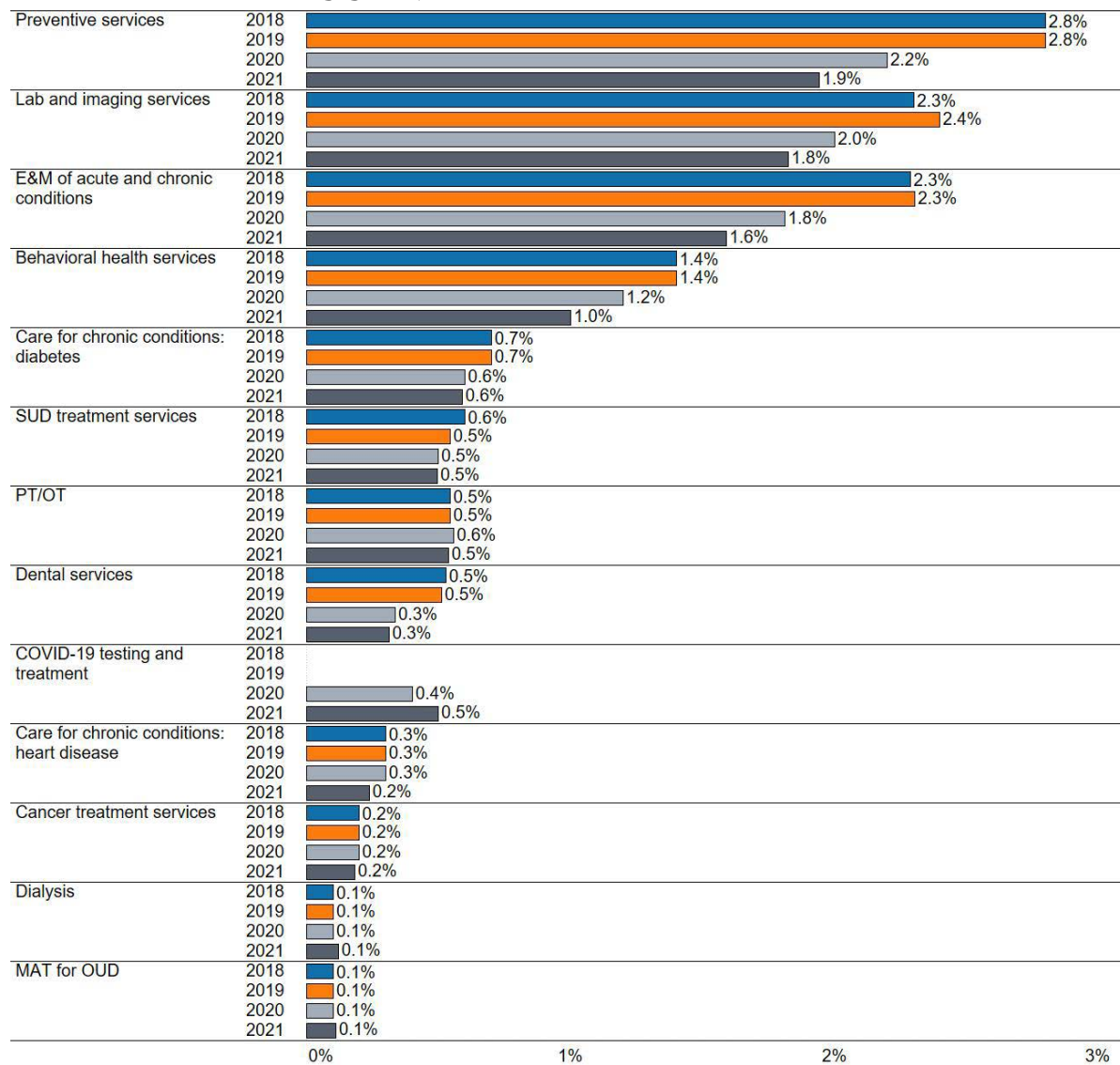


Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Ride days are a count of the unique number of days on which a beneficiary used NEMT. The service types presented in this figure do not include all Medicaid-covered services, and some service categories overlap with one another. NEMT may be used to access multiple types of services on a single day. As a result, percentages of ride days used to access each service are not expected to sum to 100. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). COVID-19 testing and treatment services are limited to those paid for by Medicaid; non-Medicaid covered services are not included in the TAF. Service types are ordered from the highest percentage of total NEMT ride days in 2021 (top of figure) to the lowest percentage of total NEMT ride days in 2021 (bottom of figure).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 15. Percentage of Medicaid beneficiaries who used NEMT to access select physical health, behavioral health, and substance use disorder treatment services by year, 2018–2021**

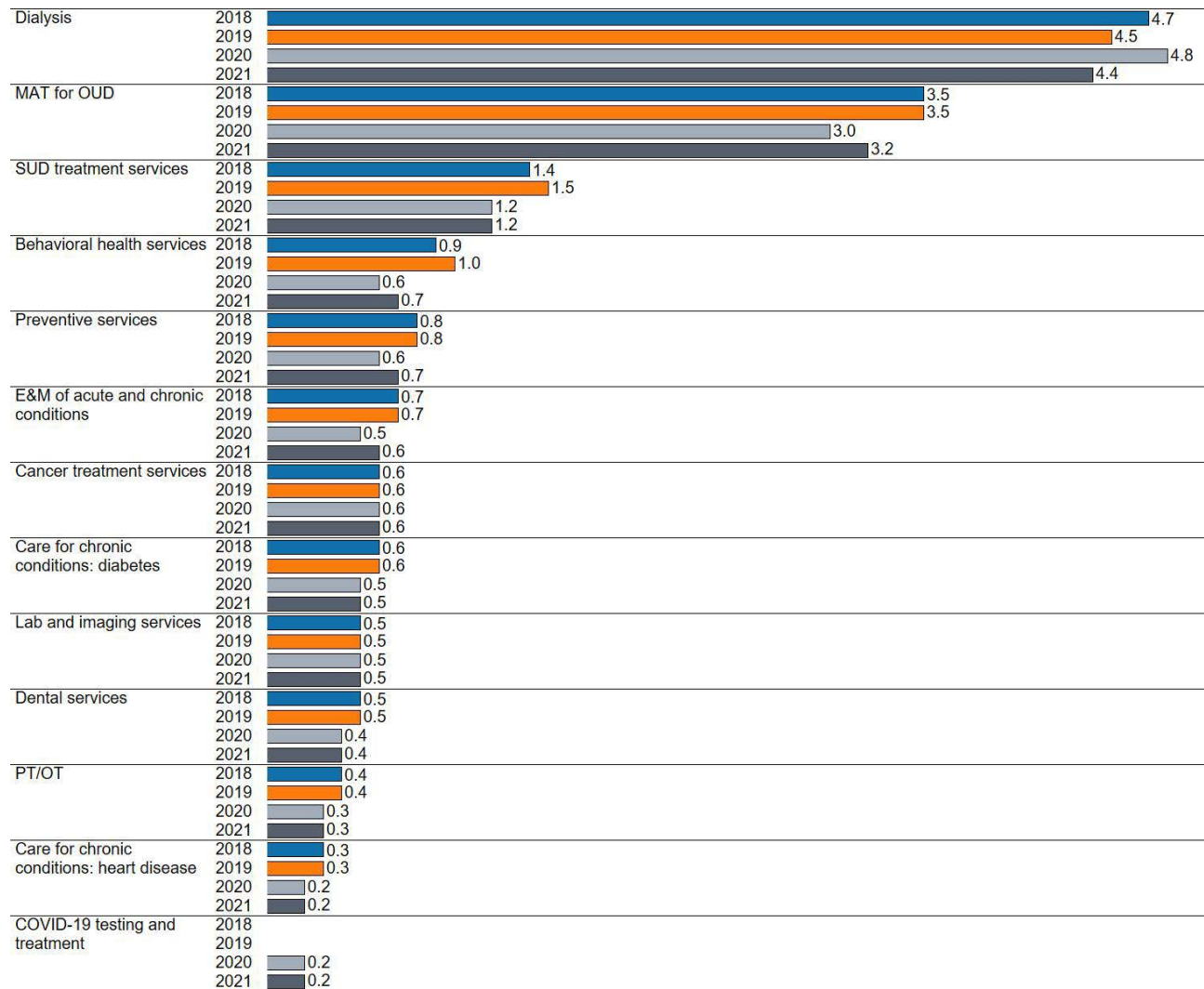


Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. The service types presented in this figure do not include all Medicaid-covered services, and some service categories overlap with one another. COVID-19 testing and treatment services are limited to those paid for by Medicaid; non-Medicaid covered services are not included in the TAF. NEMT may be used to access multiple types of services on a single day. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Service types are ordered from the highest percentage of beneficiaries who used NEMT to access the service type in 2021 (top of figure) to the lowest percentage of beneficiaries who used NEMT to access the service type in 2021 (bottom of figure).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 16. Average monthly number of NEMT ride days used to access select physical health, behavioral health, and substance use disorder treatment services among beneficiaries who used NEMT to access each service by year, 2018–2021**

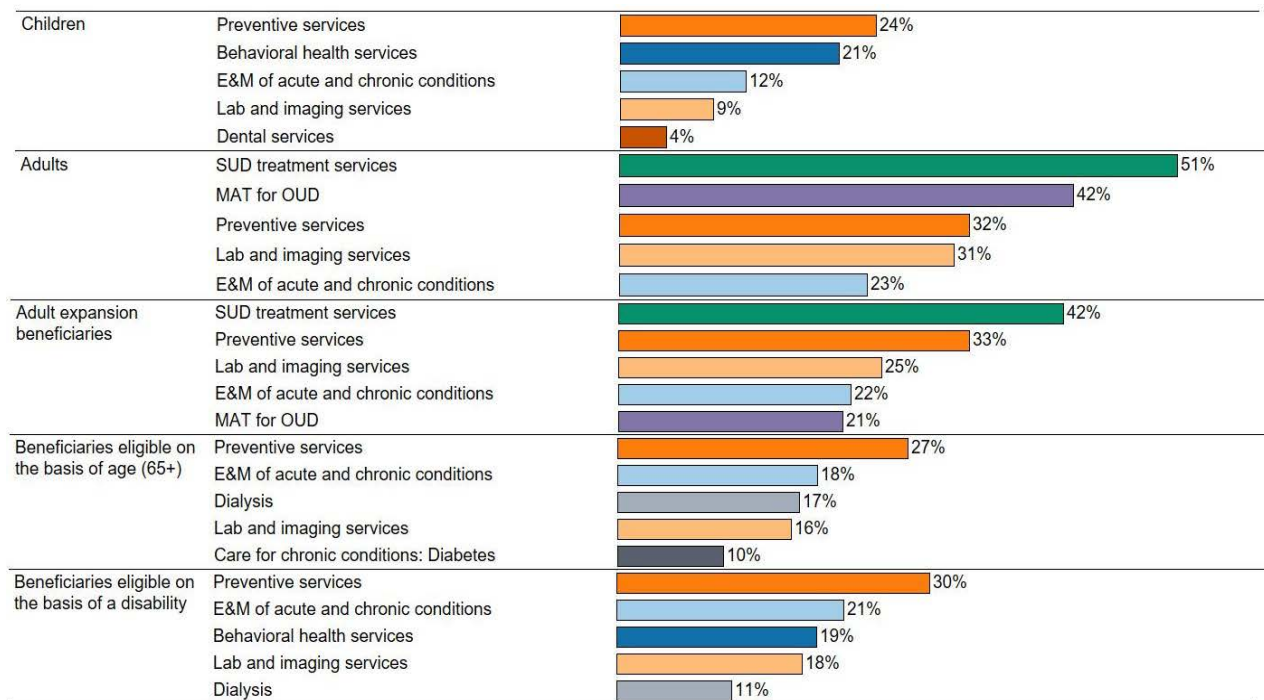


Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. The service types presented in this figure do not include all Medicaid-covered services, and some service categories overlap with one another (for example, MAT for OUD is a subset of SUD treatment services). NEMT may be used to access multiple types of services on a single day. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). COVID-19 testing and treatment services are limited to those paid for by Medicaid; non-Medicaid covered services are not included in the TAF. Service types are ordered from the highest average number of monthly NEMT ride days used to access each service type in 2021 (top of figure) to the lowest average number of monthly NEMT ride days used to access each service type in 2021 (bottom of figure).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 17a. Percentage of total NEMT ride days used to access select physical health, behavioral health, and substance use disorder treatment services among beneficiaries in each major eligibility category in 2021**



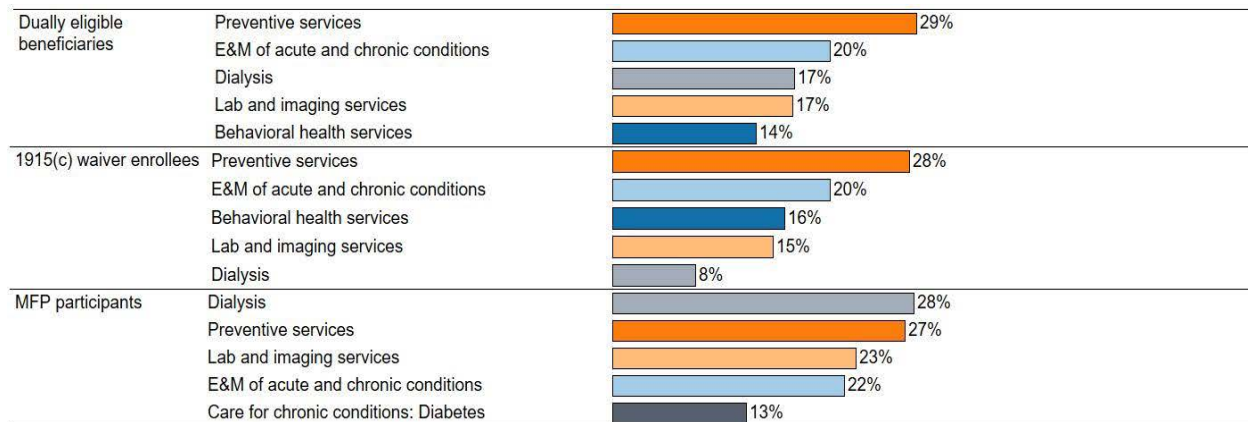
Source: Mathematica's analysis of the 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. The service types presented in this figure do not include all Medicaid-covered services; furthermore, some service categories overlap with one another (for example, MAT for OUD is a subset of SUD treatment services). NEMT may be used to access multiple types of services on a single day. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). COVID-19 testing and treatment services are limited to those paid for by Medicaid; non-Medicaid covered services are not included in the TAF. Services displayed represent the top five services accessed using NEMT ride days among each subgroup.

Due to data quality issues, Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.



**Figure 17b. Percentage of total NEMT ride days used to access select physical health, behavioral health, and substance use disorder treatment services among beneficiaries in select Medicaid programs in 2021**



Source: Mathematica's analysis of the 2021 preliminary TAF.

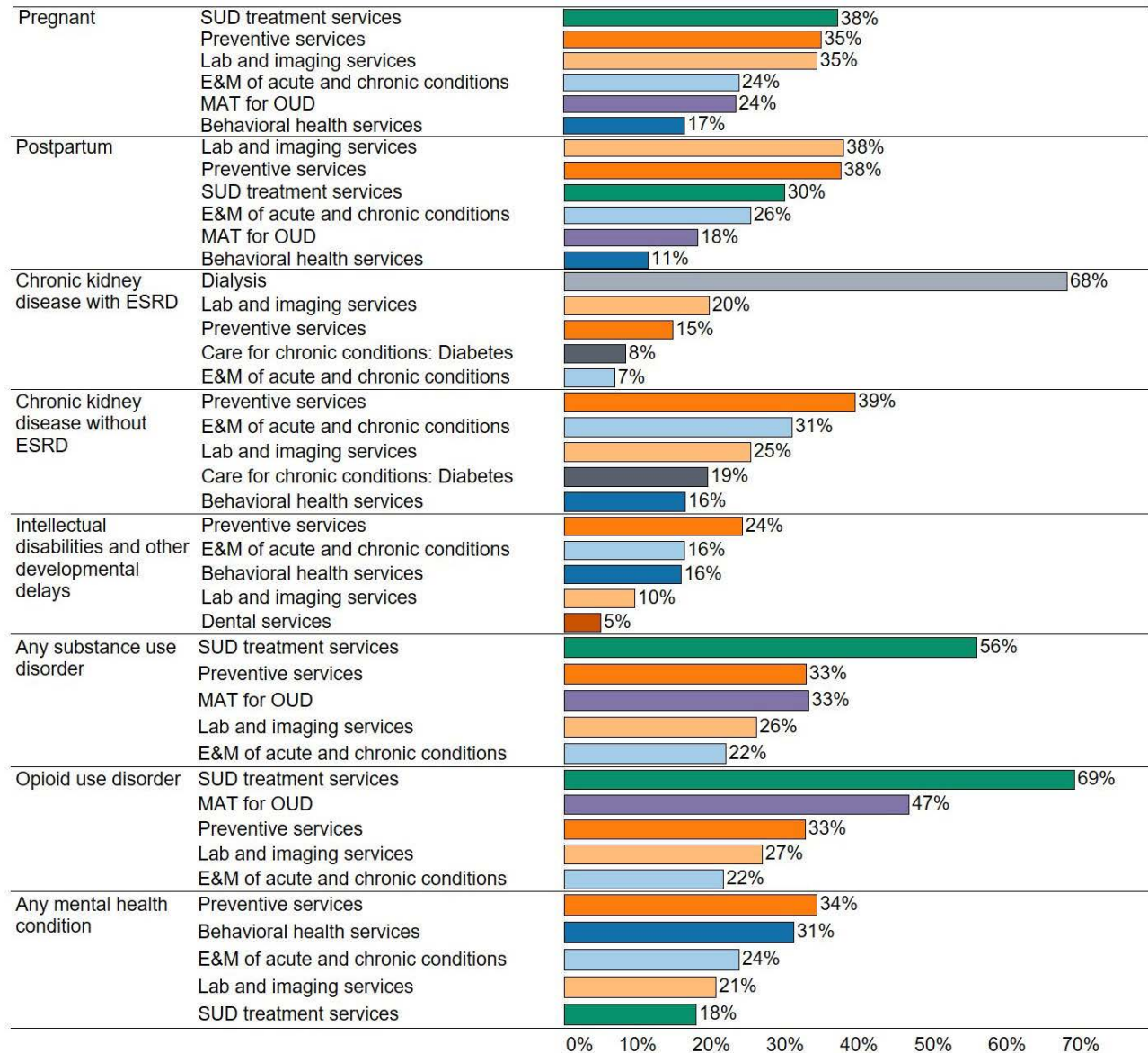
Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. The service types presented in this figure do not include all Medicaid-covered services; furthermore, some service categories overlap with one another (for example, MAT for OUD is a subset of SUD treatment services). NEMT may be used to access multiple types of services on a single day. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). COVID-19 testing and treatment services are limited to those paid for by Medicaid; non-Medicaid covered services are not included in the TAF. Services displayed represent the top five services accessed using NEMT ride days among each subgroup.

Due to data quality issues, Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

- Looking across the types of services most frequently accessed using NEMT by major eligibility category, children most frequently used NEMT to access preventive services, behavioral health services, services related to the E&M of acute and chronic conditions, and lab and imaging services in 2021 (Figure 17a).
- Adult and adult expansion beneficiaries used the largest percentage of NEMT ride days to access SUD treatment services, and a similar percentage of ride days to access preventive services. Adult beneficiaries used a substantially larger percentage of NEMT ride days to access MAT for OUD compared to adult expansion beneficiaries in 2021.
- Beneficiaries eligible for Medicaid on the basis of disability most frequently used NEMT to access preventive services, services related to the E&M of acute and chronic conditions, behavioral health services, and lab and imaging services in 2021.
- In 2021, beneficiaries eligible on the basis of age (65+) most frequently used NEMT to access preventive services, services related to the E&M of acute and chronic conditions, lab and imaging services, and dialysis.
- Among MFP participants and dually eligible beneficiaries, NEMT was most frequently used to access dialysis, preventive services, lab and imaging services, and services related to the E&M of acute and chronic conditions in 2021 (Figure 17b).

- Participants receiving home and community-based services through section 1915(c) most frequently used NEMT to access preventive services, services related to the E&M of acute and chronic conditions, behavioral health services, and lab and imaging services in 2021.

**Figure 18. Percentage of total NEMT ride days used to access select physical health, behavioral health, and substance use disorder treatment services among beneficiaries with select physical and behavioral health conditions in 2021**



Source: Mathematica’s analysis of the 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. The service types presented in this figure do not include all Medicaid-covered services; furthermore, some service categories overlap with one another (for example, MAT for OUD is a subset of SUD treatment services). NEMT may be used to access multiple types of services on a single day. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). COVID-19 testing and treatment services are limited to those paid for by Medicaid; non-Medicaid covered services are not included in the TAF. For each subgroup, the top five services accessed using NEMT as a percentage of total ride days are presented in this figure.

Due to data quality issues, Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

- Pregnant beneficiaries most frequently used NEMT to access SUD treatment services, followed by preventive services and lab and imaging services (Figure 18). Postpartum beneficiaries most frequently used NEMT to access lab and imaging services, preventive services, and SUD treatment services in 2021. Beneficiaries with a diagnosis of CKD with ESRD used a larger percentage of NEMT ride days to access dialysis services compared to any other service, followed by lab and imaging services, and preventive services. Beneficiaries with CKD without ESRD most frequently used NEMT to access preventive services, services related to the E&M of acute and chronic conditions, and lab and imaging services in 2021.
- Beneficiaries with intellectual disabilities and other developmental delays most often used NEMT to access preventive services, followed by services related to the E&M of acute and chronic conditions, behavioral health services, and lab and imaging services in 2021.
- Beneficiaries with any SUD and those with OUD most often used NEMT to access SUD treatment services, preventive services, and MAT for OUD in 2021.
- Beneficiaries with any mental health condition used a large percentage of NEMT ride days to access preventive services, followed by behavioral health services, services related to the E&M of acute and chronic conditions, and lab and imaging services.

#### **e. Telehealth and NEMT use**

For this analysis, CMS compared the use of NEMT and telehealth among Medicaid beneficiaries.<sup>56</sup> Telehealth use is measured as the unique number of days in which a beneficiary had a telehealth claim. Specifically, CMS examined (1) the monthly percentage of beneficiaries using NEMT relative to the monthly percentage of beneficiaries using telehealth services, (2) the average monthly number of NEMT ride days and telehealth service days per 10,000 beneficiaries, (3) the average quarterly number of NEMT and telehealth service days per 10,000 beneficiaries used to access select physical and behavioral health services, and (4) the average quarterly number of NEMT and telehealth service days per 10,000 beneficiaries by beneficiary subgroup.<sup>57</sup> CMS also examined telehealth use among the cohort of beneficiaries who were NEMT users before the COVID-19 PHE.<sup>58</sup>

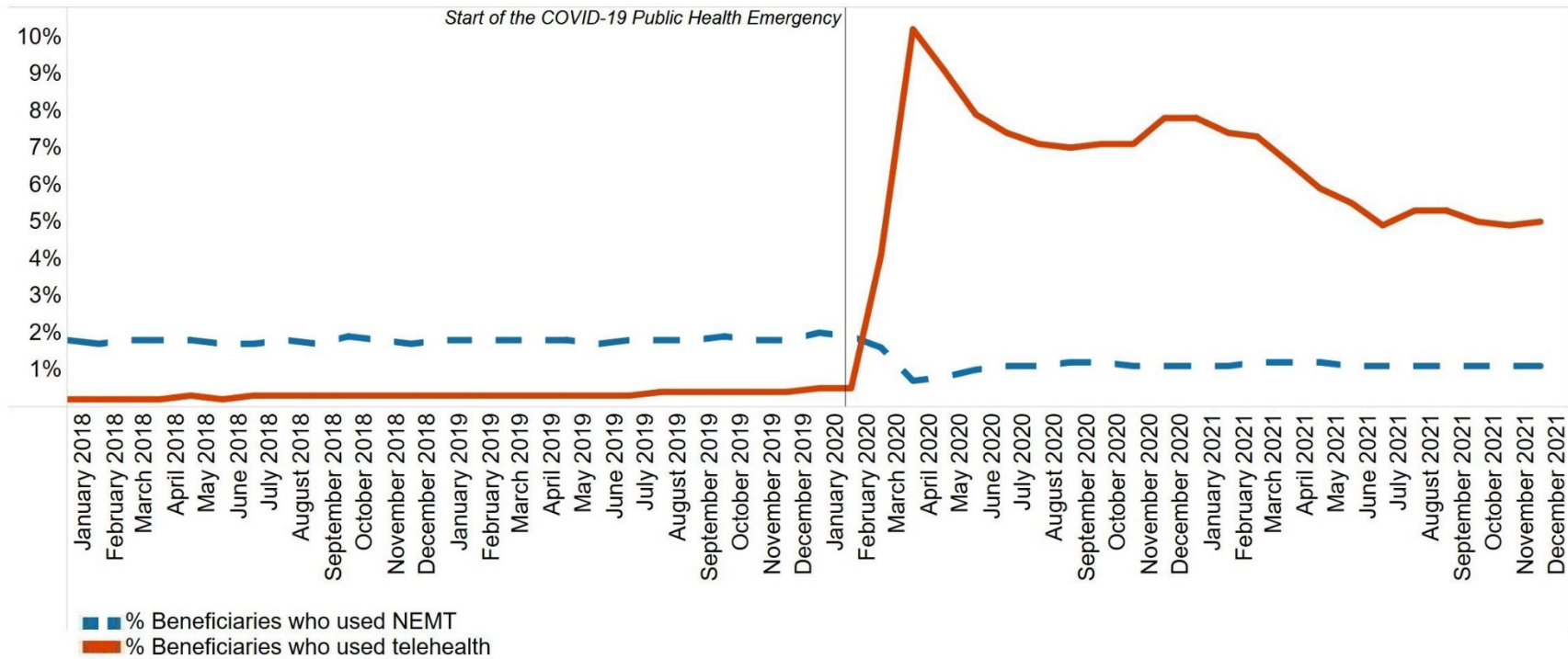
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<sup>56</sup> Because states were not required to distinguish telehealth claims in their T-MSIS submissions, they may be underreported in T-MSIS. However, at least some states require providers to distinguish telehealth visits on claims for Medicaid reimbursement, and rates of telehealth use found in this report are similar to the rates among other non-Medicaid populations before and during the PHE (Whaley et al. 2022).

<sup>57</sup> In this analysis, CMS examined five major eligibility categories: (1) children, (2) adults, (3) adult expansion beneficiaries, (4) beneficiaries eligible for Medicaid on the basis of a disability, and (5) those eligible on the basis of age (65+). In addition, the analysis assessed the use of NEMT or telehealth by beneficiaries enrolled in several Medicaid programs that support beneficiaries with substantial health care needs, including 1915(c) waiver enrollees, MFP participants, and dually eligible beneficiaries; and beneficiaries with select physical health conditions, mental health conditions, or SUDs.

<sup>58</sup> In this analysis, beneficiaries who were NEMT users before the COVID-19 PHE are defined as those beneficiaries who used NEMT at any point during 2018 or 2019.

**Figure 19. Monthly percentage of beneficiaries who used NEMT or telehealth in 2018–2021**

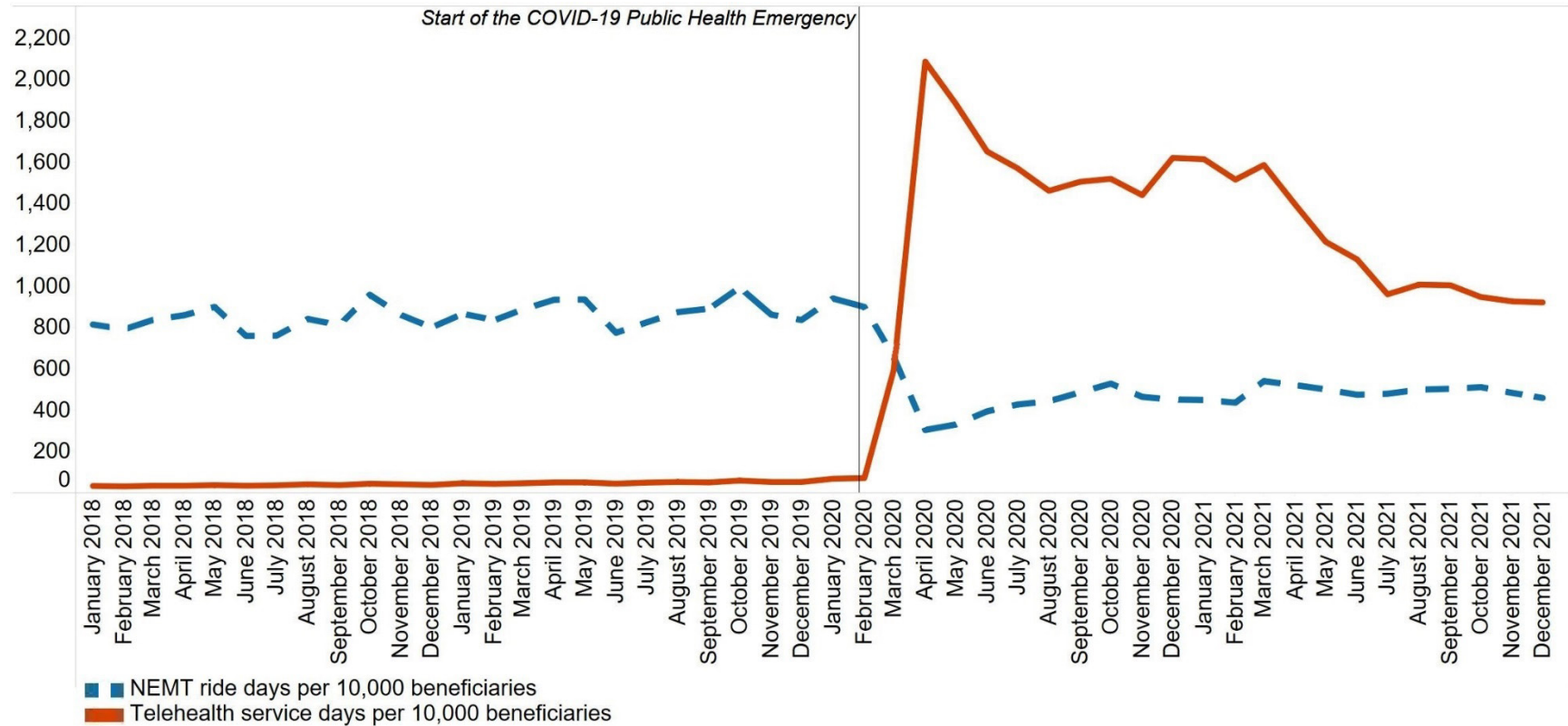


Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. The service types presented in this figure do not include all Medicaid-covered services, and some service categories overlap with one another. COVID-19 testing and treatment services are limited to those paid for by Medicaid; non-Medicaid covered services are not included in the TAF. NEMT may be used to access multiple types of services on a single day. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Because states were not required to distinguish telehealth from in-person services in their T-MSIS submissions, telehealth utilization reflected in this figure may be undercounted. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 20. Average monthly NEMT ride days and telehealth service days per 10,000 beneficiaries, 2018–2021**



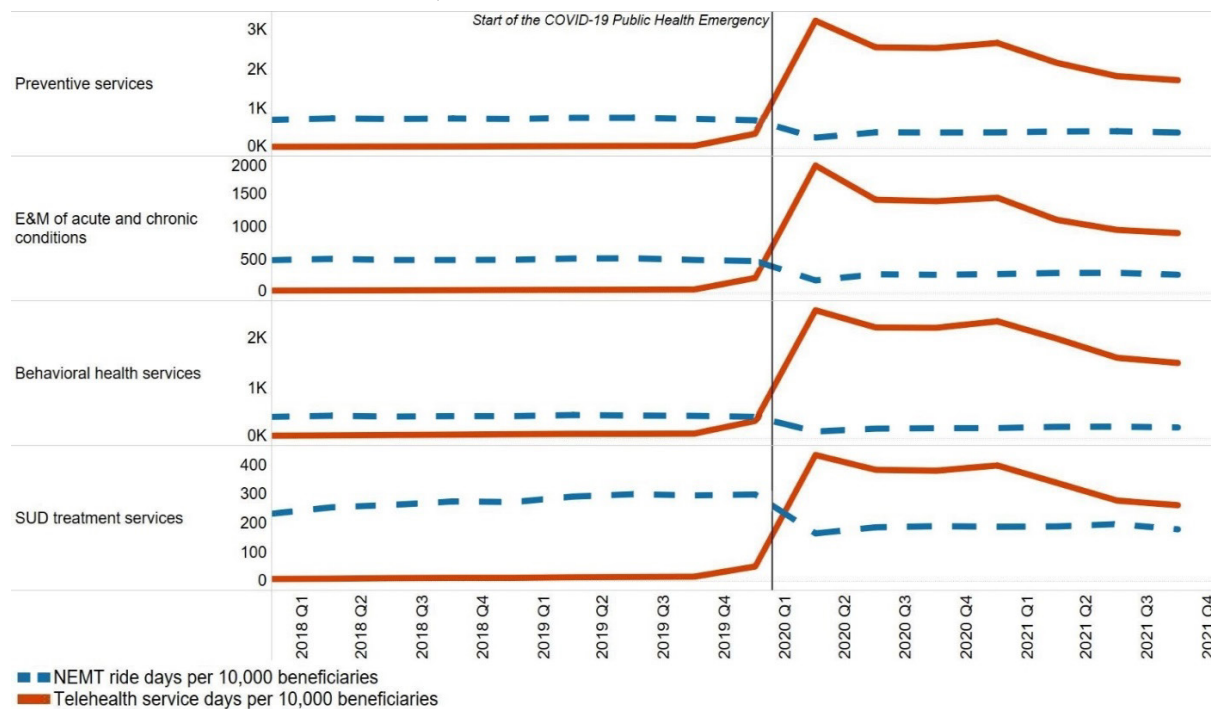
Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. The service types presented in this figure do not include all Medicaid-covered services, and some service categories overlap with one another. COVID-19 testing and treatment services are limited to those paid for by Medicaid; non-Medicaid covered services are not included in the TAF. NEMT may be used to access multiple types of services on a single day. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Because states were not required to distinguish telehealth from in-person services in their T-MSIS submissions, telehealth utilization reflected in this figure may be undercounted. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

- From January 2018 to the start of the COVID-19 PHE, around 2 percent of beneficiaries used NEMT monthly (Figure 19). At the onset of the PHE, that rate decreased to around 1 percent. In contrast, less than 1 percent of beneficiaries used telehealth leading up to the PHE; however, following the onset of the PHE, in April 2020, 10 percent of beneficiaries used telehealth. Monthly use of telehealth decreased throughout 2020 and 2021; in the last six months of 2021, only about 5 percent of beneficiaries used telehealth in a given month. The sustained use of telehealth throughout 2021 reflects the easing of state regulations regarding the reimbursement process for telehealth visits during the pandemic; a recent review of literature found that telehealth likely served as a partial substitute for some medical visits during the pandemic (Chen 2021). Using telehealth has allowed for increased health care access, especially in rural areas, along with a reduced COVID-19 exposure risk associated with in-person visits (Oluyede 2022).
- Before the PHE, the average monthly number of NEMT ride days fluctuated between 759 and 993 ride days per 10,000 beneficiaries (Figure 20). In April 2020, following the onset of the COVID-19 PHE, NEMT use decreased to 304 ride days per 10,000 beneficiaries. NEMT utilization increased gradually in the following months to between 436 and 540 monthly ride days per 10,000 beneficiaries in 2021. In contrast, telehealth use was low before the PHE, with monthly service days ranging from 31 to 71 monthly service days per 10,000 beneficiaries. Telehealth service use peaked in April 2020 (at 2,086 monthly service days per 10,000 beneficiaries) and subsequently decreased to between 921 and 1,007 monthly service days per 10,000 beneficiaries in the last six months of 2021.

**Figure 21a. Average number of quarterly NEMT ride days and telehealth service days per 10,000 beneficiaries used to access select physical and behavioral health services, 2018–2021**



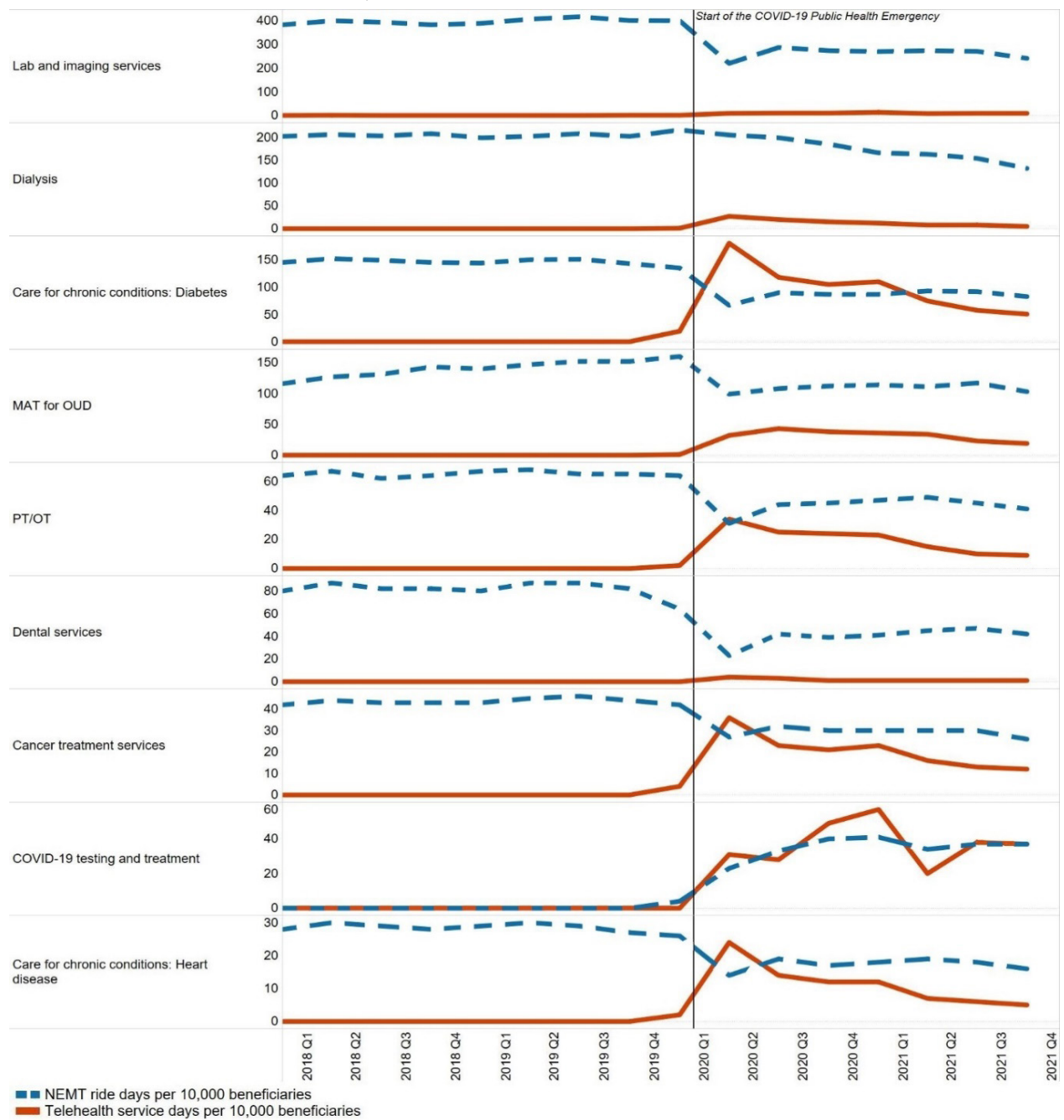
Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. The service types presented in this figure do not include all Medicaid-covered services, and some service categories overlap with one another. NEMT may be used to access multiple types of services on a single day. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Because states were not required to distinguish telehealth from in-person services in their T-MSIS submissions, telehealth utilization reflected in this figure may be undercounted. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.



**Figure 21b. Average number of quarterly NEMT ride days and telehealth service days per 10,000 beneficiaries used to access select physical and behavioral health services, 2018–2021**



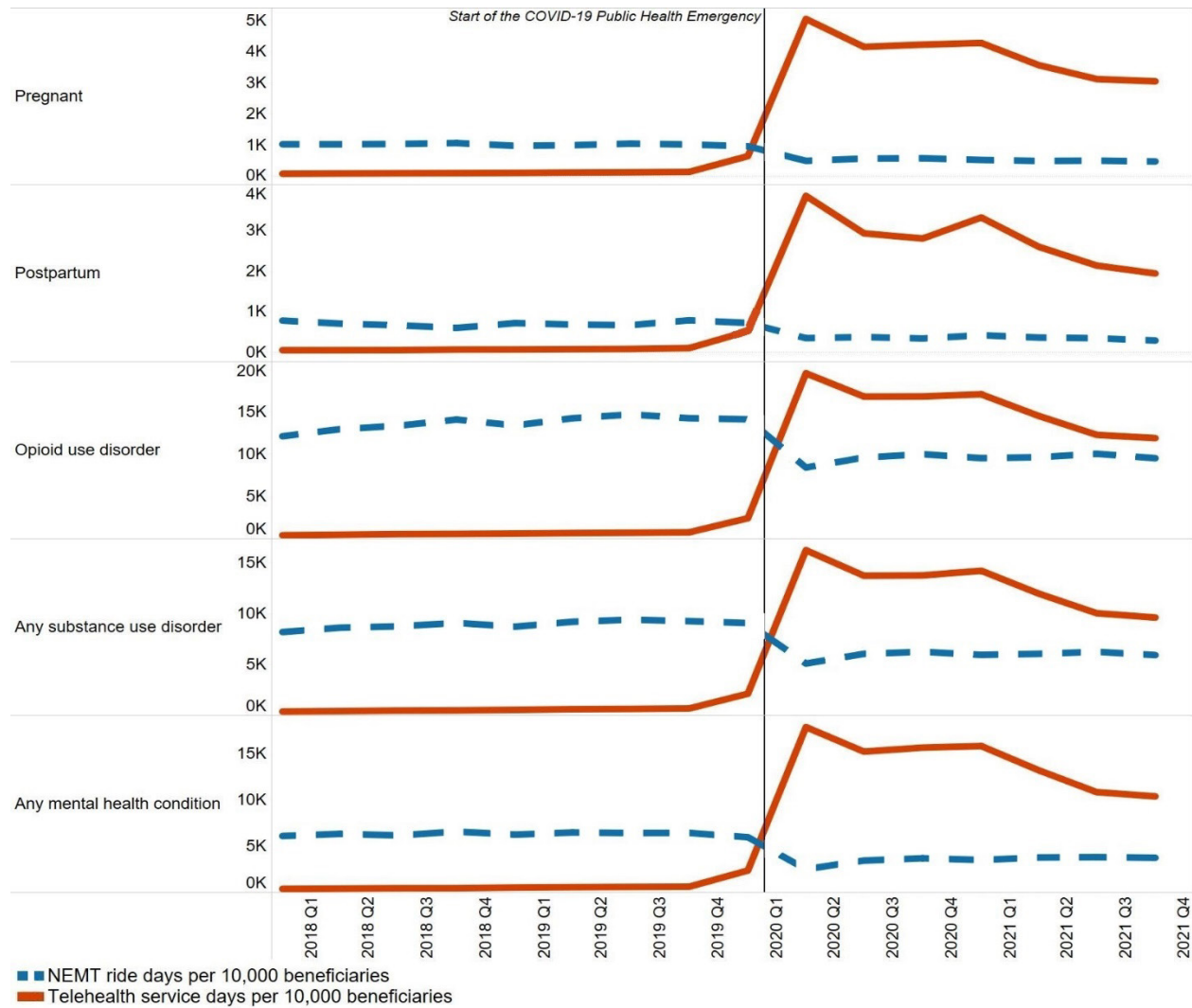
Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. The service types presented in this figure do not include all Medicaid-covered services, and some service categories overlap with one another. COVID-19 testing and treatment services are limited to those paid for by Medicaid; non-Medicaid covered services are not included in the TAF. NEMT may be used to access multiple types of services on a single day. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Because states were not required to distinguish telehealth from in-person services in their T-MSIS submissions, telehealth utilization reflected in this figure may be undercounted. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

- Following the onset of the PHE, NEMT used to access preventive services, behavioral health services, services related to the E&M of acute and chronic conditions, and SUD treatment services decreased, whereas the average quarterly number of telehealth service days per 10,000 beneficiaries used to access these service types increased sharply; the increase in the average telehealth service days used to access these service types more than replaced the decrease in NEMT ride days used to access them (Figure 21a). Furthermore, the average number of quarterly telehealth service days per 10,000 beneficiaries used to access these service types remained higher than the number of NEMT ride days used to access them through the fourth quarter of 2021, likely because they are generally well suited to delivery via telehealth.
- Although the volume of NEMT ride days used to access care for heart disease, diabetes, cancer treatment services, and PT and OT decreased following the onset of the PHE, by the fourth quarter of 2021, NEMT ride volume for these service types had once again outpaced the rates used to access these services via telehealth (Figure 21b). The average quarterly number of NEMT ride days per 10,000 beneficiaries used to access lab and imaging services, dialysis, MAT for OUD, and dental services also decreased following the onset of the PHE but remained considerably above the average quarterly number of telehealth service days per 10,000 beneficiaries used to access these service types throughout the PHE. Even so, the volume of NEMT ride days used to access each of these services remained below pre-PHE levels, but higher than telehealth volume—likely because telehealth has proved to be an inappropriate substitute for visits in which in-person lab work, procedures, or treatment were necessary (Oluyede 2022).
- Both the average quarterly NEMT ride days and telehealth service days per 10,000 beneficiaries used to access COVID-19 testing and treatment services increased at the onset of the PHE and remained relatively stable in the last two quarters of 2021 (Figure 21b).

**Figure 22a. Average quarterly NEMT ride days and telehealth service days per 10,000 beneficiaries in each major eligibility category, 2018–2021**

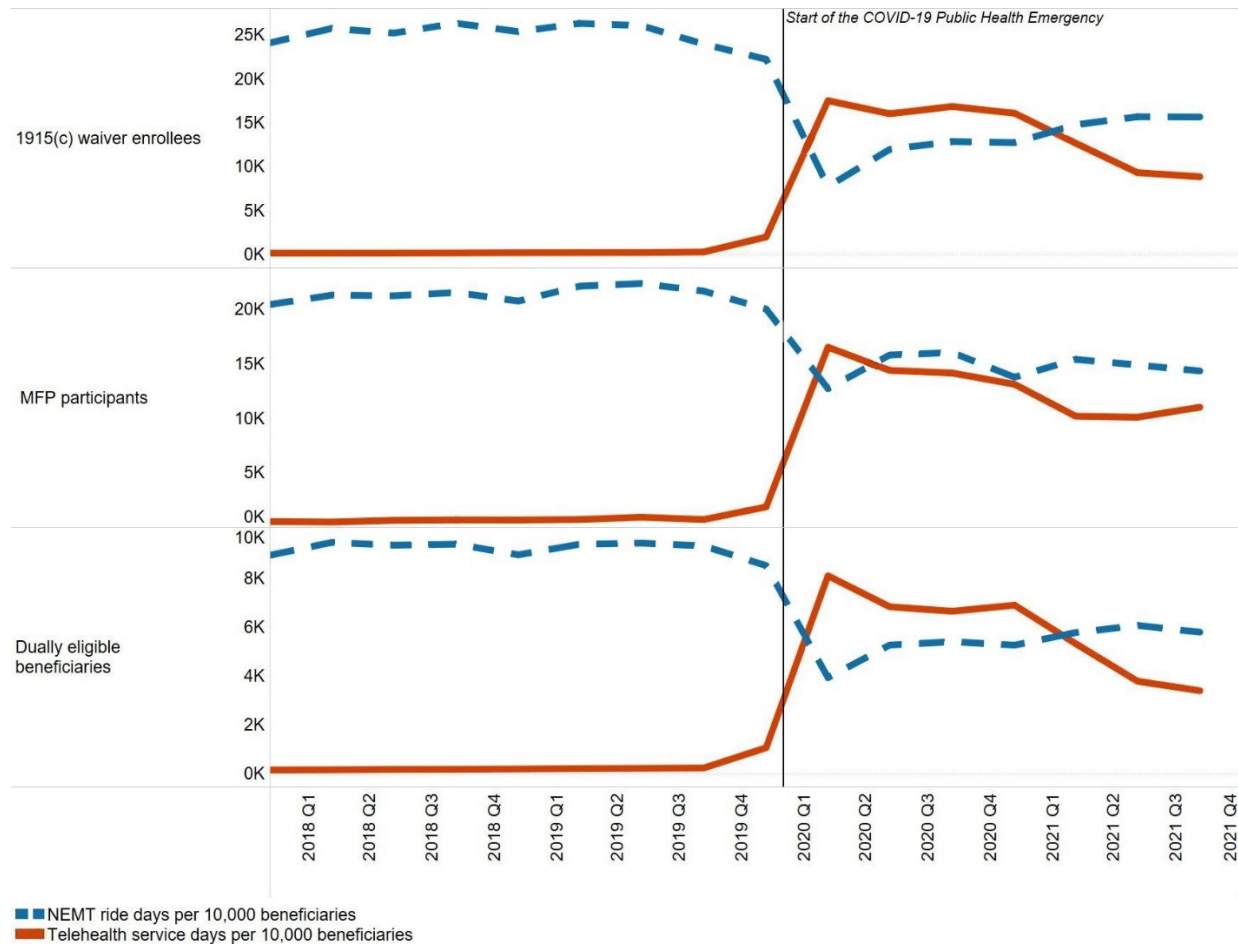


Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Eligibility categories are mutually exclusive; the figure reflects the eligibility category in which a beneficiary was enrolled in their last month of enrollment in the calendar year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Because states were not required to distinguish telehealth from in-person services in their T-MSIS submissions, telehealth utilization reflected in this figure may be undercounted. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 22b. Average quarterly NEMT ride days and telehealth service days per 10,000 beneficiaries in select Medicaid programs, 2018–2021**

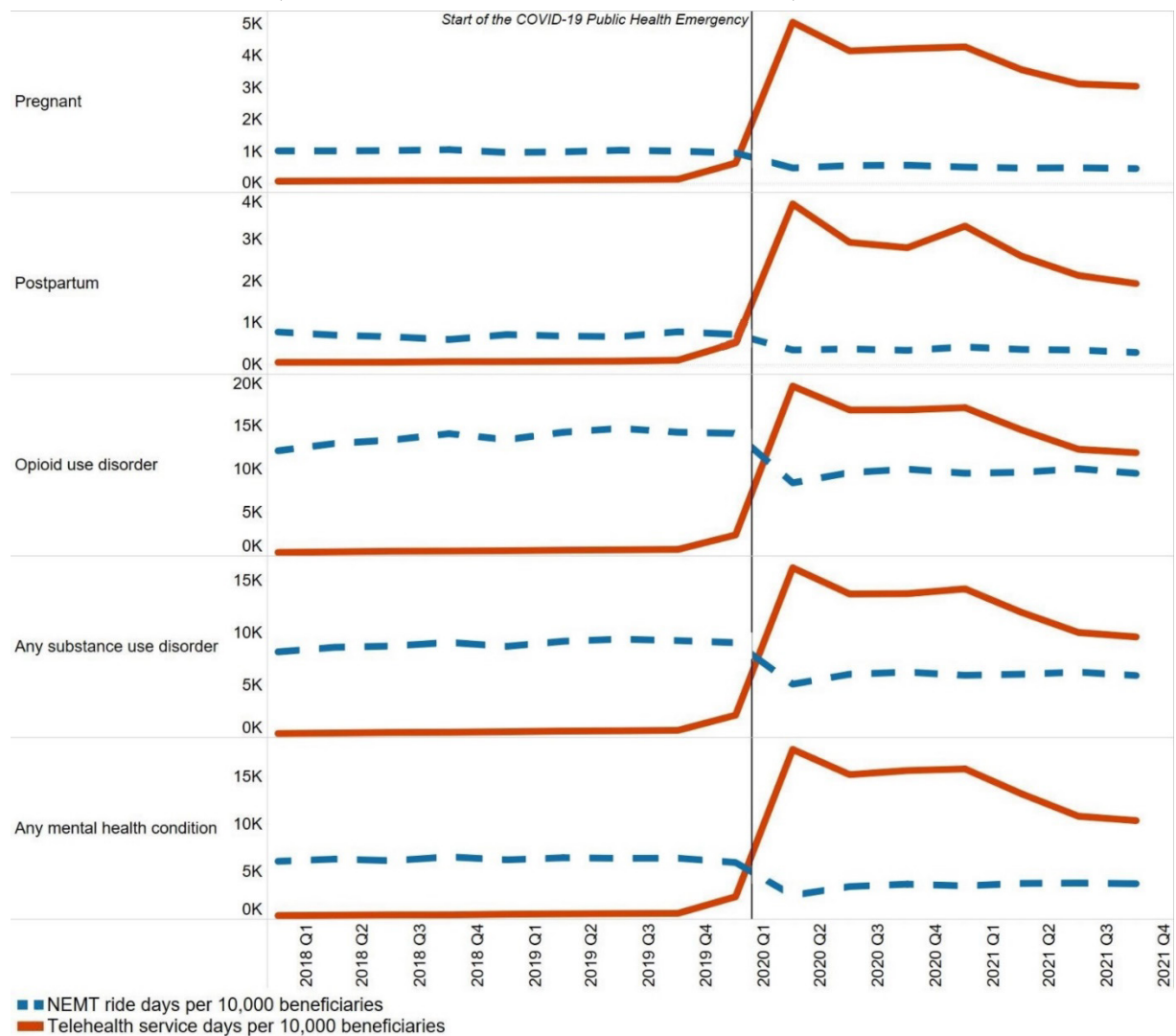


Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one category to the extent they participated in more than one program during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Because states were not required to distinguish telehealth from in-person services in their T-MSIS submissions, telehealth utilization reflected in this figure may be undercounted. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 23a. Average quarterly NEMT ride days and telehealth service days per 10,000 pregnant or postpartum beneficiaries, beneficiaries with mental health conditions, or with substance use disorders, 2018–2021**

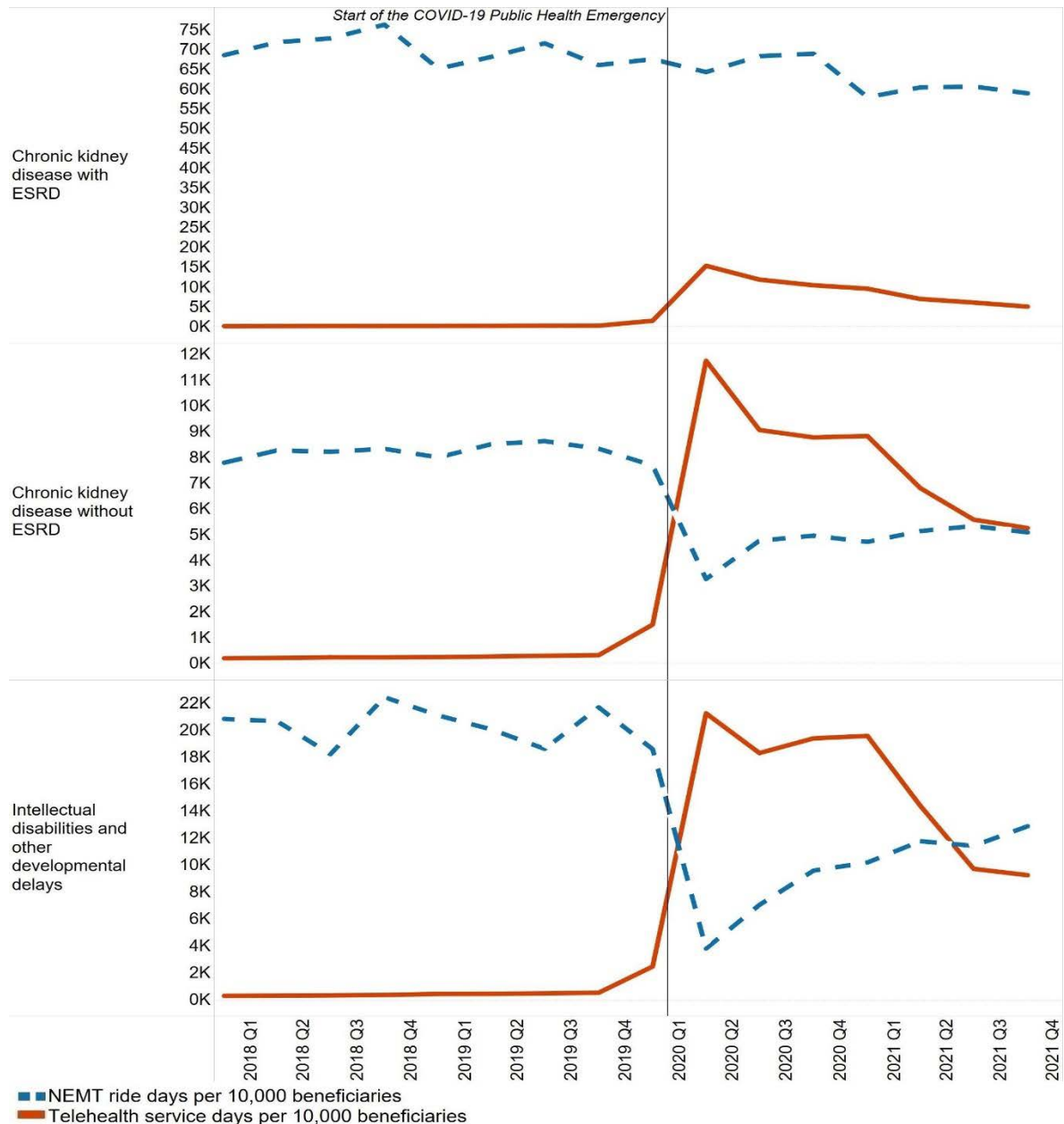


Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Because states were not required to distinguish telehealth from in-person services in their T-MSIS submissions, telehealth utilization reflected in this figure may be undercounted. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 23b. Average quarterly NEMT ride days and telehealth service days per 10,000 beneficiaries with select physical health conditions, 2018–2021**



Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Because states were not required to distinguish telehealth from in-person services in their T-MSIS submissions, telehealth utilization reflected in this figure may be undercounted. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

- Before the onset of the PHE, children, adults, and adult expansion beneficiaries used 1,000 or fewer quarterly NEMT ride days per 10,000 beneficiaries, on average; this number decreased slightly among all groups following the onset of the PHE (Figure 22a). In contrast, telehealth service volume was low before the PHE—fewer than 200 quarterly service days per 10,000 beneficiaries. However, volume increased substantially following the onset of the PHE—to 3,609 service days per 10,000 children, 4,977 per 10,000 adults, and 4,981 per 10,000 adult expansion beneficiaries in the second quarter of 2020—and remained higher than NEMT utilization through the fourth quarter of 2021. These patterns suggest that children, adults, and adult expansion beneficiaries may have found telehealth to be a good substitute for NEMT in accessing some health care services.
- Before the onset of the PHE, the average quarterly NEMT ride days per 10,000 beneficiaries eligible on the basis of disability and beneficiaries eligible on the basis of age (65+) was relatively high; however, among beneficiaries in these eligibility categories, the average quarterly volume of NEMT ride days decreased with the onset of the PHE. At the same time, the average number of quarterly telehealth service days per 10,000 beneficiaries temporarily increased and remained above the average number of quarterly NEMT ride days per 10,000 beneficiaries for varying periods of time. However, by the second quarter of 2021 for beneficiaries eligible on the basis of age (65+) and by the third quarter of 2021 for beneficiaries eligible on the basis of disability, the average quarterly number of NEMT ride days per 10,000 beneficiaries had once again overtaken the average quarterly number of telehealth service days per 10,000 beneficiaries (Figure 22a).
- Similar patterns of NEMT and telehealth use were observed among participants receiving home and community-based services through section 1915(c), MFP participants, and dually eligible beneficiaries. Before the onset of the PHE, the average quarterly volume of NEMT ride days was relatively high for beneficiaries in these subgroups. However, among beneficiaries enrolled in these programs, the number of average quarterly NEMT ride days per 10,000 beneficiaries decreased with the onset of the PHE. At the same time, the average number of quarterly telehealth service days per 10,000 beneficiaries temporarily increased and remained above the average number of quarterly NEMT ride days per 10,000 beneficiaries for several quarters. However, by the first quarter of 2021 for participants receiving home and community-based services through section 1915(c) and MFP participants and by the second quarter of 2021 for dually eligible beneficiaries, the average quarterly number of NEMT ride days per 10,000 beneficiaries had once again overtaken the average quarterly number of telehealth service days per 10,000 beneficiaries (Figure 22b).
- Among beneficiaries who were pregnant or postpartum and those with any mental health condition, any SUD, or OUD, the average number of quarterly NEMT ride days per 10,000 beneficiaries decreased with the onset of the PHE. Simultaneously, despite the widespread availability of vaccines and easing of restrictions related to COVID-19, the average number of telehealth service days per 10,000 beneficiaries increased and remained above the average number of NEMT ride days per 10,000 beneficiaries through the fourth quarter of 2021

(Figure 23a). This finding implies that, on average, beneficiaries in these groups may have found telehealth to be a good substitute for NEMT in accessing some of their health care services.

- Among beneficiaries with intellectual disabilities and other developmental delays, and those with CKD without ESRD, the average quarterly number of NEMT ride days per 10,000 beneficiaries declined with the onset of the PHE; simultaneously, the average number of quarterly telehealth service days per 10,000 beneficiaries increased, but subsequently decreased to at or below the volume of NEMT ride days by the fourth quarter of 2021 (Figure 23b). Before the PHE, NEMT volume was relatively high among these subgroups. At its peak in the second quarter of 2020, telehealth utilization was 21,244 service days per 10,000 beneficiaries with intellectual disabilities and other developmental delays, and 11,754 for beneficiaries with CKD without ESRD. Although the average quarterly volume of NEMT rides among beneficiaries with intellectual disabilities and other developmental delays did not increase to pre-PHE levels in 2021, it reached or surpassed telehealth volume between the second and third quarters of 2021, which could be attributed to widespread vaccine availability. By the fourth quarter of 2021, beneficiaries with certain conditions relied on NEMT at about the same rates as telehealth (for beneficiaries with CKD without ESRD) or relied on NEMT at a higher rate than telehealth (for beneficiaries with intellectual disabilities or other developmental delays) to access needed services. Nevertheless, NEMT ride volume had not returned to pre-PHE levels by the end of 2021 for either group.
- The volume of NEMT rides for beneficiaries with a diagnosis of CKD with ESRD did not change substantially with the onset of the PHE; it remained mostly stable, decreasing slightly over time. Before the PHE, the average quarterly NEMT ride days per 10,000 beneficiaries ranged from 65,154 to 76,285 ride days per 10,000 beneficiaries; during the PHE, it ranged from 57,967 to 68,949 quarterly ride days per 10,000 beneficiaries. With the onset of the PHE, the quarterly number of telehealth service days per 10,000 beneficiaries with a diagnosis of CKD with ESRD increased from less than 500 pre-PHE to a peak of 15,368 in the second quarter of 2020, and then steadily decreased to 5,045 in the fourth quarter of 2021.

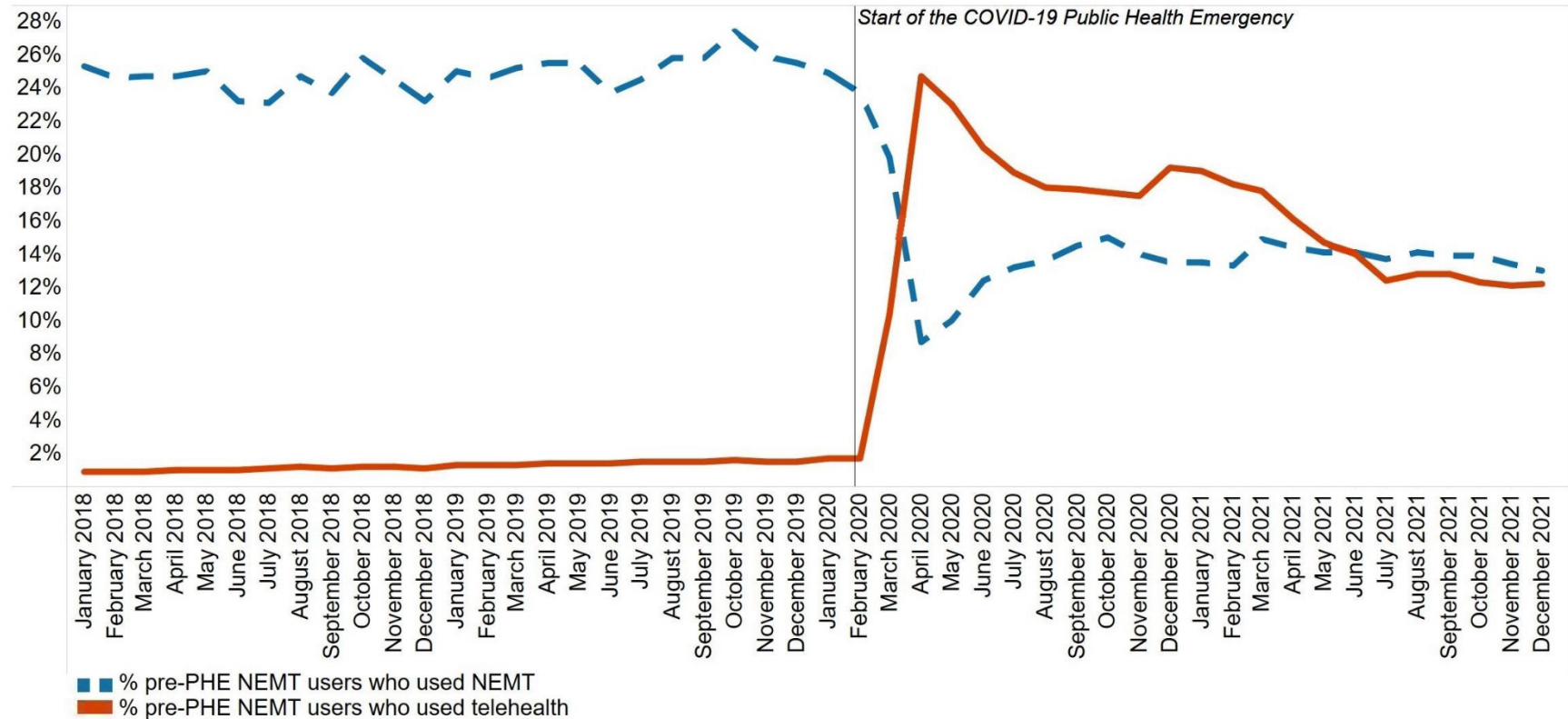
CMS also examined patterns in NEMT use and telehealth use among the cohort of beneficiaries who used NEMT before the COVID-19 PHE, including (1) the monthly percentage of beneficiaries who used NEMT versus telehealth services (Figure 24) and (2) the average number of monthly NEMT ride days and telehealth service days per 10,000 beneficiaries (Figure 25).

- Similar to trends among all Medicaid beneficiaries, the subset of beneficiaries who used NEMT before the onset of the PHE (pre-PHE NEMT users) used more telehealth services immediately following the onset of the PHE compared to NEMT and, to a lesser extent, continued to do so through December 2021. Before the onset of the PHE, between 23.1 percent and 27.4 percent of pre-PHE NEMT users used NEMT in any given month, using 10,430 to 14,023 monthly NEMT ride days per 10,000 beneficiaries. In contrast, less than 2



percent utilized telehealth services, using less than 300 monthly service days per 10,000 beneficiaries. Following the onset of the PHE, by April 2020, only 8.7 percent of these beneficiaries used NEMT, whereas 24.7 percent used telehealth services. The proportion of pre-PHE NEMT users using telehealth continued to be higher than the proportion using NEMT until June 2021, at which point the monthly percentage of pre-PHE NEMT users who used NEMT surpassed the percentage who used telehealth services. However, the monthly ride days per 10,000 beneficiaries surpassed the monthly telehealth service days per 10,000 beneficiaries as early as July 2020. Even so, the use of NEMT had not returned to pre-PHE levels by December 2021; only 13 percent of pre-PHE NEMT users used NEMT, with between 6,365 and 7,055 ride days per 10,000 beneficiaries in the last six months of 2021. By December 2021, only about 12 percent of pre-PHE NEMT users used telehealth, with 2,773 telehealth service days per 10,000 beneficiaries.

**Figure 24. Percentage of pre-COVID-19 PHE NEMT users who used NEMT or telehealth monthly, 2018–2021**

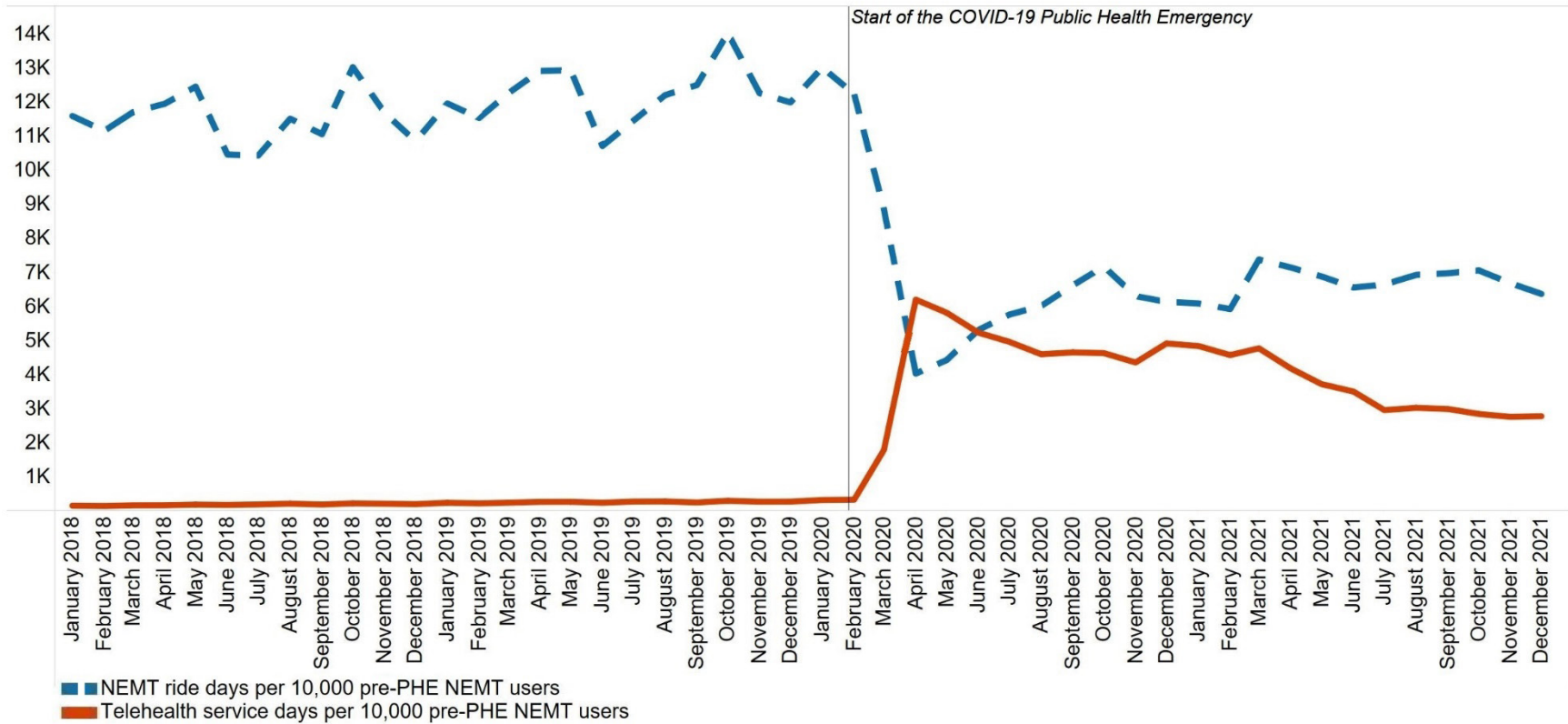


Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Pre-COVID-19 PHE NEMT users are defined as beneficiaries who had at least one NEMT ride day at any point during 2018 or 2019. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Because states were not required to distinguish telehealth from in-person services in their T-MSIS submissions, telehealth utilization reflected in this figure may be undercounted. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 25. Average monthly NEMT ride days and telehealth service days per 10,000 among pre-COVID-19 PHE NEMT users, by year, 2018–2021**



Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Pre-COVID-19 PHE NEMT users are defined as beneficiaries who had at least one NEMT ride day at any point during 2018 or 2019. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Because states were not required to distinguish telehealth from in-person services in their T-MSIS submissions, telehealth utilization reflected in this figure may be undercounted. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B

## **f. Use of NEMT, by geographic location**

For this analysis, CMS examined the overall use of NEMT across different geographic areas. The literature suggests that beneficiaries residing in frontier and remote geographies face unique transportation challenges (Adelberg et al. 2020; MACPAC 2021), so CMS started by examining NEMT use and modes of transportation in such areas, using the U.S. Department of Agriculture's (USDA) Frontier and Remote Area Codes.<sup>59</sup> CMS also examined use of NEMT and modes of transportation across six urban-rural classification areas based on the Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics (NCHS) urban-rural classification scheme.<sup>60</sup> In addition, CMS examined NEMT use and modes of transportation among beneficiaries living in areas falling within each SDI quartile; the SDI measures a geographic area's level of social deprivation.<sup>61, 62</sup> CMS also examined the modes of transportation of NEMT users across different geographic areas. Finally, CMS examined the extent to which the use of NEMT varied by geography among beneficiaries with the same health condition. State-level information about the rate, frequency, and modes of NEMT used by beneficiaries residing in each geographic area is available in Tables B5.1a–b, B5.2a–b, B5.3a–b, B5.4a–b, and B6.1, B6.2a–d, B6.3a–d, B6.4a–d, and B6.5a–d.

There may be important differences in the way states make payments for NEMT across geographic areas that could influence the results presented in this section. For instance, states

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<sup>59</sup> For purposes of this analysis, frontier and remote areas include zip codes with the USDA's Frontier and Remote Area Codes 3 and 4, which include zip code areas where the majority of residences are at least 60 minutes from urban areas of 50,000 or more people, at least 45 minutes from urban areas of 25,000–49,999 people, and at least 30 minutes from urban areas of 10,000–24,999 people (USDA 2019).

<sup>60</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas, ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metropolitan areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metropolitan areas include counties in MSAs with a population of at least 1 million, but that do not otherwise qualify as a large central metropolitan area. Medium metropolitan areas include counties in MSAs with a population of 250,000–999,999. Small metropolitan areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Non-core areas include counties outside of MSAs and micropolitan statistical areas.

<sup>61</sup> Using seven demographic characteristics collected in the American Community Survey, the SDI provides a measure of area-level social deprivation by ZCTAs. This report uses 2015 SDI scores. The demographic characteristics encompassed in this index are (1) percentage living in poverty, (2) percentage with fewer than 12 years of education, (3) percentage of single parent households, (4) percentage living in a rented housing unit, (5) percentage living in overcrowded housing units, (6) percentage of households without a car, and (7) percentage of non-employed adults under 65 years of age (Robert Graham Center n.d.). In our analyses, CMS separated this continuous measure into quartiles, with the highest quartile representing the greatest degree of deprivation. The highest SDI quartile corresponds to SDI scores greater than 75 to 100, the second-highest quartile corresponds to SDI scores of greater than 50 to 75, the second-lowest SDI quartile corresponds to SDI scores of greater than 25 to 50, and the lowest SDI quartile corresponds to SDI scores of up to 25.

<sup>62</sup> All states and the District of Columbia included in the national totals had Medicaid beneficiaries residing in each of the four SDI quartiles. In 2015, the percentage of each state's beneficiaries residing in the lowest SDI quartile ranged from 0.6 percent in the District of Columbia to 35.7 percent in New Hampshire. The percentage of each state's beneficiaries residing in the highest SDI quartile ranged from 3.9 percent in Wyoming to 81.8 percent in the District of Columbia.

may be more likely to claim public transit NEMT in urban areas as an administrative expenditure (which CMS would not expect to appear in the T-MSIS data); the result would be undercounting the use of public transit, as well as NEMT use in urban areas more generally. Furthermore, a percentage of claims for NEMT are reported without specifying the mode of transportation used; claims for 15.2 to 15.9 percent of all NEMT ride days in 2018 and 2019, and 10.4 to 11.6 percent of all ride days in 2020 and 2021 did not specify a particular mode of transit; furthermore, this rate of missing information varied across geographic areas.<sup>63</sup> Readers should take note of this rate of missing information, and the extent to which it varies by geography, when interpreting the results on modes of transit presented in this section. Finally, the analyses presented in this report do not examine the extent of differences in the level of need for NEMT services across geographic areas; additional research in this area is needed.

- In each study year, the percentage of beneficiaries using NEMT in frontier and remote areas (between 7 and 9 percent, depending on the year) was higher than the national average (4 to 5 percent) (Figure 26).<sup>64</sup> Although beneficiaries in these areas were more likely on average to use NEMT, their frequency of use was slightly less. In frontier and remote areas, the average number of monthly ride days per NEMT user ranged from 1.2 to 1.4 (depending on the year), compared to 1.4 to 1.9 nationwide (Figure 26). The annual number of NEMT ride days for beneficiaries living in frontier and remote areas was also higher than the national average: 9,290 per 10,000 beneficiaries in 2021, compared to 6,504 nationwide (data not shown). Beneficiaries living in frontier and remote areas made up a relatively small share of Medicaid beneficiaries (less than 2 percent in each study year) (data not shown). Although more research is needed to be able to generalize across the country, results from a recent study conducted within two states suggest that geographic areas farther away from urban centers may have a higher incidence of disability, and therefore a higher need for health care and transportation services on average, compared with areas closer to urban centers. Using a transportation network analysis of primary, secondary, and local roads in two rural states (Arkansas and Montana), this study found that as distance from urban community care centers increased, disability rates increased or remained steady with a decreasing population. Importantly, the communities with the highest rates of disabilities would need to travel 100 or more miles to urban areas with care (Johnson 2021).
- In contrast, among subgroups of beneficiaries with certain health conditions, those who lived in frontier and remote areas used NEMT at *lower* service volumes (defined as the average annual number of NEMT ride days per 10,000 beneficiaries) than beneficiaries in the United States overall. These subgroups included children with intellectual disabilities and other developmental delays; adults with a diagnosis of CKD with ESRD (in most years); adult expansion beneficiaries with a diagnosis of CKD with ESRD, OUD, or heart disease (in most years); and beneficiaries eligible on the basis of age (65+) with diabetes, heart disease, any mental health condition, any SUD, or OUD (Tables B6.1, B6.2a–d, B6.3a–d, B6.4a–d, and B6.5a–d).

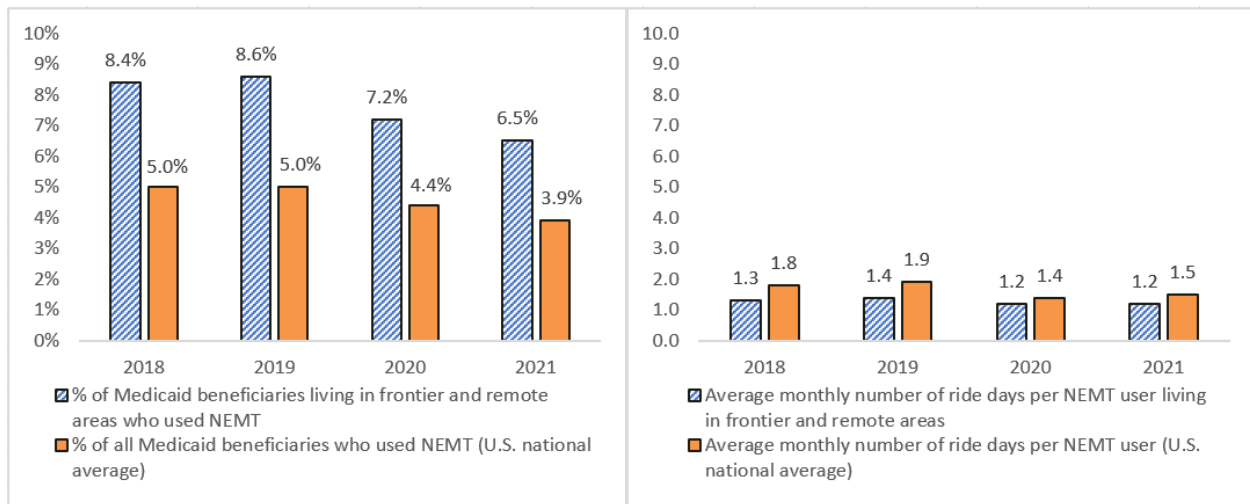
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<sup>63</sup> Mode of transit was identified using the procedure code on the claim. In cases in which the procedure code did not indicate a mode of transit, this information was obtained from the servicing provider taxonomy code on the claim.

<sup>64</sup> In 2010, the latest year for which data are available, all states had populations living in areas defined as frontier and remote except Connecticut, Delaware, the District of Columbia, Indiana, New Jersey, Ohio, and Rhode Island.

- In each study year, taxis, public transit, and non-emergency ambulance transit accounted for a smaller percentage of ride days in frontier and remote areas compared to the national average (Figure 27). Conversely, vans, private vehicles, and air transit accounted for a greater percentage of ride days in frontier and remote areas compared to the national average.
- When the full spectrum of urban and rural areas is considered, beneficiaries residing outside of metropolitan statistical areas (MSAs), which include those in micropolitan and non-core areas (where 6 to 9 percent of all Medicaid beneficiaries live, depending on the year), were more likely to use NEMT compared to those residing within MSAs, which included large metropolitan areas, large fringe metropolitan areas, and medium and small metropolitan areas (Figures 28 and 29). Across study years, between 4 and 7 percent of beneficiaries residing outside of an MSA used NEMT, whereas between 3 and 5 percent residing within an MSA did so. However, beneficiaries residing within MSAs used NEMT more frequently (1.3 to 2.2 monthly ride days per user) across study years compared to those residing outside of an MSA (1.2 to 1.5 monthly ride days per user). Beneficiaries residing outside of an MSA used between 6,662 to 11,283 annual NEMT ride days per 10,000 beneficiaries, depending on the year, whereas those residing within an MSA used between 5,106 to 11,807 annual NEMT ride days (data not shown). As noted previously, public transit NEMT in urban areas may be more likely to be claimed by states as an administrative expenditure (which would most likely be excluded from the T-MSIS data), which may result in an undercount in NEMT use in these areas.

**Figure 26. Percentage of beneficiaries who used NEMT and average monthly number of ride days per NEMT user in frontier and remote areas, compared to the U.S. national average, by year: 2018–2021**

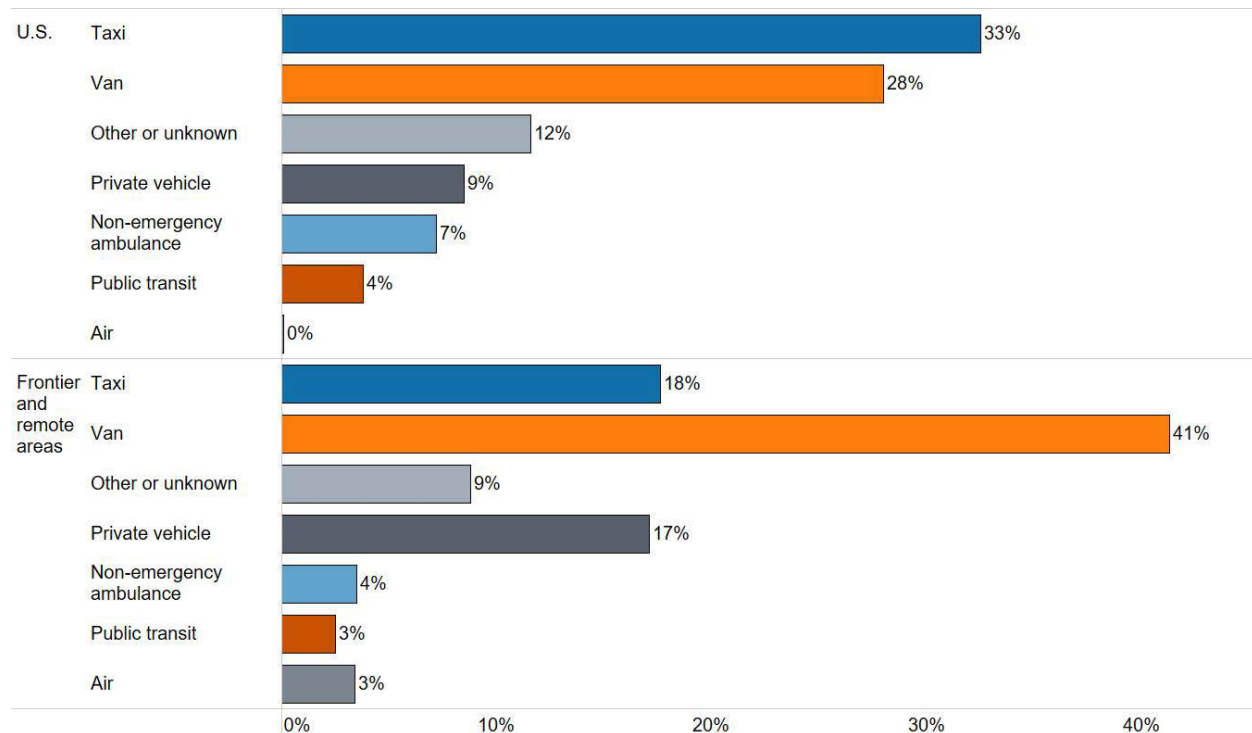


Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT include those who used it at least one day during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Mode of transit was identified using the procedure code on the claim. In cases in which the procedure code did not indicate a mode of transit, this information was obtained from the servicing provider taxonomy code on the claim. Geographic areas reflect beneficiaries’ zip code or county of residence as indicated in the TAF DE file. U.S. percentages include all geographic areas, including frontier and remote areas.

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B. Because states were not required to distinguish telehealth from in-person services in their T-MSIS submissions, telehealth utilization reflected in this figure may be undercounted.

**Figure 27. Modes of NEMT used as a percentage of total NEMT ride days in frontier and remote areas, compared to the U.S. national average, 2021**



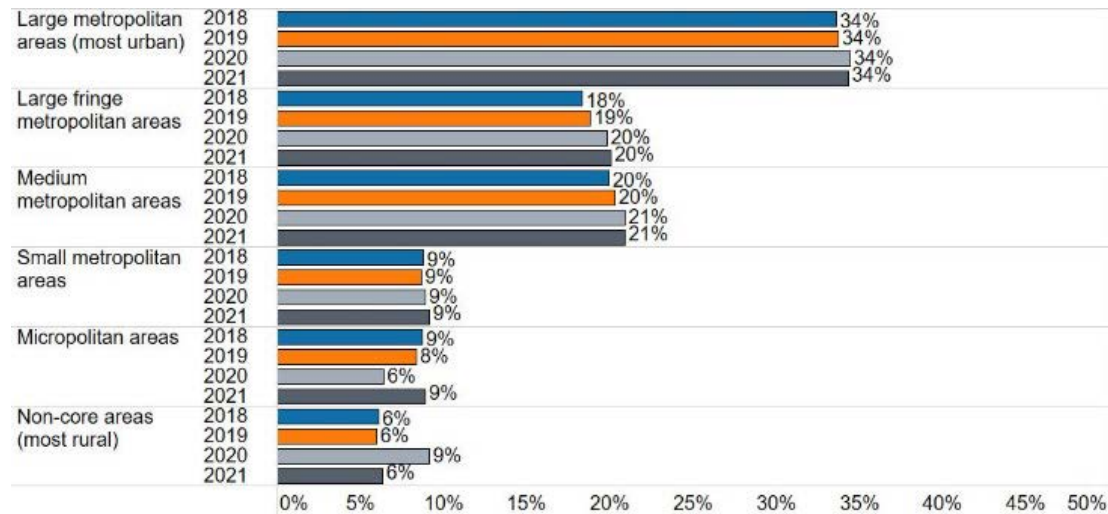
Source: Mathematica's analysis of the 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT include those who used it at least one day during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Mode of transit was identified using the procedure code on the claim. In cases in which the procedure code did not indicate a mode of transit, this information was obtained from the servicing provider taxonomy code on the claim. Because beneficiaries may use more than one mode of transit on a single day, percentages of ride days by mode of transit are not expected to sum to 100. Geographic areas reflect beneficiaries' zip code or county of residence as indicated in the TAF DE file.

Due to data quality issues, Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.



**Figure 28. Percentage of beneficiaries residing in each urban-rural classification area, by year, 2018–2021**

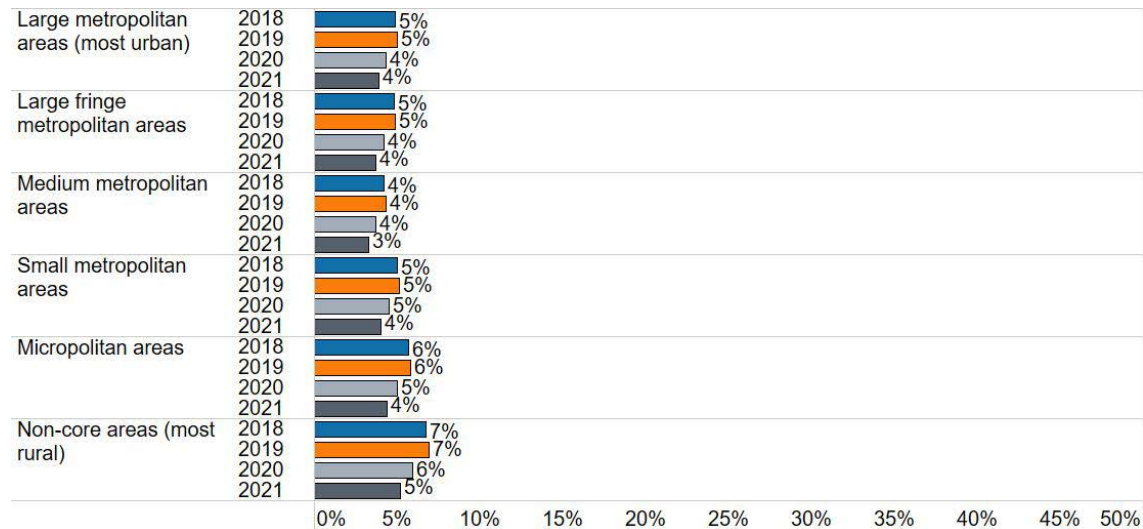


Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Geographic areas reflect beneficiaries' zip code or county of residence as indicated in the TAF DE file. Classifications are based on the National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme, which groups counties into six geographical areas, ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix B.

**Figure 29. Percentage of beneficiaries who used NEMT, by urban-rural classification area and year, 2018–2021**



Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT include those who used it at least one day during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Mode of transit was identified using the procedure code on the claim. In cases in which the procedure code did not indicate a mode of transit, this information was obtained from the servicing provider taxonomy code on the claim. Geographic areas reflect beneficiaries' zip code or county of residence as indicated in the TAF DE file. Classifications are based on the National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme, which groups counties into six geographical areas, ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands are excluded from the 2019 data; and Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2020 and 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

- In contrast, among beneficiaries with certain health conditions, those who lived in the most urban areas used NEMT at *higher* service volumes than beneficiaries living in other geographic areas. These beneficiaries included adults with a diagnosis of CKD with ESRD, heart disease, a mental condition, or OUD; adult expansion beneficiaries with a diagnosis of CKD with ESRD, OUD (in 2018–2020), any SUD (in 2018–2020), heart disease, diabetes, or a mental health condition; beneficiaries eligible on the basis of a disability with heart disease, OUD, diabetes, or any SUD; and beneficiaries eligible on the basis of age (65+) with any SUD, heart disease, a mental health condition, diabetes, or a diagnosis of CKD with ESRD (2018–2020), or OUD (2019–2020) (Tables B6.1, B6.2a–d, B6.3a–d, B6.4a–d, and B6.5a–d).
- Across study years, taxi transportation accounted for the largest share of total NEMT ride days within large metropolitan, large fringe metropolitan, and medium metropolitan areas—between 28 percent and 43 percent in 2021, depending on the geographic area (Figure 30), followed by van transportation (24 to 29 percent). Outside of MSAs, van transportation accounted for the largest share of total NEMT

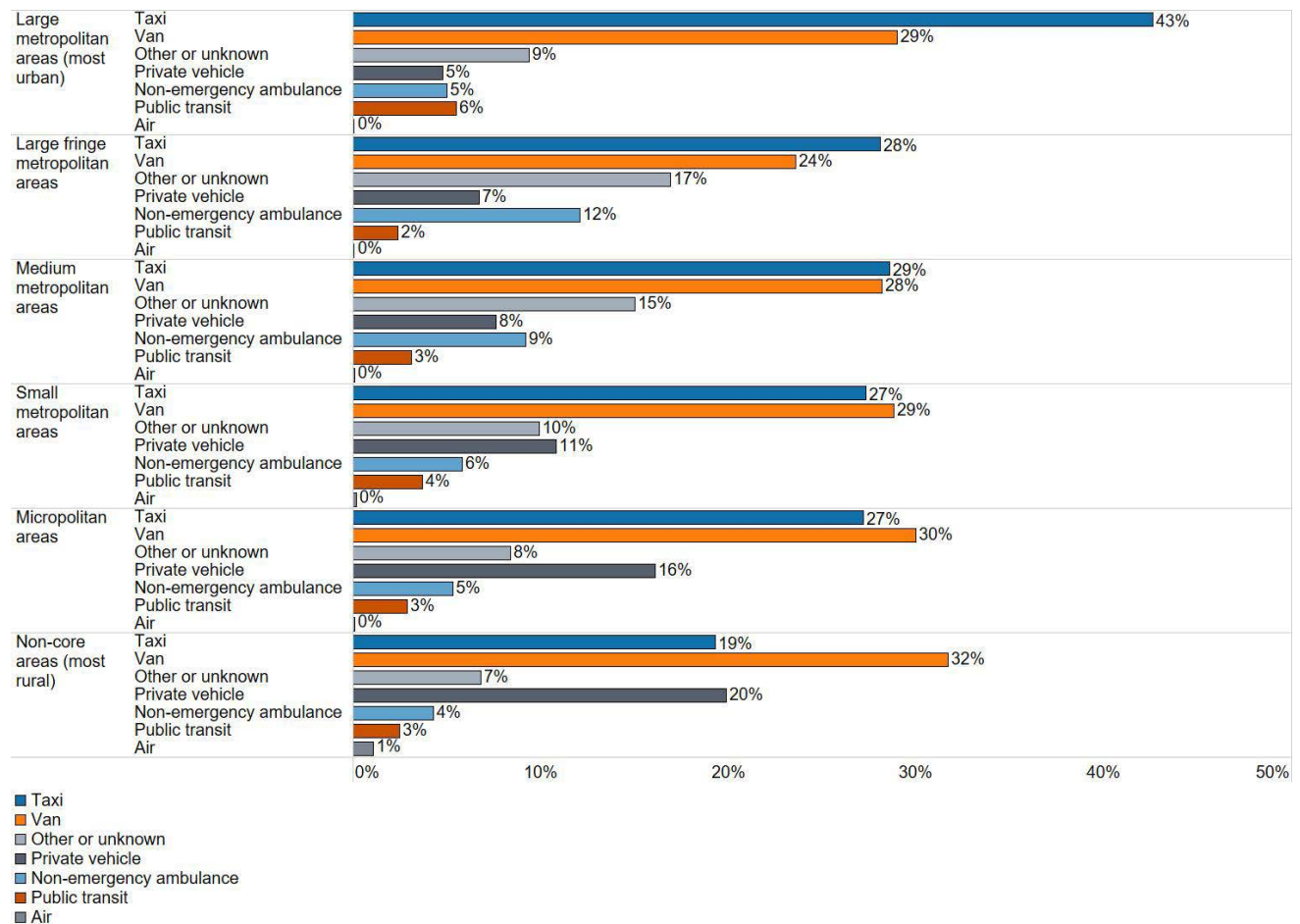
ride days—between 30 percent and 32 percent. In 2021, taxi transportation accounted for the second largest share of total NEMT ride days (27 percent) in small metropolitan and micropolitan areas, and private vehicle transportation (20 percent) accounted for the second largest share of total NEMT ride days in the most rural (non-core) areas. (For 2018, 2019, and 2020 data, see Tables B5.1b, B5.2b, and B5.3b.)

- Taxi transportation was used for NEMT most often in urban areas; this mode accounted for the largest share of total NEMT ride days within large metropolitan, large fringe metropolitan, and medium metropolitan areas—between 28 and 43 percent in 2021, depending on the geographic area, compared to 19 to 27 percent in small metropolitan, micropolitan, and non-core areas (Figure 30). Outside of MSAs, van transportation accounted for the largest share of total NEMT ride days—between 30 and 32 percent. Across all study years, private vehicles were used for NEMT more often in rural areas compared to urban areas, accounting for 11 percent or less of all NEMT ride days in geographic areas within MSAs in 2021, and between 16 and 20 percent of ride days outside of MSAs in 2021. Conversely, public transit was used for NEMT more often in more urban areas than rural areas, accounting for 6 percent of all NEMT ride days in large metropolitan areas in 2021 and just 3 percent in micropolitan and non-core areas in 2021. Non-emergency ambulance transit was used most often in large fringe metropolitan areas, accounting for 12 percent of all NEMT ride days in 2021 compared to 9 percent or less in all other geographic areas. Air transit accounted for 1 percent or less of all NEMT ride days across all urban-rural classification areas in 2021.
- Apart from geographic location, restrictions on some modes of transit enacted at the onset of the PHE, including public transit, paratransit<sup>65</sup>, and taxi or ride-hailing services, potentially impacted the accessibility of transportation resources for some populations (Chen 2021). However, the analyses presented in this report find that overall, beneficiaries across geographic areas continued to use taxi and public transportation at similar levels during the PHE as they did before it, lending evidence that use of these modes of transit for NEMT held steady during this time (Tables B5.1b, B5.2b, B5.3b, and B5.4b). Between 2019 and 2020, the percentage of NEMT ride days taken by public transit and taxi, respectively, increased or stayed the same for beneficiaries in all geographic areas. However, it is important to note that between 2019 and 2020, the total number of NEMT ride days decreased (Figure 4), and the percentage of all NEMT claims that could be tied to a specific mode of transit (as opposed to being classified as “unknown” or “other”) increased across all geographic areas.

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<sup>65</sup> Paratransit includes shared ride public transportation services for individuals with disabilities that prevent them from using fixed-route mass transit.

**Figure 30. Modes of NEMT used as a percentage of total NEMT ride days among beneficiaries living in each urban-rural classification area, 2021**



Source: Mathematica’s analysis of the 2021 preliminary TAF.

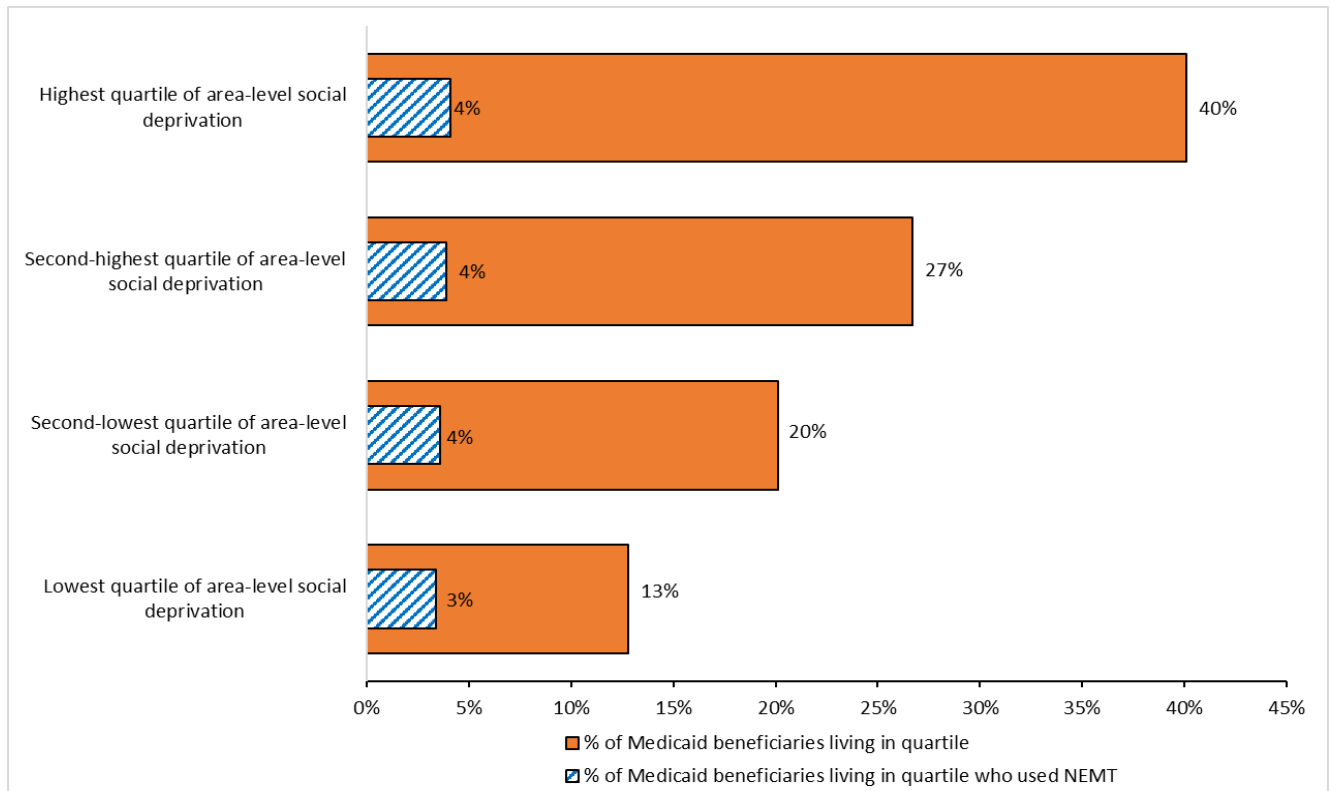
Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT include those who used it at least one day during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Mode of transit was identified using the procedure code on the claim. In cases in which the procedure code did not indicate a mode of transit, this information was obtained from the servicing provider taxonomy code on the claim. Geographic areas reflect beneficiaries’ zip code or county of residence as indicated in the TAF DE file. Classifications are based on the National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme, which groups counties into six geographical areas, ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017).

Due to data quality issues, Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

- Beneficiaries living in geographic areas within the highest SDI quartile (representing areas with the highest degree of social deprivation) used NEMT at only slightly higher rates (4 to 5 percent, depending on the study year) but lower frequencies (1.3 to 1.7 monthly ride days per user) compared to those living in geographic areas within the lowest SDI quartile (3 to 4 percent with 1.6 to 2.5 monthly ride days per user, depending on the study year) (Figure 31). (For 2018, 2019, and 2020 data, see

- Tables B5.1a, B5.2a, and B5.3a.) Beneficiaries living in geographic areas within the highest SDI quartile used 6,724 to 10,544 ride days per 10,000 beneficiaries, depending on the study year, compared with 6,755 to 12,367 in areas within the lowest SDI quartile (data not shown). In 2021, 40 percent of all Medicaid beneficiaries lived in areas within the highest SDI quartile, whereas 13 percent lived in areas within the lowest SDI quartile (Figure 31).
- In contrast to the overall trends, among beneficiaries with certain health conditions, those who lived in areas with the highest degree of social deprivation used NEMT at higher service volumes (defined as the annual number of NEMT ride days per 10,000 beneficiaries) than beneficiaries living in areas with the lowest degree of social deprivation. These beneficiaries included pregnant and postpartum adults; adults and adult expansion beneficiaries with CKD with ESRD, diabetes, heart disease, or any mental health condition; adult expansion beneficiaries with any SUD or OUD; beneficiaries eligible on the basis of disability or on the basis of age (65+) with CKD with ESRD, heart disease, diabetes, any SUD, or OUD; and beneficiaries eligible on the basis of age (65+) with any mental health condition (Tables B6.1, B6.2a–d, B6.3a–d, B6.4a–d, and B6.5a–d).
  - Beneficiaries living in areas within the lowest SDI quartile were more likely to rely on private vehicles and non-emergency ambulances for NEMT than beneficiaries in areas in the highest SDI quartile (Figure 32). In 2021, 11 percent of all NEMT ride days taken by beneficiaries living in the lowest SDI quartile used private vehicle transit, compared to 5 percent taken by beneficiaries living in areas in the highest SDI quartile. Ten percent of ride days in the highest SDI quartile were provided through non-emergency ambulance transit, whereas only 7 percent of ride days in the lowest SDI quartile were provided through such transport. Conversely, among beneficiaries living in the highest SDI quartile, public transit, van transport, and taxis were used more often (accounting for 5, 32, and 39 percent of all NEMT ride days, respectively, in 2021) than by beneficiaries living in areas in the lowest SDI quartile (among whom these modes accounted for 2, 20, and 22 percent, respectively, of all NEMT ride days in 2021).

**Figure 31. Percentage of beneficiaries living in each area-level social deprivation quartile and percentage who used NEMT, 2021**



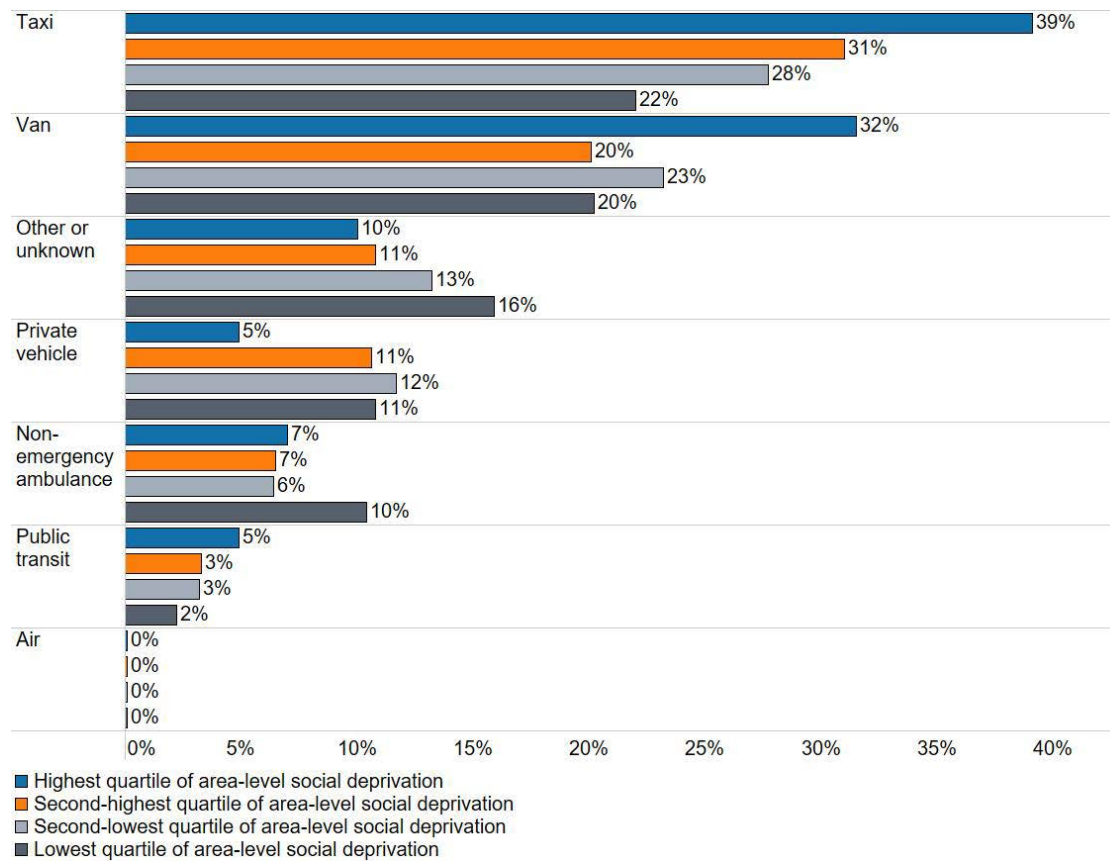
Source: Mathematica's analysis of the 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT include those who used it at least one day during the year. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Geographic areas reflect beneficiaries' zip code or county of residence as indicated in the TAF DE file.

The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Quartile 4 is the highest quartile of area-level social deprivation and includes areas with an SDI above the 75th percentile. Quartile 3 is the second-highest quartile of area-level social deprivation and includes areas scoring above the 50th percentile through the 75th percentile of the SDI. Quartile 2 is the second-lowest quartile of social deprivation and includes areas scoring above the 25th percentile through the 50th percentile of the SDI. Quartile 1 is the lowest quartile of social deprivation and includes areas scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percentage living in poverty, (2) percentage with less than 12 years of education, (3) percentage of single parent households, (4) percentage living in a rented housing unit, (5) percentage living in overcrowded housing units, (6) percentage of households without a car, and (7) percentage of non-employed adults under 65 years of age (Robert Graham Center n.d.).

Due to data quality issues Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

**Figure 32. Modes of NEMT used as a percentage of total NEMT ride days, by area-level social deprivation quartile, 2021**



Source: Mathematica's analysis of the 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT include those who used it at least one day during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Mode of transit was identified using the procedure code on the claim. In cases in which the procedure code did not indicate a mode of transit, this information was obtained from the servicing provider taxonomy code on the claim. Geographic areas reflect beneficiaries' zip code or county of residence as indicated in the TAF DE file.

Areas in the highest quartile of social deprivation are those with a SDI above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percentage living in poverty, (2) percentage with less than 12 years of education, (3) percentage of single parent households, (4) percentage living in a rented housing unit, (5) percentage living in overcrowded housing units, (6) percentage of households without a car, and (7) percentage of non-employed adults under 65 years of age (Robert Graham Center n.d.).

Due to data quality issues, Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

### g. Use of NEMT by state delivery model

For this analysis, CMS examined the extent to which NEMT utilization differed by the type of NEMT delivery model the state used. To determine the type of delivery model each state used during the study period, CMS first reviewed and summarized the most recent available information from published reports and other official documentation, including a review of Medicaid state plans and state plan amendments. CMS then shared a summary of each state's delivery model with the state Medicaid director for review and feedback, receiving feedback from 52 of 53 states and territories (including the District of Columbia, Puerto Rico, and the U.S. Virgin Islands). Some states used a single NEMT delivery model for all eligible Medicaid beneficiaries, whereas others used a combination of models to serve different beneficiary subgroups or geographic regions. Table 1 below displays the NEMT delivery models each state used during the study period.

For the purposes of this analysis, CMS categorized state NEMT delivery models into the following types:

- In an **in-house management model**, the state or local agencies administer the NEMT program for beneficiaries at a state, regional, or county level, and contract with NEMT providers directly. Typically, NEMT providers are reimbursed on an FFS basis.
- In a **broker model**, the state contracts with one or more third-party transportation brokers to provide NEMT. Brokers qualify and authorize beneficiaries for transportation, and then contract with transportation providers to perform the NEMT service. Broker models can be implemented at a statewide or regional level. Under a statewide broker model, the broker manages the service statewide, centralizing call centers, eligibility determinations, and trip authorizations. Statewide brokers are typically for-profit national brokers. A regional broker is responsible for eligibility determination and trip authorization at a regional level. A broker may operate in one or several regions, as specified in their contract with the state Medicaid agency. Regional brokers may be for profit or not for profit. Not-for-profit brokers may be human services agencies, public transit agencies, government agencies, or other nonprofit organizations.
- In a **carved-in NEMT** model, NEMT is incorporated into comprehensive MCO contracts and provided to plan enrollees as part of the benefit package.

As noted earlier, states may use more than one model to provide NEMT to different populations within the state. Additionally, several states made changes to the type of NEMT delivery model used during the four years in this analysis. Specifically, Nebraska, New Hampshire, North Carolina, Texas, and Wisconsin switched from one or more delivery models to another one (or a combination of delivery models) during the study period.



**Table 1. NEMT delivery models used by each state, 2018–2021**

State	Months in which model was active, 2018–2021	In house	Regional broker (FFS)	Regional broker (PMPM)	Statewide broker (FFS)	Statewide broker (PMPM)	Carved in
<b>States that used a single NEMT delivery model</b>							
Alabama	All months	X	--	--	--	--	--
Alaska	All months	--	--	--	X	--	--
Delaware	All months	--	--	--	--	X	--
Georgia	All months	--	--	X	--	--	--
Hawaii	All months	--	--	--	--	--	X
Idaho	All months	--	--	--	--	X	--
Indiana	All months	--	--	--	--	X	--
Kentucky	All months	--	--	X	--	--	--
Maine	All months	--	--	X	--	--	--
Maryland	All months	X	--	--	--	--	--
Mississippi <sup>a</sup>	All months	--	--	--	X	--	--
Montana	All months	X	--	--	--	--	--
Nebraska	01/01/2018–06/30/2019	--	--	--	--	--	--
Nevada <sup>b</sup>	All months	--	--	--	--	X	--
New Jersey	All months	--	--	--	--	X	--
North Carolina	01/01/2018–05/31/2021	X	--	--	--	--	--
Oklahoma <sup>c</sup>	All months	--	--	--	--	X	--
Rhode Island	All months	--	--	--	--	X	--
South Carolina <sup>d</sup>	All months	--	--	X	--	--	--
South Dakota	All months	X	--	--	--	--	--
Tennessee	All months	--	--	--	--	--	X
Utah	All months	--	--	--	--	X	--
Vermont	All months	--	--	--	--	X	--
Washington	All months	--	X	--	--	--	--
West Virginia <sup>e</sup>	All months	--	--	--	--	X	--
Wisconsin	01/01/2018–09/30/2021	--	--	--	--	X	--
Wyoming	All months	X	--	--	--	--	--
Puerto Rico	All months	--	--	--	--	--	X
U.S. Virgin Islands	All months	X	--	--	--	--	--
<b>States that used more than one NEMT delivery model</b>							
Arizona	All months	X	--	--	--	--	X
California	All months	X	--	--	--	--	X
Colorado	All months	X	X	--	--	--	--
Connecticut	All months	X	--	--	--	X	--
District of Columbia <sup>f</sup>	All months	--	--	--	--	X	X
Florida <sup>g</sup>	All months	--	--	X	--	--	X
Illinois	All months	X	--	--	--	--	X
Iowa	All months	--	--	--	--	X	X
Kansas	All months	X	--	--	--	--	X
Louisiana	All months	--	--	--	X	--	X
Massachusetts <sup>h</sup>	All months	X	X	--	--	--	--

State	Months in which model was active, 2018–2021	In house	Regional broker (FFS)	Regional broker (PMPM)	Statewide broker (FFS)	Statewide broker (PMPM)	Carved in
Michigan <sup>i</sup>	All months	X	--	X	--	--	X
Minnesota	All months	X	--	--	--	--	X
Missouri	All months	--	--	--	--	X	X
Nebraska	07/01/2019–12/31/2021	X	--	--	--	--	X
New Hampshire	01/01/2018–12/31/2019 and 10/01/2020–2/31/2021	--	--	--	--	X	X
New Hampshire	01/01/2020–09/30/2020	--	--	--	X	--	X
New Mexico	All months	X	--	--	--	--	X
New York	All months	--	X	--	--	--	X
North Carolina	06/01/2021–12/31/2021	X	--	--	--	--	X
North Dakota	All months	X	--	--	--	--	X
Ohio <sup>j</sup>	All months	X	--	--	--	--	X
Oregon	All months	X	X	--	--	--	X
Pennsylvania	All months	X	--	X	--	--	--
Texas	01/01/2018–05/31/2021	X	--	X	--	--	--
Texas	06/01/2021–12/31/2021	X	--	--	--	--	X
Virginia	All months	--	--	--	--	X	X
Wisconsin	10/01/2021–12/31/2021	--	--	--	X	--	--

Source: Published reports; state plans; state plan amendments; and subsequent review, confirmation, and feedback from the state Medicaid agency of a summary of the information contained in these sources.

Notes: PMPM = Per member per month.

Information for Arkansas is excluded from the table because NEMT delivery model information could not be confirmed by the state.

States that used one NEMT delivery model delivered it to all eligible beneficiaries using the same model. States that used more than one NEMT delivery model used at least two different models, each used to deliver NEMT to a different region or subgroup of beneficiaries.

For states that transitioned from one delivery model to another during the 2018–2021 time frame, dates indicate the period of time for which the corresponding NEMT delivery model(s) were active in the state. Nebraska, New Hampshire, North Carolina, Texas, and Wisconsin transitioned NEMT delivery models during the 2018–2021 timeframe.

<sup>a</sup> Mississippi operates a partial risk-based model (categorized here as a statewide broker [FFS] model), wherein the broker is paid using a firm fixed-rate agreement in which the total monthly payment amount may fluctuate based on the number of beneficiaries using the service.

<sup>b</sup> Nevada carves out services provided to beneficiaries for certain dialysis appointments and legal hold transports; these services are reimbursed on a FFS basis.

<sup>c</sup> Oklahoma reimburses NEMT services on a FFS basis when the state does not pay the broker the capitation for a member by the capitation deadline for that month.

<sup>d</sup> South Carolina carves out certain waiver transportation services and special needs transportation (under an arrangement with the South Carolina Department of Education); these services are reimbursed on a FFS basis.

<sup>e</sup> West Virginia carves out non-emergency ambulance services; these services are reimbursed on a FFS basis.

<sup>f</sup> The District of Columbia carves out non-emergency ambulance and school-related transportation for children with special health care needs; these services are reimbursed on a FFS basis.

<sup>g</sup> Florida carves out certain NEMT services billed through 1915(c) waiver programs; these services are reimbursed on a FFS basis.

<sup>h</sup> Massachusetts provides only non-emergency ambulance services and some wheelchair van NEMT services under its in-house delivery model.

<sup>i</sup> Michigan provides NEMT for comprehensive managed care enrollees and enrollees in one of the state's HCBS waivers through a carved-in delivery model.

<sup>j</sup> Ohio provides wheelchair van services on a FFS basis under its in-house model. In addition, county agencies administer NEMT services on behalf of the state, establishing contracts with vendors and, in many cases, brokering rides for beneficiaries; these services are claimed as administrative expenditures (therefore, they are not reimbursed via claims).

To account for differences across state Medicaid populations in age composition and level of need for health care services, CMS compared the use of NEMT across delivery models among beneficiaries within each eligibility subgroup—children, adults, adult expansion beneficiaries, beneficiaries eligible on the basis of a disability, and beneficiaries eligible on the basis of age (65+)—among states with each delivery model type. Because states using more than one delivery model simultaneously may target one model to higher-need populations and another to lower-need populations, those that used more than one model simultaneously are analyzed separately from single-model states.

- In most years and most eligibility groups, beneficiaries using NEMT through capitated broker models used the highest number of NEMT ride days per 10,000 beneficiaries compared to those receiving NEMT through other state delivery models (Figure 33 and Tables B7.1a–b). Children in states using more than one delivery model used the highest number of NEMT ride days per 10,000 beneficiaries compared to children in states using any single model.
- In contrast, beneficiaries in states with an in-house model used a lower number of NEMT ride days per 10,000 beneficiaries than those receiving NEMT through other state delivery model types. However, it is important to note that states using an in-house model reported a greater percentage of NEMT expenditures as administrative expenditures on Form CMS-64 (Tables B7.1a–b), and CMS expects that administrative expenditures for NEMT are not captured in the T-MSIS data. Therefore, NEMT service use may be underestimated for these states to a greater extent than for other states.
- Across all years, in-house delivery models were used in states with the highest percentage of the overall population living in rural areas (28 to 30 percent). In 2018, 2019, and 2020, carved-in NEMT was used in states with the lowest percentage of the overall population living in rural areas (8 percent), whereas in 2021, more than one model type was used by states with the lowest percentage of the population living in rural areas (16 percent).<sup>66 67</sup> In 2018, 2019, and 2020, states that used in-house delivery models had the highest percentages of the state population living below the

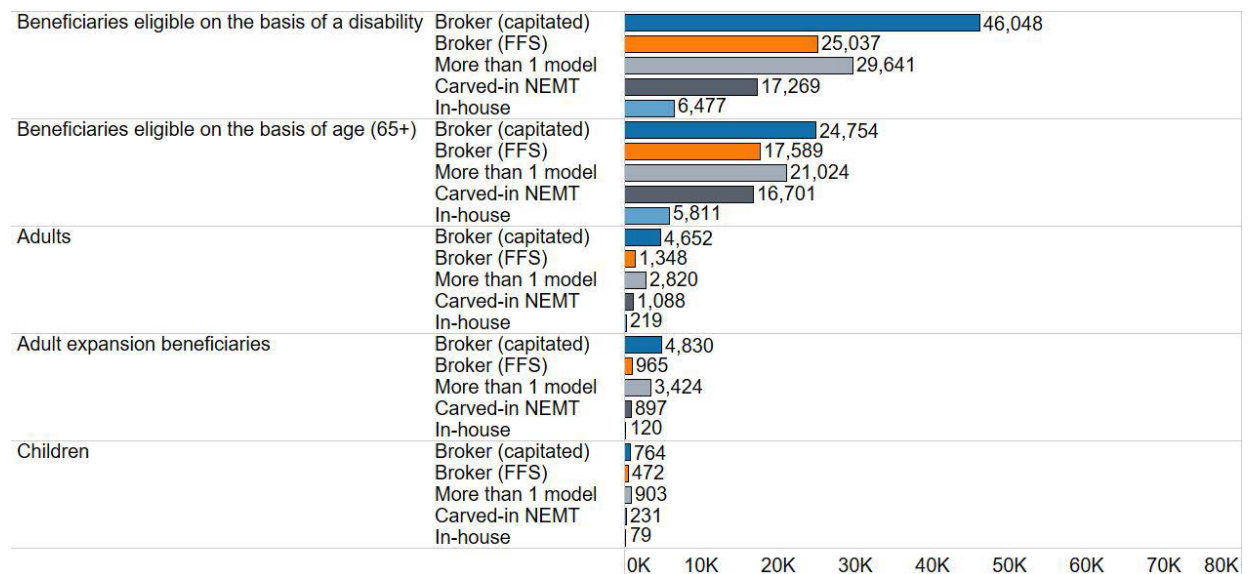
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<sup>66</sup> The percentage of the population living in rural and urban areas is the weighted average of the percentage of the state's population living in urban and rural areas among all states reporting a given model type. State percentages were weighted based on the total population living in each state. State-level data on the percentage of the population living in urban and rural areas are from the U.S. Census Bureau's 2010 Census Urban Area Lists: List of Population, Land Area, and Percent Urban and Rural in 2010 and Changes from 2000 to 2010 (U.S. Census Bureau 2020). For all years (2018–2021), CMS calculated the percentage of the population living in urban and rural areas using 2010 census data because this is the most recent year of data available.

<sup>67</sup> CMS utilized Census Bureau data to inform the overall percentage of each state's population living in urban vs. rural areas, as opposed to limiting the data to only Medicaid and CHIP beneficiaries by using TAF data.

federal poverty level (12 to 13 percent), whereas states that used carved-in NEMT had the lowest (10 to 11 percent). However, in 2021, states that used carved-in models had the highest percentage of the state population living below the poverty level (13 percent), whereas states using an FFS broker model has the lowest (10 percent).<sup>68</sup>

**Figure 33. Number of NEMT ride days per 10,000 beneficiaries, by state NEMT delivery model and beneficiary subgroup, by year, 2021**



Source: Mathematica's analysis of the 2021 preliminary TAF.

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Eligibility categories are mutually exclusive; the figure reflects the eligibility category in which a beneficiary was enrolled in their last month of enrollment in the calendar year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). State NEMT delivery models were identified based on published reports; state plans; state plan amendments; and subsequent state Medicaid agency review, confirmation, and feedback on the state's NEMT delivery model classification. State NEMT delivery models are ordered from highest number of annual ride days per 10,000 beneficiaries in the designated eligibility category (top of figure) to the lowest number of annual ride days per 10,000 beneficiaries in the designated eligibility category (bottom of figure).

Due to data quality issues, Puerto Rico, Utah, and the U.S. Virgin Islands are excluded from the 2021 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure, and use of Medicaid-covered NEMT services is therefore undercounted. For additional information on data quality issues, please see Appendix B.

<sup>68</sup> The percentage of the population living below 100 percent of the federal poverty level is the weighted average of the percentage of a state's population living under 100 percent federal poverty level among all states reporting a given model type. State percentages were weighted by the total population living in each state. The U.S. Census Bureau's poverty threshold for a family with two adults and one child was \$20,578 in 2019. For 2018 and 2019, state-level data on the percentage of the population living below 100 percent of the federal poverty level are from the Kaiser Family Foundation (KFF) estimates, which are based on one-year estimates from the 2008–2019 American Community Survey.

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## VII. RECOMMENDATIONS

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As specified by the requirements set forth in the Consolidated Appropriations Act, 2021, Division CC, Title II, Section 209(b)(5), this section of the report includes recommendations for states and local stakeholders regarding Medicaid coverage of NEMT. However, the T-MSIS data leveraged for this analysis represent only a subset of the NEMT provided by the Medicaid program, and therefore do not enable complete and nationally representative findings from which definitive conclusions may be drawn. Although CMS has made the following recommendations based on the available data, CMS suggests that the recommendations presented in this report be qualified as reflecting a partial set of data representing NEMT services used during a period of time in which a national pandemic emerged. During the analysis period, states also implemented various state-specific countermeasures to stem the impacts of PHE on access to care. The PHE impacted both beneficiary decision making, availability of medical services, and transportation including NEMT. The data collected for this specific period reflect a combination of factors which contribute to higher than anticipated underutilization of services. CMS suggests these “findings” and “results” be interpreted as evidence which should be further studied at the state level and in the months and years following the end of the PHE. With these caveats noted, CMS’s recommendations include the following:

- 1. States should examine and find opportunities to improve operations between NEMT and public transit networks to better coordinate services for beneficiaries.** More than one-third of beneficiaries reside in large urban metropolitan areas, where robust public transportation networks are more likely to be found, yet the T-MSIS data indicate that public transit is not commonly used for NEMT. Historically, some states have faced a variety of challenges in leveraging their public transit networks widely for NEMT, whereas others have leveraged these networks successfully (National Conference of State Legislatures 2015). States working to understand the relationship between existing public transit networks and NEMT may represent an opportunity to leverage these networks more fully for NEMT when it is available as the least costly and most appropriate means of transportation. State Medicaid agencies and public transit agencies have opportunities to partner and dialogue about transportation on an ongoing basis to further understanding and help to serve beneficiaries who will utilize public transit. CMS continues to work with other federal partners regarding NEMT, and plans to issue guidance and additional tools for these entities to facilitate that support.
- 2. States could expand upon the findings of this report, and further examine the role NEMT may play to improve the use of timely preventive care.** NEMT provides a critical link to lifesaving services and is especially critical for certain higher-need beneficiaries. Among beneficiaries more generally, it is a link to ongoing preventive care services related to the E&M of acute and chronic conditions, behavioral health services, and lab and imaging services. In the years covered in this report, beneficiaries used NEMT to access preventive services at the highest rate of all service types examined, suggesting that increasing uptake of NEMT may improve the use of timely preventive care. At the same time, certain subgroups of beneficiaries used NEMT most frequently to access vital, life-sustaining services; for example, beneficiaries with a diagnosis of CKD with ESRD most often used NEMT to access dialysis treatment, whereas adult, adult expansion, pregnant and postpartum beneficiaries, and those with any SUD or

ODU most often used NEMT to access SUD treatment services. The results presented in this report are consistent with the limited research that presents some evidence that use of NEMT increases use of preventive services and is cost-effective, implying that increasing the uptake of NEMT may confer cost savings to states and the federal government. States could expand upon the findings in this report by further examining the role NEMT may play in improving the use of timely preventive care.

- 3. For states, brokers, and local stakeholders there are opportunities to increase beneficiary awareness of the NEMT benefit.** Several studies have suggested that beneficiary awareness of the NEMT benefit may be relatively low. Research conducted in 2020 found that among Medicaid beneficiaries eligible for NEMT nationwide, only 29 percent were aware of the benefit. Of the 29 percent who were aware, just 37 percent had used NEMT personally or for a dependent (Evidation 2021). Similarly, in a single-state survey of Iowa’s Medicaid beneficiaries, roughly half of Medicaid respondents reported having a low or very low knowledge of the processes for accessing NEMT, with lower awareness levels among the population of younger adults without disabilities (Hanley et al. 2008). States, brokers, and local stakeholders are best positioned to increase awareness about the NEMT benefit—for example, working with health plans, and providers to share information with beneficiaries about the availability of the NEMT benefit and how to arrange for NEMT services may help increase its use.

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**APPENDIX A:**

**THE CONSOLIDATED APPROPRIATIONS ACT, 2021 (PUB. L. No. 116-260),  
DIVISION CC, TITLE II, SECTION 209**

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**SEC. 209. MEDICAID COVERAGE OF CERTAIN MEDICAL TRANSPORTATION.**

(a) CONTINUING REQUIREMENT OF MEDICAID COVERAGE OF NECESSARY TRANSPORTATION.—

(1) REQUIREMENT.—Section 1902(a)(4) of the Social Security Act (42 U.S.C. 1396a(a)(4)) is amended—

(A) by striking “and including provision for utilization” and inserting “including provision for utilization”; and

(B) by inserting after “supervision of administration of the plan” the following: “, and, subject to section 1903(i), including a specification that the single State agency described in paragraph (5) will ensure necessary transportation for beneficiaries under the State plan to and from providers and a description of the methods that such agency will use to ensure such transportation”.

(2) APPLICATION WITH RESPECT TO BENCHMARK BENEFIT PACKAGES AND BENCHMARK EQUIVALENT COVERAGE.—Section 1937(a)(1) of the Social Security Act (42 U.S.C. 1396u-7(a)(1)) is amended—

(A) in subparagraph (A), by striking “subsection (E)” and inserting “subparagraphs (E) and (F)”; and

(B) by adding at the end the following new subparagraph:

“(F) NECESSARY TRANSPORTATION.—Notwithstanding the preceding provisions of this paragraph, a State may not provide medical assistance through the enrollment of an individual with benchmark coverage or benchmark equivalent coverage described in subparagraph (A)(i) unless, subject to section 1903(i)(9) and in accordance with section 1902(a)(4), the benchmark benefit package or benchmark equivalent coverage (or the State)—

“(i) ensures necessary transportation for individuals enrolled under such package or coverage to and from providers; and

“(ii) provides a description of the methods that will be used to ensure such transportation.”.

(3) LIMITATION ON FEDERAL FINANCIAL PARTICIPATION.—Section 1903(i) of the Social Security Act (42 U.S.C. 1396b(i)) is amended by inserting after paragraph (8) the following new paragraph:

“(9) with respect to any amount expended for non-emergency transportation authorized under section 1902(a)(4), unless the State plan provides for the methods and procedures required under section 1902(a)(30)(A); or”.

(4) EFFECTIVE DATE.—The amendments made by this subsection shall take effect on the date of the enactment of this Act and shall apply to transportation furnished on or after such date.

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Act (42 U.S.C. 1396a(a)(70)(B)), providers (including transportation network companies), Medicaid patient advocates, and such other individuals specified by the Secretary.

(3) GUIDANCE REVIEW.—Not later than 24 months after the date of the enactment of this Act, the Secretary of Health and Human Services, through the Centers for Medicare & Medicaid Services, shall assess guidance issued to States by the Centers for Medicare & Medicaid Services relating to Federal requirements for nonemergency transportation to medically necessary services under the Medicaid program under title XIX of the Social Security Act and update such guidance as necessary to ensure States have appropriate and current guidance in designing and administering coverage under the Medicaid program of nonemergency transportation to medically necessary services.

(4) NEMT TRANSPORTATION PROVIDER AND DRIVER REQUIREMENTS.—

(A) STATE PLAN REQUIREMENT.—Section 1902(a) of the Social Security Act (42 U.S.C. 1396a(a)) is amended—

- (i) by striking “and” at the end of paragraph (85);
- (ii) by striking the period at the end of paragraph (86) and inserting “; and”; and
- (iii) by inserting after paragraph (86) the following

new paragraph:

“(87) provide for a mechanism, which may include attestation, that ensures that, with respect to any provider (including a transportation network company) or individual driver of non-emergency transportation to medically necessary services receiving payments under such plan (but excluding any public transit authority), at a minimum—

“(A) each such provider and individual driver is not excluded from participation in any Federal health care program (as defined in section 1128B(f)) and is not listed on the exclusion list of the Inspector General of the Department of Health and Human Services;

“(B) each such individual driver has a valid driver’s license;

“(C) each such provider has in place a process to address any violation of a State drug law; and

“(D) each such provider has in place a process to disclose to the State Medicaid program the driving history, including any traffic violations, of each such individual driver employed by such provider, including any traffic violations.”.

(B) EFFECTIVE DATE.—

(i) IN GENERAL.—Except as provided in clause (ii), the amendments made by subparagraph (A) shall take effect on the date of the enactment of this Act and shall apply to services furnished on or after the date that is one year after the date of the enactment of this Act.

(ii) EXCEPTION.—In the case of a State plan under title XIX of the Social Security Act (42 U.S.C. 1396 et seq.), or waiver of such plan, that the Secretary of Health and Human Services determines requires State legislation in order for the respective plan to meet any requirement imposed by amendments made

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by this section, the respective plan shall not be regarded as failing to comply with the requirements of such title solely on the basis of its failure to meet such an additional requirement before the first day of the first calendar quarter beginning after the close of the first regular session of the State legislature that begins after the date of the enactment of this Act. For purposes of the previous sentence, in the case of a State that has a 2-year legislative session, each year of the session shall be considered to be a separate regular session of the State legislature.

(5) ANALYSIS OF T-MSIS DATA.—Not later than one year after the date of the enactment of this Act, the Secretary of Health and Human Services, through the Centers for Medicare & Medicaid Services, shall analyze, and submit to Congress a report on, the nation-wide data set under the Transformed Medicaid Statistical Information System to identify recommendations relating to coverage under the Medicaid program under title XIX of the Social Security Act of nonemergency transportation to medically necessary services.

(c) CONSULTATION RELATING TO NONEMERGENCY MEDICAL TRANSPORTATION.—In the case of a State that exercises the option described in section 1902(a)(70) of the Social Security Act (42 U.S.C. 1396a(a)(7)), in establishing a non-emergency medical transportation brokerage program under such section, a State Medicaid agency may consult relevant stakeholders, including stakeholders representing patients, medical providers, Medicaid managed care organizations, brokers for non-emergency medical transportation, and transportation providers (including public transportation providers).

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**APPENDIX B:**  
**STATE- AND NATIONAL-LEVEL TABLES**

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**Table B1.1a. Number of annual NEMT ride days per 10,000 Medicaid beneficiaries by year, 2018–2021**

State	2018		2019		2020		2021	
	Number of beneficiaries	# annual NEMT ride days per 10,000 beneficiaries	Number of beneficiaries	# annual NEMT ride days per 10,000 beneficiaries	Number of beneficiaries	# annual NEMT ride days per 10,000 beneficiaries	Number of beneficiaries	# annual NEMT ride days per 10,000 beneficiaries
<b>United States<sup>a</sup></b>	<b>74,831,540</b>	<b>9,910</b>	<b>77,883,646</b>	<b>10,442</b>	<b>79,905,774</b>	<b>6,647</b>	<b>85,257,543</b>	<b>6,504</b>
Alabama	943,121	605	934,959	615	922,135	603	986,852	321
Alaska	235,173	9,922	245,199	9,591	252,499	5,331	260,488	5,834
Arizona	2,043,417	24,288	2,012,302	26,286	2,019,256	16,439	2,148,729	14,681
Arkansas	1,000,221	10,669	963,149	6,961	944,529	5,000	999,895	5,180
California	13,057,698	2,692	12,745,324	2,838	12,513,867	2,184	12,997,219	2,096
Colorado	1,486,585	13,707	1,437,138	15,965	1,454,874	10,923	1,582,709	11,811
Connecticut	961,337	8,196	974,096	7,350	984,143	3,772	1,037,905	3,419
Delaware	256,764	10,080	255,830	7,963	250,185	3,977	269,519	3,024
District of Columbia	269,396	14,929	263,203	12,203	265,153	1,551	270,259	1,607
Florida	4,262,235	2,319	4,094,374	9,758	4,129,591	6,271	4,556,248	5,391
Georgia	2,134,062	7,441	2,083,484	7,326	2,079,229	5,106	2,193,756	4,657
Hawaii	384,094	5,416	371,609	5,470	391,314	3,126	434,869	2,017
Idaho	316,076	19,759	301,648	19,855	380,763	10,146	421,266	10,970
Illinois	3,383,999	5,897	3,204,702	6,125	3,198,790	3,763	3,355,719	3,615
Indiana	1,604,987	4,483	1,580,649	2,980	1,700,169	3,126	1,869,584	3,571
Iowa	717,703	15,216	731,086	13,425	729,111	7,533	785,287	8,822
Kansas	428,545	2,870	416,318	2,958	402,542	2,287	434,050	2,102
Kentucky	1,504,402	6,993	1,477,255	7,549	1,593,316	3,867	1,612,999	4,113
Louisiana	1,638,165	3,528	1,687,920	3,510	1,695,454	1,856	1,779,076	1,970
Maine	246,401	29,710	275,770	20,421	321,586	15,121	350,973	16,295
Maryland	1,394,401	456	1,378,394	472	1,401,822	210	1,494,837	206
Massachusetts	1,845,150	34,456	1,754,117	38,104	1,699,452	16,350	1,792,821	20,095
Michigan	2,857,271	5,159	2,855,965	5,088	2,807,445	3,332	2,957,624	3,189
Minnesota	1,299,440	19,652	1,282,705	20,975	1,254,822	13,795	1,348,309	17,998
Mississippi	696,690	8,575	671,092	6,565	645,996	6,214	693,638	5,095
Missouri	1,174,634	10,845	1,121,039	11,085	1,077,683	9,074	1,266,163	8,171
Montana	289,095	5,161	292,707	7,935	275,158	9,281	285,628	6,237
Nebraska	276,437	6,798	274,482	6,252	305,155	3,651	350,822	3,533

State	2018		2019		2020		2021	
	Number of beneficiaries	# annual NEMT ride days per 10,000 beneficiaries	Number of beneficiaries	# annual NEMT ride days per 10,000 beneficiaries	Number of beneficiaries	# annual NEMT ride days per 10,000 beneficiaries	Number of beneficiaries	# annual NEMT ride days per 10,000 beneficiaries
Nevada	788,296	5,854	774,732	6,873	787,230	5,716	860,999	4,767
New Hampshire	222,290	6,948	220,733	4,699	220,933	3,154	235,959	12,438
New Jersey	1,814,383	20,221	1,799,271	22,304	1,797,248	13,188	1,954,150	11,325
New Mexico	836,072	6,828	820,733	7,349	840,462	5,096	879,789	4,710
New York	6,892,006	18,461	6,896,251	19,512	6,905,505	12,230	7,327,659	11,987
North Carolina	2,057,216	5,536	1,980,625	6,048	1,920,724	4,442	2,059,376	4,296
North Dakota	118,436	2,315	115,900	2,860	115,907	2,316	129,185	2,407
Ohio	3,069,768	3,131	2,960,424	3,371	2,939,651	2,609	3,104,714	2,512
Oklahoma	836,884	12,826	829,015	13,106	877,696	10,358	1,061,119	8,590
Oregon	1,060,739	19,237	1,066,877	21,233	1,107,651	13,053	1,221,682	10,333
Pennsylvania	3,258,631	2,961	3,150,590	3,012	3,195,860	1,451	3,396,490	1,502
Puerto Rico	1,438,531	1,325	1,424,443	982	1,408,374	2,120	1,469,009	2,341
Rhode Island	344,020	16,559	260,563	15,817	324,179	13,403	346,960	14,864
South Carolina	1,172,848	7,948	1,156,466	8,913	1,123,582	6,366	1,180,770	5,968
South Dakota	128,540	2,662	125,657	2,759	121,793	2,122	129,633	2,153
Tennessee	1,673,580	4,772	1,574,316	5,137	1,619,458	4,051	1,623,203	3,878
Texas	4,907,155	10,734	4,746,947	11,589	4,612,937	5,856	5,060,106	6,069
Utah	385,303	1	395,605	7	406,278	13	466,082	10
Vermont	184,228	14,708	177,906	14,944	176,465	7,108	198,517	6,361
Virgin Islands	19,145	1,058	20,217	1,845	22,632	1,824	24,134	1,751
Virginia	1,122,768	12,513	1,522,989	13,985	1,615,118	13,262	1,777,416	13,231
Washington	2,033,978	8,223	1,987,376	8,743	1,991,070	4,870	2,112,585	3,478
West Virginia	551,191	5,158	550,203	10,718	563,410	10,714	599,777	10,766
Wisconsin	1,256,170	46,160	1,242,617	50,405	1,282,128	35,163	1,382,974	30,665
Wyoming	74,677	2,128	71,818	2,464	70,728	1,620	77,236	1,194

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Annual NEMT ride days per 10,000 beneficiaries reflects the average number of ride days per user during the year per 10,000 Medicaid beneficiaries. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.



<sup>a</sup>2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2020 data for Puerto Rico, Utah, and the US Virgin Islands, and 2021 data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix B.

**Table B1.1b. Rate and frequency of NEMT utilization: Medicaid beneficiaries by year, 2018–2021**

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>74,831,540</b>	<b>5.0</b>	<b>1.8</b>	<b>77,883,646</b>	<b>5.0</b>	<b>1.9</b>	<b>79,905,774</b>	<b>4.4</b>	<b>1.4</b>	<b>85,257,543</b>	<b>3.9</b>	<b>1.5</b>
Alabama	943,121	1.8	0.3	934,959	1.7	0.3	922,135	1.7	0.3	986,852	1.1	0.3
Alaska	235,173	13.3	0.7	245,199	13.8	0.6	252,499	10.6	0.4	260,488	10.6	0.5
Arizona	2,043,417	12.4	1.8	2,012,302	12.2	1.9	2,019,256	10.1	1.4	2,148,729	8.4	1.5
Arkansas	1,000,221	5.2	1.8	963,149	4.9	1.3	944,529	4.2	1.1	999,895	3.8	1.2
California	13,057,698	1.7	1.4	12,745,324	1.8	1.4	12,513,867	1.6	1.2	12,997,219	1.5	1.2
Colorado	1,486,585	3.8	3.2	1,437,138	4.2	3.4	1,454,874	4.0	2.4	1,582,709	4.0	2.6
Connecticut	961,337	5.8	1.3	974,096	5.5	1.2	984,143	3.8	0.9	1,037,905	2.9	1.0
Delaware	256,764	5.4	1.7	255,830	4.6	1.5	250,185	2.9	1.2	269,519	2.4	1.1
District of Columbia	269,396	8.1	1.6	263,203	8.4	1.3	265,153	1.5	0.9	270,259	1.7	0.8
Florida	4,262,235	1.3	1.7	4,094,374	4.8	1.8	4,129,591	4.2	1.3	4,556,248	3.1	1.5
Georgia	2,134,062	5.0	1.4	2,083,484	5.0	1.3	2,079,229	4.3	1.1	2,193,756	3.6	1.2
Hawaii	384,094	4.6	1.1	371,609	4.7	1.0	391,314	2.9	1.0	434,869	2.0	0.9
Idaho	316,076	5.4	3.3	301,648	5.2	3.4	380,763	3.9	2.3	421,266	3.4	2.8
Illinois	3,383,999	4.5	1.2	3,204,702	4.7	1.2	3,198,790	4.5	0.7	3,355,719	4.2	0.8
Indiana	1,604,987	5.8	0.7	1,580,649	4.4	0.6	1,700,169	3.8	0.7	1,869,584	3.7	0.8
Iowa	717,703	5.5	2.4	731,086	5.6	2.1	729,111	4.8	1.4	785,287	4.3	1.8
Kansas	428,545	3.8	0.7	416,318	3.9	0.7	402,542	3.3	0.6	434,050	2.9	0.6
Kentucky	1,504,402	4.4	1.4	1,477,255	4.5	1.5	1,593,316	3.8	0.9	1,612,999	3.3	1.1
Louisiana	1,638,165	3.9	0.8	1,687,920	3.9	0.8	1,695,454	2.7	0.6	1,779,076	2.6	0.7
Maine	246,401	10.3	2.6	275,770	9.4	2.0	321,586	9.3	1.4	350,973	8.0	1.8
Maryland	1,394,401	1.0	0.4	1,378,394	1.0	0.5	1,401,822	0.7	0.3	1,494,837	0.7	0.3
Massachusetts	1,845,150	7.6	4.0	1,754,117	8.2	4.0	1,699,452	7.3	2.0	1,792,821	6.3	2.8
Michigan	2,857,271	5.0	0.9	2,855,965	4.7	1.0	2,807,445	3.8	0.8	2,957,624	3.4	0.8
Minnesota	1,299,440	11.0	1.6	1,282,705	11.4	1.7	1,254,822	9.9	1.2	1,348,309	9.2	1.7
Mississippi	696,690	7.7	1.0	671,092	7.0	0.8	645,996	6.1	0.9	693,638	5.0	0.9
Missouri	1,174,634	7.4	1.3	1,121,039	7.7	1.3	1,077,683	6.9	1.2	1,266,163	5.6	1.3
Montana	289,095	1.6	2.8	292,707	1.8	3.8	275,158	1.8	4.5	285,628	1.7	3.2
Nebraska	276,437	4.6	1.3	274,482	4.7	1.2	305,155	3.6	0.9	350,822	3.6	0.9

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nevada	788,296	4.1	1.3	774,732	4.0	1.6	787,230	3.3	1.6	860,999	2.6	1.6
New Hampshire	222,290	2.0	3.3	220,733	1.6	2.9	220,933	2.0	1.4	235,959	4.3	2.5
New Jersey	1,814,383	7.3	2.5	1,799,271	7.7	2.6	1,797,248	6.4	1.9	1,954,150	5.2	1.9
New Mexico	836,072	4.9	1.3	820,733	5.1	1.3	840,462	4.4	1.0	879,789	4.0	1.0
New York	6,892,006	8.6	1.9	6,896,251	8.2	2.1	6,905,505	7.1	1.5	7,327,659	6.4	1.6
North Carolina	2,057,216	4.2	1.2	1,980,625	4.3	1.3	1,920,724	3.8	1.0	2,059,376	3.5	1.1
North Dakota	118,436	2.8	0.8	115,900	3.0	0.9	115,907	2.9	0.7	129,185	2.7	0.8
Ohio	3,069,768	4.8	0.6	2,960,424	5.0	0.6	2,939,651	4.7	0.5	3,104,714	4.5	0.5
Oklahoma	836,884	5.2	2.3	829,015	5.4	2.2	877,696	4.7	2.0	1,061,119	3.7	2.1
Oregon	1,060,739	8.5	2.1	1,066,877	8.8	2.2	1,107,651	7.3	1.6	1,221,682	6.0	1.5
Pennsylvania	3,258,631	1.5	1.8	3,150,590	1.6	1.7	3,195,860	1.8	0.8	3,396,490	1.8	0.8
Puerto Rico	1,438,531	1.3	0.9	1,424,443	1.3	0.7	1,408,374	2.0	1.0	1,469,009	2.4	0.9
Rhode Island	344,020	6.3	3.1	260,563	5.9	2.6	324,179	5.6	2.1	346,960	5.3	2.4
South Carolina	1,172,848	5.4	1.3	1,156,466	5.7	1.4	1,123,582	4.8	1.1	1,180,770	4.1	1.3
South Dakota	128,540	2.9	0.9	125,657	3.2	0.8	121,793	3.4	0.6	129,633	3.1	0.6
Tennessee	1,673,580	4.4	1.0	1,574,316	4.7	1.0	1,619,458	4.4	0.8	1,623,203	4.0	0.9
Texas	4,907,155	4.3	2.3	4,746,947	4.4	2.4	4,612,937	3.6	1.4	5,060,106	3.0	1.8
Utah	385,303	DS	DS	395,605	0.0	0.6	406,278	0.0	1.0	466,082	0.0	0.4
Vermont	184,228	6.0	2.2	177,906	6.2	2.1	176,465	5.2	1.2	198,517	4.3	1.3
Virgin Islands	19,145	1.0	1.0	20,217	1.2	1.4	22,632	1.2	1.4	24,134	1.4	1.2
Virginia	1,122,768	6.5	1.7	1,522,989	6.5	1.9	1,615,118	7.0	1.7	1,777,416	6.1	1.9
Washington	2,033,978	2.8	2.6	1,987,376	3.0	2.6	1,991,070	3.0	1.4	2,112,585	2.7	1.1
West Virginia	551,191	5.4	0.9	550,203	7.8	1.3	563,410	7.7	1.2	599,777	6.8	1.4
Wisconsin	1,256,170	10.0	4.1	1,242,617	10.1	4.5	1,282,128	8.6	3.6	1,382,974	7.3	3.7
Wyoming	74,677	1.6	1.3	71,818	1.8	1.3	70,728	1.7	0.9	77,236	1.4	0.8

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup>2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2020 data for Puerto Rico, Utah, and the US Virgin Islands, and 2021 data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.2. Rate and frequency of NEMT utilization: Dually eligible beneficiaries by year, 2018–2021**

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>8,347,571</b>	<b>17.2</b>	<b>2.2</b>	<b>8,865,158</b>	<b>16.8</b>	<b>2.3</b>	<b>9,478,423</b>	<b>15.4</b>	<b>1.6</b>	<b>9,578,364</b>	<b>14.4</b>	<b>1.7</b>
Alabama	97,890	9.4	0.4	96,498	8.8	0.4	96,189	8.0	0.5	97,301	5.4	0.3
Alaska	21,645	27.4	1.1	21,239	28.8	1.0	21,616	23.4	0.8	21,808	23.7	0.8
Arizona	231,709	28.3	2.3	224,605	27.7	2.3	231,622	24.1	1.7	230,099	20.6	1.7
Arkansas	81,001	21.6	1.7	79,113	20.2	1.4	82,067	17.5	1.2	84,847	15.9	1.3
California	1,671,042	5.1	1.9	1,679,342	5.3	1.8	1,688,337	4.5	1.6	1,739,949	4.5	1.6
Colorado	95,896	18.6	4.1	100,017	20.0	4.2	104,895	18.7	3.2	114,005	19.3	3.3
Connecticut	81,362	23.6	1.3	77,968	22.9	1.3	80,685	16.3	1.0	76,295	14.4	1.0
Delaware	16,538	24.6	1.3	16,931	21.9	1.0	17,027	13.2	0.8	15,775	11.9	0.7
District of Columbia	26,145	16.5	2.9	26,534	14.8	2.2	26,376	2.7	1.2	28,891	3.1	0.6
Florida	568,642	4.0	1.4	559,164	13.1	2.1	597,474	11.5	1.3	544,267	8.9	1.7
Georgia	171,100	23.7	2.0	169,742	24.2	1.9	170,479	22.7	1.4	173,862	20.8	1.5
Hawaii	46,880	15.9	1.6	44,824	15.9	1.6	46,695	11.3	1.3	48,569	9.3	1.1
Idaho	32,448	21.2	4.4	32,473	20.4	4.4	33,371	18.0	3.1	35,222	16.1	3.8
Illinois	369,663	11.6	1.0	363,738	11.0	0.9	375,805	11.9	0.7	404,388	11.7	0.7
Indiana	172,757	22.5	0.8	171,837	15.9	0.6	188,128	12.6	0.9	179,883	12.8	1.0
Iowa	79,468	20.5	2.8	78,731	21.4	2.2	81,586	18.8	1.5	81,721	17.5	1.7
Kansas	47,922	10.0	0.7	47,606	10.2	0.8	49,188	8.8	0.7	52,548	7.8	0.7
Kentucky	138,165	20.6	1.7	130,570	21.4	1.7	150,542	17.3	1.0	142,188	16.3	1.3
Louisiana	153,856	8.3	1.3	154,400	8.4	1.3	162,376	6.5	1.0	148,773	6.3	1.2
Maine	30,991	27.4	2.9	29,279	25.5	2.4	61,071	23.7	1.5	60,095	21.7	1.8
Maryland	98,043	7.8	0.2	100,271	8.0	0.2	107,072	7.0	0.2	111,409	7.1	0.2
Massachusetts	384,278	24.9	4.3	362,464	26.5	4.4	355,953	23.7	2.0	349,774	21.8	2.9
Michigan	250,710	7.2	1.8	278,867	7.2	1.8	307,017	6.3	1.3	337,926	6.7	1.2
Minnesota	142,344	37.7	2.2	106,972	40.0	2.5	139,504	37.2	1.5	146,212	36.2	2.1
Mississippi	101,037	24.2	1.4	96,489	22.5	1.1	96,611	20.9	1.2	91,776	19.2	1.2
Missouri	168,407	25.3	1.7	166,152	25.2	1.7	178,356	21.8	1.5	182,382	20.0	1.6
Montana	23,707	8.5	4.2	23,575	10.5	4.9	24,128	10.4	5.6	24,975	9.2	4.9
Nebraska	40,167	15.5	1.7	40,143	16.2	1.5	40,687	14.4	1.1	41,169	13.4	1.2

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nevada	40,107	17.3	2.5	40,001	16.4	2.7	44,102	13.9	2.3	42,862	11.8	2.5
New Hampshire	24,104	4.8	0.6	24,126	3.6	0.6	26,120	6.5	0.5	26,945	15.0	1.6
New Jersey	260,440	24.8	2.3	250,651	26.1	2.4	251,604	22.8	1.6	248,262	20.8	1.6
New Mexico	47,849	18.7	1.6	46,741	19.6	1.6	50,221	17.4	1.3	54,946	15.7	1.3
New York	909,970	31.1	2.3	928,515	30.9	2.4	986,033	27.3	1.6	999,412	25.8	1.8
North Carolina	285,281	15.2	1.5	277,255	15.1	1.6	279,191	13.3	1.3	286,076	13.0	1.3
North Dakota	15,354	9.2	1.1	15,380	9.6	1.1	15,491	9.1	0.9	15,817	9.2	0.9
Ohio	269,094	22.4	0.9	278,596	21.2	0.9	279,712	19.1	0.7	278,241	18.3	0.7
Oklahoma	107,477	20.9	3.1	107,956	21.5	3.0	107,175	20.5	2.7	108,966	18.6	2.9
Oregon	85,836	32.4	2.0	84,648	33.0	2.1	93,970	30.2	1.8	106,054	27.2	1.9
Pennsylvania	357,683	1.8	6.2	368,176	2.8	4.0	384,743	3.9	1.3	387,833	4.7	1.3
Puerto Rico	376,571	4.2	0.9	367,805	4.4	0.6	363,672	6.9	0.9	368,900	8.6	0.8
Rhode Island	45,074	19.2	2.9	37,118	17.9	2.6	46,847	18.4	2.0	46,181	18.1	2.5
South Carolina	174,912	15.0	1.6	177,092	14.9	1.6	179,816	13.2	1.4	175,655	12.2	1.4
South Dakota	13,493	13.3	1.1	14,825	14.8	1.1	14,708	13.1	0.9	14,503	13.7	0.9
Tennessee	175,176	19.3	1.2	169,618	20.0	1.2	179,566	19.3	1.0	177,753	18.2	1.0
Texas	422,645	15.5	1.4	417,825	15.5	1.5	417,055	14.1	1.4	415,280	13.0	1.3
Utah	36,504	DS	DS	34,720	0.0	0.5	36,238	DS	DS	39,317	0.2	0.3
Vermont	22,605	20.7	2.3	22,417	21.6	2.3	22,649	19.2	1.1	22,608	18.1	1.2
Virgin Islands	3,444	1.9	1.3	3,772	2.6	1.8	4,360	2.8	1.8	4,654	3.3	1.5
Virginia	153,850	20.4	2.0	148,367	21.3	2.7	170,904	25.7	1.8	176,444	23.4	2.1
Washington	156,537	18.4	2.7	155,882	19.6	2.6	162,766	18.5	1.3	169,780	16.7	1.1
West Virginia	52,483	18.6	1.4	47,707	22.1	1.7	61,377	20.0	1.3	61,147	20.2	1.4
Wisconsin	165,802	33.1	5.1	172,412	32.4	5.6	180,823	29.1	4.3	188,955	26.4	4.0
Wyoming	6,878	6.0	2.2	7,042	6.7	2.1	8,693	7.9	1.0	8,535	6.9	1.0

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes full-benefit dually eligible beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup>2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2020 data for Puerto Rico, Utah, and the US Virgin Islands, and 2021 data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.3a. Rate and frequency of NEMT utilization, by major eligibility category: Children, by year, 2018–2021**

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>31,496,074</b>	<b>1.7</b>	<b>0.8</b>	<b>33,080,671</b>	<b>1.6</b>	<b>0.8</b>	<b>33,391,723</b>	<b>1.2</b>	<b>0.6</b>	<b>35,129,304</b>	<b>1.0</b>	<b>0.7</b>
Alabama	584,216	0.3	0.1	576,907	0.3	0.1	573,653	0.4	0.1	608,488	0.3	0.1
Alaska	100,691	10.6	0.4	104,190	10.3	0.4	103,776	6.5	0.3	106,645	6.6	0.3
Arizona	835,530	6.5	0.9	813,684	6.0	1.0	797,563	4.2	0.7	818,762	3.4	0.9
Arkansas	461,206	3.2	2.1	451,008	2.8	1.1	442,361	2.2	0.9	478,443	2.1	1.1
California	4,471,968	0.3	0.5	4,337,252	0.4	0.5	4,113,195	0.3	0.3	4,188,864	0.2	0.4
Colorado	563,342	1.1	1.2	543,732	1.1	1.2	555,266	0.9	0.8	585,974	0.9	1.2
Connecticut	360,670	1.8	0.6	361,524	1.7	0.5	361,343	1.0	0.3	371,755	0.8	0.3
Delaware	105,334	1.8	0.3	104,189	1.4	0.2	102,257	0.7	0.2	109,647	0.5	0.2
District of Columbia	82,464	5.2	0.4	81,878	5.5	0.4	80,428	0.5	0.6	79,789	0.9	0.9
Florida	2,438,584	0.3	1.5	2,346,200	1.5	0.8	2,321,261	1.1	0.7	2,609,645	0.9	0.9
Georgia	1,355,072	1.6	0.3	1,321,747	1.6	0.3	1,335,373	1.1	0.2	1,411,461	0.9	0.2
Hawaii	141,076	1.9	0.2	137,509	1.8	0.2	138,170	0.8	0.2	145,140	0.3	0.2
Idaho	204,936	1.8	1.1	192,747	1.6	1.2	179,040	1.3	1.0	191,420	1.2	1.3
Illinois	885,668	2.1	1.7	829,301	2.2	1.7	743,305	1.8	0.9	719,056	1.6	1.0
Indiana	689,619	1.6	0.3	683,795	1.3	0.3	714,403	1.1	0.3	784,194	1.2	0.3
Iowa	303,008	1.8	1.3	303,996	1.9	1.3	301,023	1.4	0.9	317,616	1.5	1.4
Kansas	267,963	1.4	0.4	258,003	1.4	0.4	246,384	1.0	0.4	260,754	0.8	0.4
Kentucky	460,572	1.0	0.3	470,923	1.0	0.3	472,456	0.7	0.2	492,322	0.6	0.2
Louisiana	669,453	1.2	0.3	676,909	1.1	0.2	666,815	0.5	0.1	666,473	0.5	0.1
Maine	116,121	4.7	0.9	108,179	4.3	0.7	107,510	3.1	0.6	113,346	2.6	0.8
Maryland	567,716	0.4	0.7	567,099	0.3	0.9	574,790	0.2	0.5	603,626	0.1	0.8
Massachusetts	556,800	0.9	0.5	527,474	0.9	0.5	500,449	0.6	0.3	512,690	0.5	0.4
Michigan	1,058,975	2.2	0.3	1,057,668	1.9	0.3	1,038,459	1.3	0.2	1,076,961	1.1	0.3
Minnesota	606,960	5.0	0.6	606,712	5.0	0.6	597,451	3.6	0.5	628,942	3.3	0.7
Mississippi	415,534	2.2	0.3	395,431	2.0	0.3	380,052	1.4	0.3	410,448	1.1	0.3
Missouri	713,124	2.2	0.4	674,232	2.3	0.5	642,035	1.8	0.4	700,327	1.6	0.5
Montana	113,441	0.5	0.6	112,752	0.4	0.8	104,929	0.3	0.5	107,259	0.4	0.3



State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nebraska	168,517	1.2	0.3	167,431	1.1	0.3	167,840	0.7	0.2	175,015	0.7	0.2
Nevada	339,827	1.0	0.4	332,033	0.9	0.5	331,039	0.7	0.4	353,336	0.5	0.3
New Hampshire	94,817	0.1	0.1	92,301	0.0	0.1	91,420	0.2	0.2	92,294	1.4	0.6
New Jersey	689,176	1.7	0.8	673,754	1.8	0.9	654,842	1.1	0.5	705,377	0.9	0.5
New Mexico	343,364	1.9	0.3	332,536	2.0	0.3	340,445	1.5	0.3	354,204	1.4	0.3
New York	2,145,801	2.8	0.5	2,100,231	2.5	0.5	2,019,893	1.7	0.4	2,114,167	1.4	0.4
North Carolina	1,175,441	1.0	0.4	1,134,426	1.0	0.4	1,091,651	0.8	0.3	1,153,195	0.7	0.3
North Dakota	51,672	1.1	0.3	51,025	1.2	0.3	51,183	1.1	0.2	56,809	0.9	0.3
Ohio	1,165,524	1.2	0.2	1,145,317	1.3	0.3	1,125,745	1.0	0.3	1,165,866	1.0	0.2
Oklahoma	525,297	1.4	0.5	522,117	1.5	0.6	554,222	1.1	0.5	604,049	1.0	0.6
Oregon	362,970	3.3	0.6	359,068	3.4	0.7	347,483	2.0	0.4	360,713	1.4	0.4
Pennsylvania	1,128,892	0.7	0.1	1,046,025	0.8	0.1	1,052,096	0.6	0.1	1,099,830	0.6	0.1
Puerto Rico	373,262	0.1	0.3	343,493	0.1	0.2	292,181	0.0	0.2	288,622	0.0	0.3
Rhode Island	116,364	2.7	1.3	66,681	1.2	1.9	101,483	2.5	0.7	106,105	2.5	0.9
South Carolina	666,597	1.8	0.6	654,812	2.1	0.7	633,273	1.5	0.6	664,860	1.1	0.7
South Dakota	81,255	0.7	0.1	79,188	0.9	0.2	76,730	0.9	0.1	81,391	0.7	0.2
Tennessee	929,981	1.0	0.3	881,641	1.1	0.3	908,984	0.8	0.3	877,822	0.7	0.3
Texas	3,535,280	1.6	1.9	3,409,373	1.6	2.1	3,310,336	1.1	1.2	3,621,221	0.9	1.9
Utah	228,042	DS	DS	221,095	DS	DS	205,450	0.0	0.5	225,565	DS	DS
Vermont	70,126	2.4	0.3	68,391	2.4	0.4	66,947	1.6	0.3	69,948	1.3	0.3
Virgin Islands	785	DS	DS	549	DS	DS	1,307	DS	DS	941	DS	DS
Virginia	643,028	1.8	0.7	682,657	2.1	0.6	685,806	2.0	0.7	722,306	1.6	0.8
Washington	865,088	0.4	0.2	845,095	0.4	0.2	831,685	0.4	0.1	854,708	0.4	0.1
West Virginia	185,359	1.7	0.2	186,212	3.2	0.3	199,550	2.8	0.3	209,207	2.2	0.3
Wisconsin	521,355	3.0	1.5	510,512	2.9	1.6	512,577	2.1	1.2	539,716	1.7	1.8
Wyoming	45,229	0.4	0.1	43,126	0.5	0.1	42,746	0.4	0.1	47,118	0.4	0.1

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes children enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year, excluding children eligible for Medicaid on the basis of a disability. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup>2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2020 data for Puerto Rico, Utah, and the US Virgin Islands, and 2021 data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.3b. Rate and frequency of NEMT utilization, by major eligibility category: Adults by year, 2018–2021**

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>9,922,143</b>	<b>3.2</b>	<b>1.2</b>	<b>10,833,240</b>	<b>3.2</b>	<b>1.3</b>	<b>11,566,110</b>	<b>2.6</b>	<b>1.2</b>	<b>12,732,925</b>	<b>2.1</b>	<b>1.2</b>
Alabama	139,413	0.4	0.1	142,353	0.4	0.1	138,514	0.8	0.1	168,109	0.4	0.1
Alaska	48,820	13.3	0.6	49,521	13.4	0.5	49,521	10.7	0.4	51,098	11.0	0.4
Arizona	370,033	8.5	1.1	357,960	8.2	1.3	347,654	6.6	1.1	366,869	5.3	1.2
Arkansas	2,115	2.7	0.8	1,987	3.6	0.4	1,470	2.5	0.2	1,349	2.8	0.9
California	1,930,996	0.7	0.9	1,852,006	0.8	1.0	1,844,143	0.7	0.9	1,928,527	0.6	0.9
Colorado	236,438	1.7	1.4	226,466	1.9	1.7	106,716	1.3	1.2	118,228	1.4	1.1
Connecticut	189,495	2.6	1.0	188,223	2.4	1.0	195,931	1.5	0.7	208,523	1.0	0.9
Delaware	41,654	4.9	2.8	41,171	4.2	2.5	39,961	2.8	1.7	43,826	3.1	1.4
District of Columbia	56,298	6.2	0.7	55,969	7.4	0.7	56,219	0.3	0.4	56,099	0.3	0.2
Florida	861,170	0.3	0.3	795,200	2.3	2.0	847,225	1.9	1.6	1,025,063	1.5	1.4
Georgia	355,552	2.8	0.5	351,768	2.7	0.5	339,568	2.3	0.5	386,996	1.6	0.5
Hawaii	49,461	2.8	0.5	46,640	2.8	0.5	48,974	1.4	0.5	55,223	0.8	0.7
Idaho	48,222	1.9	1.0	46,151	1.9	0.9	139,197	1.6	0.7	165,687	1.6	1.0
Illinois	134,654	2.0	0.5	120,773	2.3	0.5	87,910	2.0	0.4	84,781	1.6	0.4
Indiana	99,203	5.4	0.8	107,621	4.9	0.6	167,155	6.7	0.8	196,674	6.1	1.0
Iowa	93,589	4.3	0.8	91,826	4.3	0.8	92,805	3.5	0.7	99,723	3.1	0.7
Kansas	85,050	5.8	0.8	81,542	5.7	0.7	77,634	4.9	0.6	78,170	2.9	0.6
Kentucky	136,617	2.0	0.6	138,369	2.2	0.7	145,480	1.7	0.5	152,822	1.4	0.5
Louisiana	113,435	4.0	0.4	116,826	3.6	0.5	101,155	2.3	0.3	94,535	2.1	0.5
Maine	62,469	5.2	3.1	55,696	4.7	2.1	53,830	4.3	1.7	53,592	3.8	2.3
Maryland	253,426	0.2	0.1	244,831	0.1	0.1	253,263	0.1	0.1	269,869	0.1	0.1
Massachusetts	308,954	1.5	1.8	275,549	1.7	1.9	282,008	1.6	1.4	306,461	1.3	1.7
Michigan	380,109	4.9	0.7	363,760	4.3	0.7	352,904	3.2	0.6	379,038	2.5	0.7
Minnesota	223,675	7.1	0.9	218,041	7.1	0.8	210,024	5.7	0.8	227,543	4.9	0.9
Mississippi	94,827	5.1	0.5	91,686	4.3	0.5	88,226	3.3	0.4	105,339	2.4	0.4
Missouri	184,921	3.8	0.7	171,358	3.8	0.8	161,704	3.3	0.6	185,303	2.6	0.6
Montana	19,988	0.7	0.2	22,282	0.5	0.2	23,981	0.4	0.3	27,195	0.6	0.2

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nebraska	44,997	2.5	0.6	44,268	2.6	0.5	42,378	1.8	0.4	45,764	1.9	0.4
Nevada	74,385	3.5	0.7	72,982	3.1	1.0	81,771	2.2	0.9	81,887	1.7	0.7
New Hampshire	22,052	1.1	2.3	20,731	0.9	1.6	17,599	1.1	1.4	18,557	3.5	4.7
New Jersey	112,994	5.3	2.3	110,094	5.3	2.4	125,110	4.0	1.8	149,659	2.9	1.9
New Mexico	106,401	4.0	1.4	99,755	4.3	1.4	109,518	3.8	1.1	126,034	3.2	1.2
New York	937,923	4.5	1.5	983,894	3.8	1.6	1,010,332	2.8	1.6	1,139,153	2.4	1.6
North Carolina	378,275	1.9	0.8	345,538	2.0	0.9	338,071	1.7	0.6	410,929	1.4	0.6
North Dakota	14,701	2.0	0.3	13,657	2.4	0.4	15,014	2.2	0.4	15,864	1.8	0.5
Ohio	505,210	2.4	0.4	482,088	2.6	0.3	489,753	2.3	0.3	518,732	2.3	0.4
Oklahoma	142,854	2.4	0.4	138,271	2.5	0.4	158,308	2.0	0.4	128,528	1.8	0.4
Oregon	155,938	14.5	2.4	161,778	14.3	2.5	142,970	10.2	1.9	20,749	5.5	1.2
Pennsylvania	313,095	1.1	0.1	301,205	1.0	0.1	291,119	1.1	0.1	341,489	0.9	0.1
Puerto Rico	238,950	0.2	1.6	194,175	0.2	1.1	165,642	0.2	1.8	163,918	0.2	1.3
Rhode Island	56,158	3.8	1.7	42,544	1.8	1.1	55,131	1.6	1.8	61,461	1.6	1.7
South Carolina	231,713	2.8	0.6	224,756	2.9	0.7	216,204	2.4	0.7	243,118	1.9	0.8
South Dakota	21,272	1.5	0.3	20,678	1.9	0.2	19,656	3.4	0.2	22,981	2.7	0.2
Tennessee	427,831	1.8	0.5	391,137	2.1	0.5	408,541	2.3	0.5	440,096	1.9	0.5
Texas	463,468	2.5	0.9	450,773	2.6	0.9	439,089	2.0	0.8	578,360	1.4	0.7
Utah	89,483	DS	DS	107,695	0.0	0.4	48,151	0.0	1.2	52,283	0.0	0.8
Vermont	11,060	5.3	3.4	8,649	5.3	3.4	8,831	3.4	1.9	13,329	2.7	1.8
Virgin Islands	6,484	0.4	0.8	6,504	0.4	0.9	6,981	0.5	0.8	7,228	0.6	0.9
Virginia	199,141	3.9	1.3	582,786	4.9	1.2	674,627	5.2	1.6	791,659	4.7	1.9
Washington	46,591	0.5	0.4	45,296	0.7	0.3	157,049	1.0	0.6	162,003	1.0	0.4
West Virginia	48,667	2.6	0.6	46,320	4.9	1.7	55,232	5.8	1.7	59,973	4.6	1.8
Wisconsin	418,951	5.9	2.7	411,969	5.8	2.7	444,773	4.5	2.8	511,958	3.6	2.7
Wyoming	13,041	1.0	0.2	12,177	0.9	0.2	11,862	0.9	0.1	14,000	0.8	0.1

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes adults enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year, excluding adults eligible for Medicaid on the basis of a disability, on the basis of age (65+), and those eligible for the adult expansion population (VIII group). NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of

procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> 2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2020 data for Puerto Rico, Utah, and the US Virgin Islands, and 2021 data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.3c. Rate and frequency of NEMT utilization, by major eligibility category: Adult expansion beneficiaries by year, 2018–2021**

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>19,668,033</b>	<b>3.3</b>	<b>1.3</b>	<b>19,295,363</b>	<b>3.4</b>	<b>1.4</b>	<b>20,074,812</b>	<b>2.9</b>	<b>1.1</b>	<b>22,395,721</b>	<b>2.7</b>	<b>1.1</b>
Alabama	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alaska	55,898	11.4	0.6	61,481	13.0	0.5	68,992	11.0	0.4	72,388	10.8	0.4
Arizona	533,018	12.8	1.3	530,217	12.8	1.6	562,135	10.8	1.3	643,669	8.9	1.3
Arkansas	366,619	1.2	0.4	342,061	1.4	0.4	337,861	1.2	0.4	359,003	1.0	0.4
California	4,289,653	1.2	1.0	4,192,250	1.3	1.1	4,237,788	1.1	1.0	4,546,426	1.1	1.0
Colorado	523,918	2.6	1.5	503,546	2.9	1.8	632,944	2.8	1.4	718,065	2.9	1.4
Connecticut	302,491	5.9	1.3	318,944	5.7	1.2	330,888	4.0	0.8	362,628	2.9	1.1
Delaware	80,911	5.0	2.2	80,910	4.1	2.2	78,979	2.7	1.7	87,252	2.1	1.6
District of Columbia	77,852	4.7	0.9	73,045	5.1	0.9	78,662	0.5	0.4	83,943	0.5	0.3
Florida	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Georgia	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hawaii	138,485	3.2	0.6	132,291	3.4	0.7	148,476	1.9	0.6	174,360	1.3	0.6
Idaho	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Illinois	1,887,996	3.6	0.9	1,786,631	4.0	1.0	1,902,151	3.6	0.7	2,073,701	3.3	0.7
Indiana	549,399	4.1	0.7	529,593	3.2	0.7	577,508	3.1	0.8	645,441	3.2	0.9
Iowa	207,786	2.6	0.7	219,956	2.6	0.7	222,572	2.1	0.6	253,646	1.7	0.7
Kansas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kentucky	663,465	2.2	0.6	632,072	2.5	0.8	739,105	2.0	0.7	737,373	1.7	0.6
Louisiana	577,964	3.5	0.5	596,677	3.4	0.6	629,330	2.2	0.4	727,811	2.4	0.4
Maine	7,841	2.3	1.4	54,552	7.1	1.2	76,123	6.0	1.3	98,982	5.0	1.9
Maryland	383,620	0.3	0.1	376,710	0.2	0.1	388,295	0.1	0.1	438,108	0.1	0.1
Massachusetts	413,795	2.4	1.8	389,713	2.8	1.8	377,483	2.7	1.5	425,958	2.4	1.7
Michigan	891,643	4.5	0.8	895,612	4.3	0.8	916,340	3.5	0.6	996,489	3.2	0.7
Minnesota	267,303	8.5	1.2	256,936	9.1	1.2	249,528	8.0	1.1	289,692	7.3	1.1
Mississippi	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Missouri	NA	NA	NA	NA	NA	NA	NA	NA	NA	103,829	0.9	0.3
Montana	121,603	0.9	0.4	123,451	0.8	0.6	112,882	0.8	0.4	118,384	1.0	0.5

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nebraska	NA	NA	NA	NA	NA	NA	32,688	1.6	0.7	67,190	3.5	0.5
Nevada	299,582	4.5	0.8	294,786	4.5	1.1	302,464	3.6	1.3	352,444	2.9	1.3
New Hampshire	75,814	3.8	4.6	78,077	3.1	3.7	78,939	2.7	2.3	92,270	3.2	4.0
New Jersey	684,437	4.3	2.8	681,107	4.7	2.9	679,436	3.8	2.3	752,436	3.0	2.5
New Mexico	299,016	4.5	1.3	302,010	4.7	1.4	305,440	4.2	1.0	313,825	3.9	1.1
New York	2,491,359	4.5	1.7	2,484,956	4.1	2.0	2,549,728	3.4	1.6	2,746,385	3.3	1.6
North Carolina	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
North Dakota	30,930	1.7	0.4	30,548	1.4	1.0	29,022	1.8	0.7	35,013	1.9	0.8
Ohio	868,103	3.4	0.4	795,048	3.9	0.4	797,408	4.0	0.3	890,916	4.0	0.4
Oklahoma	NA	NA	NA	NA	NA	NA	NA	NA	NA	159,403	1.3	0.4
Oregon	459,057	6.6	2.5	460,651	7.1	2.6	499,207	5.3	1.7	670,991	3.9	1.3
Pennsylvania	981,598	1.4	0.1	964,089	1.4	0.1	1,020,722	1.4	0.1	1,119,048	1.3	0.1
Puerto Rico	446,744	0.3	1.4	505,061	0.3	1.2	577,578	0.3	1.6	648,516	0.5	1.2
Rhode Island	91,422	3.5	3.7	79,879	3.6	1.1	94,016	3.7	1.8	104,833	3.5	1.9
South Carolina	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
South Dakota	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tennessee	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Texas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Utah	NA	NA	NA	NA	NA	NA	87,048	DS	DS	118,531	DS	DS
Vermont	70,931	3.8	2.8	68,989	3.9	2.7	69,931	3.4	1.7	75,321	2.9	1.7
Virgin Islands	8,234	1.1	1.0	9,381	1.2	1.2	10,207	1.0	1.1	11,427	1.1	1.0
Virginia	NA	NA	NA	36	DS	DS	35	DS	DS	34	DS	DS
Washington	860,246	1.1	0.8	835,725	1.3	0.8	741,881	1.4	0.5	829,463	1.3	0.5
West Virginia	205,700	3.7	0.5	202,693	6.0	1.2	205,853	6.8	1.4	229,000	6.0	1.5
Wisconsin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Wyoming	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries in the adult expansion population (VIII Group) who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup>2018 data for Puerto Rico, Rhode Island, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, and the US Virgin Islands, 2020 data for Puerto Rico, Utah, and the US Virgin Islands, and 2021 data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix B.

NA = State did not have an adult Medicaid expansion program during the calendar year.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.



**Table B1.3d. Rate and frequency of NEMT utilization, by major eligibility category: Beneficiaries eligible on the basis of a disability by year, 2018–2021**

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>8,214,252</b>	<b>16.2</b>	<b>2.6</b>	<b>8,577,804</b>	<b>16.4</b>	<b>2.6</b>	<b>8,599,770</b>	<b>14.9</b>	<b>1.8</b>	<b>8,553,856</b>	<b>13.6</b>	<b>2.0</b>
Alabama	167,077	4.7	0.3	162,586	4.5	0.4	156,935	4.2	0.4	157,303	3.1	0.3
Alaska	17,322	24.1	1.2	17,027	26.6	1.2	16,559	22.4	0.9	15,943	22.4	0.9
Arizona	170,314	40.0	3.3	169,274	39.1	3.5	166,532	34.4	2.3	166,376	29.5	2.5
Arkansas	123,240	19.2	2.3	120,436	17.8	1.7	115,945	15.6	1.4	114,367	14.2	1.7
California	1,022,150	7.7	1.6	983,541	8.3	1.6	927,803	7.4	1.3	894,161	6.8	1.4
Colorado	105,116	23.5	4.8	105,356	25.0	4.9	102,502	23.7	3.4	103,095	23.3	4.0
Connecticut	49,264	26.2	1.9	46,192	25.6	1.9	40,795	21.9	1.4	38,325	19.1	1.6
Delaware	19,556	17.5	1.7	19,856	14.8	1.5	19,506	10.0	1.1	19,305	8.0	1.0
District of Columbia	33,841	23.2	2.8	32,931	22.0	2.1	30,566	8.5	1.1	30,039	8.8	1.0
Florida	540,265	5.4	2.2	527,754	16.9	2.2	520,249	15.2	1.6	495,679	13.3	1.9
Georgia	310,894	15.1	1.8	298,168	15.2	1.8	290,628	13.8	1.4	279,955	12.6	1.6
Hawaii	23,297	20.2	1.7	22,566	20.5	1.6	21,239	15.0	1.4	20,960	11.7	1.1
Idaho	44,998	20.5	4.6	44,456	19.5	4.7	43,680	17.1	3.2	44,268	15.4	4.3
Illinois	209,682	13.2	1.5	198,991	13.1	1.6	191,432	13.2	1.0	193,216	12.3	1.0
Indiana	182,314	17.7	0.9	171,561	13.6	0.7	142,020	10.5	0.9	140,054	10.2	1.0
Iowa	77,878	23.2	3.9	79,402	23.5	3.3	78,322	20.9	2.0	79,454	19.6	2.7
Kansas	48,224	12.7	0.7	48,723	12.7	0.8	49,639	10.6	0.7	64,086	9.9	0.7
Kentucky	182,299	15.2	2.2	174,447	15.5	2.3	173,000	13.9	1.3	167,692	12.4	1.7
Louisiana	198,240	13.8	1.1	208,150	13.9	1.1	209,895	10.4	0.8	197,079	9.7	0.9
Maine	46,710	28.9	3.4	43,412	27.7	2.8	54,198	25.1	1.8	53,704	21.7	2.4
Maryland	126,904	3.8	0.6	126,348	3.7	0.7	123,066	2.8	0.3	120,135	2.5	0.4
Massachusetts	388,414	16.3	4.9	382,692	17.1	4.9	360,287	15.5	2.3	362,572	13.2	3.4
Michigan	347,898	14.4	1.3	354,754	13.6	1.3	332,474	12.0	1.0	332,275	11.0	1.1
Minnesota	121,243	35.2	2.0	119,481	37.5	2.1	115,546	35.1	1.4	117,021	35.1	2.1
Mississippi	135,976	19.3	1.3	133,061	17.5	1.1	127,844	15.2	1.1	127,775	13.7	1.1
Missouri	189,607	23.0	1.9	186,901	22.8	1.8	183,073	20.5	1.6	183,290	18.9	1.8
Montana	22,319	9.2	4.2	22,209	12.7	5.4	21,297	12.9	6.4	20,656	10.7	5.1

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nebraska	39,921	17.4	1.8	39,544	17.6	1.6	38,942	14.5	1.2	39,099	13.6	1.3
Nevada	49,959	19.5	1.9	49,584	19.1	2.1	47,604	16.9	2.0	47,505	14.6	2.1
New Hampshire	17,030	2.6	0.8	16,922	2.1	0.9	20,530	4.9	0.7	20,480	14.4	2.5
New Jersey	172,579	27.0	3.7	173,880	27.3	3.9	170,685	24.1	2.4	172,180	20.3	2.6
New Mexico	57,192	20.0	1.6	56,423	20.0	1.7	56,159	17.4	1.3	57,050	15.6	1.3
New York	629,117	26.6	2.4	616,299	26.2	2.6	600,010	23.5	1.8	586,871	22.1	1.9
North Carolina	345,970	12.3	1.6	339,734	12.6	1.7	330,144	11.2	1.3	329,666	10.9	1.4
North Dakota	11,939	10.7	1.1	11,526	11.2	1.3	11,652	10.3	1.1	12,422	10.2	1.1
Ohio	358,249	12.7	0.7	360,901	12.8	0.7	349,273	12.0	0.6	348,467	11.9	0.6
Oklahoma	108,820	19.3	3.6	107,219	20.1	3.5	103,350	19.1	3.1	105,279	17.1	3.4
Oregon	22,971	27.8	2.6	22,870	27.5	2.7	55,688	23.9	1.6	97,123	21.5	1.8
Pennsylvania	589,694	3.5	3.9	586,520	3.6	3.7	573,046	3.9	1.6	568,181	4.0	1.6
Puerto Rico	104,178	3.5	1.4	105,015	3.9	1.0	99,696	5.9	1.3	93,793	6.9	1.1
Rhode Island	52,335	16.1	4.4	46,455	15.1	3.7	50,689	15.3	2.7	50,210	14.8	3.4
South Carolina	176,110	18.7	1.7	175,796	19.4	1.7	172,272	16.8	1.4	170,969	15.0	1.5
South Dakota	17,270	7.8	1.2	17,030	8.4	1.1	16,722	8.7	0.8	16,833	8.9	0.8
Tennessee	234,273	15.6	1.3	219,418	16.4	1.3	218,100	15.7	1.0	219,365	14.2	1.1
Texas	598,174	17.1	3.0	576,883	17.6	3.1	560,230	14.7	1.8	563,430	13.1	2.2
Utah	48,102	DS	DS	46,709	0.0	0.9	45,151	0.0	1.0	46,781	0.1	0.4
Vermont	20,306	18.1	2.5	19,960	18.5	2.4	19,069	16.3	1.3	19,705	14.0	1.5
Virgin Islands	968	2.8	1.5	584	5.1	1.9	525	3.8	3.1	537	4.3	2.3
Virginia	186,571	20.4	2.2	159,504	24.7	2.9	153,848	26.4	2.1	153,131	23.0	2.6
Washington	164,187	14.8	4.4	161,080	15.8	4.4	157,061	15.5	2.0	156,529	14.0	1.6
West Virginia	81,120	13.9	1.5	82,063	18.3	1.8	73,302	19.3	1.5	71,376	17.7	1.9
Wisconsin	192,106	31.6	5.6	193,610	31.6	6.1	196,251	28.1	4.6	198,966	24.7	4.8
Wyoming	10,190	5.2	1.8	10,181	5.4	1.9	10,111	5.1	1.3	10,234	4.1	1.3

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries eligible for Medicaid on the basis of a disability who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup>2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2020 data for Puerto Rico, Utah, and the US Virgin Islands, and 2021 data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.3e. Rate and frequency of NEMT utilization, by major eligibility category: Beneficiaries eligible on the basis of age (65+) by year, 2018–2021**

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	# ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>5,523,030</b>	<b>16.1</b>	<b>1.8</b>	<b>6,090,786</b>	<b>15.9</b>	<b>1.8</b>	<b>6,269,681</b>	<b>14.7</b>	<b>1.3</b>	<b>6,444,765</b>	<b>13.9</b>	<b>1.4</b>
Alabama	52,415	12.9	0.4	53,113	11.9	0.4	53,033	10.9	0.4	52,952	7.2	0.3
Alaska	12,442	29.1	1.0	12,980	30.3	0.9	13,651	24.6	0.6	14,414	24.8	0.7
Arizona	134,522	23.6	1.5	141,167	23.4	1.5	145,372	20.1	1.2	153,053	17.4	1.2
Arkansas	47,040	18.9	0.9	47,655	17.6	0.9	46,890	16.7	0.8	46,731	15.8	0.8
California	1,342,931	4.9	1.7	1,380,275	5.0	1.6	1,390,938	4.2	1.5	1,439,241	4.3	1.4
Colorado	57,771	14.3	3.5	58,038	16.0	3.5	57,446	15.5	2.7	57,347	19.1	2.7
Connecticut	59,417	22.4	0.9	59,213	21.4	0.9	55,186	15.9	0.7	56,674	13.9	0.7
Delaware	9,309	26.3	0.9	9,704	23.5	0.8	9,482	13.7	0.7	9,489	12.3	0.6
District of Columbia	18,941	13.5	2.1	19,380	12.5	1.8	19,278	2.5	0.7	20,389	2.9	0.4
Florida	422,216	3.4	0.8	425,220	13.0	1.9	440,856	11.4	1.1	425,861	8.6	1.4
Georgia	112,544	23.8	1.7	111,801	24.7	1.6	113,660	23.3	1.1	115,344	21.6	1.2
Hawaii	31,775	14.1	1.4	32,603	13.9	1.4	34,455	10.0	1.1	39,186	8.1	1.0
Idaho	17,920	17.6	2.7	18,294	17.2	2.5	18,846	15.3	2.0	19,891	13.6	2.1
Illinois	265,998	13.0	1.1	269,006	12.3	1.0	273,992	12.9	0.6	284,965	13.2	0.7
Indiana	84,452	25.6	0.7	88,079	17.5	0.6	99,083	13.6	0.7	103,221	13.5	0.9
Iowa	35,442	18.3	1.8	35,906	19.0	1.4	34,389	17.7	1.0	34,848	17.2	1.1
Kansas	27,308	6.1	0.7	28,050	6.6	0.7	28,885	6.0	0.7	31,040	5.7	0.7
Kentucky	61,449	26.9	1.1	61,444	27.4	1.1	63,275	24.7	0.8	62,790	23.4	0.9
Louisiana	79,073	5.4	1.1	89,358	5.6	1.0	88,259	4.9	0.8	93,178	4.9	0.9
Maine	13,260	22.2	1.4	13,931	20.7	1.3	29,925	20.8	0.9	31,349	20.1	1.0
Maryland	62,735	8.9	0.2	63,406	9.1	0.2	62,408	8.4	0.2	63,099	8.7	0.2
Massachusetts	177,187	32.4	3.8	178,689	32.7	3.9	179,225	28.3	1.8	185,140	26.2	2.6
Michigan	178,646	5.9	1.6	184,171	6.2	1.6	167,268	6.0	1.1	172,861	6.9	0.9
Minnesota	80,259	39.2	2.7	81,535	39.9	2.8	82,273	37.0	1.7	85,111	35.7	2.6
Mississippi	50,353	26.3	1.1	50,914	23.9	0.8	49,874	23.2	0.9	50,076	20.7	0.9
Missouri	86,982	24.2	1.0	88,548	24.5	1.0	90,871	21.9	0.9	93,414	20.5	0.9
Montana	11,744	8.2	3.7	12,013	8.8	3.8	12,069	8.4	3.8	12,134	8.0	3.4

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	# ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nebraska	23,002	11.8	1.1	23,239	12.5	1.0	23,307	12.1	0.8	23,754	11.7	0.8
Nevada	24,543	13.1	3.0	25,347	11.9	3.3	24,352	11.0	2.6	25,827	9.1	3.1
New Hampshire	12,577	6.8	0.7	12,702	4.5	0.9	12,445	7.5	0.4	12,358	18.8	0.9
New Jersey	155,197	24.6	1.4	160,436	25.1	1.5	167,175	21.2	1.1	174,498	19.3	1.1
New Mexico	30,099	16.9	1.2	30,009	18.3	1.2	28,900	17.6	1.1	28,676	16.9	1.1
New York	687,709	30.0	2.1	710,775	30.0	2.3	725,476	27.3	1.5	741,038	25.9	1.7
North Carolina	157,529	15.5	1.0	160,927	15.1	1.1	160,858	13.7	1.0	165,586	13.6	1.0
North Dakota	9,194	7.4	1.0	9,144	8.1	0.9	9,036	7.8	0.7	9,077	7.7	0.8
Ohio	172,682	26.5	0.8	177,070	25.0	0.8	177,472	22.6	0.7	180,733	21.2	0.6
Oklahoma	59,913	19.1	1.3	61,408	19.8	1.3	61,816	18.8	1.2	63,860	17.1	1.2
Oregon	59,803	31.0	1.8	62,510	31.4	1.9	62,303	31.4	1.7	72,106	28.2	1.7
Pennsylvania	245,352	1.4	1.0	252,751	2.5	0.6	258,877	3.8	0.3	267,942	4.7	0.5
Puerto Rico	275,397	4.6	0.7	276,699	4.4	0.5	273,277	7.1	0.8	274,160	9.1	0.7
Rhode Island	27,740	17.4	2.1	25,004	15.2	1.9	22,860	15.7	1.8	24,351	14.6	2.3
South Carolina	90,520	12.2	1.3	95,420	12.3	1.3	98,232	11.0	1.2	100,911	10.3	1.2
South Dakota	8,743	17.1	0.9	8,761	17.1	1.0	8,685	15.5	0.7	8,428	16.3	0.8
Tennessee	81,495	24.1	0.9	82,120	24.3	1.0	83,833	24.1	0.8	85,920	22.5	0.8
Texas	310,233	13.6	1.1	309,917	13.7	1.2	303,273	12.8	1.1	297,081	12.0	1.0
Utah	19,676	DS	DS	20,106	DS	DS	20,477	DS	DS	22,918	0.2	0.1
Vermont	11,805	20.4	2.0	11,917	21.8	2.1	11,687	20.4	0.9	20,214	11.7	1.0
Virgin Islands	2,674	1.6	0.8	3,199	2.5	1.6	3,612	3.1	1.5	4,001	3.3	1.2
Virginia	94,028	17.0	1.3	98,005	17.5	1.7	100,802	24.0	1.4	110,286	22.2	1.4
Washington	97,866	19.8	1.7	100,180	20.3	1.6	103,394	19.9	1.4	109,882	18.8	1.1
West Virginia	30,345	20.5	0.6	32,915	22.3	0.8	29,473	21.8	0.8	30,221	23.5	0.8
Wisconsin	123,758	20.1	3.5	126,526	20.3	3.7	128,527	19.0	2.9	132,334	17.9	2.7
Wyoming	6,217	5.8	1.4	6,334	5.9	1.5	6,009	6.9	0.8	5,884	6.2	0.7

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries eligible for Medicaid on the basis of age (65+) who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup>2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2020 data for Puerto Rico, Utah, and the US Virgin Islands, and 2021 data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.4. Rate and frequency of NEMT utilization: Pregnant beneficiaries by year, 2018–2021**

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>4,091,235</b>	<b>4.4</b>	<b>0.9</b>	<b>4,228,285</b>	<b>4.2</b>	<b>1.0</b>	<b>4,243,834</b>	<b>3.3</b>	<b>0.8</b>	<b>4,589,222</b>	<b>2.7</b>	<b>0.8</b>
Alabama	38,576	1.1	0.1	43,276	0.9	0.1	60,878	1.1	0.1	77,150	0.5	0.1
Alaska	13,182	22.0	0.7	12,807	23.7	0.6	12,422	21.6	0.4	12,333	20.5	0.5
Arizona	103,617	13.4	1.1	100,476	12.2	1.3	97,957	9.5	1.0	101,127	7.2	1.1
Arkansas	40,443	4.2	0.4	42,775	4.0	0.3	39,764	3.3	0.3	37,608	3.0	0.3
California	624,149	1.4	1.0	599,129	1.2	0.9	587,618	1.1	0.8	602,140	1.0	0.9
Colorado	73,376	2.9	1.4	69,515	3.1	1.7	68,154	2.9	1.4	73,023	2.7	1.3
Connecticut	49,349	4.4	1.0	49,095	4.1	0.9	48,654	2.5	0.7	50,624	1.6	0.8
Delaware	13,679	5.9	2.5	13,379	5.1	2.1	12,637	3.1	1.3	13,221	5.4	0.8
District of Columbia	12,990	12.8	0.7	12,378	15.7	0.6	11,727	1.5	0.4	11,137	1.3	0.4
Florida	228,681	0.4	0.4	242,912	3.7	1.4	244,758	3.2	1.1	265,801	2.4	0.9
Georgia	159,873	4.1	0.5	156,515	4.0	0.5	150,256	3.2	0.5	172,215	2.1	0.4
Hawaii	18,688	4.5	0.4	17,739	4.3	0.5	18,026	2.6	0.4	19,401	1.3	0.4
Idaho	20,154	2.5	1.1	19,447	2.2	1.0	21,959	1.8	0.5	22,981	1.6	0.7
Illinois	173,040	3.4	0.5	162,713	3.6	0.5	153,816	3.3	0.4	157,633	2.7	0.4
Indiana	96,773	5.1	0.5	91,739	3.6	0.5	95,139	3.0	0.5	101,090	2.8	0.6
Iowa	45,448	4.1	0.6	44,600	4.1	0.7	42,655	3.5	0.5	45,660	3.0	0.6
Kansas	29,943	3.6	0.5	29,392	3.3	0.5	27,995	2.6	0.4	31,365	2.0	0.4
Kentucky	80,361	3.1	0.6	77,832	3.2	0.7	78,673	2.5	0.6	80,003	2.1	0.5
Louisiana	96,457	4.6	0.4	96,249	4.5	0.4	94,990	2.6	0.3	97,206	2.4	0.3
Maine	13,783	9.3	2.0	13,741	9.4	1.2	13,824	7.4	1.1	14,742	6.1	1.2
Maryland	80,280	0.2	0.1	81,511	0.2	0.2	78,339	0.1	0.1	81,808	0.1	0.1
Massachusetts	78,464	3.6	1.9	73,877	3.8	2.0	70,145	3.1	1.5	72,815	2.5	1.7
Michigan	149,819	7.7	0.6	145,650	7.0	0.6	140,274	5.1	0.5	141,541	4.0	0.5
Minnesota	70,633	10.8	0.8	69,042	10.8	0.8	65,635	8.8	0.7	69,449	7.3	0.7
Mississippi	49,673	6.1	0.6	48,559	4.9	0.5	46,390	4.0	0.5	55,696	2.7	0.4
Missouri	76,053	6.0	0.6	72,558	6.0	0.6	71,109	4.8	0.5	82,677	3.6	0.4
Montana	15,247	1.2	0.4	14,740	0.9	0.3	13,618	0.8	0.5	13,837	1.0	0.5
Nebraska	21,058	3.3	0.6	20,462	3.3	0.5	20,733	2.4	0.4	23,415	2.5	0.3

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nevada	43,476	4.4	0.6	42,700	3.9	0.8	42,196	3.0	0.9	43,430	2.4	0.8
New Hampshire	8,910	2.0	2.9	9,119	1.8	2.9	9,454	1.8	2.2	10,038	3.7	3.7
New Jersey	88,789	5.9	1.9	90,135	5.6	2.1	91,870	4.0	1.6	102,436	2.8	1.5
New Mexico	44,436	4.9	1.0	44,241	5.2	1.4	43,305	4.6	1.1	43,688	3.9	1.1
New York	352,457	8.9	1.3	339,241	7.6	1.3	319,132	5.7	1.1	324,971	5.0	1.1
North Carolina	147,937	2.7	0.6	141,587	2.8	0.7	138,058	2.3	0.4	154,669	1.8	0.4
North Dakota	7,159	2.3	0.3	6,757	2.6	0.4	6,486	2.4	0.4	7,006	2.4	0.6
Ohio	183,874	3.8	0.4	177,267	4.1	0.3	171,866	3.5	0.3	173,728	3.5	0.3
Oklahoma	52,247	4.1	0.5	50,950	4.2	0.5	52,381	3.7	0.4	61,981	2.7	0.3
Oregon	58,176	7.4	1.9	55,345	7.9	2.0	54,751	5.8	1.2	57,565	4.3	1.0
Pennsylvania	165,996	1.9	0.2	161,219	1.8	0.1	157,912	1.8	0.1	161,674	1.7	0.1
Puerto Rico	39,309	0.1	1.3	33,070	0.2	1.0	30,936	0.2	0.4	33,631	0.2	0.6
Rhode Island	13,283	6.5	1.8	8,720	3.7	0.9	12,733	3.3	1.6	13,576	3.0	1.1
South Carolina	76,929	4.2	0.5	75,393	4.1	0.6	72,921	3.2	0.5	79,938	2.5	0.5
South Dakota	8,999	1.8	0.2	8,566	2.3	0.2	7,874	3.6	0.1	8,703	2.9	0.2
Tennessee	75,228	5.8	0.7	80,857	5.6	0.7	73,459	3.6	0.4	108,324	2.5	0.4
Texas	324,178	2.9	0.8	322,075	2.8	0.8	317,840	2.0	0.6	412,773	1.3	0.6
Utah	25,063	DS	DS	24,102	DS	DS	23,559	0.1	0.8	27,457	DS	DS
Vermont	7,981	5.1	2.8	7,427	5.3	2.0	7,036	4.1	1.3	7,288	3.3	1.2
Virgin Islands	1,676	DS	DS	1,769	0.6	1.3	1,809	DS	DS	1,723	DS	DS
Virginia	76,497	5.2	0.9	84,087	6.0	1.0	87,129	5.8	1.2	91,141	4.6	1.3
Washington	100,150	1.4	0.7	95,415	1.6	0.7	92,482	1.4	0.4	95,820	1.3	0.2
West Virginia	25,200	2.9	0.5	23,827	5.6	1.1	27,091	7.0	1.0	28,405	5.7	1.0
Wisconsin	67,129	7.9	1.7	65,690	7.5	1.5	64,818	5.7	1.7	68,806	4.1	1.7
Wyoming	5,607	1.1	0.2	5,136	1.4	0.3	4,895	1.2	0.1	5,564	0.9	0.1

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who received pregnancy-related medical services during the year who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified pregnant beneficiaries as individuals age 8-64 with one or more claims or encounter records reported in the IP or OT files related to a live birth or fetal loss, labor/delivery, and/or bundled payments during the calendar year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.



<sup>a</sup>2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2020 data for Puerto Rico, Utah, and the US Virgin Islands, and 2021 data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.5. Rate and frequency of NEMT utilization: Postpartum beneficiaries by year, 2018–2021**

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>3,601,420</b>	<b>3.9</b>	<b>0.7</b>	<b>3,812,857</b>	<b>3.7</b>	<b>0.7</b>	<b>3,829,112</b>	<b>2.8</b>	<b>0.6</b>	<b>3,818,177</b>	<b>2.4</b>	<b>0.6</b>
Alabama	53,538	1.1	0.1	56,101	1.0	0.1	70,693	1.0	0.1	69,603	0.6	0.1
Alaska	10,586	20.7	0.8	10,186	22.5	0.6	10,018	19.6	0.4	9,493	18.8	0.5
Arizona	99,617	11.0	0.9	97,227	10.2	1.0	94,191	7.5	0.8	92,528	5.8	0.9
Arkansas	46,600	4.3	0.4	45,517	4.7	0.3	43,621	3.6	0.3	40,731	3.4	0.3
California	308,839	1.5	0.9	296,699	1.4	0.8	291,590	1.1	0.7	295,505	1.0	0.7
Colorado	52,631	2.5	1.2	51,636	2.6	1.3	56,100	2.2	1.2	61,531	2.0	1.0
Connecticut	42,506	3.5	0.7	42,433	3.4	0.7	41,431	1.9	0.6	43,231	1.4	0.5
Delaware	12,269	4.3	1.8	11,864	4.1	1.7	11,268	2.3	1.2	10,970	5.1	0.7
District of Columbia	10,112	14.1	0.6	9,976	15.1	0.6	9,397	1.2	0.4	8,729	1.1	0.4
Florida	268,318	0.3	0.4	272,628	3.2	1.1	260,497	2.6	0.9	251,338	2.1	0.7
Georgia	166,367	3.6	0.4	166,804	3.6	0.4	164,641	2.5	0.4	161,775	1.8	0.4
Hawaii	17,917	4.4	0.3	17,325	4.1	0.4	17,797	2.7	0.3	16,805	1.3	0.3
Idaho	21,658	2.1	0.6	21,584	1.8	0.6	21,260	1.5	0.4	20,513	1.3	0.5
Illinois	149,622	3.0	0.3	143,174	3.2	0.3	135,197	2.8	0.3	139,807	2.3	0.3
Indiana	80,424	4.7	0.4	75,177	3.4	0.4	82,835	2.6	0.4	85,201	2.5	0.4
Iowa	43,406	3.4	0.5	42,637	3.7	0.4	40,979	3.0	0.4	40,642	2.9	0.4
Kansas	32,257	2.6	0.4	31,363	2.3	0.4	30,974	1.7	0.3	29,951	1.5	0.3
Kentucky	67,258	2.6	0.4	66,318	2.7	0.6	66,587	2.1	0.5	68,143	1.7	0.4
Louisiana	88,851	3.7	0.4	87,452	3.6	0.4	86,915	1.9	0.3	87,801	1.8	0.3
Maine	11,447	6.6	0.9	10,913	6.7	0.8	11,495	5.8	0.7	11,681	5.6	0.8
Maryland	73,057	0.3	0.1	74,913	0.3	0.1	72,064	0.2	0.1	69,230	0.2	0.1
Massachusetts	68,319	2.3	1.4	67,226	2.4	1.4	63,250	2.0	1.0	63,119	1.7	1.2
Michigan	126,129	7.3	0.5	120,743	6.9	0.5	113,223	4.7	0.4	112,110	3.9	0.5
Minnesota	60,446	8.3	0.6	59,330	8.3	0.6	57,348	6.4	0.5	55,879	5.7	0.6
Mississippi	58,812	5.0	0.5	57,740	3.8	0.5	55,549	3.0	0.4	53,541	2.5	0.4
Missouri	76,863	5.2	0.4	74,645	5.5	0.5	73,639	4.1	0.4	71,766	3.4	0.4
Montana	13,286	1.2	0.1	12,531	0.9	0.2	11,698	0.8	0.3	11,719	1.0	0.1
Nebraska	22,704	2.5	0.5	22,484	2.5	0.4	22,939	1.7	0.4	23,257	2.1	0.2

State	2018			2019			2020			2021		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nevada	41,149	3.4	0.5	39,680	2.9	0.7	38,654	2.0	0.7	38,030	1.8	0.6
New Hampshire	6,129	1.1	1.7	6,406	1.1	2.9	7,663	1.2	1.5	8,312	2.6	2.9
New Jersey	49,761	5.5	1.6	63,428	4.5	1.6	63,574	3.2	1.4	73,402	2.2	1.2
New Mexico	38,047	4.0	0.8	38,584	4.4	0.9	37,695	3.6	0.6	35,846	3.2	0.6
New York	306,432	7.1	1.0	303,178	5.9	1.0	284,393	4.4	0.8	282,710	3.9	0.9
North Carolina	151,607	2.9	0.4	149,646	2.9	0.4	145,912	2.3	0.3	141,922	2.0	0.3
North Dakota	6,651	2.2	0.3	6,340	1.9	0.4	6,223	1.9	0.3	6,182	2.0	0.4
Ohio	153,810	3.3	0.3	153,552	3.5	0.3	146,415	2.8	0.2	142,345	2.8	0.3
Oklahoma	60,821	3.4	0.3	60,520	3.6	0.3	60,187	2.9	0.3	61,205	2.7	0.3
Oregon	50,985	6.2	1.3	48,031	6.3	1.4	46,985	4.5	0.9	48,641	3.4	0.8
Pennsylvania	144,754	2.0	0.1	141,479	2.0	0.1	136,845	1.8	0.1	132,705	1.9	0.1
Puerto Rico	14,724	0.1	0.8	12,056	0.2	0.7	12,261	0.2	0.3	13,976	0.2	0.4
Rhode Island	6,976	5.1	1.6	3,837	2.7	0.8	8,105	2.2	1.2	9,407	2.1	1.0
South Carolina	75,661	3.7	0.4	75,442	3.6	0.5	72,493	2.7	0.4	71,872	2.2	0.4
South Dakota	10,015	1.3	0.2	9,452	1.8	0.2	8,768	2.3	0.1	8,804	2.2	0.2
Tennessee	62,980	3.5	0.4	61,972	3.6	0.5	80,430	2.7	0.4	92,092	2.1	0.4
Texas	450,579	2.2	0.6	434,921	2.2	0.6	429,784	1.5	0.5	426,892	1.2	0.4
Utah	30,856	DS	DS	28,918	DS	DS	27,136	DS	DS	26,793	DS	DS
Vermont	6,123	4.5	1.9	5,831	4.4	1.7	5,501	3.7	1.1	5,360	3.4	0.6
Virgin Islands	569	DS	DS	683	DS	DS	644	DS	DS	679	DS	DS
Virginia	75,924	3.7	0.8	80,297	4.6	0.8	80,226	4.6	1.1	74,304	3.8	1.3
Washington	79,377	1.5	0.3	76,152	1.7	0.3	72,648	1.4	0.2	71,581	1.2	0.2
West Virginia	16,730	2.8	0.4	13,465	5.3	0.8	21,119	6.5	0.7	20,925	5.8	0.7
Wisconsin	55,589	6.8	1.2	54,329	6.5	1.1	53,092	4.7	1.2	53,977	3.4	1.1
Wyoming	5,755	1.4	0.2	5,498	2.1	0.1	5,204	1.5	0.1	5,064	1.6	0.1

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, TAF 2020 Release 1, and 2021 preliminary TAF.

Notes: Includes beneficiaries who were within a 60-day postpartum period during the year who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified postpartum beneficiaries as those who were within 60 days following a claim or encounter record for a live birth, fetal loss, or labor and delivery reported in the IP or OT files during the calendar year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup>2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2020 data for Puerto Rico, Utah, and the US Virgin Islands, and 2021 data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.6a. Rate and frequency of NEMT utilization: Beneficiaries with select physical health conditions in 2018**

State	Beneficiaries with chronic kidney disease (CKD) with end stage renal disease (ESRD)			Beneficiaries with CKD without ESRD			Beneficiaries with intellectual disabilities or other developmental delays		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>297,762</b>	<b>51.3</b>	<b>6.1</b>	<b>3,187,484</b>	<b>22.1</b>	<b>1.4</b>	<b>1,737,798</b>	<b>17.5</b>	<b>4.4</b>
Alabama	3,420	29.3	2.3	34,365	16.8	0.2	17,374	7.8	0.3
Alaska	527	62.8	4.8	7,459	33.3	1.0	4,222	19.6	0.8
Arizona	7,521	65.6	6.6	98,655	34.8	1.6	50,463	44.4	5.0
Arkansas	2,534	53.2	5.3	27,923	27.0	0.8	37,321	26.5	4.6
California	64,772	44.0	5.8	542,727	8.9	0.7	187,489	5.7	1.3
Colorado	3,183	45.9	8.0	50,647	17.7	2.7	20,765	30.1	6.2
Connecticut	2,895	63.2	6.0	47,996	25.2	0.9	21,816	18.0	2.1
Delaware	800	63.6	5.0	10,699	24.0	1.0	9,202	7.6	1.8
District of Columbia	1,776	49.9	5.7	13,067	24.1	1.5	5,032	33.4	3.2
Florida	15,242	14.7	1.2	119,410	6.1	0.8	65,967	16.3	3.3
Georgia	9,282	59.0	6.6	61,567	26.8	1.2	32,596	11.5	2.1
Hawaii	1,727	57.8	7.1	20,238	19.2	0.8	5,603	12.2	1.0
Idaho	809	55.0	7.6	11,223	24.5	2.3	14,378	23.8	7.6
Illinois	13,359	47.5	4.5	144,145	20.4	0.7	121,990	18.0	2.4
Indiana	5,542	58.8	4.3	56,386	26.3	0.6	22,141	16.2	0.9
Iowa	1,879	53.9	5.7	32,565	23.2	1.4	16,234	30.0	6.4
Kansas	1,496	35.8	2.6	17,157	15.9	0.7	7,591	17.1	0.8
Kentucky	3,326	57.6	5.9	69,108	22.3	1.2	35,976	19.1	4.5
Louisiana	6,302	35.6	4.3	77,157	13.5	0.8	29,009	9.3	2.1
Maine	404	66.8	6.6	8,161	33.4	1.7	10,261	36.3	5.6
Maryland	4,813	18.5	0.3	48,092	8.4	0.2	42,115	5.7	1.1
Massachusetts	7,278	62.0	5.9	115,590	32.3	3.1	70,103	28.6	11.7
Michigan	7,791	44.2	5.7	114,738	19.5	1.0	48,449	9.4	1.0
Minnesota	3,784	67.1	5.5	60,262	40.0	1.8	49,034	26.1	2.3
Mississippi	4,821	68.5	7.6	34,881	32.5	0.7	14,040	15.8	0.9
Missouri	5,784	63.2	6.8	58,088	33.5	0.8	34,192	25.0	4.7
Montana	515	25.8	4.4	9,169	10.9	2.4	4,068	9.4	6.4

State	Beneficiaries with chronic kidney disease (CKD) with end stage renal disease (ESRD)			Beneficiaries with CKD without ESRD			Beneficiaries with intellectual disabilities or other developmental delays		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nebraska	1,016	49.7	6.7	10,663	22.9	1.2	3,455	10.7	1.1
Nevada	2,302	45.0	4.8	30,988	20.7	1.2	11,513	24.3	2.9
New Hampshire	339	17.7	1.2	5,696	10.0	0.7	15,518	0.7	1.0
New Jersey	7,791	71.7	7.5	84,520	30.2	1.7	38,209	19.2	3.9
New Mexico	2,259	55.4	5.7	31,737	21.1	0.9	22,670	8.3	0.8
New York	30,152	74.5	7.7	342,135	34.1	1.8	190,497	14.7	1.6
North Carolina	10,666	47.4	5.9	102,028	22.3	0.8	57,429	7.1	1.8
North Dakota	397	35.0	4.1	5,329	12.4	0.7	3,526	5.6	1.0
Ohio	14,379	48.3	3.8	152,628	23.2	0.6	97,967	9.7	0.5
Oklahoma	3,510	64.0	6.6	37,325	28.3	1.1	20,276	24.3	11.6
Oregon	2,484	64.9	8.3	45,117	33.7	2.0	9,680	22.3	1.4
Pennsylvania	11,796	9.2	1.1	128,175	5.8	0.5	75,447	8.5	11.9
Puerto Rico	7,744	33.0	5.5	123,096	4.9	0.2	8,353	2.0	0.3
Rhode Island	634	61.0	7.5	10,379	20.8	2.1	6,431	33.6	8.7
South Carolina	5,217	56.1	6.6	42,302	20.8	1.1	37,923	22.1	1.8
South Dakota	578	42.6	4.5	4,729	19.1	0.9	4,416	8.4	1.1
Tennessee	5,258	61.1	6.4	52,952	28.6	0.8	25,046	13.5	1.3
Texas	20,503	51.2	6.2	168,423	21.3	0.9	135,694	29.2	5.2
Utah	1,047	DS	DS	11,677	DS	DS	12,875	DS	DS
Vermont	251	55.4	6.8	6,715	25.0	1.8	7,839	8.2	2.8
Virgin Islands	125	DS	DS	528	4.9	0.8	36	DS	DS
Virginia	6,491	52.1	3.5	50,886	25.1	1.1	33,999	32.0	4.7
Washington	4,682	33.2	3.2	74,786	16.5	1.9	23,008	12.7	5.1
West Virginia	1,604	55.3	2.3	29,377	23.5	0.6	9,164	23.4	5.6
Wisconsin	4,796	67.8	9.5	60,037	36.7	3.4	24,666	39.8	7.6
Wyoming	209	31.6	1.9	1,823	12.5	1.4	3,438	7.4	2.8

Source: Mathematica's analysis of the TAF 2017 Release 2 and the TAF 2018 Release 2

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, beneficiaries with CKD without ESRD, and beneficiaries with intellectual disabilities or other developmental delays based on diagnosis codes on Medicaid claims for calendar years 2017 and 2018. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one condition category shown in this table. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter

records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.6b. Rate and frequency of NEMT utilization: Beneficiaries with select physical health conditions in 2019**

State	Beneficiaries with chronic kidney disease (CKD) with end stage renal disease (ESRD)			Beneficiaries with CKD without ESRD			Beneficiaries with intellectual disabilities or other developmental delays		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>320,036</b>	<b>50.4</b>	<b>5.9</b>	<b>3,430,268</b>	<b>22.2</b>	<b>1.4</b>	<b>1,860,464</b>	<b>17.6</b>	<b>4.4</b>
Alabama	3,435	28.7	2.0	34,316	15.9	0.2	16,129	8.3	0.7
Alaska	543	63.7	4.2	7,876	37.3	0.9	4,487	21.1	0.8
Arizona	7,709	65.4	6.6	98,774	34.3	1.6	58,063	41.2	5.0
Arkansas	2,593	51.9	5.0	31,379	24.8	0.7	38,814	22.5	3.2
California	66,140	43.2	5.3	557,624	9.2	0.8	196,779	6.7	1.4
Colorado	3,164	47.3	7.8	51,722	18.9	2.7	22,637	31.0	6.1
Connecticut	2,924	63.4	5.8	49,504	24.2	0.9	21,909	17.0	2.3
Delaware	852	56.7	3.4	11,401	20.7	0.9	9,842	5.9	1.8
District of Columbia	1,744	46.6	4.5	12,996	23.4	1.3	5,472	28.7	2.4
Florida	16,119	44.8	6.0	137,061	25.3	1.3	74,493	21.4	3.5
Georgia	9,287	60.1	6.3	61,226	27.8	1.1	33,100	11.7	2.1
Hawaii	1,694	57.4	6.8	20,174	20.0	0.8	5,173	11.5	1.0
Idaho	825	53.9	7.6	11,471	22.5	2.2	14,745	21.9	7.8
Illinois	13,189	45.7	4.2	141,726	20.5	0.7	121,396	18.4	2.4
Indiana	5,537	52.2	2.8	55,078	20.7	0.5	23,336	11.6	0.7
Iowa	1,936	58.0	5.6	34,188	23.2	1.2	15,501	28.5	4.9
Kansas	1,551	36.9	3.5	17,833	15.8	0.7	8,058	16.6	0.7
Kentucky	3,366	56.1	6.1	70,590	22.5	1.2	37,560	18.4	4.5
Louisiana	6,615	33.8	4.2	82,215	13.7	0.8	30,008	9.1	1.9
Maine	423	64.1	5.7	8,928	31.3	1.4	10,321	34.0	4.9
Maryland	5,145	16.9	0.3	62,761	6.9	0.2	47,961	5.6	1.1
Massachusetts	7,138	62.7	6.1	118,234	33.2	3.2	65,938	30.1	12.0
Michigan	7,803	44.2	5.2	115,580	18.7	1.0	49,096	9.1	1.0
Minnesota	3,817	67.7	5.7	62,493	40.4	1.9	50,635	29.7	2.4
Mississippi	4,844	64.7	5.1	35,846	29.3	0.6	14,346	13.6	0.8
Missouri	5,880	62.4	6.7	57,924	33.2	0.8	34,069	22.7	4.6
Montana	521	24.8	3.8	9,597	11.5	2.9	5,468	23.9	7.3



State	Beneficiaries with chronic kidney disease (CKD) with end stage renal disease (ESRD)			Beneficiaries with CKD without ESRD			Beneficiaries with intellectual disabilities or other developmental delays		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nebraska	1,027	51.6	6.0	11,207	23.0	1.0	3,420	11.5	1.1
Nevada	2,408	43.1	4.8	32,109	18.9	1.4	11,809	24.4	3.0
New Hampshire	344	14.5	1.5	6,351	8.1	1.1	14,791	0.5	0.9
New Jersey	8,320	69.4	7.6	94,011	29.9	1.8	41,780	19.7	4.6
New Mexico	2,276	55.7	5.8	32,437	22.4	0.9	22,740	8.6	0.9
New York	31,059	73.8	7.8	355,568	33.8	1.9	192,731	14.1	1.6
North Carolina	10,937	47.6	6.0	102,433	22.2	0.8	58,924	7.4	1.9
North Dakota	401	32.4	4.8	5,437	12.6	0.8	3,693	5.6	0.7
Ohio	15,187	46.6	3.5	161,202	24.3	0.5	102,575	9.8	0.7
Oklahoma	3,536	65.1	6.5	38,133	28.9	1.2	20,913	24.1	11.1
Oregon	2,565	65.1	8.4	46,768	34.5	2.0	10,180	21.7	1.4
Pennsylvania	12,095	11.8	0.9	133,867	6.6	0.4	76,215	8.8	11.4
Puerto Rico	6,391	31.6	4.5	107,513	5.7	0.2	4,956	2.7	0.4
Rhode Island	536	58.2	4.8	8,769	18.6	1.4	5,527	34.8	8.6
South Carolina	5,212	55.3	6.5	41,618	20.7	1.2	43,509	26.2	2.0
South Dakota	559	40.6	4.9	4,904	18.9	0.8	4,538	9.2	0.9
Tennessee	5,141	60.6	6.5	50,562	28.9	0.8	25,896	13.4	1.3
Texas	20,368	51.0	6.5	165,633	21.5	1.0	133,069	27.4	5.3
Utah	1,086	DS	DS	13,289	DS	DS	12,750	DS	DS
Vermont	259	56.0	7.1	6,803	26.6	1.8	7,962	8.6	2.6
Virgin Islands	122	18.0	4.6	719	6.4	1.0	39	DS	DS
Virginia	7,122	53.0	3.7	65,527	25.0	1.3	35,146	33.6	6.9
Washington	4,793	35.2	3.0	75,257	17.4	1.8	24,057	13.0	5.0
West Virginia	1,588	62.0	3.5	28,830	29.3	1.0	9,007	28.5	5.5
Wisconsin	4,983	68.0	9.6	61,815	36.4	3.6	24,690	39.9	8.1
Wyoming	203	26.6	2.8	1,841	12.8	1.2	3,379	8.4	2.2

Source: Mathematica's analysis of the TAF 2018 Release 2 and the TAF 2019 Release 1

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, beneficiaries with CKD without ESRD, and beneficiaries with intellectual disabilities or other developmental delays based on diagnosis codes on Medicaid claims for calendar years 2018 and 2019. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one condition category shown in this table. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter

records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.6c. Rate and frequency of NEMT utilization: Beneficiaries with select physical health conditions in 2020**

State	Beneficiaries with chronic kidney disease (CKD) with end stage renal disease (ESRD)			Beneficiaries with CKD without ESRD			Beneficiaries with intellectual disabilities or other developmental delays		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>330,313</b>	<b>49.0</b>	<b>5.8</b>	<b>3,609,313</b>	<b>20.7</b>	<b>1.0</b>	<b>1,867,410</b>	<b>15.5</b>	<b>2.4</b>
Alabama	3,417	28.4	1.9	36,274	14.8	0.2	16,210	7.6	0.9
Alaska	549	57.0	5.0	8,206	35.1	0.6	4,356	15.5	0.5
Arizona	7,893	63.3	6.2	106,025	30.6	1.2	60,354	34.2	2.8
Arkansas	2,565	51.6	5.2	32,131	23.7	0.6	36,998	18.8	2.3
California	66,871	40.0	5.2	563,518	8.3	0.6	187,427	4.9	0.7
Colorado	3,216	47.3	7.3	54,043	17.7	2.0	23,565	27.8	3.8
Connecticut	2,907	57.5	4.8	50,351	18.6	0.5	21,268	15.9	1.8
Delaware	812	46.4	2.5	11,624	12.7	0.7	9,415	3.8	0.9
District of Columbia	1,700	11.4	0.6	12,577	6.5	0.5	5,267	8.8	0.8
Florida	16,918	44.1	5.7	158,351	23.2	0.9	78,860	18.8	2.5
Georgia	9,382	58.5	6.6	60,265	26.6	0.8	32,588	10.9	1.4
Hawaii	1,862	47.6	5.9	20,628	14.1	0.6	4,105	7.2	1.0
Idaho	900	51.9	6.4	14,885	17.5	1.5	14,645	19.6	5.0
Illinois	14,156	46.9	3.8	147,786	20.8	0.5	109,424	16.0	1.2
Indiana	5,811	50.6	4.6	57,902	19.3	0.5	23,845	11.0	0.6
Iowa	1,868	56.8	6.0	34,568	20.4	0.8	14,954	25.1	2.6
Kansas	1,637	34.5	3.3	18,206	13.6	0.6	7,907	12.6	0.5
Kentucky	3,736	52.5	5.6	75,422	20.7	0.7	36,645	16.8	1.7
Louisiana	6,725	30.6	3.9	84,163	11.2	0.5	28,800	6.7	1.1
Maine	750	64.1	6.2	16,251	30.9	0.9	12,148	33.8	2.6
Maryland	4,902	15.8	0.4	63,729	6.0	0.2	47,393	4.0	0.5
Massachusetts	6,840	60.5	5.6	119,481	29.9	1.5	56,890	31.4	3.9
Michigan	7,475	42.7	5.0	114,952	16.5	0.7	47,468	7.6	0.7
Minnesota	3,912	65.7	5.5	63,558	38.3	1.2	50,160	27.7	1.6
Mississippi	4,745	59.7	6.4	35,653	26.9	0.6	14,032	11.9	0.8
Missouri	6,063	61.1	6.5	57,324	30.3	0.6	33,404	21.2	3.9
Montana	530	21.9	3.5	9,197	10.2	3.1	5,420	26.4	9.2

State	Beneficiaries with chronic kidney disease (CKD) with end stage renal disease (ESRD)			Beneficiaries with CKD without ESRD			Beneficiaries with intellectual disabilities or other developmental delays		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nebraska	1,093	46.7	5.8	12,305	20.2	0.7	3,801	11.1	0.8
Nevada	2,446	38.8	5.1	33,705	16.4	1.2	11,616	23.4	2.3
New Hampshire	362	26.2	2.4	7,142	11.3	0.7	13,532	1.4	0.5
New Jersey	8,616	66.1	6.8	103,615	26.3	1.2	41,555	17.5	2.3
New Mexico	2,370	56.2	5.3	34,222	21.1	0.7	21,108	7.6	0.6
New York	30,912	72.6	7.5	362,116	31.2	1.2	182,535	12.8	1.0
North Carolina	11,030	45.2	5.9	101,873	20.3	0.6	56,684	6.7	1.2
North Dakota	432	29.4	4.5	5,595	12.7	0.7	3,753	5.7	0.6
Ohio	15,654	44.8	3.3	172,837	22.9	0.4	103,637	9.0	0.5
Oklahoma	3,518	65.5	6.4	39,488	27.4	1.0	21,750	23.0	9.4
Oregon	2,735	65.1	7.6	48,944	33.1	1.5	10,652	17.8	0.8
Pennsylvania	12,239	15.9	0.7	140,861	8.1	0.3	76,380	8.7	4.8
Puerto Rico	6,193	48.7	6.5	108,148	9.0	0.3	4,742	3.2	0.4
Rhode Island	728	59.9	6.7	12,252	21.2	1.3	6,333	31.1	5.1
South Carolina	5,251	51.5	6.5	41,729	19.0	0.9	44,238	20.0	1.3
South Dakota	528	44.9	3.9	5,190	19.9	0.6	4,555	7.9	0.6
Tennessee	5,375	62.0	6.7	43,591	32.9	0.5	24,916	14.7	0.9
Texas	19,513	50.6	6.2	158,930	19.9	0.7	153,569	19.3	2.3
Utah	1,166	DS	DS	14,828	DS	DS	12,539	DS	DS
Vermont	247	65.6	5.8	6,852	24.9	0.9	7,674	7.1	1.0
Virgin Islands	143	25.2	5.2	882	5.1	0.8	50	DS	DS
Virginia	7,400	60.5	7.2	78,413	29.1	1.1	35,855	33.4	3.1
Washington	4,817	33.8	2.9	76,632	17.1	1.5	23,481	12.4	1.9
West Virginia	1,613	63.0	4.5	30,484	27.9	0.9	9,613	24.5	3.4
Wisconsin	5,087	65.3	9.1	63,561	33.1	2.8	23,366	36.6	4.9
Wyoming	205	30.2	1.3	1,906	13.3	1.0	3,259	8.1	1.4

Source: Mathematica's analysis of the TAF 2019 Release 1 and the 2020 preliminary TAF

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, beneficiaries with CKD without ESRD, and beneficiaries with intellectual disabilities or other developmental delays based on diagnosis codes on Medicaid claims for calendar years 2019 and 2020. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one condition category shown in this table. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter

records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.6d. Rate and frequency of NEMT utilization: Beneficiaries with select physical health conditions in 2021**

State	Beneficiaries with chronic kidney disease (CKD) with end stage renal disease (ESRD)			Beneficiaries with CKD without ESRD			Beneficiaries with intellectual disabilities or other developmental delays		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>331,355</b>	<b>46.9</b>	<b>5.5</b>	<b>3,859,409</b>	<b>19.0</b>	<b>1.0</b>	<b>1,880,057</b>	<b>13.9</b>	<b>3.2</b>
Alabama	3,371	20.4	1.3	37,688	10.3	0.2	17,398	5.4	0.7
Alaska	556	61.7	3.8	8,739	35.7	0.6	4,561	15.3	0.6
Arizona	7,999	57.3	5.3	115,033	26.1	1.2	62,639	30.3	3.3
Arkansas	2,638	49.2	5.1	33,045	21.9	0.7	37,595	16.6	3.0
California	66,969	39.0	5.1	587,661	8.2	0.6	180,216	3.5	0.9
Colorado	3,537	47.2	7.4	59,815	18.2	2.0	25,391	24.7	5.1
Connecticut	2,834	48.2	4.2	51,571	15.8	0.6	21,045	16.1	2.2
Delaware	830	41.7	2.3	12,714	11.2	0.6	9,137	3.3	0.7
District of Columbia	1,682	9.8	0.4	12,592	6.1	0.2	5,953	14.4	1.2
Florida	15,836	38.4	4.5	161,078	17.9	1.0	79,361	16.2	3.5
Georgia	9,263	55.4	6.3	61,574	24.3	0.8	33,322	10.0	2.0
Hawaii	2,315	43.7	4.1	23,490	10.7	0.5	4,007	5.1	0.5
Idaho	918	48.1	7.0	17,350	14.7	1.6	15,349	16.7	7.3
Illinois	14,590	45.7	3.6	161,663	20.2	0.5	105,651	13.5	1.2
Indiana	6,005	49.3	5.0	65,866	18.2	0.6	26,220	11.1	0.7
Iowa	1,952	54.2	6.4	36,765	18.7	1.0	15,197	23.3	3.8
Kansas	1,805	32.5	2.9	20,019	12.0	0.6	7,912	12.3	0.6
Kentucky	3,929	49.7	5.5	82,303	17.8	0.9	37,162	13.8	2.7
Louisiana	6,659	30.7	3.9	88,867	10.6	0.6	27,694	5.7	1.0
Maine	786	65.3	5.7	18,143	28.4	1.1	12,147	27.7	3.6
Maryland	4,991	15.6	0.3	68,196	6.0	0.2	48,493	2.8	0.6
Massachusetts	6,745	59.5	5.6	125,373	27.5	2.0	46,646	27.2	7.2
Michigan	7,697	42.3	4.7	123,199	15.7	0.7	47,508	8.2	0.9
Minnesota	4,087	63.4	5.6	68,695	36.6	1.6	51,202	30.3	2.9
Mississippi	4,710	55.5	5.7	36,046	24.3	0.6	14,083	10.7	0.8
Missouri	6,025	58.9	6.6	60,903	27.2	0.7	34,643	19.4	4.7
Montana	532	20.9	3.5	9,968	10.6	2.3	5,747	16.3	7.5

State	Beneficiaries with chronic kidney disease (CKD) with end stage renal disease (ESRD)			Beneficiaries with CKD without ESRD			Beneficiaries with intellectual disabilities or other developmental delays		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nebraska	1,067	47.7	5.4	14,884	19.0	0.7	4,600	9.9	1.1
Nevada	2,530	33.7	4.9	36,934	13.9	1.2	12,120	20.9	2.2
New Hampshire	390	53.3	6.2	8,476	20.1	1.3	12,494	6.3	1.4
New Jersey	8,605	62.8	5.9	113,777	23.2	1.2	43,612	15.5	2.8
New Mexico	2,506	50.7	5.1	37,256	18.9	0.7	20,529	7.5	0.6
New York	30,367	71.0	7.3	381,712	29.0	1.3	179,862	12.1	1.2
North Carolina	11,005	45.0	5.5	106,894	19.4	0.7	54,402	6.6	1.5
North Dakota	429	28.9	4.0	6,220	12.8	0.7	5,207	4.7	0.7
Ohio	15,765	43.0	3.1	183,168	21.6	0.4	105,602	8.7	0.4
Oklahoma	3,606	61.2	6.0	43,615	23.5	1.1	23,134	21.3	10.1
Oregon	2,904	62.7	7.7	53,753	30.0	1.5	10,813	15.2	0.8
Pennsylvania	12,355	16.8	0.7	154,672	8.8	0.3	75,687	7.0	6.1
Puerto Rico	6,439	46.3	6.2	133,265	10.4	0.4	5,070	3.7	0.4
Rhode Island	785	58.5	7.1	13,882	20.8	1.5	6,492	28.8	6.5
South Carolina	5,132	50.2	6.1	43,461	17.1	1.0	44,324	15.8	1.8
South Dakota	530	40.8	3.8	5,386	19.7	0.6	4,632	7.5	0.9
Tennessee	5,906	56.8	5.7	65,206	25.9	0.6	32,263	13.0	1.1
Texas	18,284	47.7	5.7	157,171	18.3	0.7	164,274	17.4	3.6
Utah	1,325	DS	DS	16,926	0.1	0.1	13,374	DS	DS
Vermont	264	62.5	6.1	7,574	23.0	0.9	7,626	6.3	1.1
Virgin Islands	161	26.1	4.2	964	6.0	0.8	66	DS	DS
Virginia	7,690	58.0	7.1	86,987	25.9	1.2	36,418	25.5	4.8
Washington	5,097	30.5	2.2	83,515	15.9	1.2	23,423	11.4	1.5
West Virginia	1,587	63.1	4.4	34,333	26.1	0.9	9,807	21.7	4.4
Wisconsin	5,087	61.4	8.3	70,053	29.3	2.7	23,301	33.2	5.7
Wyoming	203	26.6	0.7	2,124	12.1	0.8	3,156	6.8	1.1

Source: Mathematica's analysis of the TAF 2020 TAF Release 1 and the 2021 preliminary TAF

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, beneficiaries with CKD without ESRD, and beneficiaries with intellectual disabilities or other developmental delays based on diagnosis codes on Medicaid claims for calendar years 2019 and 2020. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one condition category shown in this table. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter

records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.



**Table B1.7a. Rate and frequency of NEMT utilization: Beneficiaries with a mental health condition or substance use disorder in 2018**

State	Any mental health condition			Any substance use disorder			Opioid use disorder		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>13,410,399</b>	<b>13.7</b>	<b>1.8</b>	<b>4,008,160</b>	<b>18.6</b>	<b>1.9</b>	<b>1,698,360.00</b>	<b>19.2</b>	<b>2.9</b>
Alabama	138,856	7.4	0.3	31,334	10.9	0.3	12,210.00	9.8	0.3
Alaska	33,974	21.9	0.8	20,497	26.5	0.7	7,290.00	20.2	0.8
Arizona	351,612	35.0	1.9	144,220	45.4	1.9	50,452.00	46.8	2.5
Arkansas	160,642	14.4	1.4	22,854	22.6	0.8	5,434.00	22.7	0.7
California	1,446,704	6.7	1.1	440,588	10.0	1.3	145,719.00	10.9	2.0
Colorado	179,745	14.7	3.1	77,287	16.7	2.4	30,669.00	16.5	3.6
Connecticut	240,971	14.2	1.3	89,578	20.7	1.8	43,857.00	22.9	2.6
Delaware	54,344	12.9	1.7	22,200	20.8	3.3	14,785.00	22.7	4.2
District of Columbia	41,802	21.1	2.4	14,427	19.8	1.9	5,574.00	18.9	2.5
Florida	372,936	4.8	1.5	101,851	3.2	0.6	33,866.00	3.9	0.6
Georgia	324,392	13.3	1.5	46,375	22.9	1.5	13,649.00	23.0	1.9
Hawaii	49,498	14.2	1.1	19,623	17.6	1.2	5,098.00	22.1	1.6
Idaho	59,715	16.5	2.7	11,839	21.2	2.2	4,478.00	24.7	2.9
Illinois	525,676	14.3	1.0	163,779	18.0	1.1	57,140.00	19.0	1.8
Indiana	336,073	14.1	0.7	91,309	18.9	0.9	41,780.00	18.4	1.4
Iowa	197,571	12.1	2.0	44,738	15.4	1.0	7,941.00	21.1	1.7
Kansas	112,296	9.0	0.7	17,257	16.2	0.8	3,608.00	21.5	1.3
Kentucky	358,498	10.8	1.5	130,345	12.0	1.0	79,340.00	11.8	1.0
Louisiana	359,619	9.4	0.8	92,139	17.3	0.7	32,277.00	17.0	0.8
Maine	81,032	20.8	2.4	18,132	29.8	4.5	11,470.00	32.2	6.0
Maryland	242,740	3.0	0.3	102,609	2.0	0.2	71,500.00	1.6	0.1
Massachusetts	518,437	17.2	3.5	164,210	20.2	2.6	97,408.00	20.7	3.4
Michigan	578,015	12.4	0.9	165,669	19.7	1.2	64,012.00	20.3	2.0
Minnesota	344,284	23.1	1.7	95,275	31.2	1.7	29,637.00	39.3	3.0
Mississippi	138,812	16.7	0.9	22,683	27.0	0.9	7,419.00	27.1	1.1
Missouri	248,217	18.9	1.2	57,981	24.2	0.7	17,186.00	27.1	1.0
Montana	73,768	3.7	2.5	22,792	5.4	1.1	6,954.00	5.9	1.4
Nebraska	59,555	11.5	1.6	7,322	21.9	1.5	1,540.00	28.4	1.7

State	Any mental health condition			Any substance use disorder			Opioid use disorder		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nevada	128,410	15.0	1.2	47,714	22.5	0.9	15,985.00	23.0	1.3
New Hampshire	50,296	3.8	1.4	15,451	11.0	4.7	10,191.00	13.3	5.7
New Jersey	267,466	23.7	3.1	110,461	31.6	4.3	61,748.00	35.3	5.4
New Mexico	162,132	12.8	1.3	61,789	20.9	2.1	24,603.00	24.3	3.8
New York	1,104,499	24.0	2.2	390,428	27.9	2.8	159,027.00	31.7	3.8
North Carolina	403,863	9.9	1.4	99,176	14.7	1.5	39,453.00	14.7	2.3
North Dakota	27,072	6.9	0.8	7,455	11.3	0.6	1,735.00	11.7	0.8
Ohio	866,116	10.9	0.6	296,358	12.8	0.5	138,997.00	11.1	0.6
Oklahoma	191,483	12.5	2.2	31,487	20.7	1.1	11,882.00	22.8	1.4
Oregon	237,678	19.6	2.3	92,859	30.2	3.6	32,640.00	39.1	5.8
Pennsylvania	762,912	4.0	0.7	261,935	6.6	0.2	140,796.00	6.0	0.2
Puerto Rico	194,682	2.8	0.5	17,764	4.6	0.5	6,535.00	3.6	0.5
Rhode Island	75,212	13.8	3.1	21,062	22.7	4.8	11,798.00	28.1	6.4
South Carolina	196,692	12.0	1.4	35,080	19.0	1.0	10,787.00	17.5	1.0
South Dakota	26,324	6.3	1.0	4,600	10.3	0.8	591.00	11.7	1.6
Tennessee	266,648	14.5	1.1	46,164	23.4	0.9	19,543.00	21.5	0.9
Texas	653,220	13.0	2.0	91,197	19.5	1.8	22,089.00	26.6	3.0
Utah	72,228	DS	DS	16,626	DS	DS	8,364.00	DS	DS
Vermont	61,692	11.4	2.2	18,788	18.9	3.8	11,273.00	20.0	5.4
Virgin Islands	729	3.4	1.3	245	DS	DS	22.00	DS	DS
Virginia	197,284	17.2	1.8	40,891	22.3	1.6	20,322.00	22.3	2.3
Washington	390,852	6.4	2.0	140,509	7.6	0.9	64,854.00	7.4	1.2
West Virginia	131,886	12.3	0.9	48,136	14.7	0.6	31,113.00	15.1	0.7
Wisconsin	275,563	22.3	3.8	73,748	32.0	4.0	31,085.00	36.8	6.2
Wyoming	18,111	3.6	1.5	3,036	7.8	1.3	762.00	11.3	1.4

Source: Mathematica's analysis of the TAF 2017 Release 2 and the TAF 2018 Release 2

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with a mental health condition using diagnosis codes on Medicaid claims and encounter records for 2017 and 2018. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records for 2017 and 2018. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one condition category shown in this table. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.7b. Rate and frequency of NEMT utilization: Beneficiaries with a mental health condition or substance use disorder in 2019**

State	Any mental health condition			Any substance use disorder			Opioid use disorder		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>14,315,067</b>	<b>13.6</b>	<b>1.8</b>	<b>4,234,150</b>	<b>18.8</b>	<b>2.0</b>	<b>1,808,707</b>	<b>19.7</b>	<b>3.1</b>
Alabama	128,116	7.5	0.3	30,794	10.2	0.2	11,889	8.6	0.3
Alaska	35,678	24.5	0.7	21,756	31.8	0.6	8,337	23.8	0.7
Arizona	376,847	33.6	2.1	153,925	43.3	2.1	56,327	45.0	2.9
Arkansas	171,637	12.7	1.1	26,132	22.0	0.7	6,149	21.9	0.6
California	1,558,400	6.7	1.1	463,601	10.3	1.4	152,432	11.8	2.4
Colorado	204,856	14.5	3.2	81,464	18.0	2.8	33,576	18.3	4.2
Connecticut	249,982	13.7	1.2	89,699	20.5	1.6	44,883	22.4	2.3
Delaware	57,668	11.0	1.6	22,717	17.2	3.2	14,952	18.9	4.2
District of Columbia	43,034	20.3	1.9	14,304	20.0	1.8	5,757	19.2	2.3
Florida	525,861	14.9	1.8	112,772	20.0	2.6	38,054	25.7	4.6
Georgia	315,619	13.4	1.4	41,136	24.2	1.5	12,817	22.8	1.9
Hawaii	46,173	14.9	1.1	19,026	18.8	1.2	4,859	21.4	1.7
Idaho	60,517	15.4	2.8	11,955	19.3	2.4	4,803	22.2	2.9
Illinois	518,909	14.5	1.0	163,312	19.0	1.1	58,289	20.1	2.0
Indiana	321,062	11.3	0.6	92,360	14.7	0.9	44,153	14.6	1.5
Iowa	203,577	12.3	1.8	46,530	15.6	1.1	8,783	21.4	2.2
Kansas	111,015	8.9	0.7	17,364	15.6	0.9	3,515	20.1	1.4
Kentucky	367,885	10.9	1.6	136,432	12.8	1.2	82,151	12.7	1.3
Louisiana	369,597	9.5	0.8	98,301	17.6	0.8	35,329	17.4	0.9
Maine	87,656	19.4	1.8	22,847	27.8	2.7	15,292	29.2	3.5
Maryland	308,085	2.5	0.4	120,055	1.6	0.2	77,903	1.4	0.2
Massachusetts	505,274	18.1	3.5	158,232	22.0	2.7	94,916	22.7	3.4
Michigan	583,562	11.7	1.0	166,223	18.8	1.4	64,146	19.5	2.6
Minnesota	346,681	23.7	1.8	95,449	32.2	1.7	30,908	39.7	2.6
Mississippi	136,781	14.8	0.7	21,929	25.2	0.8	7,303	25.7	1.0
Missouri	245,123	18.9	1.1	56,089	24.6	0.8	16,833	27.0	1.1
Montana	77,825	4.0	3.5	24,814	4.4	1.4	7,762	5.0	1.7
Nebraska	60,884	11.4	1.4	7,333	21.7	1.3	1,555	26.6	1.5

State	Any mental health condition			Any substance use disorder			Opioid use disorder		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nevada	132,457	14.3	1.4	49,947	21.3	1.3	16,232	22.5	1.9
New Hampshire	56,237	3.6	2.0	18,609	8.8	4.3	12,333	9.9	5.5
New Jersey	289,896	23.8	3.1	118,849	32.0	4.3	66,992	36.3	5.5
New Mexico	165,836	12.9	1.3	64,160	21.5	2.2	26,047	23.9	4.0
New York	1,131,894	23.0	2.3	388,945	27.2	3.1	160,253	31.3	4.3
North Carolina	403,909	9.9	1.5	99,539	15.0	1.6	39,534	14.6	2.4
North Dakota	27,393	7.2	1.0	7,782	11.1	1.0	1,942	11.7	2.0
Ohio	877,196	11.2	0.6	294,542	13.9	0.5	137,585	12.2	0.6
Oklahoma	188,251	13.0	2.2	30,996	21.1	1.1	11,884	23.2	1.5
Oregon	249,835	19.7	2.4	95,084	31.2	3.8	34,947	39.4	6.1
Pennsylvania	757,845	4.2	0.7	261,081	6.6	0.2	141,630	5.9	0.2
Puerto Rico	140,888	3.7	0.4	14,125	4.4	0.4	5,571	2.5	0.3
Rhode Island	60,811	13.9	2.3	18,021	24.0	1.8	10,531	30.1	2.2
South Carolina	200,249	12.2	1.5	35,996	18.8	1.1	12,350	17.3	1.3
South Dakota	27,039	6.4	1.0	4,931	11.1	0.8	631	10.8	2.0
Tennessee	260,208	14.5	1.1	45,698	23.7	0.9	19,658	21.7	0.9
Texas	655,078	13.1	2.1	89,894	20.0	1.9	21,362	27.7	3.5
Utah	79,195	0.0	0.7	23,543	0.1	0.5	12,251	DS	DS
Vermont	61,339	11.5	2.1	18,602	19.3	3.5	11,302	20.0	5.1
Virgin Islands	837	3.3	0.9	273	DS	DS	20	DS	DS
Virginia	250,145	18.3	2.0	67,053	26.4	1.7	34,009	28.8	2.4
Washington	400,619	6.8	1.9	145,987	8.1	0.9	70,611	7.4	1.1
West Virginia	124,877	17.2	1.3	48,385	22.1	1.8	32,950	23.6	2.2
Wisconsin	279,050	21.9	4.0	74,347	31.2	4.2	31,746	35.6	6.3
Wyoming	17,618	3.9	1.5	2,870	7.7	1.3	694	9.9	1.4

Source: Mathematica's analysis of the TAF 2018 Release 2 and the TAF 2019 Release 1

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with a mental health condition using diagnosis codes on Medicaid claims and encounter records for 2018 and 2019. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records for 2018 and 2019. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one condition category shown in this table. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.7c. Rate and frequency of NEMT utilization: Beneficiaries with a mental health condition or substance use disorder in 2020**

State	Any mental health condition			Any substance use disorder			Opioid use disorder		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>14,850,287</b>	<b>12.0</b>	<b>1.3</b>	<b>4,323,972</b>	<b>17.5</b>	<b>1.6</b>	<b>1,897,055</b>	<b>18.3</b>	<b>2.6</b>
Alabama	153,154	6.4	0.3	34,030	9.2	0.2	13,584	7.2	0.3
Alaska	35,686	21.3	0.5	21,575	30.5	0.4	8,699	23.0	0.4
Arizona	400,013	28.3	1.5	160,232	38.8	1.6	62,486	40.9	2.4
Arkansas	165,153	11.4	0.9	26,867	19.8	0.7	6,318	18.3	0.8
California	1,565,833	5.8	0.9	450,316	9.6	1.2	151,096	10.8	1.9
Colorado	231,350	12.5	2.3	86,521	17.7	2.1	35,419	18.8	2.9
Connecticut	249,818	9.9	0.8	85,156	15.8	1.0	43,816	16.8	1.5
Delaware	57,385	6.8	1.2	21,928	11.7	2.4	14,355	13.0	3.2
District of Columbia	42,626	5.0	1.2	13,578	6.4	1.0	5,629	5.9	1.4
Florida	641,421	12.4	1.2	125,312	18.4	2.1	42,217	23.5	3.7
Georgia	298,911	12.3	1.1	34,501	25.0	1.3	12,899	21.1	1.9
Hawaii	44,716	10.5	0.8	17,675	15.1	0.9	4,540	16.7	1.7
Idaho	88,927	10.5	1.9	20,812	12.5	1.5	7,400	13.8	2.0
Illinois	521,841	14.3	0.6	162,106	20.0	0.9	58,610	20.8	1.6
Indiana	326,773	10.5	0.6	100,870	14.4	1.2	51,587	14.0	1.9
Iowa	200,897	10.3	1.2	45,373	13.8	0.9	8,703	18.5	1.8
Kansas	106,961	7.6	0.6	16,617	13.6	0.8	3,315	17.9	1.4
Kentucky	377,219	9.7	0.9	143,729	11.0	0.9	89,066	10.4	1.0
Louisiana	358,783	7.2	0.5	102,056	13.6	0.5	40,049	13.4	0.6
Maine	107,572	18.2	1.3	30,718	25.1	2.1	19,388	25.1	2.9
Maryland	308,459	2.0	0.2	118,163	1.2	0.2	76,250	0.9	0.2
Massachusetts	487,746	16.3	1.8	151,403	20.3	2.2	91,057	21.4	2.9
Michigan	568,885	9.9	0.7	160,139	16.8	1.1	61,576	16.8	2.0
Minnesota	342,101	21.0	1.3	91,928	29.8	1.4	31,293	36.4	2.5
Mississippi	130,712	13.1	0.7	20,617	22.2	0.8	7,081	22.0	1.0
Missouri	239,507	16.7	0.9	54,449	22.8	0.6	16,279	24.0	0.8
Montana	75,517	3.8	4.2	24,432	4.4	1.4	7,967	4.4	1.8
Nebraska	65,181	9.4	1.0	9,442	17.9	0.9	1,837	21.2	1.2

State	Any mental health condition			Any substance use disorder			Opioid use disorder		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nevada	134,192	12.0	1.4	49,227	18.5	1.5	16,282	19.8	2.2
New Hampshire	61,369	4.4	1.1	20,439	9.1	2.8	13,578	10.0	3.6
New Jersey	298,801	20.0	1.9	120,579	27.8	3.2	69,063	31.9	4.2
New Mexico	167,182	11.3	0.9	65,850	19.5	1.6	26,738	21.3	2.9
New York	1,119,712	20.3	1.6	371,518	25.4	2.3	156,068	29.3	3.4
North Carolina	391,154	8.8	1.0	97,097	13.6	1.3	40,683	13.0	1.9
North Dakota	28,086	7.2	0.8	8,415	12.2	0.8	2,415	13.8	1.7
Ohio	882,148	10.5	0.5	294,562	14.0	0.4	138,879	12.2	0.5
Oklahoma	194,884	11.4	1.9	31,385	18.9	0.9	11,543	20.1	1.2
Oregon	260,670	16.6	1.6	94,626	27.5	2.5	36,585	34.3	3.9
Pennsylvania	751,460	4.5	0.4	256,856	7.2	0.2	141,900	6.1	0.2
Puerto Rico	154,242	5.0	0.6	13,533	5.8	0.5	5,680	4.1	0.5
Rhode Island	78,168	13.6	1.9	21,659	25.7	2.6	12,434	32.4	3.3
South Carolina	196,562	10.2	1.1	35,192	17.7	1.2	12,831	16.5	1.9
South Dakota	26,631	6.6	0.7	5,186	13.9	0.4	690	10.9	0.6
Tennessee	228,771	14.6	0.8	53,436	22.6	0.7	25,329	19.4	0.7
Texas	633,964	11.1	1.3	85,799	17.2	1.7	19,457	24.3	3.2
Utah	87,283	0.0	0.9	29,181	0.1	1.0	15,460	0.1	1.1
Vermont	60,550	9.7	1.1	17,975	16.8	2.1	11,294	16.8	3.0
Virgin Islands	1,029	2.8	1.0	309	DS	DS	20	DS	DS
Virginia	311,525	17.6	1.7	88,796	27.0	2.7	45,288	28.8	4.2
Washington	399,545	6.8	1.4	144,410	8.4	0.7	73,366	7.4	1.0
West Virginia	132,636	16.5	1.1	52,513	24.5	2.0	37,090	26.1	2.4
Wisconsin	281,721	18.9	3.3	75,105	27.7	4.1	32,376	31.5	6.7
Wyoming	17,409	3.9	0.9	2,802	8.0	0.7	650	11.5	0.8

Source: Mathematica's analysis of the TAF 2019 Release 1 and the 2020 preliminary TAF



Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with a mental health condition using diagnosis codes on Medicaid claims and encounter records for 2019 and 2020. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records for 2019 and 2020. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one condition category shown in this table. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.7d. Rate and frequency of NEMT utilization: Beneficiaries with a mental health condition or substance use disorder in 2021**

State	Any mental health condition			Any substance use disorder			Opioid use disorder		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>15,744,044</b>	<b>10.6</b>	<b>1.4</b>	<b>4,551,652</b>	<b>16.2</b>	<b>1.7</b>	<b>2,011,730</b>	<b>16.8</b>	<b>2.7</b>
Alabama	173,306	4.0	0.3	37,161	6.0	0.2	14,468	4.7	0.2
Alaska	37,771	20.8	0.5	22,017	30.5	0.5	9,047	23.1	0.4
Arizona	431,962	24.0	1.7	172,020	34.2	1.7	70,865	36.2	2.3
Arkansas	163,831	10.6	1.1	26,674	18.1	0.6	6,486	16.2	0.7
California	1,605,480	5.5	0.9	457,958	9.4	1.2	153,596	10.2	2.1
Colorado	270,425	11.8	2.5	94,408	18.1	2.0	38,808	19.6	2.8
Connecticut	257,091	7.6	0.9	84,170	12.2	1.3	43,915	12.7	2.1
Delaware	59,000	5.7	1.1	21,767	9.6	2.4	14,172	10.4	3.1
District of Columbia	47,699	4.4	0.8	13,642	5.1	0.4	5,754	4.2	0.6
Florida	691,365	9.3	1.4	133,881	14.9	1.9	45,228	19.0	3.2
Georgia	301,252	10.7	1.2	34,984	21.1	1.3	13,679	17.4	1.7
Hawaii	48,389	7.4	0.7	17,573	11.1	0.8	4,491	11.8	1.6
Idaho	108,832	8.3	2.3	26,631	10.7	1.7	9,216	11.6	2.2
Illinois	550,147	13.5	0.6	168,518	19.5	0.9	59,868	20.1	1.8
Indiana	371,621	9.7	0.7	116,461	14.5	1.3	60,391	13.9	2.2
Iowa	210,582	9.4	1.6	46,234	12.7	1.0	8,736	17.1	2.0
Kansas	115,993	6.5	0.6	17,613	11.3	0.8	3,677	14.1	1.4
Kentucky	400,108	8.2	1.1	151,496	9.1	0.8	95,337	8.6	0.9
Louisiana	363,838	7.0	0.6	107,132	13.9	0.6	44,114	13.7	0.8
Maine	115,352	15.3	1.6	34,676	21.9	2.8	21,534	22.0	4.0
Maryland	316,452	1.9	0.2	120,698	1.2	0.2	77,712	1.0	0.2
Massachusetts	498,322	14.3	2.4	153,207	19.1	2.7	92,315	20.3	3.7
Michigan	595,824	8.9	0.8	166,986	15.4	1.1	65,414	15.0	2.1
Minnesota	367,016	19.4	1.7	97,744	28.7	1.6	34,830	33.8	2.6
Mississippi	135,398	11.0	0.7	21,542	18.6	0.8	7,389	18.5	0.9
Missouri	259,401	14.4	1.1	62,500	19.0	0.6	18,780	19.3	0.8
Montana	79,487	3.6	2.8	26,134	4.8	1.0	8,610	4.3	1.6
Nebraska	79,540	8.8	1.0	15,240	17.2	0.7	2,870	18.5	1.0

State	Any mental health condition			Any substance use disorder			Opioid use disorder		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nevada	145,780	9.6	1.5	50,840	16.2	1.5	17,235	16.9	2.4
New Hampshire	67,559	9.0	2.1	22,585	16.8	5.2	14,755	19.9	6.4
New Jersey	316,481	16.6	1.9	126,118	23.0	3.4	71,271	26.7	4.6
New Mexico	172,948	10.5	0.9	68,394	18.2	1.5	27,823	19.4	2.8
New York	1,154,554	18.6	1.6	370,812	24.9	2.4	156,501	28.6	3.5
North Carolina	406,842	8.1	1.1	101,117	12.6	1.3	44,114	11.7	1.9
North Dakota	32,077	6.9	0.8	9,910	11.6	1.0	3,090	11.5	2.2
Ohio	919,663	10.1	0.5	308,167	14.0	0.5	144,384	12.4	0.7
Oklahoma	219,564	9.3	2.1	38,831	14.9	0.8	13,624	15.7	1.1
Oregon	282,752	13.5	1.5	97,670	23.4	2.1	39,633	27.6	3.3
Pennsylvania	771,458	4.5	0.4	262,182	7.2	0.2	145,773	5.9	0.2
Puerto Rico	169,223	6.0	0.6	14,624	6.6	0.5	6,084	4.0	0.5
Rhode Island	84,054	12.8	2.3	22,414	25.2	2.7	12,798	31.0	3.4
South Carolina	203,541	8.6	1.3	37,039	15.3	1.2	13,836	14.3	2.0
South Dakota	28,272	6.2	0.8	6,236	13.3	0.5	836	12.1	0.7
Tennessee	312,903	11.4	0.9	81,648	17.4	0.7	38,016	16.2	0.9
Texas	661,422	9.2	1.5	90,746	14.3	1.6	19,783	21.2	3.1
Utah	103,335	0.1	0.4	34,504	0.1	0.3	18,350	0.1	0.4
Vermont	64,291	8.2	1.2	18,562	15.0	2.2	11,920	14.7	3.1
Virgin Islands	1,154	3.9	0.9	322	5.9	0.8	29	DS	DS
Virginia	350,920	14.8	1.9	101,503	24.2	2.9	53,238	26.4	4.4
Washington	419,484	6.4	1.1	146,876	8.1	0.6	75,885	6.8	0.8
West Virginia	151,246	14.0	1.3	57,762	21.9	2.1	40,988	23.1	2.6
Wisconsin	304,008	15.8	3.3	80,226	23.6	3.9	34,220	26.7	6.5
Wyoming	18,741	3.2	0.9	2,947	6.8	0.5	705	8.9	0.6

Source: Mathematica's analysis of the TAF 2020 Release 1 and the 2021 preliminary TAF

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with a mental health condition using diagnosis codes on Medicaid claims and encounter records for 2019 and 2020. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records for 2019 and 2020. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one condition category shown in this table. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.8a. Rate and frequency of NEMT utilization: Beneficiaries enrolled in select Medicaid home and community based services programs in 2018**

State	1915(c) waiver enrollees <sup>b</sup>			MFP participants <sup>c</sup>		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>1,573,272</b>	<b>29.1</b>	<b>3.4</b>	<b>16,995</b>	<b>39.7</b>	<b>2.0</b>
Alabama	14,648	10.9	0.6	156	40.4	0.6
Alaska	4,739	35.5	2.2	DS	DS	DS
Arizona	DS	DS	DS	DS	DS	DS
Arkansas	9,846	30.5	3.5	183	41.5	1.4
California	152,615	7.6	1.4	893	30.5	1.4
Colorado	53,768	40.0	5.7	198	67.7	3.7
Connecticut	30,144	27.7	1.6	1,043	68.4	1.7
Delaware	1,208	5.7	4.3	41	63.4	0.9
District of Columbia	5,987	27.2	3.2	DS	DS	DS
Florida	1,732	4.7	2.6	DS	DS	DS
Georgia	46,739	33.8	3.2	98	56.1	1.2
Hawaii	3,132	9.6	1.3	DS	DS	DS
Idaho	22,639	33.9	5.5	DS	DS	DS
Illinois	155,096	19.8	1.5	28	50.0	1.0
Indiana	51,218	21.9	1.1	218	52.8	0.9
Iowa	23,933	33.9	6.9	204	38.2	7.2
Kansas	DS	DS	DS	DS	DS	DS
Kentucky	24,957	35.5	4.4	26	84.6	2.6
Louisiana	18,868	12.3	2.9	724	16.9	1.7
Maine	DS	DS	DS	40	80.0	2.1
Maryland	26,972	6.8	0.4	518	26.6	0.2
Massachusetts	33,951	63.2	10.0	DS	DS	DS
Michigan	10,560	4.9	1.2	605	33.6	2.2
Minnesota	81,206	50.1	2.8	DS	DS	DS
Mississippi	26,873	32.8	1.7	520	31.2	2.0
Missouri	DS	DS	DS	935	58.5	2.3
Montana	5,635	26.7	5.7	131	26.0	2.7
Nebraska	83	DS	DS	74	37.8	1.0
Nevada	6,248	47.3	2.7	95	51.6	1.5

State	1915(c) waiver enrollees <sup>b</sup>			MFP participants <sup>c</sup>		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled
New Hampshire	10,559	4.9	0.7	63	DS	DS
New Jersey	10,578	21.5	6.1	628	18.2	4.1
New Mexico	4,917	11.0	1.3	DS	DS	DS
New York	310,222	42.7	2.7	1,224	64.9	2.6
North Carolina	2,735	31.7	2.1	276	34.1	1.8
North Dakota	6,378	4.0	0.9	40	DS	DS
Ohio	80,419	18.5	0.7	538	54.5	1.1
Oklahoma	26,478	41.2	6.5	60	73.3	1.2
Oregon	55,753	37.2	2.2	DS	DS	DS
Pennsylvania	42,612	9.4	13.6	273	8.8	0.2
Puerto Rico	DS	DS	DS	DS	DS	DS
Rhode Island	DS	DS	DS	129	70.5	2.3
South Carolina	45,131	27.5	1.7	148	36.5	1.1
South Dakota	4,942	12.5	1.7	DS	DS	DS
Tennessee	DS	DS	DS	1,699	49.3	1.1
Texas	65,882	18.7	3.4	4,179	28.3	1.5
Utah	8,713	DS	DS	DS	DS	DS
Vermont	DS	DS	DS	251	54.2	3.1
Virgin Islands	DS	DS	DS	DS	DS	DS
Virginia	58,293	30.7	3.5	DS	DS	DS
Washington	DS	DS	DS	1,628	31.0	1.2
West Virginia	12,633	32.5	3.4	541	57.5	1.1
Wisconsin	19,464	52.7	6.9	416	71.9	4.5
Wyoming	5,211	9.8	2.6	DS	DS	DS

Source: Mathematica's analysis of the TAF 2018 Release 2

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one category. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B).

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> Includes individuals enrolled in a 1915(c) waiver in at least one month in the year.

<sup>c</sup> Includes individuals who participated in the MFP program in at least one month in the year.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.8b. Rate and frequency of NEMT utilization: Beneficiaries enrolled in select Medicaid home and community based services programs in 2019**

State	1915(c) waiver enrollees <sup>b</sup>			MFP participants <sup>c</sup>		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>1,611,034</b>	<b>29.0</b>	<b>3.5</b>	<b>14,436</b>	<b>40.5</b>	<b>2.0</b>
Alabama	15,441	10.0	0.9	100	36.0	0.5
Alaska	4,923	36.0	1.9	DS	DS	DS
Arizona	DS	DS	DS	DS	DS	DS
Arkansas	10,404	27.2	2.5	102	31.4	1.2
California	157,442	8.1	1.5	646	31.9	1.3
Colorado	50,133	43.5	6.0	301	70.4	3.2
Connecticut	30,697	25.9	1.8	941	68.4	1.7
Delaware	1,373	5.9	4.6	28	42.9	0.6
District of Columbia	6,471	22.3	2.4	DS	DS	DS
Florida	2,212	6.1	1.8	DS	DS	DS
Georgia	49,684	33.8	2.9	150	66.7	1.7
Hawaii	3,108	9.2	1.0	DS	DS	DS
Idaho	23,396	31.6	5.4	DS	DS	DS
Illinois	157,413	19.0	1.4	DS	DS	DS
Indiana	57,216	16.4	0.9	134	38.1	0.7
Iowa	25,398	34.3	5.4	127	28.3	5.4
Kansas	DS	DS	DS	DS	DS	DS
Kentucky	26,183	34.3	4.5	20	85.0	3.9
Louisiana	19,826	12.8	2.6	576	22.2	1.4
Maine	DS	DS	DS	20	80.0	2.2
Maryland	27,616	7.2	0.4	417	23.3	0.3
Massachusetts	33,927	62.8	10.4	DS	DS	DS
Michigan	10,228	4.4	0.5	472	30.3	2.3
Minnesota	85,713	52.4	2.9	DS	DS	DS
Mississippi	27,019	31.0	1.4	481	24.5	1.5
Missouri	DS	DS	DS	875	55.0	1.7
Montana	5,520	42.8	6.6	122	42.6	4.8
Nebraska	57	DS	DS	39	DS	DS
Nevada	6,507	47.8	2.6	98	55.1	1.5



State	1915(c) waiver enrollees <sup>b</sup>			MFP participants <sup>c</sup>		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled
New Hampshire	10,765	3.2	0.6	50	DS	DS
New Jersey	11,538	25.0	7.5	671	19.7	6.0
New Mexico	5,069	11.9	1.3	DS	DS	DS
New York	324,850	41.7	2.8	1,227	65.2	2.7
North Carolina	1,148	30.1	1.9	282	30.5	1.7
North Dakota	6,605	3.8	0.7	33	DS	DS
Ohio	80,500	18.0	0.7	601	64.9	1.0
Oklahoma	26,908	42.2	6.3	32	62.5	1.0
Oregon	57,792	37.0	2.3	DS	DS	DS
Pennsylvania	34,380	10.3	15.0	372	11.3	0.2
Puerto Rico	DS	DS	DS	DS	DS	DS
Rhode Island	DS	DS	DS	207	54.6	1.6
South Carolina	44,827	27.8	1.8	126	45.2	1.4
South Dakota	5,594	12.9	1.3	DS	DS	DS
Tennessee	DS	DS	DS	1,466	45.4	1.3
Texas	65,169	17.4	3.2	3,304	27.1	1.6
Utah	8,932	DS	DS	DS	DS	DS
Vermont	DS	DS	DS	231	60.6	3.1
Virgin Islands	DS	DS	DS	DS	DS	DS
Virginia	59,937	31.7	5.1	DS	DS	DS
Washington	DS	DS	DS	1,081	28.8	1.7
West Virginia	12,913	38.8	3.5	504	63.1	1.1
Wisconsin	19,832	51.1	8.3	273	73.3	5.4
Wyoming	5,300	9.2	3.0	DS	DS	DS

Source: Mathematica's analysis of the TAF 2019 Release 1

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one category. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> Includes individuals enrolled in a 1915(c) waiver in at least one month in the year.

<sup>c</sup> Includes individuals who participated in the MFP program in at least one month in the year.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.8c. Rate and frequency of NEMT utilization: Beneficiaries enrolled in select Medicaid home and community based services programs in 2020**

State	1915(c) waiver enrollees <sup>b</sup>			MFP participants <sup>c</sup>		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>1,361,906</b>	<b>23.4</b>	<b>2.3</b>	<b>15,468</b>	<b>42.2</b>	<b>1.4</b>
Alabama	16,043	8.8	1.1	59	DS	DS
Alaska	4,982	31.0	1.2	DS	DS	DS
Arizona	DS	DS	DS	DS	DS	DS
Arkansas	9,680	23.8	1.9	45	37.8	0.8
California	159,554	6.4	1.0	498	40.8	1.0
Colorado	38,861	40.0	4.2	139	69.1	3.3
Connecticut	30,714	21.6	1.5	997	63.8	1.3
Delaware	1,492	3.4	1.6	DS	DS	DS
District of Columbia	7,291	4.4	0.6	DS	DS	DS
Florida	2,988	6.1	1.4	DS	DS	DS
Georgia	52,987	30.7	1.7	272	59.9	1.5
Hawaii	3,140	5.4	0.9	217	34.6	0.8
Idaho	23,547	28.2	3.7	134	35.1	2.2
Illinois	163,014	19.0	0.8	DS	DS	DS
Indiana	64,183	15.1	1.0	240	39.2	0.8
Iowa	25,105	31.1	2.8	104	21.2	2.6
Kansas	DS	DS	DS	DS	DS	DS
Kentucky	27,549	30.4	1.7	31	61.3	1.7
Louisiana	19,797	9.8	1.6	402	22.1	0.9
Maine	DS	DS	DS	DS	DS	DS
Maryland	27,096	6.6	0.2	328	25.3	0.2
Massachusetts	32,741	60.1	3.5	DS	DS	DS
Michigan	9,016	3.7	0.5	DS	DS	DS
Minnesota	88,793	49.3	1.8	190	82.1	1.5
Mississippi	25,951	28.7	1.6	452	21.9	1.7
Missouri	DS	DS	DS	896	49.3	1.6
Montana	5,530	43.7	7.5	121	41.3	6.6
Nebraska	48	DS	DS	DS	DS	DS
Nevada	7,238	42.8	2.0	53	43.4	2.5

State	1915(c) waiver enrollees <sup>b</sup>			MFP participants <sup>c</sup>		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled
New Hampshire	10,462	6.4	0.4	36	DS	DS
New Jersey	11,692	23.3	2.9	1,407	52.7	1.7
New Mexico	5,294	10.8	1.0	DS	DS	DS
New York	74,508	16.0	1.1	858	77.3	1.9
North Carolina	DS	DS	DS	292	29.8	1.3
North Dakota	6,216	3.3	0.7	32	DS	DS
Ohio	82,968	16.4	0.6	594	62.8	0.7
Oklahoma	27,290	40.7	5.4	22	63.6	0.6
Oregon	62,700	33.4	2.1	DS	DS	DS
Pennsylvania	31,382	10.0	6.6	446	12.1	0.2
Puerto Rico	DS	DS	DS	DS	DS	DS
Rhode Island	DS	DS	DS	312	59.9	1.2
South Carolina	47,043	23.9	1.4	105	37.1	1.0
South Dakota	5,575	11.4	1.0	DS	DS	DS
Tennessee	DS	DS	DS	1,254	45.5	1.1
Texas	42,328	9.9	1.5	3,073	22.4	1.3
Utah	8,828	DS	DS	DS	DS	DS
Vermont	DS	DS	DS	255	51.4	1.3
Virgin Islands	DS	DS	DS	DS	DS	DS
Virginia	61,175	37.8	2.7	DS	DS	DS
Washington	DS	DS	DS	1,041	29.7	1.0
West Virginia	16,566	32.5	2.1	338	51.5	0.9
Wisconsin	23,884	45.6	6.4	212	75.0	3.4
Wyoming	5,483	9.3	1.8	DS	DS	DS

Source: Mathematica's analysis of the TAF 2020 Release 1

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one category. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> Includes individuals enrolled in a 1915(c) waiver in at least one month in the year.

<sup>c</sup> Includes individuals who participated in the MFP program in at least one month in the year.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.8d. Rate and frequency of NEMT utilization: Beneficiaries enrolled in select Medicaid home and community based services programs in 2021**

State	1915(c) waiver enrollees <sup>b</sup>			MFP participants <sup>c</sup>		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>1,478,318</b>	<b>22.0</b>	<b>2.6</b>	<b>15,568</b>	<b>40.8</b>	<b>1.4</b>
Alabama	17,161	6.3	0.7	92	32.6	0.2
Alaska	5,112	30.9	1.5	DS	DS	DS
Arizona	DS	DS	DS	DS	DS	DS
Arkansas	10,135	22.1	2.1	57	29.8	1.0
California	164,166	5.4	1.3	774	37.5	1.1
Colorado	26,661	37.8	4.8	DS	DS	DS
Connecticut	30,492	20.7	1.7	905	57.0	1.3
Delaware	1,696	2.7	0.3	DS	DS	DS
District of Columbia	7,647	3.8	0.6	58	DS	DS
Florida	3,258	3.8	2.7	DS	DS	DS
Georgia	57,377	27.0	1.9	246	56.9	2.0
Hawaii	3,121	4.0	0.5	175	26.3	0.7
Idaho	23,517	25.7	4.7	100	27.0	2.1
Illinois	172,285	19.4	0.9	DS	DS	DS
Indiana	70,412	15.5	1.2	433	38.1	1.1
Iowa	29,256	30.3	3.4	168	22.0	3.4
Kansas	DS	DS	DS	DS	DS	DS
Kentucky	29,562	26.0	2.7	31	77.4	0.7
Louisiana	20,266	8.5	1.5	406	25.1	0.8
Maine	DS	DS	DS	DS	DS	DS
Maryland	27,235	6.7	0.3	245	19.6	0.3
Massachusetts	30,855	48.2	5.7	DS	DS	DS
Michigan	8,779	7.5	0.7	DS	DS	DS
Minnesota	92,206	49.6	2.8	256	82.4	2.0
Mississippi	27,405	26.4	1.5	415	22.7	1.0
Missouri	DS	DS	DS	512	47.9	1.9
Montana	5,743	32.1	6.4	121	31.4	5.2
Nebraska	39	DS	DS	DS	DS	DS
Nevada	7,767	38.3	1.9	46	50.0	1.8

State	1915(c) waiver enrollees <sup>b</sup>			MFP participants <sup>c</sup>		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled
New Hampshire	10,596	18.0	1.3	27	DS	DS
New Jersey	12,148	20.4	3.9	1,386	53.3	1.7
New Mexico	5,593	9.5	1.0	DS	DS	DS
New York	130,145	14.3	1.4	819	77.0	1.7
North Carolina	DS	DS	DS	326	30.4	1.6
North Dakota	6,476	3.4	0.9	49	DS	DS
Ohio	84,028	16.3	0.5	617	63.5	0.8
Oklahoma	28,253	38.2	5.7	38	50.0	0.3
Oregon	34,139	41.4	2.2	DS	DS	DS
Pennsylvania	35,934	8.5	9.4	663	19.2	0.2
Puerto Rico	DS	DS	DS	DS	DS	DS
Rhode Island	DS	DS	DS	305	63.6	1.4
South Carolina	44,588	21.5	1.6	89	27.0	0.7
South Dakota	6,152	11.8	1.1	DS	DS	DS
Tennessee	DS	DS	DS	1,057	45.0	1.0
Texas	43,655	8.4	2.0	3,022	23.5	1.3
Utah	8,839	0.3	0.2	DS	DS	DS
Vermont	DS	DS	DS	268	49.6	1.1
Virgin Islands	DS	DS	DS	DS	DS	DS
Virginia	63,494	32.5	3.4	DS	DS	DS
Washington	53,144	37.4	1.4	1,308	29.7	0.5
West Virginia	16,692	31.0	2.5	314	51.6	1.2
Wisconsin	25,650	39.7	6.9	234	75.2	4.1
Wyoming	5,478	7.8	1.8	DS	DS	DS

Source: Mathematica's analysis of the 2021 preliminary TAF

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one category. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> Includes individuals enrolled in a 1915(c) waiver in at least one month in the year.

<sup>c</sup> Includes individuals who participated in the MFP program in at least one month in the year.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.



**Table B2.1. Rate and frequency of NEMT utilization by major race and ethnicity group: beneficiaries who are White, non-Hispanic by year, 2018-2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Alabama	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Alaska	91,747	6.7	0.8	96,143	7.3	0.8	99,997	6.1	0.5
Arizona	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Arkansas	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
California	2,871,450	2.6	1.0	2,771,349	2.8	1.1	2,696,618	2.4	0.9
Colorado	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Connecticut	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Delaware	110,096	5.8	2.3	108,774	5.0	2.1	106,429	3.1	1.6
District of Columbia	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Florida	1,173,862	1.2	1.8	1,116,354	4.9	1.7	1,109,278	4.5	1.2
Georgia	813,136	3.2	1.0	760,757	3.3	1.0	755,784	3.1	0.8
Hawaii	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Idaho	308,035	5.4	3.3	293,578	5.3	3.4	369,971	3.9	2.3
Illinois	1,500,536	4.3	1.1	1,441,279	4.5	1.1	1,426,956	4.3	0.7
Indiana	997,547	5.7	0.7	968,221	4.3	0.6	1,008,539	3.5	0.7
Iowa	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Kansas	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Kentucky	1,021,522	4.4	1.2	999,195	4.5	1.3	1,043,400	3.8	0.8
Louisiana	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Maine	200,357	11.1	2.7	222,339	10.2	2.0	262,663	10.3	1.5
Maryland	343,166	1.5	0.4	DQ	DQ	DQ	DQ	DQ	DQ
Massachusetts	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Michigan	DQ	DQ	DQ	1,601,043	3.8	1.0	1,705,526	3.1	0.8
Minnesota	604,275	11.2	1.5	639,121	11.3	1.5	613,604	10.4	1.1
Mississippi	221,998	5.8	0.7	208,907	5.2	0.6	202,911	4.7	0.6
Missouri	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Montana	DQ	DQ	DQ	DQ	DQ	DQ	175,230	2.2	4.9
Nebraska	145,136	5.0	1.4	143,047	5.2	1.2	160,549	4.0	0.9
Nevada	272,475	5.8	1.2	262,020	5.8	1.5	260,207	4.9	1.4
New Hampshire	173,536	2.2	3.4	169,158	1.8	2.9	168,243	2.2	1.5

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Jersey	653,670	8.5	2.5	651,293	8.9	2.7	647,277	7.5	1.7
New Mexico	222,114	6.5	1.2	216,431	6.7	1.2	218,805	5.6	0.9
New York	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
North Carolina	870,025	4.2	1.0	829,107	4.4	1.1	799,578	3.9	0.8
North Dakota	71,854	2.7	0.9	69,769	2.9	1.0	70,313	2.8	0.8
Ohio	1,748,136	5.2	0.5	1,689,682	5.4	0.6	1,683,200	5.0	0.5
Oklahoma	403,191	6.7	2.5	397,486	7.0	2.4	420,521	6.1	2.1
Oregon	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Pennsylvania	1,741,128	1.6	2.6	1,650,906	1.8	2.4	1,653,768	1.9	1.0
Puerto Rico	6,465	0.9	0.8	7,171	1.3	0.9	6,786	1.7	1.3
Rhode Island	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
South Carolina	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
South Dakota	66,171	3.0	1.1	63,999	3.1	1.0	61,979	2.8	0.8
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Texas	916,276	4.6	1.7	844,754	4.9	1.8	803,376	4.2	1.2
Utah	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Vermont	145,628	6.6	2.3	139,580	6.8	2.3	137,381	5.9	1.2
Virgin Islands	677	2.1	1.6	727	DS	DS	764	1.7	1.1
Virginia	586,331	5.8	1.8	783,301	5.9	2.1	827,132	6.6	1.7
Washington	1,041,775	3.2	2.7	1,009,492	3.6	2.6	1,008,920	3.6	1.4
West Virginia	DQ	DQ	DQ	DQ	DQ	DQ	430,513	8.1	1.3
Wisconsin	641,997	10.2	4.7	626,923	10.5	5.0	647,973	9.2	4.0
Wyoming	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, and the 2020 preliminary TAF

Notes: Includes beneficiaries who are White, non-Hispanic who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Due to the high number of states with severe data quality issues related to the TAF race/ethnicity data element, national-level data are not presented in this table. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries.

DQ = Not reported because of a severe data quality issue related to the TAF race/ethnicity data element. Many states have high rates of missing information reported in this data element because states are not required to collect race and ethnicity information from beneficiaries at program enrollment

**Table B2.2. Rate and frequency of NEMT utilization by major race and ethnicity group: beneficiaries who are Black, non-Hispanic by year, 2018-2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Alabama	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Alaska	8,923	5.0	1.2	9,280	6.6	1.0	9,421	6.1	0.9
Arizona	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Arkansas	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
California	1,169,979	3.1	1.3	1,151,996	3.3	1.2	1,117,674	3.0	1.0
Colorado	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Connecticut	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Delaware	101,522	6.2	1.1	101,638	5.3	1.0	98,845	3.4	0.9
District of Columbia	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Florida	1,047,494	0.9	1.6	1,012,265	4.5	1.5	995,258	3.8	1.2
Georgia	965,703	5.6	1.3	941,225	5.5	1.3	963,808	4.9	1.1
Hawaii	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Idaho	DS	DS	DS	DS	DS	DS	DS	DS	DS
Illinois	1,052,966	6.0	1.1	1,001,548	6.3	1.1	983,071	6.1	0.8
Indiana	320,400	7.1	0.8	315,610	5.2	0.6	322,566	3.9	0.8
Iowa	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Kansas	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Kentucky	169,668	4.1	1.7	166,917	4.4	1.8	169,812	3.9	1.2
Louisiana	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Maine	11,624	7.0	1.3	12,502	6.7	1.2	13,137	5.3	0.9
Maryland	523,552	1.1	0.4	DQ	DQ	DQ	DQ	DQ	DQ
Massachusetts	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Michigan	DQ	DQ	DQ	789,973	7.8	1.0	803,184	5.8	0.8
Minnesota	234,138	16.4	1.6	270,220	16.4	1.7	263,979	13.8	1.3
Mississippi	375,926	9.5	1.1	356,384	8.7	0.9	346,832	7.4	1.0
Missouri	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Montana	DQ	DQ	DQ	DQ	DQ	DQ	2,367	1.7	3.6
Nebraska	37,204	8.8	1.5	37,141	8.6	1.3	40,744	6.1	1.1
Nevada	173,441	5.1	1.1	174,418	4.8	1.4	173,071	3.8	1.6
New Hampshire	5,261	1.9	1.8	5,293	1.7	1.9	5,269	2.4	1.2

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Jersey	437,102	10.2	2.8	435,317	10.5	2.9	422,017	8.8	2.3
New Mexico	18,865	7.0	0.8	18,892	7.1	0.8	19,699	6.0	0.7
New York	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
North Carolina	753,757	5.5	1.4	727,354	5.7	1.5	704,206	5.1	1.3
North Dakota	10,381	1.5	0.8	10,046	1.8	1.0	9,699	1.5	1.3
Ohio	848,438	5.1	0.8	835,062	5.3	0.7	835,380	4.9	0.6
Oklahoma	115,039	6.8	2.1	115,798	7.0	2.1	100,697	6.9	2.0
Oregon	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Pennsylvania	789,857	1.6	0.6	770,425	1.8	0.6	776,550	2.0	0.4
Puerto Rico	268	DS	DS	298	DS	DS	354	DS	DS
Rhode Island	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
South Carolina	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
South Dakota	4,958	0.6	1.6	4,900	0.5	1.9	4,500	0.6	1.1
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Texas	715,194	6.5	1.5	697,235	6.7	1.6	675,684	5.3	1.2
Utah	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Vermont	4,403	9.1	0.9	4,294	9.9	1.0	4,190	6.1	0.9
Virgin Islands	13,807	0.9	1.0	14,984	1.1	1.5	17,118	1.2	1.5
Virginia	426,376	8.4	1.5	547,467	8.9	1.6	573,995	9.3	1.7
Washington	146,120	2.7	2.3	146,923	3.0	2.3	149,448	2.9	1.4
West Virginia	DQ	DQ	DQ	DQ	DQ	DQ	20,311	6.8	1.1
Wisconsin	212,355	13.1	2.7	211,260	12.7	2.9	216,299	10.5	2.4
Wyoming	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, and the 2020 preliminary TAF

Notes: Includes beneficiaries who are Black, non-Hispanic who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Due to the high number of states with severe data quality issues related to the TAF race/ethnicity data element, national-level data are not presented in this table. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries.

DQ = Not reported because of a severe data quality issue related to the TAF race/ethnicity data element. Many states have high rates of missing information reported in this data element because states are not required to collect race and ethnicity information from beneficiaries at program enrollment.

**Table B2.3. Rate and frequency of NEMT utilization by major race and ethnicity group: beneficiaries who are Asian, non-Hispanic, by year, 2018-2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Alabama	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Alaska	11,827	3.3	1.4	12,408	3.8	1.0	12,634	3.2	1.1
Arizona	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Arkansas	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
California	1,397,367	1.3	2.0	1,368,156	1.4	1.8	1,346,675	1.2	1.7
Colorado	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Connecticut	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Delaware	5,758	1.5	1.5	5,950	1.5	1.4	5,979	0.7	0.7
District of Columbia	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Florida	48,383	0.7	1.8	45,839	2.5	1.6	48,024	2.0	1.3
Georgia	38,316	2.6	4.2	35,805	2.9	3.9	39,488	3.2	1.6
Hawaii	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Idaho	DS	DS	DS	DS	DS	DS	DS	DS	DS
Illinois	121,994	3.3	2.1	113,566	3.9	1.9	117,872	3.3	0.7
Indiana	30	DS	DS	16	DS	DS	36	DS	DS
Iowa	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Kansas	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Kentucky	13,587	1.5	1.8	13,664	1.7	2.8	14,800	1.4	1.0
Louisiana	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Maine	2,332	4.2	3.3	2,561	3.6	2.7	2,900	3.7	1.8
Maryland	69,233	0.9	0.3	DQ	DQ	DQ	DQ	DQ	DQ
Massachusetts	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Michigan	DQ	DQ	DQ	15,812	1.8	0.8	16,013	1.4	0.6
Minnesota	81,246	12.3	3.1	91,876	11.8	3.1	90,345	9.2	1.8
Mississippi	3,666	1.9	1.1	3,518	2.0	1.0	3,392	1.7	1.3
Missouri	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Montana	DQ	DQ	DQ	DQ	DQ	DQ	1,170	0.9	7.9
Nebraska	8,564	2.0	1.2	8,557	2.1	1.1	9,567	1.6	1.0
Nevada	30,887	3.1	4.2	31,235	3.0	4.7	34,715	2.5	3.8
New Hampshire	3,303	1.8	4.2	3,236	1.4	5.0	3,488	1.3	1.4

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Jersey	73,890	2.9	1.6	74,186	3.2	1.7	82,097	2.4	1.2
New Mexico	6,666	3.0	1.3	6,417	3.3	1.2	6,713	2.5	1.2
New York	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
North Carolina	34,044	1.3	1.6	32,139	1.4	1.7	31,053	1.4	1.4
North Dakota	2,610	3.3	0.4	2,286	1.1	0.8	2,062	1.3	0.8
Ohio	DS	DS	DS	DS	DS	DS	DS	DS	DS
Oklahoma	14,268	1.8	2.5	14,639	1.8	2.7	13,581	1.7	2.7
Oregon	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Pennsylvania	102,884	0.6	2.3	101,562	0.7	2.2	108,617	0.8	0.7
Puerto Rico	64	DS	DS	77	DS	DS	110	DS	DS
Rhode Island	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
South Carolina	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
South Dakota	1,902	DS	DS	1,690	DS	DS	1,539	DS	DS
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Texas	87,775	3.0	2.0	81,979	3.2	2.1	77,887	2.6	1.2
Utah	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Vermont	2,807	6.8	1.1	2,635	6.8	1.3	2,565	3.7	0.9
Virgin Islands	DS	DS	DS	DS	DS	DS	DS	DS	DS
Virginia	42,764	4.1	3.2	61,084	3.7	4.1	65,447	4.1	1.9
Washington	94,463	4.8	2.7	92,204	5.3	2.7	96,277	5.1	1.9
West Virginia	DQ	DQ	DQ	DQ	DQ	DQ	1,045	2.1	0.6
Wisconsin	38,869	3.2	5.1	38,390	3.2	5.5	40,373	2.7	4.1
Wyoming	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, and the 2020 preliminary TAF

Notes: Includes Asian, non-Hispanic beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Due to the high number of states with severe data quality issues related to the TAF race/ethnicity data element, national-level data are not presented in this table. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries.

DQ = Not reported because of a severe data quality issue related to the TAF race/ethnicity data element. Many states have high rates of missing information reported in this data element because states are not required to collect race and ethnicity information from beneficiaries at program enrollment.

**Table B2.4. Rate and frequency of NEMT utilization by major race and ethnicity group: beneficiaries who are American Indian and Alaska Native (AIAN), non-Hispanic by year, 2018-2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Alabama	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Alaska	78,435	28.2	0.6	81,024	28.7	0.5	82,104	21.2	0.4
Arizona	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Arkansas	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
California	63,202	2.8	1.2	61,452	3.5	1.2	59,541	3.1	1.2
Colorado	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Connecticut	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Delaware	561	7.3	2.2	542	5.4	1.7	541	3.9	0.8
District of Columbia	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Florida	8,191	0.7	1.5	7,835	4.2	1.5	7,721	3.6	1.4
Georgia	3,192	3.4	1.2	3,328	3.4	1.1	3,713	2.8	1.3
Hawaii	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Idaho	6,870	4.6	2.4	6,698	4.7	2.2	8,410	3.7	1.6
Illinois	12,068	2.1	1.0	13,595	2.3	0.9	29,314	1.2	0.7
Indiana	2,554	6.7	0.7	2,530	5.7	0.7	3,306	4.7	0.8
Iowa	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Kansas	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Kentucky	873	3.8	0.9	841	2.6	1.0	938	2.0	0.3
Louisiana	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Maine	2,473	16.2	1.7	2,889	17.3	1.2	3,214	13.6	1.0
Maryland	5,917	1.1	0.2	DQ	DQ	DQ	DQ	DQ	DQ
Massachusetts	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Michigan	DQ	DQ	DQ	30,178	3.6	0.9	40,216	3.4	0.8
Minnesota	49,086	13.0	1.6	51,444	13.2	1.3	49,814	11.5	1.4
Mississippi	4,076	3.0	0.7	3,809	2.9	0.5	3,941	2.7	0.5
Missouri	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Montana	DQ	DQ	DQ	DQ	DQ	DQ	50,005	1.5	3.0
Nebraska	7,732	5.2	1.2	7,950	5.3	1.0	8,778	4.6	0.9
Nevada	11,816	7.2	0.9	11,460	7.4	0.9	10,839	5.6	1.0
New Hampshire	1,078	1.9	2.3	1,059	1.5	1.9	1,160	1.8	1.6

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Jersey	5,592	6.4	1.6	5,481	6.6	2.1	5,176	5.8	1.6
New Mexico	127,736	6.4	1.0	126,299	6.8	1.0	127,900	6.0	0.9
New York	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
North Carolina	28,609	3.6	0.8	27,990	3.6	0.9	27,342	3.1	0.6
North Dakota	20,080	4.6	0.6	20,075	4.8	0.6	19,517	4.4	0.5
Ohio	12,199	4.0	0.4	12,089	4.4	0.5	13,130	3.9	0.4
Oklahoma	125,217	4.2	1.9	124,619	4.5	1.9	81,433	3.5	2.0
Oregon	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Pennsylvania	6,389	1.3	1.2	6,475	1.6	1.3	7,492	1.5	0.7
Puerto Rico	14	DS	DS	15	DS	DS	19	DS	DS
Rhode Island	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
South Carolina	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
South Dakota	48,545	3.5	0.6	48,267	4.1	0.6	46,803	5.0	0.4
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Texas	9,580	2.9	2.2	9,018	3.2	2.2	8,359	2.5	1.2
Utah	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Vermont	761	8.4	1.3	733	8.5	1.5	751	7.2	0.9
Virgin Islands	30	DS	DS	32	DS	DS	34	DS	DS
Virginia	4,934	5.8	1.4	7,564	5.7	1.4	8,290	5.9	1.1
Washington	64,828	2.4	1.3	66,211	2.5	1.4	68,047	2.5	0.7
West Virginia	DQ	DQ	DQ	DQ	DQ	DQ	351	6.3	0.7
Wisconsin	21,465	9.3	3.7	21,457	9.3	4.1	22,248	7.9	3.7
Wyoming	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ

Source: Mathematica’s analysis of the TAF 2018 Release 2, TAF 2019 Release 1, and the 2020 preliminary TAF

Notes: Includes beneficiaries who are American Indian and Alaskan Native, non-Hispanic who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Due to the high number of states with severe data quality issues related to the TAF race/ethnicity data element, national-level data are not presented in this table. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries.

DQ = Not reported because of a severe data quality issue related to the TAF race/ethnicity data element. Many states have high rates of missing information reported in this data element because states are not required to collect race and ethnicity information from beneficiaries at program enrollment.



**Table B2.5. Rate and frequency of NEMT utilization by major race and ethnicity group: beneficiaries who are Hawaiian/Pacific Islander, non-Hispanic by year, 2018-2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Alabama	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Alaska	9,671	3.0	2.1	10,058	3.4	1.4	10,233	3.3	1.4
Arizona	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Arkansas	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
California	64,935	1.4	2.6	63,142	1.5	2.4	60,638	1.3	2.3
Colorado	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Connecticut	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Delaware	623	14.4	1.0	630	12.2	0.9	652	6.1	0.7
District of Columbia	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Florida	DS	DS	DS	DS	DS	DS	DS	DS	DS
Georgia	1,693	1.1	0.2	1,642	1.4	0.4	1,927	1.3	1.4
Hawaii	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Idaho	DS	DS	DS	DS	DS	DS	DS	DS	DS
Illinois	3,357	3.1	1.4	2,718	3.8	1.6	2,321	4.2	1.0
Indiana	33,365	1.9	0.7	33,823	1.3	0.4	DS	DS	DS
Iowa	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Kansas	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Kentucky	743	2.0	0.8	729	2.2	1.5	877	2.3	1.4
Louisiana	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Maine	153	8.5	3.4	194	8.8	2.3	227	9.7	0.9
Maryland	1,927	0.8	0.2	DQ	DQ	DQ	DQ	DQ	DQ
Massachusetts	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Michigan	DQ	DQ	DQ	2,813	4.3	1.1	3,482	3.0	1.3
Minnesota	3,323	4.8	1.4	3,267	5.4	1.4	3,218	4.5	1.0
Mississippi	219	DS	DS	267	DS	DS	281	DS	DS
Missouri	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Montana	DQ	DQ	DQ	DQ	DQ	DQ	348	DS	DS
Nebraska	442	3.4	1.2	439	4.6	1.2	501	2.4	1.4
Nevada	11,098	2.5	1.4	12,588	2.3	2.1	13,095	1.9	1.9
New Hampshire	167	DS	DS	160	DS	DS	167	DS	DS

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Jersey	DS	DS	DS	DS	DS	DS	DS	DS	DS
New Mexico	DS	DS	DS	DS	DS	DS	DS	DS	DS
New York	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
North Carolina	1,324	1.1	0.7	1,353	1.5	1.0	1,365	1.0	0.3
North Dakota	163	DS	DS	233	DS	DS	287	DS	DS
Ohio	59,508	2.5	0.5	60,743	2.6	0.6	62,477	2.3	0.5
Oklahoma	2,920	2.5	1.1	3,112	2.6	0.9	2,545	2.0	0.6
Oregon	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Pennsylvania	2,620	0.8	1.6	3,068	0.7	1.6	4,241	0.8	0.7
Puerto Rico	27	DS	DS	27	DS	DS	30	DS	DS
Rhode Island	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
South Carolina	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
South Dakota	255	DS	DS	257	DS	DS	225	DS	DS
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Texas	7,112	5.4	1.4	6,993	5.4	1.5	6,668	4.6	1.4
Utah	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Vermont	DS	DS	DS	DS	DS	DS	DS	DS	DS
Virgin Islands	118	DS	DS	34	DS	DS	36	DS	DS
Virginia	7,323	1.9	1.3	8,687	2.7	1.3	8,795	2.8	1.4
Washington	57,720	2.7	2.7	58,933	2.7	2.7	60,755	2.6	1.6
West Virginia	DQ	DQ	DQ	DQ	DQ	DQ	472	6.8	2.3
Wisconsin	940	8.6	4.3	925	7.6	4.8	964	6.6	5.1
Wyoming	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, and the 2020 preliminary TAF

Notes: Includes beneficiaries who are Hawaiian/Pacific Islander, non-Hispanic who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Due to the high number of states with severe data quality issues related to the TAF race/ethnicity data element, national-level data are not presented in this table. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries.

DQ = Not reported because of a severe data quality issue related to the TAF race/ethnicity data element. Many states have high rates of missing information reported in this data element because states are not required to collect race and ethnicity information from beneficiaries at program enrollment.

**Table B2.6. Rate and frequency of NEMT utilization by major race and ethnicity group: beneficiaries who are multiracial, non-Hispanic by year, 2018-2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Alabama	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Alaska	12,508	7.2	0.5	12,932	7.5	0.6	13,659	6.0	0.4
Arizona	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Arkansas	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
California	DS	DS	DS	DS	DS	DS	DS	DS	DS
Colorado	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Connecticut	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Delaware	DS	DS	DS	DS	DS	DS	DS	DS	DS
District of Columbia	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Florida	DS	DS	DS	DS	DS	DS	DS	DS	DS
Georgia	DS	DS	DS	DS	DS	DS	37,574	1.9	0.6
Hawaii	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Idaho	DS	DS	DS	DS	DS	DS	DS	DS	DS
Illinois	3,696	1.3	1.6	2,949	1.0	0.5	6,457	0.4	0.6
Indiana	DS	DS	DS	DS	DS	DS	DS	DS	DS
Iowa	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Kansas	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Kentucky	DS	DS	DS	DS	DS	DS	DS	DS	DS
Louisiana	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Maine	DS	DS	DS	DS	DS	DS	DS	DS	DS
Maryland	DS	DS	DS	DQ	DQ	DQ	DQ	DQ	DQ
Massachusetts	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Michigan	DQ	DQ	DQ	DS	DS	DS	DS	DS	DS
Minnesota	35	DS	DS	22	DS	DS	11	DS	DS
Mississippi	DS	DS	DS	DS	DS	DS	DS	DS	DS
Missouri	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Montana	DQ	DQ	DQ	DQ	DQ	DQ	1,587	0.8	1.6
Nebraska	DS	DS	DS	DS	DS	DS	DS	DS	DS
Nevada	170	DS	DS	DS	DS	DS	DS	DS	DS
New Hampshire	2,951	1.6	3.1	2,957	0.9	1.6	3,309	1.3	1.0

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Jersey	DS	DS	DS	DS	DS	DS	DS	DS	DS
New Mexico	DS	DS	DS	DS	DS	DS	DS	DS	DS
New York	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
North Carolina	71,583	3.4	1.1	69,425	3.6	1.2	70,270	3.0	1.0
North Dakota	6,681	2.2	0.6	6,716	2.7	1.2	6,994	2.8	0.7
Ohio	DS	DS	DS	DS	DS	DS	DS	DS	DS
Oklahoma	DS	DS	DS	DS	DS	DS	77,058	3.5	1.4
Oregon	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Pennsylvania	701	1.7	1.2	700	DS	DS	690	1.9	0.1
Puerto Rico	DS	DS	DS	DS	DS	DS	DS	DS	DS
Rhode Island	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
South Carolina	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
South Dakota	DS	DS	DS	DS	DS	DS	DS	DS	DS
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Texas	27,188	2.4	1.5	26,739	2.5	1.7	28,777	1.8	1.1
Utah	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Vermont	DS	DS	DS	DS	DS	DS	DS	DS	DS
Virgin Islands	DS	DS	DS	DS	DS	DS	DS	DS	DS
Virginia	DS	DS	DS	DS	DS	DS	2,762	9.0	1.7
Washington	31,274	1.5	1.6	32,685	1.7	1.7	30,071	1.8	0.9
West Virginia	DQ	DQ	DQ	DQ	DQ	DQ	11,326	3.8	0.8
Wisconsin	79	20.3	3.0	71	16.9	6.5	73	17.8	4.8
Wyoming	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, and the 2020 preliminary TAF<sup>4</sup>

Notes: Includes beneficiaries who are multiracial, non-Hispanic who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Due to the high number of states with severe data quality issues related to the TAF race/ethnicity data element, national-level data are not presented in this table. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries.

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**Table B2.7. Rate and frequency of NEMT utilization, by race and ethnicity group: beneficiaries who are Hispanic by year, 2018-2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Alabama	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Alaska	6,529	4.3	1.0	6,790	5.3	0.8	6,912	4.7	0.5
Arizona	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Arkansas	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
California	6,092,175	1.2	1.7	5,980,752	1.3	1.6	5,903,588	1.2	1.5
Colorado	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Connecticut	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Delaware	38,183	2.4	1.2	38,278	1.8	1.3	37,721	1.1	0.9
District of Columbia	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Florida	1,348,786	1.1	1.3	1,283,126	3.6	2.1	1,298,123	2.9	1.4
Georgia	32,916	2.0	0.7	39,360	1.9	0.8	59,210	1.3	0.6
Hawaii	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Idaho	89	DS	DS	52	DS	DS	41	DS	DS
Illinois	533,270	2.6	1.5	452,179	2.9	1.4	403,604	2.9	0.8
Indiana	91,800	1.7	0.7	84,714	1.2	0.6	79,499	0.8	0.7
Iowa	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Kansas	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Kentucky	45,414	1.3	1.1	45,934	1.3	1.2	50,007	1.2	0.7
Louisiana	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Maine	5,548	7.6	1.6	6,029	7.3	1.3	6,715	6.2	1.1
Maryland	166,841	0.4	0.6	DQ	DQ	DQ	DQ	DQ	DQ
Massachusetts	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Michigan	DQ	DQ	DQ	183,231	2.0	0.8	3,346	3.2	0.5
Minnesota	76,594	6.4	1.5	95,987	6.4	1.4	98,378	5.0	1.1
Mississippi	3,855	1.2	0.4	4,173	1.3	0.4	5,294	1.1	0.3
Missouri	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Montana	DQ	DQ	DQ	DQ	DQ	DQ	10,881	1.1	4.7
Nebraska	56,730	1.8	1.1	56,767	1.8	1.0	62,857	1.5	0.8
Nevada	259,195	1.9	1.5	258,238	1.8	1.7	268,676	1.5	1.6
New Hampshire	12,642	1.2	3.4	12,691	0.9	3.5	13,350	1.3	1.2

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Jersey	432,894	3.7	1.9	432,255	4.0	1.9	443,462	3.3	1.6
New Mexico	446,561	3.6	1.5	439,520	3.8	1.6	454,631	3.3	1.2
New York	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
North Carolina	281,021	1.2	1.0	276,464	1.2	1.0	271,494	1.0	0.8
North Dakota	5,791	1.1	0.8	5,950	1.2	1.0	6,363	1.5	0.6
Ohio	128,631	2.6	0.5	127,675	2.7	0.5	132,400	2.4	0.5
Oklahoma	137,517	1.8	1.4	138,501	1.8	1.4	135,750	1.5	1.4
Oregon	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Pennsylvania	439,123	1.2	0.6	432,627	1.2	0.6	442,106	1.3	0.3
Puerto Rico	973,846	1.1	1.0	1,026,453	1.2	0.7	1,125,873	1.8	1.0
Rhode Island	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
South Carolina	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
South Dakota	6,690	0.5	1.2	6,525	0.6	1.4	6,734	0.7	0.6
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Texas	2,412,338	3.0	2.7	2,321,456	3.1	2.9	2,235,387	2.5	1.7
Utah	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Vermont	994	8.8	2.5	987	10.1	2.0	1,003	8.3	1.1
Virgin Islands	20	DS	DS	DS	DS	DS	DS	DS	DS
Virginia	38,662	2.1	1.0	46,715	2.7	1.2	49,794	3.0	1.3
Washington	416,027	1.4	2.3	416,834	1.6	2.1	422,807	1.5	1.3
West Virginia	DQ	DQ	DQ	DQ	DQ	DQ	DS	DS	DS
Wisconsin	140,108	4.6	3.5	137,042	4.7	3.7	142,503	3.9	2.8
Wyoming	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 1, and the 2020 preliminary TAF

Notes: Includes beneficiaries who are Hispanic who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Due to the high number of states with severe data quality issues related to the TAF race/ethnicity data element, national-level data are not presented in this table. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

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**Table B3.1a. Percentage of beneficiaries who used NEMT to access select physical health, behavioral health, and substance use disorder (SUD) treatment services in 2018, by beneficiary subgroup**

State	Number of Beneficiaries	% of beneficiaries who used NEMT to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>74,831,540</b>	<b>2.8</b>	<b>2.3</b>	<b>1.4</b>	<b>2.3</b>	<b>0.6</b>	<b>0.1</b>	<b>0.5</b>	<b>0.5</b>	<b>NA</b>	<b>0.7</b>	<b>0.3</b>	<b>0.1</b>	<b>0.2</b>
U.S., children <sup>a</sup>	31,496,074	0.9	0.5	0.4	0.6	0.0	0.0	0.3	0.0	NA	0.0	0.0	0.0	0.0
U.S., adults <sup>a</sup>	9,922,143	1.9	1.8	0.9	1.6	0.6	0.2	0.3	0.2	NA	0.3	0.1	0.0	0.1
U.S., adult expansion <sup>a</sup>	19,668,033	1.8	1.7	1.2	1.4	0.9	0.2	0.3	0.4	NA	0.4	0.1	0.0	0.1
U.S., eligible on the basis of a disability <sup>a</sup>	8,214,252	10.0	8.2	6.0	8.7	1.8	0.3	1.8	2.0	NA	2.8	0.9	0.7	0.7
U.S., eligible on the basis of age (65+) <sup>a</sup>	5,523,030	8.0	7.2	2.7	7.0	0.4	0.0	1.1	2.5	NA	3.9	2.1	0.7	1.2
U.S., dually eligible <sup>a</sup>	8,347,571	9.2	7.9	4.2	8.0	0.9	0.1	1.5	2.3	NA	3.8	1.7	0.9	1.1
U.S., 1915(c) waiver enrollees <sup>a</sup>	1,573,272	17.3	13.6	7.6	15.3	1.2	0.1	3.7	4.4	NA	6.6	2.9	1.0	1.7
U.S., MFP participants <sup>a</sup>	16,995	22.3	22.1	11.9	19.9	3.4	0.3	3.7	9.7	NA	11.6	4.3	2.3	2.1
U.S., pregnant <sup>a</sup>	4,091,235	2.4	2.7	1.1	1.9	0.7	0.2	0.4	0.1	NA	0.2	0.0	0.0	0.0
U.S., postpartum <sup>a</sup>	3,601,420	2.2	2.2	0.5	1.5	0.4	0.1	0.2	0.1	NA	0.1	0.0	0.0	0.0
U.S., CKD with ESRD <sup>a</sup>	297,762	27.6	34.6	8.5	23.5	2.7	0.2	3.4	10.0	NA	22.9	9.3	33.1	2.4
U.S., CKD without ESRD <sup>a</sup>	3,187,484	12.8	12.7	6.2	11.4	2.4	0.3	1.6	4.9	NA	9.1	3.2	0.0	1.8
U.S., IDD <sup>a</sup>	1,737,798	9.6	5.9	5.1	7.3	0.4	0.0	2.7	1.6	NA	1.1	0.2	0.1	0.3
U.S., any SUD <sup>a</sup>	4,008,160	10.3	10.4	8.8	8.3	10.1	2.1	1.5	2.5	NA	2.2	1.0	0.3	0.7
U.S., OUD <sup>a</sup>	1,698,360	11.2	11.5	8.7	9.3	12.4	4.9	1.8	2.4	NA	2.2	0.9	0.3	0.7
U.S., any MH condition <sup>a</sup>	13,410,399	8.1	6.9	7.7	6.7	2.4	0.4	1.4	1.7	NA	2.1	0.8	0.3	0.6
Alabama	943,121	0.3	1.2	0.7	0.1	0.2	0.0	DS	0.5	NA	0.5	0.3	0.1	0.1
Alaska	235,173	8.3	6.6	1.5	7.2	1.1	0.1	2.0	1.0	NA	0.6	0.3	0.1	0.4

State	Number of Beneficiaries	% of beneficiaries who used NEMT to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Arizona	2,043,417	7.4	5.3	4.3	5.5	2.2	0.2	0.6	0.6	NA	1.3	0.4	0.2	0.3
Arkansas	1,000,221	3.1	2.5	1.4	1.8	0.3	0.0	0.4	0.4	NA	0.6	0.3	0.1	0.2
California	13,057,698	0.9	0.8	0.4	0.6	0.1	0.0	0.1	0.2	NA	0.3	0.1	0.2	0.1
Colorado	1,486,585	1.9	1.9	0.9	1.6	0.5	0.0	0.4	0.4	NA	0.4	0.1	0.1	0.1
Connecticut	961,337	3.2	2.8	1.9	2.5	1.2	0.5	0.6	0.9	NA	0.8	0.3	0.1	0.2
Delaware	256,764	3.3	2.4	1.3	2.8	1.1	0.7	0.3	0.5	NA	0.6	0.2	0.1	0.2
District of Columbia	269,396	5.4	3.9	1.8	4.5	0.4	0.1	1.5	0.9	NA	0.9	0.2	0.2	0.3
Florida	4,262,235	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.1	NA	0.1	0.0	0.0	0.0
Georgia	2,134,062	2.8	2.0	1.3	2.4	0.3	0.0	0.5	0.5	NA	0.8	0.3	0.2	0.2
Hawaii	384,094	2.9	2.2	0.9	2.5	0.4	0.0	0.0	0.6	NA	0.6	0.3	0.2	0.3
Idaho	316,076	3.4	2.4	1.9	2.8	0.4	0.0	0.8	0.7	NA	0.7	0.2	0.1	0.2
Illinois	3,383,999	2.2	1.9	1.3	1.6	0.4	0.0	0.3	0.5	NA	0.6	0.3	0.1	0.2
Indiana	1,604,987	3.2	3.1	1.5	2.5	0.6	0.1	0.5	0.7	NA	0.7	0.3	0.1	0.2
Iowa	717,703	3.6	2.9	2.0	2.9	0.5	0.0	1.0	0.8	NA	0.8	0.3	0.1	0.2
Kansas	428,545	2.3	1.5	1.1	1.9	0.2	0.0	0.3	0.3	NA	0.4	0.1	0.0	0.1
Kentucky	1,504,402	2.6	2.6	1.5	2.3	0.6	0.2	0.5	0.4	NA	0.7	0.3	0.1	0.2
Louisiana	1,638,165	2.0	1.6	0.9	1.8	0.3	0.0	0.2	0.2	NA	0.4	0.1	0.0	0.1
Maine	246,401	6.6	5.2	4.7	5.6	1.3	0.5	1.2	1.3	NA	1.0	0.3	0.1	0.4
Maryland	1,394,401	0.1	0.3	0.2	0.1	0.0	0.0	0.0	0.2	NA	0.1	0.1	0.0	0.0
Massachusetts	1,845,150	5.0	4.2	3.0	4.2	1.1	0.5	1.2	1.5	NA	1.5	0.7	0.2	0.5
Michigan	2,857,271	3.0	2.6	1.5	2.5	0.6	0.1	0.4	0.4	NA	0.6	0.2	0.0	0.2
Minnesota	1,299,440	7.8	5.8	4.0	6.2	1.4	0.3	2.6	1.5	NA	1.5	0.4	0.1	0.4
Mississippi	696,690	5.2	4.6	1.7	4.6	0.4	0.0	0.8	0.9	NA	1.3	0.5	0.4	0.4
Missouri	1,174,634	4.2	4.1	2.4	3.6	0.6	0.0	0.7	0.9	NA	1.1	0.4	0.2	0.4
Montana	289,095	0.6	0.8	0.5	0.5	0.2	0.0	0.1	0.2	NA	0.2	0.1	0.0	0.1
Nebraska	276,437	3.0	2.7	1.6	2.6	0.2	0.0	0.8	0.4	NA	0.7	0.2	0.1	0.2
Nevada	788,296	1.9	2.1	1.5	1.4	0.8	0.0	0.3	0.6	NA	0.5	0.2	0.1	0.1
New Hampshire	222,290	0.5	0.6	0.4	0.3	0.4	0.2	0.1	0.2	NA	0.1	0.1	0.0	0.0
New Jersey	1,814,383	4.3	3.5	2.1	3.7	1.3	0.3	1.0	1.0	NA	1.1	0.5	0.2	0.4
New Mexico	836,072	2.9	2.5	1.4	2.1	1.0	0.3	0.7	0.4	NA	0.6	0.2	0.1	0.2



State	Number of Beneficiaries	% of beneficiaries who used NEMT to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
New York	6,892,006	5.2	3.8	2.3	4.4	1.0	0.1	1.0	0.6	NA	1.5	0.8	0.3	0.5
North Carolina	2,057,216	2.3	2.4	1.0	2.0	0.3	0.1	0.6	0.6	NA	0.8	0.3	0.2	0.2
North Dakota	118,436	1.5	1.5	1.1	1.1	0.5	DS	0.3	0.4	NA	0.4	0.1	0.1	0.1
Ohio	3,069,768	2.2	2.8	1.9	1.7	0.8	0.1	0.3	1.2	NA	1.0	0.6	0.1	0.3
Oklahoma	836,884	3.1	2.7	1.5	2.8	0.3	0.0	0.4	0.6	NA	0.9	0.5	0.2	0.2
Oregon	1,060,739	5.6	4.7	2.8	4.9	1.8	0.5	1.6	1.2	NA	1.1	0.4	0.1	0.4
Pennsylvania	3,258,631	0.2	0.5	0.6	0.1	0.4	0.0	0.0	0.3	NA	0.2	0.1	0.0	0.1
Puerto Rico	1,438,531	0.4	0.3	0.1	0.4	0.0	0.0	0.0	0.0	NA	0.2	0.1	0.1	0.1
Rhode Island	344,020	2.4	1.5	1.4	1.9	0.9	0.5	0.6	0.1	NA	0.4	0.1	0.1	0.1
South Carolina	1,172,848	3.3	2.2	1.2	2.6	0.2	0.0	0.7	0.2	NA	0.6	0.2	0.1	0.2
South Dakota	128,540	1.4	1.0	0.5	1.2	0.2	DS	0.6	0.5	NA	0.5	0.2	0.1	0.1
Tennessee	1,673,580	2.5	2.4	1.2	2.2	0.3	0.0	0.1	0.5	NA	0.6	0.2	0.1	0.2
Texas	4,907,155	2.4	1.6	0.9	2.0	0.2	0.0	0.5	0.4	NA	0.6	0.2	0.2	0.1
Utah	385,303	DS	DS	DS	DS	DS	DS	DS	DS	NA	DS	DS	DS	DS
Vermont	184,228	3.4	2.5	2.3	3.0	1.1	0.3	1.0	0.7	NA	0.8	0.4	0.0	0.2
Virgin Islands	19,145	0.5	0.5	DS	0.4	DS	DS	DS	DS	NA	0.1	0.1	DS	0.2
Virginia	1,122,768	2.0	1.5	0.9	1.9	0.3	0.1	0.1	0.4	NA	0.5	0.1	0.1	0.1
Washington	2,033,978	1.3	1.5	0.8	1.1	0.3	0.0	0.3	0.4	NA	0.5	0.2	0.0	0.1
West Virginia	551,191	2.5	2.9	1.4	2.3	0.8	0.4	0.2	0.7	NA	0.8	0.5	0.1	0.3
Wisconsin	1,256,170	6.2	5.0	3.0	5.3	1.2	0.5	1.7	1.0	NA	1.3	0.4	0.2	0.4
Wyoming	74,677	0.5	1.1	0.4	0.4	0.2	DS	0.0	0.3	NA	0.3	0.1	0.0	0.1

Source: Mathematica's analysis of the TAF 2017 Release 2 and TAF 2018 Release 2

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

NA = service type was not available in 2018.

**Table B3.1b. Average monthly number of NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services among beneficiaries who used NEMT to access each service type in 2018, by beneficiary subgroup**

State	Average monthly # of NEMT ride days used to access each service type:												
	Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>0.8</b>	<b>0.5</b>	<b>0.9</b>	<b>0.7</b>	<b>1.4</b>	<b>3.5</b>	<b>0.5</b>	<b>0.4</b>	<b>NA</b>	<b>0.6</b>	<b>0.3</b>	<b>4.7</b>	<b>0.6</b>
U.S., children <sup>a</sup>	0.4	0.2	0.7	0.3	0.4	1.5	0.2	0.6	NA	0.2	0.2	1.4	0.6
U.S., adults <sup>a</sup>	0.6	0.4	0.6	0.5	2.1	4.4	0.3	0.3	NA	0.4	0.2	3.9	0.6
U.S., adult expansion <sup>a</sup>	0.6	0.4	0.6	0.5	1.3	2.6	0.3	0.2	NA	0.4	0.2	2.6	0.6
U.S., eligible on the basis of disability <sup>a</sup>	1.1	0.7	1.2	0.9	1.3	4.2	0.8	0.5	NA	0.7	0.3	4.9	0.7
U.S., eligible on the basis of age (65+) <sup>a</sup>	0.8	0.5	0.8	0.6	1.4	5.8	0.4	0.3	NA	0.7	0.3	5.0	0.6
U.S., dually eligible <sup>a</sup>	1.0	0.6	1.2	0.8	1.3	5.0	0.7	0.4	NA	0.7	0.3	4.9	0.6
U.S., 1915(c) waiver enrollees <sup>a</sup>	1.4	0.8	1.5	1.1	1.6	4.9	1.0	0.5	NA	1.0	0.4	4.3	0.8
U.S., MFP participants <sup>a</sup>	1.0	0.7	0.8	0.9	1.0	4.5	0.8	0.5	NA	0.8	0.3	5.8	0.6
U.S., pregnant <sup>a</sup>	0.5	0.4	0.6	0.4	1.5	2.9	0.3	0.3	NA	0.4	0.3	4.4	0.5
U.S., postpartum <sup>a</sup>	0.4	0.3	0.5	0.3	1.4	2.8	0.2	0.2	NA	0.4	0.3	5.4	0.4
U.S., CKD with ESRD <sup>a</sup>	1.4	1.2	0.7	0.8	0.9	5.0	0.4	0.4	NA	1.0	0.4	4.9	0.9
U.S., CKD without ESRD <sup>a</sup>	0.9	0.5	0.8	0.7	1.1	3.7	0.4	0.3	NA	0.6	0.3	0.4	0.6
U.S., IDD <sup>a</sup>	1.7	1.0	2.0	1.4	0.9	3.5	1.3	1.0	NA	1.6	0.6	4.4	1.1
U.S., any SUD <sup>a</sup>	1.0	0.6	0.8	0.8	1.5	3.5	0.5	0.3	NA	0.6	0.3	4.0	0.7
U.S., OUD <sup>a</sup>	1.3	0.9	1.0	1.0	2.3	3.5	0.6	0.3	NA	0.7	0.3	4.2	0.7
U.S., any MH condition <sup>a</sup>	0.9	0.5	1.0	0.7	1.3	3.2	0.5	0.3	NA	0.6	0.3	4.4	0.6
Alabama	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	NA	0.2	0.1	3.0	0.2
Alaska	0.5	0.4	0.4	0.4	0.3	0.4	0.2	0.4	NA	0.4	0.3	5.5	0.8

State	Average monthly # of NEMT ride days used to access each service type:												
	Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Arizona	0.6	0.4	1.2	0.5	1.3	1.0	0.2	0.3	NA	0.5	0.2	5.8	0.6
Arkansas	1.5	0.3	1.0	0.4	0.2	0.3	0.3	0.2	NA	0.4	0.2	6.4	0.5
California	0.8	0.4	0.4	0.5	1.1	3.9	0.2	0.2	NA	0.4	0.2	4.8	0.5
Colorado	1.9	1.4	1.6	1.9	1.3	3.7	1.5	1.3	NA	1.9	1.1	7.5	1.6
Connecticut	0.6	0.4	0.8	0.5	1.8	3.7	0.2	0.3	NA	0.5	0.2	6.2	0.6
Delaware	1.0	1.0	1.0	0.6	3.5	5.4	0.1	0.2	NA	0.3	0.2	1.1	0.4
District of Columbia	0.5	0.4	2.0	0.5	1.0	3.4	0.2	0.4	NA	0.5	0.3	4.4	0.6
Florida	0.3	0.2	0.8	0.3	0.3	0.8	0.3	0.2	NA	0.3	0.1	1.1	0.3
Georgia	0.5	0.3	1.1	0.4	0.7	6.3	0.1	0.2	NA	0.4	0.2	7.1	0.5
Hawaii	0.5	0.4	0.6	0.4	0.5	4.1	0.2	0.2	NA	0.4	0.3	4.3	0.5
Idaho	1.1	0.8	1.4	0.8	1.3	1.1	0.4	1.2	NA	0.9	0.4	8.4	0.8
Illinois	0.3	0.2	0.5	0.3	0.4	0.4	0.2	0.1	NA	0.3	0.2	0.4	0.4
Indiana	0.4	0.3	0.4	0.3	0.6	1.5	0.2	0.2	NA	0.3	0.2	4.7	0.3
Iowa	1.1	0.7	1.3	1.0	0.6	2.2	1.0	0.6	NA	0.7	0.3	2.1	0.7
Kansas	0.4	0.3	0.5	0.3	0.4	0.3	0.1	0.3	NA	0.3	0.2	2.7	0.4
Kentucky	0.7	0.4	0.8	0.6	0.6	0.9	0.2	0.1	NA	0.5	0.2	0.5	0.5
Louisiana	0.3	0.3	0.3	0.3	0.2	0.5	0.1	0.3	NA	0.3	0.2	2.9	0.5
Maine	0.7	0.5	1.1	0.6	1.3	1.9	0.3	0.6	NA	0.5	0.3	6.8	0.8
Maryland	0.3	0.1	0.2	0.1	0.1	0.1	0.2	0.1	NA	0.1	0.1	0.2	0.1
Massachusetts	1.8	0.9	1.7	1.1	2.3	4.2	0.6	0.5	NA	1.6	0.6	6.9	1.0
Michigan	0.5	0.3	0.4	0.4	1.3	5.5	0.2	0.2	NA	0.4	0.2	0.5	0.5
Minnesota	0.8	0.5	1.0	0.6	1.8	5.6	0.3	0.4	NA	1.0	0.4	6.0	0.7
Mississippi	0.4	0.5	0.3	0.4	0.2	0.3	0.2	0.4	NA	0.4	0.2	8.0	0.6
Missouri	1.1	0.9	0.9	1.1	0.3	0.5	1.5	0.4	NA	0.8	0.3	6.9	0.8
Montana	1.0	0.4	1.5	0.9	0.3	0.9	0.8	0.5	NA	1.6	0.5	1.9	1.3
Nebraska	0.8	0.4	1.3	0.6	0.3	0.6	0.2	0.2	NA	0.4	0.2	0.6	0.4
Nevada	0.7	0.3	0.5	0.6	0.3	0.5	0.2	0.2	NA	0.4	0.2	5.5	0.6
New Hampshire	0.7	0.4	0.5	0.7	1.4	2.2	0.4	0.2	NA	0.4	0.1	1.1	0.4
New Jersey	0.7	0.8	2.4	0.6	2.1	3.2	0.3	0.3	NA	0.5	0.3	7.3	0.6
New Mexico	0.5	0.4	0.6	0.4	2.0	5.2	0.2	0.3	NA	0.3	0.2	6.0	0.5
New York	0.8	0.4	0.8	0.6	1.7	1.1	0.3	0.5	NA	0.6	0.3	1.7	0.7

State	Average monthly # of NEMT ride days used to access each service type:												
	Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
North Carolina	0.5	0.4	1.0	0.5	1.2	4.6	0.2	0.2	NA	0.5	0.2	5.9	0.5
North Dakota	0.5	0.3	0.3	0.5	0.2	0.8	0.3	0.3	NA	0.3	0.2	5.0	0.5
Ohio	0.4	0.3	0.2	0.4	0.3	1.2	0.2	0.2	NA	0.4	0.2	4.8	0.4
Oklahoma	2.1	1.1	2.4	2.2	0.6	5.5	5.3	0.5	NA	1.2	0.3	7.6	1.1
Oregon	0.8	0.6	0.9	0.6	3.0	5.4	0.3	0.4	NA	0.6	0.3	7.2	0.7
Pennsylvania	3.5	0.8	0.5	5.4	0.1	0.3	6.5	0.2	NA	0.5	0.2	2.1	0.4
Puerto Rico	0.2	0.2	0.1	0.2	0.1	0.4	0.1	0.1	NA	0.2	0.1	4.2	0.4
Rhode Island	0.9	0.6	1.5	0.8	2.3	2.9	0.5	0.5	NA	0.8	0.3	2.9	0.7
South Carolina	0.5	0.3	1.0	0.4	0.5	0.5	0.2	0.2	NA	0.3	0.2	1.8	0.5
South Dakota	0.5	0.3	0.4	0.4	0.2	–	0.2	0.1	NA	0.4	0.2	1.7	0.3
Tennessee	0.5	0.3	0.7	0.4	0.4	0.4	0.1	0.1	NA	0.3	0.2	0.4	0.4
Texas	0.6	0.3	0.6	0.5	1.5	6.9	0.2	0.8	NA	0.5	0.2	6.4	0.5
Utah	DS	DS	DS	DS	DS	DS	DS	DS	NA	DS	DS	DS	DS
Vermont	0.8	0.4	0.6	0.6	0.8	1.5	0.2	0.2	NA	0.3	0.2	0.4	0.5
Virgin Islands	0.4	0.4	0.5	0.3	–	–	0.3	0.6	NA	0.9	0.2	4.5	0.7
Virginia	0.4	0.3	0.7	0.4	0.9	1.4	0.4	0.3	NA	0.3	0.2	1.9	0.4
Washington	1.2	0.6	0.7	1.2	0.3	1.8	1.3	0.4	NA	0.6	0.3	3.8	0.6
West Virginia	0.4	0.3	0.6	0.4	0.4	0.6	0.2	0.2	NA	0.3	0.2	2.0	0.3
Wisconsin	1.8	1.4	1.8	1.7	4.0	8.6	1.3	1.0	NA	1.9	1.2	9.5	1.5
Wyoming	1.6	0.6	1.4	1.6	0.9	3.3	2.1	0.4	NA	1.0	0.6	3.6	0.7

Source: Mathematica's analysis of the TAF 2017 Release 2 and TAF 2018 Release 2

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup>Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

NA = service type was not available in 2018.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B3.1c. Percentage of total NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services in 2018, by beneficiary subgroup**

State	Total number of NEMT ride days	% of total NEMT ride days used to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>61,772,386</b>	<b>31.2</b>	<b>16.3</b>	<b>18.5</b>	<b>21.0</b>	<b>10.7</b>	<b>5.4</b>	<b>3.5</b>	<b>2.7</b>	<b>NA</b>	<b>6.2</b>	<b>1.2</b>	<b>8.6</b>	<b>1.8</b>
U.S., children <sup>a</sup>	4,040,845	28.2	7.5	23.1	12.9	1.2	0.1	4.8	2.4	NA	0.3	0.0	0.1	0.3
U.S., adults <sup>a</sup>	3,365,126	36.3	25.6	17.5	24.5	40.9	27.6	3.3	1.9	NA	3.3	0.4	4.7	1.7
U.S., adult expansion <sup>a</sup>	6,845,836	36.7	24.1	22.0	23.9	37.3	16.6	2.7	2.7	NA	4.2	0.8	3.0	2.3
U.S., eligible on the basis of disability <sup>a</sup>	33,321,295	30.4	15.3	21.0	21.3	6.8	3.4	4.0	2.6	NA	5.5	0.8	8.6	1.4
U.S., eligible on the basis of age (65+) <sup>a</sup>	14,199,263	30.0	15.3	9.8	20.2	2.7	1.0	2.2	3.1	NA	11.1	3.0	14.6	3.0
U.S., dually eligible <sup>a</sup>	28,638,611	31.5	15.6	16.8	21.8	4.0	1.8	3.8	2.7	NA	8.9	1.9	14.3	2.1
U.S., 1915(c) waiver enrollees <sup>a</sup>	15,285,628	29.2	12.7	14.0	20.4	2.2	0.6	4.5	2.7	NA	7.4	1.3	4.9	1.5
U.S., MFP participants <sup>a</sup>	135,204	31.8	21.0	13.4	25.0	4.6	1.9	4.6	6.4	NA	12.5	1.8	18.6	1.6
U.S., pregnant <sup>a</sup>	1,435,919	38.3	33.6	19.1	25.3	33.6	17.6	3.3	1.2	NA	2.4	0.3	4.2	0.8
U.S., postpartum <sup>a</sup>	766,523	42.2	37.3	12.6	26.5	27.7	13.8	2.7	1.2	NA	1.3	0.2	3.1	0.4
U.S., CKD with ESRD <sup>a</sup>	7,651,105	17.1	18.0	2.6	8.2	1.1	0.5	0.6	1.5	NA	9.4	1.6	69.1	0.8
U.S., CKD without ESRD <sup>a</sup>	9,563,808	42.1	23.7	19.1	32.1	9.4	4.0	2.8	5.0	NA	20.2	3.3	0.1	3.8
U.S., IDD <sup>a</sup>	13,747,204	24.3	8.9	15.0	15.4	0.5	0.2	5.2	2.4	NA	2.5	0.2	0.7	0.4
U.S., any SUD <sup>a</sup>	12,619,153	35.6	24.1	25.3	23.3	52.3	26.5	2.6	2.4	NA	4.5	1.0	4.3	1.6
U.S., OUD <sup>a</sup>	8,178,781	35.0	25.3	19.7	22.9	67.1	40.8	2.7	1.9	NA	3.9	0.7	2.8	1.1
U.S., any MH condition <sup>a</sup>	31,316,317	36.7	18.4	36.0	24.5	14.6	6.9	3.5	2.9	NA	6.3	1.2	5.4	1.6
Alabama	57,018	9.1	38.8	17.3	6.3	4.2	0.0	0.0	13.5	NA	21.3	6.6	28.8	3.3

State	Total number of NEMT ride days	% of total NEMT ride days used to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Alaska	211,837	47.3	33.2	7.5	37.8	4.2	0.6	5.9	4.5	NA	3.2	1.1	7.1	4.0
Arizona	4,277,032	22.1	11.7	28.5	16.1	14.4	1.2	0.7	0.9	NA	3.4	0.5	5.3	0.9
Arkansas	878,801	60.8	10.0	18.0	11.0	0.7	0.0	1.5	1.3	NA	3.0	0.7	7.0	0.9
California	3,025,155	35.6	15.1	6.7	13.4	8.0	6.5	1.2	1.7	NA	6.1	1.0	37.2	1.8
Colorado	1,775,306	32.9	24.9	13.7	29.5	5.7	1.5	6.2	5.3	NA	7.3	1.1	4.7	1.8
Connecticut	747,066	31.0	17.4	22.8	16.6	31.5	26.3	2.2	4.5	NA	5.4	0.8	12.4	1.9
Delaware	184,758	50.2	37.9	20.3	25.1	61.5	57.1	0.7	1.2	NA	2.6	0.6	2.1	1.0
District of Columbia	305,832	27.8	15.2	36.2	21.8	4.2	2.8	3.6	3.9	NA	4.5	0.7	9.3	1.6
Florida	692,904	5.5	3.5	11.3	4.0	0.4	0.2	0.3	0.9	NA	1.7	0.3	2.1	0.5
Georgia	1,162,370	26.4	13.2	29.7	20.7	4.8	2.0	1.4	1.7	NA	5.4	1.2	26.5	2.1
Hawaii	149,647	38.3	25.5	15.0	28.6	6.6	3.0	0.2	3.3	NA	7.3	1.9	23.0	4.1
Idaho	522,559	25.9	12.8	18.9	15.7	3.3	0.2	2.5	5.5	NA	4.1	0.4	5.9	0.8
Illinois	1,736,756	17.3	10.1	14.3	11.9	3.9	0.2	1.2	1.3	NA	3.6	0.9	0.9	1.7
Indiana	666,428	34.1	26.2	14.0	23.8	7.5	3.7	2.7	4.1	NA	5.2	1.1	17.4	1.7
Iowa	917,876	36.1	19.0	23.4	27.2	2.5	0.8	9.5	4.2	NA	4.9	0.7	1.7	1.2
Kansas	88,004	52.6	22.9	29.7	35.5	5.2	0.2	2.6	4.6	NA	5.4	1.2	6.9	2.6
Kentucky	876,761	36.5	19.3	24.5	26.8	7.2	2.7	2.1	1.1	NA	6.7	1.3	0.6	1.6
Louisiana	328,682	39.5	23.3	14.5	33.7	4.4	1.1	1.9	4.3	NA	5.8	1.2	6.3	3.1
Maine	487,539	27.3	15.6	29.9	20.4	9.2	5.2	2.1	4.0	NA	3.0	0.5	2.9	1.5
Maryland	62,146	10.3	10.3	10.9	2.1	1.0	0.1	0.3	4.8	NA	4.1	2.1	0.7	1.3
Massachusetts	5,490,562	34.6	14.8	20.3	18.0	9.9	8.7	2.8	2.7	NA	9.3	1.6	4.0	1.9
Michigan	1,121,988	45.8	22.3	18.5	32.2	20.7	17.3	2.6	1.5	NA	5.9	1.2	0.6	2.6
Minnesota	2,434,247	35.9	18.1	25.1	20.9	14.5	10.9	4.4	3.5	NA	9.2	1.1	4.8	1.7
Mississippi	528,492	34.8	32.5	8.3	29.3	1.5	0.1	2.1	5.5	NA	7.3	1.6	42.4	3.8
Missouri	1,174,015	54.0	38.7	24.6	47.5	1.9	0.3	12.8	3.5	NA	10.0	1.4	17.5	2.9
Montana	141,672	15.0	7.5	18.3	10.0	1.4	0.3	2.3	2.4	NA	8.7	0.8	0.9	1.6
Nebraska	185,894	39.8	17.3	34.3	27.6	1.3	0.1	3.2	1.0	NA	4.5	0.5	1.1	1.0
Nevada	321,163	33.7	19.7	20.9	23.7	5.8	0.4	1.4	3.1	NA	5.5	1.2	12.0	2.0
New Hampshire	30,394	24.7	18.4	15.3	18.3	41.7	35.2	2.1	3.2	NA	4.2	0.8	1.2	1.2
New Jersey	2,772,177	24.0	19.7	36.5	16.9	19.1	8.1	2.5	2.5	NA	4.4	1.0	11.5	1.6



State	Total number of NEMT ride days	% of total NEMT ride days used to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
New Mexico	475,868	29.9	20.5	16.2	18.3	39.7	34.7	3.1	2.5	NA	3.8	0.6	12.5	1.6
New York	9,826,643	34.0	13.3	15.6	21.1	13.4	1.3	2.1	2.1	NA	7.2	1.9	3.3	2.6
North Carolina	962,427	31.4	21.2	26.3	23.2	9.1	6.1	3.1	2.8	NA	9.3	1.5	24.9	2.4
North Dakota	22,700	46.9	26.4	20.6	33.9	4.9	0.2	5.6	7.8	NA	8.0	1.3	21.4	3.2
Ohio	874,626	32.2	30.6	17.0	25.1	8.6	3.5	2.0	8.2	NA	16.0	4.4	23.6	3.6
Oklahoma	1,009,849	60.3	27.9	34.1	56.6	1.7	0.8	21.3	2.5	NA	10.7	1.3	13.5	2.3
Oregon	1,579,584	32.7	20.1	18.6	24.0	39.3	21.7	3.9	3.4	NA	5.1	0.8	5.8	1.8
Pennsylvania	940,130	29.6	14.1	11.8	22.6	1.8	0.2	11.8	2.1	NA	3.1	0.5	0.8	0.7
Puerto Rico	153,451	9.7	5.2	1.9	7.5	0.3	0.0	0.0	0.2	NA	4.6	1.5	58.0	2.7
Rhode Island	397,925	16.0	7.1	16.2	11.0	14.5	10.0	2.6	0.3	NA	2.4	0.2	1.3	0.7
South Carolina	571,051	37.5	15.5	28.1	22.1	2.8	0.2	2.5	0.7	NA	4.2	0.6	2.9	2.1
South Dakota	21,390	44.6	19.2	15.1	33.7	1.6	0.0	6.4	4.0	NA	11.9	2.2	10.0	1.9
Tennessee	658,211	35.2	20.5	24.8	28.3	3.4	0.2	0.6	2.0	NA	5.6	1.1	1.6	1.9
Texas	4,942,163	15.0	5.8	6.7	11.5	2.5	2.1	1.5	3.9	NA	3.2	0.5	10.5	0.8
Utah	39	82.1	89.7	89.7	82.1	2.6	0.0	0.0	5.1	NA	2.6	0.0	0.0	0.0
Vermont	120,177	44.7	15.4	24.8	31.1	16.7	7.6	4.4	1.7	NA	4.4	1.1	0.2	1.9
Virgin Islands	1,239	32.2	32.9	2.4	24.5	0.0	0.0	1.7	2.3	NA	20.0	2.3	35.2	20.3
Virginia	578,813	20.0	11.9	15.9	16.7	5.2	3.7	0.8	2.7	NA	2.9	0.5	4.0	1.0
Washington	1,671,703	22.5	13.0	8.0	18.9	1.3	0.5	5.4	2.1	NA	3.6	0.6	2.3	1.0
West Virginia	261,164	22.2	18.9	20.3	19.4	7.8	5.4	0.7	2.9	NA	4.5	1.7	3.8	1.7
Wisconsin	5,236,513	30.6	18.9	14.9	24.5	12.9	10.9	6.4	2.5	NA	6.5	1.4	5.0	1.6
Wyoming	15,408	38.7	34.3	26.2	32.3	6.2	0.5	4.1	6.2	NA	12.8	3.8	6.6	2.2

Source: Mathematica's analysis of the TAF 2018 Release 2

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see

Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

NA = service type was not available in 2018.

**Table B3.2a. Percentage of beneficiaries who used NEMT to access select physical health, behavioral health, and substance use disorder (SUD) treatment services in 2019, by beneficiary subgroup**

State	Number of beneficiaries	% of beneficiaries who used NEMT to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>77,883,646</b>	<b>2.8</b>	<b>2.4</b>	<b>1.4</b>	<b>2.3</b>	<b>0.6</b>	<b>0.1</b>	<b>0.5</b>	<b>0.5</b>	<b>NA</b>	<b>0.7</b>	<b>0.3</b>	<b>0.1</b>	<b>0.2</b>
U.S., children <sup>a</sup>	33,080,671	0.9	0.5	0.4	0.5	0.0	0.0	0.3	0.0	NA	0.0	0.0	0.0	0.0
U.S., adults <sup>a</sup>	10,833,240	1.8	1.8	0.9	1.5	0.6	0.2	0.3	0.2	NA	0.3	0.1	0.0	0.1
U.S., adult expansion <sup>a</sup>	19,295,363	1.8	1.8	1.2	1.5	1.0	0.2	0.3	0.4	NA	0.4	0.1	0.0	0.1
U.S., eligible on the basis of disability <sup>a</sup>	8,577,804	10.1	8.3	6.0	8.8	1.8	0.3	1.8	2.0	NA	2.8	0.9	0.7	0.7
U.S., eligible on the basis of age (65+) <sup>a</sup>	6,090,786	7.8	7.0	2.7	6.8	0.4	0.0	1.1	2.4	NA	3.7	2.0	0.7	1.2
U.S., dually eligible <sup>a</sup>	8,865,158	8.8	7.6	4.0	7.7	0.9	0.1	1.5	2.2	NA	3.6	1.7	0.9	1.0
U.S., 1915(c) waiver enrollees <sup>a</sup>	1,611,034	17.5	13.7	7.7	15.4	1.2	0.1	3.8	4.3	NA	6.5	2.9	1.0	1.8
U.S., MFP participants <sup>a</sup>	14,436	23.5	22.5	12.3	21.1	3.5	0.4	3.6	9.7	NA	11.7	4.5	2.3	2.0
U.S., pregnant <sup>a</sup>	4,228,285	2.3	2.6	1.0	1.8	0.7	0.2	0.3	0.1	NA	0.2	0.0	0.0	0.0
U.S., postpartum <sup>a</sup>	3,812,857	2.0	2.1	0.5	1.4	0.4	0.1	0.2	0.1	NA	0.1	0.0	0.0	0.0
U.S., CKD with ESRD <sup>a</sup>	320,036	26.8	34.2	8.4	22.9	2.6	0.3	3.3	10.0	NA	22.1	9.1	32.6	2.4
U.S., CKD without ESRD <sup>a</sup>	3,430,268	12.7	12.7	6.2	11.4	2.4	0.3	1.6	4.9	NA	8.9	3.1	0.1	1.8
U.S., IDD <sup>a</sup>	1,860,464	9.5	5.9	5.1	7.3	0.4	0.0	2.6	1.6	NA	1.1	0.2	0.1	0.3
U.S., any SUD <sup>a</sup>	4,234,150	10.5	10.6	8.8	8.5	10.3	2.3	1.5	2.5	NA	2.2	1.0	0.3	0.7
U.S., OUD <sup>a</sup>	1,808,707	11.7	11.9	8.8	9.7	13.1	5.4	1.8	2.4	NA	2.2	0.9	0.3	0.7
U.S., any MH condition <sup>a</sup>	14,315,067	8.0	6.9	7.6	6.6	2.4	0.5	1.4	1.7	NA	2.1	0.8	0.3	0.6
Alabama	934,959	0.3	1.0	0.6	0.1	0.2	0.0	DS	0.5	NA	0.5	0.2	0.1	0.1

State	Number of beneficiaries	% of beneficiaries who used NEMT to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Alaska	245,199	8.3	7.2	1.6	7.2	1.6	0.1	1.7	1.1	NA	0.6	0.3	0.1	0.4
Arizona	2,012,302	6.7	5.3	4.2	5.3	2.3	0.3	0.6	0.6	NA	1.3	0.4	0.2	0.3
Arkansas	963,149	2.7	2.4	1.3	1.6	0.3	0.0	0.3	0.5	NA	0.6	0.3	0.1	0.1
California	12,745,324	0.9	0.8	0.4	0.7	0.2	0.0	0.1	0.2	NA	0.3	0.1	0.2	0.1
Colorado	1,437,138	2.2	2.1	1.1	2.0	0.6	0.1	0.6	0.5	NA	0.4	0.1	0.1	0.1
Connecticut	974,096	3.1	2.7	1.9	2.3	1.2	0.5	0.5	0.9	NA	0.8	0.3	0.1	0.2
Delaware	255,830	2.8	2.0	1.1	2.4	0.9	0.6	0.2	0.3	NA	0.5	0.2	0.1	0.1
District of Columbia	263,203	5.6	3.9	1.8	4.7	0.4	0.1	1.5	0.8	NA	0.9	0.2	0.2	0.3
Florida	4,094,374	2.4	1.9	1.0	1.9	0.2	0.1	0.0	0.4	NA	0.5	0.2	0.1	0.2
Georgia	2,083,484	2.8	2.4	1.3	2.4	0.3	0.0	0.4	0.5	NA	0.8	0.3	0.2	0.2
Hawaii	371,609	2.9	2.3	0.9	2.4	0.5	0.0	0.0	0.6	NA	0.6	0.3	0.2	0.3
Idaho	301,648	3.4	2.4	1.9	2.8	0.4	0.0	0.9	0.6	NA	0.6	0.2	0.1	0.2
Illinois	3,204,702	2.2	2.0	1.3	1.7	0.5	0.0	0.3	0.5	NA	0.7	0.3	0.1	0.2
Indiana	1,580,649	2.2	2.2	1.0	1.8	0.4	0.1	0.2	0.5	NA	0.5	0.2	0.1	0.1
Iowa	731,086	3.7	2.9	2.0	3.1	0.5	0.1	1.0	0.7	NA	0.8	0.3	0.1	0.2
Kansas	416,318	2.2	1.5	1.1	1.9	0.2	0.0	0.4	0.2	NA	0.4	0.1	0.1	0.1
Kentucky	1,477,255	2.8	2.7	1.6	2.4	0.7	0.2	0.5	0.4	NA	0.8	0.4	0.1	0.2
Louisiana	1,687,920	2.0	1.6	0.9	1.8	0.3	0.1	0.2	0.2	NA	0.4	0.1	0.0	0.1
Maine	275,770	5.9	4.6	4.2	4.8	1.4	0.6	0.9	1.1	NA	0.9	0.3	0.1	0.3
Maryland	1,378,394	0.1	0.3	0.2	0.1	0.0	0.0	0.0	0.2	NA	0.2	0.1	0.0	0.0
Massachusetts	1,754,117	5.5	4.7	3.3	4.6	1.3	0.6	1.4	1.6	NA	1.6	0.7	0.2	0.6
Michigan	2,855,965	2.7	2.3	1.5	2.2	0.6	0.1	0.4	0.3	NA	0.5	0.2	0.0	0.2
Minnesota	1,282,705	8.1	6.0	4.2	6.4	1.5	0.4	2.7	1.6	NA	1.6	0.5	0.2	0.5
Mississippi	671,092	4.6	4.2	1.5	4.1	0.4	0.0	0.7	0.8	NA	1.2	0.5	0.4	0.4
Missouri	1,121,039	4.4	4.2	2.4	3.7	0.6	0.1	0.8	1.0	NA	1.1	0.5	0.2	0.4
Montana	292,707	0.7	0.8	0.5	0.5	0.2	0.0	0.2	0.2	NA	0.2	0.1	0.0	0.1
Nebraska	274,482	3.0	2.7	1.6	2.6	0.2	0.0	0.8	0.5	NA	0.7	0.2	0.1	0.2
Nevada	774,732	1.9	2.0	1.5	1.5	0.8	0.0	0.3	0.5	NA	0.5	0.2	0.1	0.1
New Hampshire	220,733	0.7	0.7	0.5	0.6	0.5	0.2	0.1	0.2	NA	0.1	0.1	0.0	0.1
New Jersey	1,799,271	4.7	3.8	2.3	3.9	1.4	0.4	1.1	1.1	NA	1.2	0.5	0.2	0.4

State	Number of beneficiaries	% of beneficiaries who used NEMT to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
New Mexico	820,733	3.0	2.7	1.5	2.2	1.1	0.3	0.7	0.5	NA	0.6	0.2	0.1	0.2
New York	6,896,251	5.0	3.6	2.2	4.3	1.0	0.1	1.0	0.6	NA	1.5	0.8	0.3	0.5
North Carolina	1,980,625	2.4	2.5	1.1	2.0	0.3	0.1	0.6	0.7	NA	0.9	0.3	0.2	0.2
North Dakota	115,900	1.6	1.6	1.1	1.3	0.4	DS	0.3	0.5	NA	0.5	0.2	0.1	0.1
Ohio	2,960,424	2.4	3.0	2.0	1.9	0.9	0.1	0.3	1.2	NA	1.1	0.6	0.1	0.3
Oklahoma	829,015	3.2	2.8	1.6	2.8	0.3	0.0	0.4	0.6	NA	1.0	0.5	0.2	0.3
Oregon	1,066,877	6.0	5.0	3.0	5.3	1.9	0.6	1.7	1.2	NA	1.2	0.4	0.1	0.4
Pennsylvania	3,150,590	0.2	0.5	0.6	0.1	0.4	0.0	0.0	0.3	NA	0.2	0.1	0.0	0.1
Puerto Rico	1,424,443	0.6	0.2	0.1	0.5	0.0	DS	0.0	0.0	NA	0.2	0.1	0.1	0.1
Rhode Island	260,563	2.3	1.6	1.6	1.8	0.8	0.3	0.5	0.2	NA	0.4	0.1	0.1	0.1
South Carolina	1,156,466	3.5	2.2	1.2	2.6	0.2	0.0	0.7	0.2	NA	0.6	0.1	0.1	0.2
South Dakota	125,657	1.4	1.1	0.6	1.2	0.2	DS	0.5	0.5	NA	0.5	0.2	0.1	0.1
Tennessee	1,574,316	2.6	2.5	1.3	2.2	0.3	0.0	0.1	0.5	NA	0.6	0.2	0.1	0.2
Texas	4,746,947	2.5	1.6	1.0	2.1	0.2	0.0	0.5	0.5	NA	0.6	0.2	0.2	0.1
Utah	395,605	0.0	DS	0.0	DS	0.0	DS	DS	DS	NA	DS	DS	DS	DS
Vermont	177,906	3.6	2.6	2.4	3.2	1.3	0.5	1.1	0.7	NA	0.8	0.3	0.0	0.3
Virgin Islands	20,217	0.5	0.5	DS	0.4	DS	DS	DS	0.1	NA	0.2	0.1	0.1	0.2
Virginia	1,522,989	2.6	2.1	1.2	2.3	0.6	0.3	0.1	0.5	NA	0.6	0.1	0.1	0.1
Washington	1,987,376	1.4	1.6	0.9	1.1	0.3	0.0	0.3	0.4	NA	0.5	0.2	0.0	0.1
West Virginia	550,203	4.4	4.3	2.2	4.1	1.3	0.7	0.5	0.8	NA	1.1	0.7	0.1	0.4
Wisconsin	1,242,617	6.2	5.1	3.0	5.3	1.2	0.5	1.7	1.0	NA	1.3	0.4	0.2	0.4
Wyoming	71,818	0.5	1.2	0.5	0.4	0.1	DS	0.1	0.4	NA	0.3	0.1	0.0	0.1

Source: Mathematica's analysis of the TAF 2019 Release 1

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see

Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

NA = service type was not available in 2019.

**Table B3.2b. Average monthly number of NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services among beneficiaries who used NEMT to access each service type in 2019, by beneficiary subgroup**

State	Average monthly # of NEMT ride days used to access each service type:												
	Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>0.8</b>	<b>0.5</b>	<b>1.0</b>	<b>0.7</b>	<b>1.5</b>	<b>3.5</b>	<b>0.5</b>	<b>0.4</b>	<b>NA</b>	<b>0.6</b>	<b>0.3</b>	<b>4.5</b>	<b>0.6</b>
U.S., children <sup>a</sup>	0.3	0.2	0.7	0.3	0.4	1.2	0.2	0.6	NA	0.3	0.2	1.4	0.6
U.S., adults <sup>a</sup>	0.6	0.4	0.6	0.5	2.1	3.9	0.3	0.3	NA	0.4	0.2	3.7	0.6
U.S., adult expansion <sup>a</sup>	0.7	0.5	0.6	0.5	1.4	2.7	0.3	0.3	NA	0.4	0.2	2.7	0.6
U.S., eligible on the basis of disability <sup>a</sup>	1.1	0.7	1.2	0.8	1.5	4.2	0.8	0.5	NA	0.7	0.3	4.7	0.7
U.S., eligible on the basis of age (65+) <sup>a</sup>	0.8	0.5	0.8	0.6	1.6	6.1	0.5	0.3	NA	0.7	0.3	4.8	0.6
U.S., dual eligibles <sup>a</sup>	1.0	0.6	1.2	0.8	1.5	5.2	0.8	0.4	NA	0.7	0.3	4.7	0.6
U.S., 1915(c) waiver enrollees <sup>a</sup>	1.4	0.8	1.6	1.1	1.6	4.8	1.0	0.5	NA	0.9	0.4	4.1	0.8
U.S., MFP participants <sup>a</sup>	0.9	0.6	0.7	0.8	0.9	2.7	0.6	0.5	NA	0.8	0.3	6.2	0.7
U.S., pregnant <sup>a</sup>	0.5	0.4	0.5	0.4	1.6	2.9	0.3	0.3	NA	0.4	0.3	4.0	0.5
U.S., postpartum <sup>a</sup>	0.4	0.3	0.5	0.3	1.4	2.9	0.2	0.2	NA	0.3	0.2	4.1	0.4
U.S., CKD with ESRD <sup>a</sup>	1.4	1.2	0.7	0.8	1.0	4.7	0.4	0.4	NA	0.9	0.4	4.8	0.8
U.S., CKD without ESRD <sup>a</sup>	0.9	0.5	0.8	0.7	1.2	3.7	0.5	0.3	NA	0.6	0.3	0.4	0.6
U.S., IDD <sup>a</sup>	1.6	0.9	1.9	1.3	0.9	2.8	1.2	1.0	NA	1.5	0.5	4.4	1.1
U.S., any SUD <sup>a</sup>	1.0	0.7	0.8	0.8	1.6	3.5	0.5	0.3	NA	0.6	0.3	3.9	0.7
U.S., OUD <sup>a</sup>	1.4	1.0	1.0	1.0	2.5	3.5	0.6	0.3	NA	0.8	0.3	4.0	0.8
U.S., any MH condition <sup>a</sup>	0.9	0.6	1.0	0.7	1.4	3.2	0.5	0.4	NA	0.6	0.3	4.2	0.6
Alabama	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	NA	0.2	0.1	3.2	0.2
Alaska	0.4	0.3	0.4	0.4	0.3	0.4	0.2	0.3	NA	0.4	0.3	4.9	0.8

State	Average monthly # of NEMT ride days used to access each service type:												
	Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Arizona	0.6	0.4	1.2	0.6	1.5	1.2	0.2	0.3	NA	0.5	0.2	5.9	0.6
Arkansas	1.2	0.3	0.8	0.4	0.2	0.4	0.3	0.2	NA	0.3	0.2	6.0	0.4
California	0.9	0.4	0.4	0.5	1.3	4.1	0.3	0.2	NA	0.4	0.2	4.4	0.5
Colorado	1.9	1.4	1.8	1.8	1.7	4.0	1.6	1.3	NA	1.8	1.1	7.3	1.6
Connecticut	0.6	0.4	0.7	0.4	1.7	3.6	0.2	0.3	NA	0.4	0.2	6.2	0.6
Delaware	0.9	1.0	0.9	0.5	3.6	5.5	0.1	0.2	NA	0.3	0.2	0.8	0.4
District of Columbia	0.4	0.3	1.5	0.4	1.2	3.7	0.2	0.4	NA	0.4	0.2	3.7	0.6
Florida	0.5	0.4	0.9	0.4	1.5	3.5	0.1	0.3	NA	0.4	0.2	4.2	0.6
Georgia	0.4	0.4	1.1	0.4	0.8	5.9	0.1	0.2	NA	0.3	0.2	6.9	0.5
Hawaii	0.4	0.4	0.5	0.4	0.6	4.8	0.1	0.2	NA	0.4	0.2	4.5	0.6
Idaho	1.1	0.7	1.5	0.8	1.1	1.0	0.4	1.3	NA	0.7	0.4	7.1	0.9
Illinois	0.4	0.3	0.5	0.3	0.5	0.4	0.2	0.1	NA	0.3	0.2	0.4	0.4
Indiana	0.3	0.3	0.3	0.3	1.1	3.3	0.2	0.2	NA	0.2	0.1	3.0	0.3
Iowa	0.9	0.6	1.1	0.8	0.9	3.6	0.8	0.5	NA	0.6	0.3	1.8	0.6
Kansas	0.4	0.3	0.4	0.3	0.4	0.4	0.1	0.3	NA	0.3	0.2	2.6	0.5
Kentucky	0.7	0.4	0.8	0.6	0.8	0.9	0.2	0.1	NA	0.5	0.2	0.5	0.5
Louisiana	0.3	0.3	0.3	0.3	0.3	0.5	0.1	0.4	NA	0.3	0.2	2.9	0.5
Maine	0.5	0.4	0.8	0.5	0.8	1.1	0.2	0.5	NA	0.4	0.2	5.7	0.7
Maryland	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.1	NA	0.1	0.1	0.2	0.1
Massachusetts	1.8	0.9	1.7	1.1	2.4	4.2	0.7	0.5	NA	1.6	0.7	7.1	0.9
Michigan	0.5	0.3	0.4	0.4	1.6	6.4	0.2	0.2	NA	0.4	0.2	0.5	0.5
Minnesota	0.7	0.4	1.0	0.5	1.6	4.4	0.2	0.4	NA	1.0	0.4	6.2	0.7
Mississippi	0.4	0.4	0.3	0.4	0.2	0.4	0.2	0.4	NA	0.3	0.2	5.6	0.5
Missouri	1.0	0.8	0.8	1.1	0.3	0.5	1.2	0.3	NA	0.7	0.3	7.0	0.7
Montana	1.8	0.8	2.1	1.6	0.6	2.7	1.8	0.4	NA	1.9	0.5	1.9	1.2
Nebraska	0.7	0.3	1.1	0.5	0.3	0.4	0.2	0.2	NA	0.3	0.2	0.6	0.3
Nevada	0.7	0.4	0.6	0.7	0.4	1.1	0.2	0.2	NA	0.4	0.2	6.0	0.6
New Hampshire	0.8	0.5	0.7	0.7	1.3	1.9	0.7	0.3	NA	0.5	0.2	2.2	0.6
New Jersey	0.8	0.8	2.4	0.6	2.2	3.3	0.3	0.4	NA	0.5	0.3	7.8	0.6
New Mexico	0.6	0.5	0.5	0.5	2.0	5.7	0.2	0.3	NA	0.3	0.2	6.2	0.5
New York	0.9	0.5	0.9	0.6	1.9	0.8	0.3	0.4	NA	0.6	0.3	1.7	0.7



State	Average monthly # of NEMT ride days used to access each service type:												
	Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
North Carolina	0.6	0.4	1.2	0.5	1.2	5.4	0.2	0.2	NA	0.5	0.2	5.8	0.5
North Dakota	0.5	0.3	0.4	0.5	0.3	0.5	0.3	0.3	NA	0.3	0.2	6.0	0.4
Ohio	0.4	0.3	0.3	0.4	0.3	1.1	0.2	0.2	NA	0.4	0.2	4.7	0.4
Oklahoma	2.0	1.1	2.3	2.1	0.4	3.1	5.4	0.5	NA	1.1	0.3	7.2	1.1
Oregon	0.8	0.6	0.9	0.7	3.2	6.5	0.3	0.4	NA	0.6	0.3	7.0	0.7
Pennsylvania	3.3	0.7	0.5	4.7	0.1	0.3	6.1	0.2	NA	0.5	0.1	1.5	0.4
Puerto Rico	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.1	NA	0.2	0.1	3.8	0.3
Rhode Island	0.6	0.4	1.3	0.5	0.9	1.3	0.4	0.4	NA	0.6	0.2	2.5	0.5
South Carolina	0.5	0.3	1.1	0.4	0.5	0.6	0.2	0.2	NA	0.3	0.2	1.6	0.5
South Dakota	0.5	0.3	0.4	0.4	0.2	0.3	0.2	0.2	NA	0.4	0.2	2.0	0.5
Tennessee	0.5	0.3	0.7	0.5	0.4	0.5	0.2	0.1	NA	0.3	0.2	0.5	0.4
Texas	0.6	0.3	0.7	0.5	1.8	7.9	0.3	0.9	NA	0.5	0.2	6.5	0.6
Utah	0.7	0.1	0.8	0.3	0.5	0.3	0.1	–	NA	0.1	–	–	–
Vermont	0.8	0.4	0.7	0.6	1.0	1.5	0.2	0.1	NA	0.4	0.2	0.4	0.5
Virgin Islands	0.5	0.5	0.3	0.4	0.5	–	0.3	0.8	NA	0.6	0.2	5.5	1.0
Virginia	0.5	0.4	0.9	0.5	1.2	1.8	0.3	0.4	NA	0.3	0.2	2.5	0.4
Washington	1.3	0.7	0.7	1.3	0.3	1.7	1.5	0.4	NA	0.6	0.3	3.6	0.6
West Virginia	0.6	0.4	0.7	0.5	0.9	1.1	0.2	0.2	NA	0.3	0.2	3.0	0.5
Wisconsin	2.1	1.7	2.1	2.0	4.0	8.2	1.6	1.2	NA	2.2	1.3	9.5	1.7
Wyoming	1.7	0.7	1.2	1.8	0.8	4.2	1.3	0.3	NA	0.9	0.3	4.9	0.4

Source: Mathematica's analysis of the TAF 2019 Release 1

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

NA = service type was not available in 2019.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B3.2c. Percentage of total NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services in 2019, by beneficiary subgroup**

State	Total number of NEMT ride days	% of total NEMT ride days used to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>67,297,616</b>	<b>30.2</b>	<b>16.1</b>	<b>18.1</b>	<b>20.3</b>	<b>11.6</b>	<b>5.9</b>	<b>3.4</b>	<b>2.6</b>	<b>NA</b>	<b>5.9</b>	<b>1.1</b>	<b>8.1</b>	<b>1.8</b>
U.S., children <sup>a</sup>	4,234,618	25.6	7.4	22.5	12.6	1.1	0.1	4.5	2.5	NA	0.3	0.0	0.1	0.3
U.S., adults <sup>a</sup>	3,677,521	35.5	25.8	17.3	23.9	42.8	29.6	2.9	1.9	NA	3.1	0.4	4.5	1.8
U.S., adult expansion <sup>a</sup>	7,504,673	36.0	24.0	21.8	23.1	40.8	18.1	2.6	2.6	NA	3.9	0.7	3.0	2.1
U.S., eligible on the basis of disability <sup>a</sup>	35,892,184	29.7	15.2	20.7	20.7	7.3	3.7	3.9	2.6	NA	5.3	0.7	8.1	1.4
U.S., eligible on the basis of age (65+) <sup>a</sup>	15,988,398	28.7	14.5	9.7	19.2	2.9	1.2	2.3	3.0	NA	10.2	2.7	13.4	2.9
U.S., dual eligibles <sup>a</sup>	30,297,421	30.1	14.9	16.1	20.7	4.2	1.9	3.8	2.6	NA	8.3	1.8	13.4	2.1
U.S., 1915(c) waiver enrollees <sup>a</sup>	16,020,983	29.0	12.4	14.2	20.1	2.3	0.6	4.6	2.6	NA	7.0	1.3	4.6	1.5
U.S., MFP participants <sup>a</sup>	119,890	29.2	19.8	11.7	23.4	4.2	1.5	3.0	6.3	NA	12.4	1.9	19.1	1.8
U.S., pregnant <sup>a</sup>	1,425,812	37.6	33.4	18.9	24.8	37.1	20.1	3.1	1.1	NA	2.0	0.3	3.4	0.7
U.S., postpartum <sup>a</sup>	777,053	40.8	36.6	12.9	26.0	30.9	16.4	2.5	1.3	NA	1.0	0.1	2.3	0.4
U.S., CKD with ESRD <sup>a</sup>	7,885,172	16.9	18.3	2.6	8.2	1.2	0.5	0.6	1.6	NA	9.2	1.5	68.5	0.8
U.S., CKD without ESRD <sup>a</sup>	10,579,454	41.3	23.3	18.8	31.3	10.0	4.4	2.9	4.8	NA	19.2	3.1	0.1	3.8
U.S., IDD <sup>a</sup>	14,554,811	23.0	8.4	14.7	14.6	0.6	0.1	4.8	2.4	NA	2.3	0.2	0.7	0.4
U.S., any SUD <sup>a</sup>	14,100,536	35.3	24.3	24.4	22.8	54.9	28.1	2.4	2.4	NA	4.3	0.9	4.1	1.5
U.S., OUD <sup>a</sup>	9,454,097	34.8	25.5	19.1	22.1	69.6	41.9	2.4	1.8	NA	3.6	0.7	2.6	1.1
U.S., any MH condition <sup>a</sup>	34,097,666	36.1	18.2	35.3	23.8	15.8	7.3	3.5	2.9	NA	6.0	1.1	5.3	1.6

State	Total number of NEMT ride days	% of total NEMT ride days used to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Alabama	57,398	8.6	35.3	15.7	5.5	3.7	0.0	0.0	12.5	NA	19.1	5.8	27.3	3.0
Alaska	208,939	47.0	32.2	8.2	37.2	5.9	0.8	4.9	5.0	NA	3.2	1.2	6.4	4.2
Arizona	4,378,739	19.4	12.0	25.9	15.2	17.7	1.9	0.7	0.8	NA	3.2	0.4	5.4	0.8
Arkansas	551,841	65.9	14.0	21.4	13.4	1.3	0.0	1.8	1.9	NA	3.9	1.0	10.8	1.0
California	3,203,872	38.4	14.8	8.2	14.6	10.2	7.7	1.6	2.0	NA	5.9	1.0	32.5	1.9
Colorado	1,980,460	34.6	24.5	16.0	30.2	7.7	3.2	7.9	5.0	NA	6.8	1.1	4.4	1.7
Connecticut	682,853	30.6	18.3	22.9	16.6	33.7	28.9	2.1	4.4	NA	5.2	0.8	13.6	2.0
Delaware	147,594	50.1	39.0	20.0	24.6	66.7	62.2	0.5	1.0	NA	3.3	0.6	1.6	1.1
District of Columbia	252,598	30.7	15.5	32.4	23.6	5.5	3.9	3.7	3.7	NA	4.3	0.6	8.3	1.7
Florida	2,922,506	18.3	11.3	14.4	13.0	5.4	4.0	0.1	1.8	NA	3.4	0.7	8.0	1.4
Georgia	1,130,029	26.5	18.9	29.9	20.8	5.2	2.4	1.4	1.9	NA	5.3	1.2	27.0	2.0
Hawaii	140,086	36.3	27.0	12.7	26.9	7.8	3.8	0.2	3.1	NA	6.6	1.7	25.3	4.8
Idaho	503,872	26.0	11.4	20.1	14.7	2.5	0.2	2.2	5.4	NA	3.3	0.4	5.1	0.8
Illinois	1,703,626	17.3	11.1	14.8	12.0	5.1	0.2	1.3	1.2	NA	3.6	0.9	0.8	1.7
Indiana	439,303	28.2	22.6	11.4	20.9	16.9	14.1	1.5	4.2	NA	4.4	1.0	15.7	1.4
Iowa	779,099	35.9	17.1	24.7	25.4	4.5	2.5	8.4	4.2	NA	4.5	0.8	1.8	1.3
Kansas	84,123	50.1	23.3	27.0	35.6	4.3	0.3	2.8	4.8	NA	5.7	1.2	7.4	2.9
Kentucky	928,027	37.8	20.0	23.5	26.9	10.2	2.9	1.9	1.1	NA	6.6	1.3	0.6	1.5
Louisiana	333,553	38.8	23.8	14.2	33.2	5.5	1.6	1.8	4.4	NA	5.9	1.1	6.2	3.3
Maine	376,530	26.1	15.0	27.8	18.8	9.3	5.5	1.5	3.9	NA	3.0	0.5	3.2	1.7
Maryland	63,764	11.2	9.4	11.1	1.9	1.1	0.1	0.2	5.2	NA	4.4	2.1	0.6	1.2
Massachusetts	5,821,140	34.6	14.5	19.9	17.8	10.5	9.2	3.4	2.8	NA	9.1	1.6	3.9	1.7
Michigan	1,102,919	43.7	20.6	18.7	30.1	26.9	23.5	2.6	1.5	NA	5.7	1.2	0.6	2.3
Minnesota	2,572,932	32.8	14.8	24.1	18.0	12.4	8.8	3.4	3.2	NA	8.7	1.0	5.0	1.6
Mississippi	393,784	36.5	32.8	9.2	30.7	1.8	0.2	2.2	5.5	NA	7.7	1.8	37.3	3.7
Missouri	1,138,233	51.1	36.8	22.6	44.5	1.9	0.3	11.1	3.3	NA	9.2	1.3	18.2	2.8
Montana	220,014	18.3	8.9	16.9	11.8	1.5	0.6	4.3	1.3	NA	6.3	0.6	0.5	1.0
Nebraska	151,624	41.2	18.6	36.7	28.6	1.3	0.1	3.3	1.4	NA	4.6	0.6	1.5	1.1
Nevada	357,639	34.0	18.8	22.4	23.5	7.9	1.1	1.3	2.4	NA	4.7	0.9	11.4	1.7

State	Total number of NEMT ride days	% of total NEMT ride days used to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
New Hampshire	42,009	33.5	21.8	19.1	24.5	33.6	23.3	2.5	3.4	NA	3.4	0.6	1.0	1.7
New Jersey	3,104,173	23.8	20.5	34.6	16.7	19.7	8.2	2.4	2.7	NA	4.2	0.9	11.5	1.4
New Mexico	494,021	31.2	23.3	15.3	19.1	40.5	34.7	3.1	2.7	NA	3.7	0.6	12.2	1.5
New York	10,454,985	33.4	12.4	15.0	20.2	13.9	0.7	1.9	1.9	NA	6.7	1.7	3.2	2.7
North Carolina	1,010,717	30.4	20.0	28.1	22.3	9.2	6.2	3.1	3.0	NA	8.9	1.3	24.1	2.3
North Dakota	25,795	42.6	22.8	21.5	32.1	5.9	0.2	5.0	7.9	NA	7.5	1.3	22.1	2.8
Ohio	894,395	33.8	29.5	20.3	24.6	9.4	3.4	1.8	7.5	NA	14.9	4.0	23.1	3.5
Oklahoma	1,012,453	60.6	28.1	34.3	56.5	1.3	0.4	22.5	2.7	NA	10.1	1.2	13.4	2.5
Oregon	1,774,885	32.6	20.8	18.3	24.1	41.2	27.1	4.0	3.3	NA	4.8	0.8	5.1	1.7
Pennsylvania	919,883	27.9	12.8	11.4	19.9	1.9	0.2	10.0	2.3	NA	3.1	0.5	0.7	0.9
Puerto Rico	112,153	16.3	5.1	2.4	13.0	0.3	0.0	0.0	0.4	NA	6.0	1.4	44.5	3.2
Rhode Island	327,546	12.0	5.5	17.5	7.8	6.2	3.0	1.9	0.6	NA	2.1	0.2	1.2	0.6
South Carolina	650,481	34.8	13.2	28.6	19.4	2.5	0.3	2.2	0.6	NA	3.8	0.5	2.8	1.8
South Dakota	22,403	44.6	18.3	16.1	33.3	1.7	0.1	5.7	4.3	NA	11.4	2.2	12.9	2.8
Tennessee	659,678	35.4	19.8	24.3	27.5	3.9	0.5	0.6	2.0	NA	5.5	1.1	1.7	1.8
Texas	5,152,816	14.8	5.6	6.8	11.3	2.9	2.5	1.5	4.0	NA	3.2	0.5	10.0	0.8
Utah	278	72.7	4.0	74.5	10.8	19.8	5.4	0.4	0.0	NA	0.4	0.0	0.0	0.0
Vermont	125,715	43.7	14.8	26.8	29.8	21.3	13.1	3.9	1.5	NA	4.7	0.9	0.2	1.8
Virgin Islands	2,329	22.9	25.5	0.6	18.7	0.3	0.0	1.0	5.6	NA	7.6	1.6	35.6	16.0
Virginia	1,082,568	22.0	14.7	16.7	17.8	10.8	8.8	0.7	2.7	NA	2.7	0.4	3.9	1.0
Washington	1,736,049	23.3	13.8	8.4	19.1	1.4	0.6	6.0	2.2	NA	3.7	0.6	2.2	1.0
West Virginia	461,106	33.0	22.7	19.1	28.7	14.3	10.3	1.3	2.5	NA	4.7	1.5	3.8	2.1
Wisconsin	5,688,842	31.8	21.4	15.6	26.1	11.8	9.8	7.0	2.8	NA	6.8	1.4	4.9	1.7
Wyoming	17,223	41.7	38.0	25.1	38.3	4.4	0.9	3.4	5.4	NA	11.4	2.0	5.7	1.0

Source: Mathematica's analysis of the TAF 2019 Release 1

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on

Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.<sup>9</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

NA = service type was not available in 2019.

**Table B3.3a. Percentage of beneficiaries who used NEMT to access select physical health, behavioral health, and substance use disorder (SUD) treatment services in 2020, by beneficiary subgroup**

State	Number of Beneficiaries	% of beneficiaries who used NEMT to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>79,905,774</b>	<b>2.2</b>	<b>2.0</b>	<b>1.2</b>	<b>1.8</b>	<b>0.5</b>	<b>0.1</b>	<b>0.3</b>	<b>0.6</b>	<b>0.4</b>	<b>0.6</b>	<b>0.3</b>	<b>0.1</b>	<b>0.2</b>
U.S., children <sup>a</sup>	33,391,723	0.6	0.4	0.3	0.4	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0
U.S., adults <sup>a</sup>	11,566,110	1.4	1.5	0.7	1.2	0.6	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.1
U.S., adult expansion <sup>a</sup>	20,074,812	1.4	1.5	1.0	1.1	0.9	0.2	0.2	0.4	0.3	0.3	0.1	0.0	0.1
U.S., eligible on the basis of disability <sup>a</sup>	8,599,770	8.5	7.2	5.1	7.2	1.7	0.3	1.2	1.9	1.2	2.5	0.8	0.6	0.7
U.S., eligible on the basis of age (65+) <sup>a</sup>	6,269,681	6.5	6.2	2.4	5.5	0.4	0.0	0.7	2.7	1.3	3.3	1.8	0.7	1.0
U.S., dual eligibles <sup>a</sup>	9,478,423	7.3	6.6	3.5	6.2	0.8	0.1	0.9	2.4	1.3	3.1	1.4	0.9	0.9
U.S., 1915(c) waiver enrollees <sup>a</sup>	1,361,906	12.1	10.6	6.2	10.4	1.0	0.1	2.2	4.2	2.0	4.6	1.8	0.9	1.1
U.S., MFP participants <sup>a</sup>	15,468	22.2	22.9	11.7	19.7	3.7	0.4	2.7	11.7	5.2	12.2	4.7	2.8	2.0
U.S., pregnant <sup>a</sup>	4,243,834	1.7	2.1	0.8	1.3	0.6	0.2	0.2	0.1	0.2	0.1	0.0	0.0	0.0
U.S., postpartum <sup>a</sup>	3,829,112	1.5	1.6	0.4	1.0	0.3	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0
U.S., CKD with ESRD <sup>a</sup>	330,313	25.0	33.6	8.1	21.1	2.5	0.3	2.2	11.4	9.0	21.4	8.7	32.7	2.2
U.S., CKD without ESRD <sup>a</sup>	3,609,313	10.6	11.3	5.5	9.3	2.3	0.3	1.1	5.3	2.5	7.9	2.8	0.0	1.6
U.S., IDD <sup>a</sup>	1,867,410	7.1	4.7	4.3	5.3	0.4	0.0	1.5	1.5	1.1	1.0	0.2	0.1	0.2
U.S., any SUD <sup>a</sup>	4,323,972	9.0	9.6	7.9	7.1	9.7	2.2	1.1	2.6	1.8	2.0	0.9	0.3	0.7
U.S., OUD <sup>a</sup>	1,897,055	10.1	10.7	7.8	8.2	12.1	5.1	1.3	2.3	1.8	1.9	0.8	0.3	0.6
U.S., any MH condition <sup>a</sup>	14,850,287	6.5	5.9	6.3	5.2	2.2	0.5	0.9	1.7	1.2	1.8	0.7	0.3	0.5
Alabama	922,135	0.2	1.0	0.7	0.1	0.2	0.0	DS	0.5	0.3	0.5	0.2	0.1	0.1
Alaska	252,499	5.0	6.0	1.3	4.3	1.5	0.1	0.8	0.9	1.6	0.5	0.2	0.1	0.4

State	Number of Beneficiaries	% of beneficiaries who used NEMT to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Arizona	2,019,256	5.2	4.4	3.5	4.3	2.1	0.3	0.4	0.6	0.8	1.1	0.3	0.2	0.3
Arkansas	944,529	2.2	2.0	1.1	1.3	0.3	0.0	0.2	0.4	0.4	0.5	0.3	0.1	0.1
California	12,513,867	0.8	0.7	0.3	0.6	0.1	0.0	0.1	0.2	0.1	0.3	0.1	0.2	0.1
Colorado	1,454,874	1.9	1.8	1.0	1.7	0.6	0.1	0.5	0.4	0.2	0.4	0.1	0.1	0.1
Connecticut	984,143	1.8	1.7	1.3	1.3	0.8	0.3	0.2	0.6	0.3	0.5	0.2	0.1	0.2
Delaware	250,185	1.7	1.2	0.6	1.4	0.6	0.5	0.1	0.2	0.1	0.3	0.1	0.1	0.1
District of Columbia	265,153	0.6	0.5	0.4	0.4	0.1	0.0	0.2	0.3	0.2	0.2	0.1	0.0	0.0
Florida	4,129,591	1.8	1.7	0.9	1.5	0.2	0.1	0.2	0.4	0.3	0.5	0.2	0.1	0.2
Georgia	2,079,229	2.3	2.2	1.1	2.0	0.3	0.0	0.3	0.5	0.3	0.7	0.3	0.2	0.2
Hawaii	391,314	1.4	1.4	0.6	1.2	0.3	0.0	0.0	0.4	0.2	0.4	0.2	0.2	0.2
Idaho	380,763	2.5	1.7	1.6	1.9	0.4	0.0	0.5	0.5	0.3	0.5	0.1	0.1	0.1
Illinois	3,198,790	1.7	1.9	1.3	1.3	0.5	0.0	0.2	0.6	0.4	0.7	0.3	0.1	0.2
Indiana	1,700,169	1.8	2.0	0.9	1.5	0.5	0.1	0.1	0.5	0.3	0.4	0.2	0.1	0.1
Iowa	729,111	2.9	2.3	1.5	2.3	0.4	0.1	0.7	0.6	0.3	0.6	0.2	0.1	0.2
Kansas	402,542	1.8	1.3	0.8	1.5	0.2	0.0	0.3	0.2	0.1	0.3	0.1	0.1	0.1
Kentucky	1,593,316	2.0	2.1	1.2	1.8	0.6	0.1	0.2	0.4	0.4	0.6	0.3	0.1	0.2
Louisiana	1,695,454	1.2	1.0	0.6	1.1	0.3	0.1	0.1	0.2	0.2	0.3	0.1	0.0	0.1
Maine	321,586	5.3	4.6	3.8	4.4	1.4	0.5	0.6	1.4	0.6	1.2	0.5	0.1	0.4
Maryland	1,401,822	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.0	0.0
Massachusetts	1,699,452	4.3	3.6	2.6	3.4	1.1	0.6	0.8	1.4	0.8	1.4	0.6	0.2	0.4
Michigan	2,807,445	2.1	1.8	1.2	1.7	0.5	0.1	0.2	0.3	0.3	0.4	0.2	0.0	0.1
Minnesota	1,254,822	6.4	5.0	3.4	5.0	1.3	0.3	1.9	1.4	1.1	1.4	0.4	0.2	0.4
Mississippi	645,996	3.7	3.6	1.3	3.3	0.3	0.0	0.5	0.7	0.6	1.1	0.4	0.3	0.3
Missouri	1,077,683	3.4	3.6	2.1	2.8	0.6	0.0	0.5	0.9	0.7	1.0	0.4	0.3	0.3
Montana	275,158	0.7	0.7	0.5	0.5	0.2	0.0	0.2	0.2	0.1	0.2	0.1	0.0	0.1
Nebraska	305,155	2.0	2.0	1.2	1.7	0.3	0.0	0.4	0.6	0.3	0.6	0.2	0.1	0.1
Nevada	787,230	1.6	1.6	1.2	1.2	0.6	0.0	0.2	0.4	0.2	0.4	0.1	0.1	0.1
New Hampshire	220,933	0.9	0.9	0.6	0.7	0.5	0.3	0.1	0.3	0.1	0.2	0.1	0.0	0.1
New Jersey	1,797,248	3.6	3.1	1.8	3.0	1.2	0.4	0.7	1.0	0.8	1.1	0.5	0.2	0.3
New Mexico	840,462	2.3	2.3	1.2	1.6	1.0	0.3	0.5	0.5	0.5	0.6	0.2	0.1	0.1



State	Number of Beneficiaries	% of beneficiaries who used NEMT to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
New York	6,905,505	4.0	2.8	1.8	3.3	0.8	0.1	0.6	1.0	0.4	1.3	0.6	0.2	0.5
North Carolina	1,920,724	2.0	2.1	0.8	1.7	0.3	0.1	0.4	0.6	0.3	0.7	0.3	0.2	0.2
North Dakota	115,907	1.5	1.6	1.1	1.2	0.5	0.0	0.2	0.5	0.3	0.4	0.2	0.1	0.1
Ohio	2,939,651	2.0	2.7	1.9	1.5	0.9	0.1	0.2	1.2	0.7	1.0	0.5	0.1	0.3
Oklahoma	877,696	2.5	2.3	1.3	2.2	0.3	0.0	0.3	0.6	0.3	0.8	0.4	0.2	0.2
Oregon	1,107,651	4.5	4.0	2.2	3.9	1.6	0.5	1.0	1.1	0.7	1.0	0.4	0.1	0.3
Pennsylvania	3,195,860	0.2	0.8	0.7	0.1	0.4	0.0	0.0	0.4	0.2	0.2	0.1	0.0	0.1
Puerto Rico	1,408,374	1.0	0.5	0.2	0.8	0.0	DS	0.1	0.0	0.0	0.4	0.1	0.1	0.1
Rhode Island	324,179	2.2	1.6	1.6	1.8	0.9	0.3	0.4	0.3	0.3	0.5	0.2	0.1	0.2
South Carolina	1,123,582	2.7	1.8	1.0	2.0	0.2	0.0	0.4	0.2	0.1	0.5	0.1	0.1	0.2
South Dakota	121,793	1.2	1.2	0.5	1.0	0.3	DS	0.3	0.6	0.2	0.5	0.2	0.1	0.1
Tennessee	1,619,458	2.2	2.4	1.2	1.9	0.5	0.1	0.1	0.7	0.3	0.7	0.3	0.2	0.2
Texas	4,612,937	1.7	1.3	0.7	1.5	0.1	0.0	0.3	0.4	0.2	0.5	0.2	0.1	0.1
Utah	406,278	0.0	DS	0.0	0.0	0.0	0.0	DS	DS	DS	DS	DS	DS	DS
Vermont	176,465	2.7	2.1	1.8	2.3	1.0	0.4	0.6	0.6	0.1	0.7	0.3	0.0	0.2
Virgin Islands	22,632	0.5	0.5	DS	0.4	DS	DS	DS	0.2	0.1	0.2	0.1	0.1	0.2
Virginia	1,615,118	4.1	3.5	1.8	3.5	0.9	0.5	0.6	0.8	0.4	0.9	0.3	0.2	0.3
Washington	1,991,070	1.3	1.5	0.9	1.1	0.4	0.0	0.2	0.4	0.4	0.5	0.2	0.0	0.1
West Virginia	563,410	4.4	4.5	2.1	4.0	1.6	0.8	0.4	0.9	0.5	1.0	0.6	0.1	0.4
Wisconsin	1,282,128	4.7	4.2	2.3	4.0	1.0	0.4	1.1	0.8	0.7	1.0	0.4	0.2	0.3
Wyoming	70,728	0.4	1.1	0.4	0.3	0.1	DS	0.0	0.4	0.3	0.3	0.1	0.0	0.1

Source: Mathematica's analysis of the TAF 2020 Release 1

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see

Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B3.3b. Average monthly number of NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services among beneficiaries who used NEMT to access each service type in 2020, by beneficiary subgroup**

State	Average monthly # of NEMT ride days used to access each service type:												
	Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>0.6</b>	<b>0.5</b>	<b>0.6</b>	<b>0.5</b>	<b>1.2</b>	<b>3.0</b>	<b>0.4</b>	<b>0.3</b>	<b>0.2</b>	<b>0.5</b>	<b>0.2</b>	<b>4.8</b>	<b>0.6</b>
U.S., children <sup>a</sup>	0.3	0.2	0.5	0.2	0.3	1.2	0.2	0.4	0.1	0.2	0.1	2.3	0.5
U.S., adults <sup>a</sup>	0.6	0.5	0.5	0.5	2.1	4.2	0.3	0.3	0.2	0.3	0.2	4.1	0.6
U.S., adult expansion <sup>a</sup>	0.6	0.4	0.4	0.5	1.1	2.1	0.3	0.2	0.2	0.3	0.2	2.9	0.6
U.S., eligible on the basis of disability <sup>a</sup>	0.8	0.6	0.8	0.6	1.1	3.3	0.6	0.3	0.3	0.5	0.2	4.9	0.6
U.S., eligible on the basis of age (65+) <sup>a</sup>	0.6	0.4	0.5	0.5	1.0	3.9	0.4	0.2	0.2	0.5	0.2	5.0	0.5
U.S., dual eligibles <sup>a</sup>	0.7	0.5	0.7	0.6	1.0	3.5	0.6	0.3	0.2	0.5	0.2	4.9	0.5
U.S., 1915(c) waiver enrollees <sup>a</sup>	1.0	0.7	1.1	0.9	1.0	4.3	1.0	0.4	0.3	0.7	0.3	5.8	0.7
U.S., MFP participants <sup>a</sup>	0.6	0.5	0.4	0.5	0.4	1.3	0.4	0.3	0.3	0.6	0.2	6.2	0.5
U.S., pregnant <sup>a</sup>	0.4	0.3	0.4	0.4	1.2	2.5	0.3	0.2	0.2	0.3	0.2	4.0	0.5
U.S., postpartum <sup>a</sup>	0.3	0.3	0.4	0.3	1.1	2.4	0.2	0.2	0.2	0.3	0.2	4.4	0.3
U.S., CKD with ESRD <sup>a</sup>	1.2	1.3	0.6	0.6	0.8	3.1	0.4	0.3	0.3	0.9	0.3	4.9	0.8
U.S., CKD without ESRD <sup>a</sup>	0.6	0.4	0.5	0.6	0.9	2.9	0.4	0.2	0.2	0.4	0.2	0.3	0.5
U.S., IDD <sup>a</sup>	1.1	0.7	1.2	1.0	0.6	2.1	1.0	0.6	0.5	0.9	0.3	4.6	0.8
U.S., any SUD <sup>a</sup>	0.8	0.6	0.6	0.7	1.3	3.0	0.4	0.2	0.2	0.5	0.2	3.9	0.6
U.S., OUD <sup>a</sup>	1.1	0.9	0.8	0.9	2.0	3.0	0.6	0.3	0.4	0.6	0.3	4.0	0.7
U.S., any MH condition <sup>a</sup>	0.7	0.5	0.6	0.6	1.1	2.6	0.4	0.3	0.2	0.5	0.2	4.4	0.5
Alabama	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	2.9	0.2

State	Average monthly # of NEMT ride days used to access each service type:												
	Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Alaska	0.3	0.3	0.2	0.3	0.2	0.4	0.2	0.3	0.2	0.3	0.2	5.8	0.7
Arizona	0.5	0.4	0.8	0.5	1.3	1.1	0.2	0.2	0.2	0.4	0.2	6.0	0.5
Arkansas	1.0	0.3	0.7	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.2	6.1	0.4
California	0.8	0.4	0.3	0.4	0.8	2.4	0.2	0.2	0.2	0.4	0.2	4.6	0.5
Colorado	1.4	1.1	1.3	1.3	1.4	3.7	1.2	0.8	0.6	1.4	0.7	7.1	1.3
Connecticut	0.4	0.3	0.5	0.3	1.1	2.3	0.2	0.2	0.1	0.3	0.2	5.1	0.4
Delaware	0.7	0.6	0.8	0.4	2.7	3.5	0.1	0.1	0.2	0.3	0.1	0.6	0.4
District of Columbia	0.3	0.2	0.9	0.3	0.7	3.9	0.2	0.1	0.1	0.2	0.1	0.3	0.2
Florida	0.4	0.4	0.6	0.4	1.2	2.8	0.2	0.3	0.2	0.3	0.2	4.7	0.5
Georgia	0.4	0.4	0.8	0.4	0.7	5.3	0.1	0.2	0.2	0.3	0.2	7.2	0.5
Hawaii	0.4	0.4	0.3	0.3	0.5	3.7	0.1	0.2	0.1	0.3	0.2	4.5	0.5
Idaho	0.9	0.6	1.2	0.6	0.9	0.9	0.3	1.0	0.3	0.7	0.3	5.8	0.8
Illinois	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.2	0.1	0.3	0.3
Indiana	0.4	0.3	0.3	0.4	1.3	3.9	0.2	0.2	0.2	0.3	0.1	5.1	0.3
Iowa	0.5	0.3	0.6	0.4	0.7	3.4	0.2	0.3	0.1	0.3	0.2	1.2	0.4
Kansas	0.3	0.3	0.4	0.3	0.3	0.5	0.1	0.3	0.1	0.2	0.2	2.4	0.4
Kentucky	0.5	0.3	0.5	0.4	0.6	0.7	0.2	0.1	0.1	0.3	0.2	0.4	0.4
Louisiana	0.3	0.2	0.2	0.3	0.3	0.7	0.1	0.2	0.1	0.2	0.2	2.7	0.4
Maine	0.5	0.4	0.6	0.4	0.6	1.0	0.2	0.3	0.1	0.4	0.2	6.7	0.7
Maryland	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
Massachusetts	1.0	0.6	0.9	0.7	1.9	3.4	0.4	0.3	0.3	0.8	0.4	6.6	0.6
Michigan	0.4	0.3	0.3	0.4	1.2	4.7	0.2	0.1	0.1	0.3	0.2	0.5	0.5
Minnesota	0.5	0.4	0.8	0.4	1.5	4.2	0.2	0.3	0.2	0.7	0.3	6.2	0.6
Mississippi	0.4	0.5	0.3	0.4	0.2	0.4	0.2	0.3	0.1	0.4	0.2	6.9	0.6
Missouri	0.9	0.6	0.7	0.9	0.2	0.4	1.0	0.3	0.5	0.6	0.2	6.9	0.6
Montana	2.3	1.1	2.2	2.1	0.5	2.1	2.7	0.7	0.9	1.9	0.6	1.7	1.3
Nebraska	0.5	0.3	0.7	0.4	0.2	0.5	0.2	0.2	0.1	0.2	0.1	2.7	0.3
Nevada	0.7	0.4	0.6	0.6	0.6	1.7	0.2	0.2	0.2	0.4	0.2	6.3	0.6
New Hampshire	0.5	0.4	0.5	0.5	1.7	2.3	0.4	0.2	0.2	0.3	0.1	2.3	0.4
New Jersey	0.6	0.7	1.0	0.5	1.6	2.5	0.2	0.3	0.2	0.4	0.2	7.1	0.5
New Mexico	0.4	0.4	0.4	0.4	1.3	3.9	0.2	0.2	0.1	0.3	0.2	6.1	0.5

State	Average monthly # of NEMT ride days used to access each service type:												
	Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
New York	0.6	0.4	0.5	0.5	1.3	0.6	0.2	0.2	0.2	0.4	0.2	1.6	0.6
North Carolina	0.4	0.3	0.7	0.4	0.9	3.4	0.2	0.2	0.1	0.4	0.2	5.6	0.4
North Dakota	0.4	0.3	0.3	0.4	0.3	1.5	0.2	0.2	0.1	0.3	0.2	5.9	0.4
Ohio	0.3	0.2	0.2	0.3	0.3	1.0	0.2	0.2	0.1	0.3	0.2	4.4	0.3
Oklahoma	1.9	1.0	2.1	2.0	0.4	2.2	4.9	0.4	1.0	1.0	0.3	7.1	1.0
Oregon	0.6	0.6	0.5	0.6	2.1	4.3	0.3	0.4	0.2	0.6	0.4	6.7	0.7
Pennsylvania	1.1	0.2	0.2	1.5	0.1	0.1	3.1	0.1	0.1	0.2	0.1	1.4	0.2
Puerto Rico	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	4.6	0.3
Rhode Island	0.5	0.4	0.9	0.5	0.9	1.2	0.3	0.3	0.3	0.5	0.2	3.4	0.6
South Carolina	0.4	0.3	0.6	0.3	0.3	0.6	0.1	0.1	0.1	0.3	0.1	1.7	0.5
South Dakota	0.4	0.2	0.2	0.4	0.2	0.4	0.1	0.1	0.1	0.3	0.2	1.9	0.3
Tennessee	0.4	0.4	0.4	0.4	0.3	0.5	0.1	0.2	0.1	0.3	0.2	7.1	0.4
Texas	0.4	0.4	0.4	0.4	1.6	6.4	0.2	0.5	0.2	0.5	0.2	6.2	0.5
Utah	0.9	0.3	0.8	0.3	1.3	0.7	0.1	0.1	0.2	–	0.1	–	–
Vermont	0.5	0.3	0.4	0.4	0.6	0.9	0.2	0.1	0.1	0.3	0.1	0.5	0.4
Virgin Islands	0.4	0.5	0.2	0.3	0.1	–	0.2	0.3	0.2	1.4	0.2	5.5	0.8
Virginia	0.6	0.7	0.9	0.5	3.1	5.5	0.3	0.4	0.2	0.4	0.2	7.3	0.6
Washington	0.6	0.4	0.5	0.6	0.3	1.5	0.4	0.3	0.2	0.5	0.2	3.5	0.5
West Virginia	0.6	0.4	0.5	0.5	0.8	1.0	0.2	0.2	0.2	0.3	0.2	3.8	0.5
Wisconsin	1.7	1.7	1.7	1.7	4.2	8.5	1.3	0.8	1.0	1.8	1.1	9.2	1.5
Wyoming	0.9	0.3	0.6	1.0	0.1	0.1	0.6	0.1	0.3	0.4	0.1	1.9	0.2

Source: Mathematica's analysis of the TAF 2020 Release 1

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the

TAF data reflected in this table.<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B3.3c. Percentage of total NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services in 2020, by beneficiary subgroup**

State	Total number of NEMT ride days	% of total NEMT ride days used to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>43,501,935</b>	<b>29.3</b>	<b>19.4</b>	<b>15.9</b>	<b>20.0</b>	<b>13.7</b>	<b>7.8</b>	<b>2.8</b>	<b>3.0</b>	<b>1.7</b>	<b>6.2</b>	<b>1.2</b>	<b>13.2</b>	<b>2.1</b>
U.S., children <sup>a</sup>	2,216,016	28.1	10.1	22.8	14.0	1.5	0.2	5.1	2.8	1.5	0.5	0.0	0.4	0.5
U.S., adults <sup>a</sup>	3,131,185	33.1	33.4	14.3	22.9	50.1	39.7	2.7	2.3	2.1	3.2	0.5	6.8	1.9
U.S., adult expansion <sup>a</sup>	5,376,165	33.9	24.9	18.6	22.1	41.2	19.4	2.2	3.0	2.1	4.2	0.9	4.7	2.5
U.S., eligible on the basis of disability <sup>a</sup>	22,270,088	29.3	18.1	18.6	20.9	8.4	4.5	3.2	2.8	1.6	6.0	0.9	13.4	1.7
U.S., eligible on the basis of age (65+) <sup>a</sup>	10,508,407	26.3	17.0	8.0	17.4	2.8	1.1	1.7	3.7	1.6	9.7	2.7	21.7	3.2
U.S., dual eligibles <sup>a</sup>	20,432,006	27.5	17.4	13.2	19.0	4.0	1.8	2.9	3.1	1.4	8.3	1.8	21.4	2.4
U.S., 1915(c) waiver enrollees <sup>a</sup>	7,173,735	27.8	16.3	15.7	20.8	2.2	1.2	4.9	3.3	1.5	7.3	1.1	10.4	1.5
U.S., MFP participants <sup>a</sup>	95,416	25.2	23.3	9.7	19.7	3.1	1.0	1.8	7.0	2.6	12.9	1.9	31.3	2.0
U.S., pregnant <sup>a</sup>	966,719	36.0	36.0	16.9	24.3	37.3	22.7	2.8	1.2	2.2	2.2	0.3	4.9	0.8
U.S., postpartum <sup>a</sup>	530,945	38.5	39.0	11.7	24.9	30.3	18.0	2.3	1.6	2.3	1.1	0.1	2.9	0.4
U.S., CKD with ESRD <sup>a</sup>	7,931,367	14.3	19.6	2.2	6.3	0.9	0.4	0.4	1.6	1.3	8.2	1.3	72.2	0.7
U.S., CKD without ESRD <sup>a</sup>	6,947,506	39.8	26.4	16.9	30.7	11.5	5.5	2.4	6.3	2.7	19.2	3.4	0.1	4.4
U.S., IDD <sup>a</sup>	7,087,466	24.8	9.7	16.5	16.8	0.8	0.2	4.8	2.5	1.5	2.7	0.2	1.4	0.5
U.S., any SUD <sup>a</sup>	10,689,247	33.5	27.4	21.6	22.0	55.7	31.9	2.2	2.7	2.0	4.2	1.0	5.2	1.6
U.S., OUD <sup>a</sup>	7,538,925	33.4	28.4	17.9	21.5	69.3	45.3	2.2	1.9	1.9	3.4	0.7	3.0	1.1
U.S., any MH condition <sup>a</sup>	21,981,818	34.7	21.3	31.1	23.7	18.4	9.4	3.0	3.3	2.0	6.4	1.3	8.5	1.9
Alabama	55,543	6.6	33.3	16.3	3.7	4.0	0.1	0.0	12.0	5.7	16.9	5.3	26.1	2.7

State	Total number of NEMT ride days	% of total NEMT ride days used to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Alaska	120,819	37.5	41.7	6.6	30.8	8.0	1.1	3.3	5.2	8.2	3.9	1.1	12.7	5.6
Arizona	2,763,704	20.5	15.0	24.9	16.8	22.6	2.9	0.6	1.1	1.0	3.6	0.5	8.6	1.0
Arkansas	400,609	62.4	15.8	20.9	12.8	1.7	0.1	1.7	2.0	1.6	4.5	1.2	14.5	1.5
California	2,404,834	40.4	16.4	5.8	13.6	6.3	4.3	1.4	2.2	1.4	6.1	1.0	42.9	2.2
Colorado	1,380,834	31.6	23.8	15.4	27.1	9.8	5.4	7.4	4.0	1.7	6.5	1.0	6.4	1.8
Connecticut	349,127	23.9	17.7	19.0	12.7	30.0	26.0	1.4	4.6	1.5	5.5	0.9	19.6	2.0
Delaware	72,505	44.2	30.5	18.3	22.3	68.6	64.5	0.4	0.9	0.6	2.9	0.4	1.4	1.0
District of Columbia	29,298	18.6	10.4	39.3	12.2	9.7	7.2	2.9	3.8	2.0	2.4	1.0	0.7	0.8
Florida	1,911,253	19.2	14.5	12.6	13.9	6.6	4.8	0.8	2.5	1.4	3.9	1.0	13.7	1.8
Georgia	848,262	24.8	25.2	22.8	19.9	5.5	3.1	1.1	2.5	1.5	5.6	1.3	36.1	2.3
Hawaii	85,405	27.3	29.9	8.5	19.3	7.6	4.2	0.2	3.4	1.6	6.0	1.4	38.0	4.4
Idaho	329,716	30.4	12.2	25.4	15.2	4.0	0.4	1.9	6.3	0.9	4.0	0.4	6.4	1.1
Illinois	962,266	17.7	15.1	14.4	12.9	7.0	0.3	1.2	2.5	1.8	5.3	1.5	1.2	2.5
Indiana	494,654	25.9	26.1	10.0	20.6	22.0	18.6	1.1	4.1	2.1	4.1	0.9	24.4	1.6
Iowa	369,585	31.2	15.1	20.9	19.9	6.5	4.9	3.5	3.9	1.0	4.1	0.8	2.7	1.7
Kansas	60,838	45.2	24.8	23.3	32.6	3.8	0.5	2.6	4.7	1.3	6.1	1.2	9.6	3.7
Kentucky	473,107	40.5	25.3	22.0	30.0	12.7	4.0	1.6	1.7	1.8	7.8	1.7	0.9	2.4
Louisiana	176,355	35.0	24.6	13.7	30.4	9.6	5.7	1.2	4.8	2.4	6.4	1.3	9.9	3.5
Maine	335,758	26.6	18.8	23.2	19.4	8.6	5.4	1.2	4.4	1.0	4.6	0.9	7.6	3.1
Maryland	29,106	9.3	15.2	12.6	2.4	2.1	0.1	0.2	10.8	6.3	8.3	4.0	1.1	2.2
Massachusetts	2,352,954	36.0	17.2	20.5	18.9	18.2	16.5	3.0	3.5	1.8	9.3	1.8	8.5	2.2
Michigan	665,438	40.1	22.8	17.0	29.4	26.7	23.0	2.1	1.9	1.8	5.8	1.3	0.9	2.9
Minnesota	1,643,031	31.1	18.7	23.2	17.8	16.8	12.9	3.6	3.6	2.2	8.7	1.1	8.0	1.9
Mississippi	354,037	30.1	33.6	7.2	25.5	1.5	0.2	1.7	4.6	1.6	8.1	1.7	45.7	4.0
Missouri	888,153	41.4	31.7	19.4	36.0	1.9	0.3	6.9	3.3	4.8	8.6	1.0	23.6	2.5
Montana	240,760	20.1	9.7	15.7	13.0	1.3	0.5	5.7	1.8	1.3	5.2	0.5	0.4	0.9
Nebraska	84,794	38.7	23.4	32.0	27.1	2.3	0.2	2.7	3.7	1.4	5.6	0.9	12.3	1.7
Nevada	304,519	31.2	17.7	22.9	21.6	10.6	2.4	1.0	2.2	1.2	4.3	1.0	13.6	1.8
New Hampshire	41,493	27.2	19.5	16.0	19.8	55.8	47.7	1.4	3.6	1.6	3.1	0.7	3.8	1.7
New Jersey	1,701,651	25.7	27.3	22.4	17.8	23.9	11.1	2.0	3.3	2.2	5.5	1.3	18.7	1.9



State	Total number of NEMT ride days	% of total NEMT ride days used to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
New Mexico	347,373	26.9	25.9	11.8	17.0	36.5	31.2	3.0	2.9	1.9	4.2	0.7	17.7	1.7
New York	6,351,156	31.2	12.5	11.3	18.9	13.5	0.7	1.6	2.7	0.9	6.4	1.7	4.8	3.3
North Carolina	700,424	26.1	21.0	19.3	19.9	8.3	5.7	2.6	3.3	1.2	9.2	1.4	32.9	2.6
North Dakota	21,406	37.7	24.1	19.6	27.4	11.1	4.1	2.4	7.0	1.8	8.1	1.6	24.8	3.0
Ohio	693,864	30.3	31.6	18.9	21.2	12.1	5.2	1.5	8.8	4.0	14.7	3.9	28.5	3.7
Oklahoma	845,412	56.3	25.9	32.2	52.5	1.2	0.3	19.3	2.7	4.1	9.6	1.2	15.9	2.5
Oregon	1,191,237	28.9	23.7	13.0	22.9	34.9	24.3	3.4	4.6	1.8	6.5	1.3	8.0	2.1
Pennsylvania	446,307	18.6	13.9	12.8	11.6	3.9	0.2	4.5	3.7	2.1	3.6	1.2	2.0	0.9
Puerto Rico	214,586	15.9	5.9	2.0	12.8	0.2	0.0	0.7	0.3	0.3	5.4	1.1	48.3	2.6
Rhode Island	276,134	16.7	8.9	19.8	12.1	11.1	5.3	1.8	1.3	1.0	3.1	0.4	3.3	1.3
South Carolina	384,930	34.4	16.4	21.7	21.0	2.2	0.4	2.2	0.9	0.4	4.6	0.6	5.5	2.6
South Dakota	17,303	35.8	19.7	10.3	28.4	3.5	0.0	3.3	5.5	2.5	12.0	2.5	14.4	2.6
Tennessee	596,418	27.5	26.1	14.1	22.7	4.8	0.8	0.4	4.0	1.1	5.7	1.5	34.1	2.1
Texas	2,459,083	15.8	9.8	6.5	12.4	4.1	3.6	1.4	3.8	0.8	5.5	0.8	18.6	1.2
Utah	504	82.5	4.4	46.8	7.5	60.9	17.9	0.2	0.2	0.4	0.0	0.2	0.0	0.0
Vermont	64,300	39.4	17.1	22.1	28.3	19.5	12.3	3.3	2.4	0.4	5.6	1.3	0.5	2.7
Virgin Islands	2,995	16.6	23.8	0.9	11.0	0.2	0.0	0.4	4.7	2.4	27.7	1.5	56.2	12.4
Virginia	1,737,285	27.2	27.5	17.2	20.2	30.3	28.4	1.7	3.2	1.0	3.8	0.6	15.8	1.6
Washington	968,424	19.4	12.6	11.0	14.7	2.5	1.2	2.1	2.5	1.6	4.8	0.8	3.7	1.4
West Virginia	409,583	38.9	29.6	17.8	34.8	19.2	12.9	1.1	2.7	1.3	5.2	1.7	6.1	3.0
Wisconsin	4,049,826	29.7	26.0	14.9	24.2	15.6	13.8	5.3	2.4	2.4	6.7	1.4	6.4	1.8
Wyoming	11,062	25.3	25.7	17.5	23.1	1.3	0.0	1.9	3.5	5.6	7.8	1.4	4.0	0.8

Source: Mathematica's analysis of the TAF 2020 Release 1

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see

Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B3.4a. Percentage of beneficiaries who used NEMT to access select physical health, behavioral health, and substance use disorder (SUD) treatment services in 2021, by beneficiary subgroup**

State	Number of Beneficiaries	% of beneficiaries who used NEMT to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>85,257,543</b>	<b>1.9</b>	<b>1.8</b>	<b>1.6</b>	<b>1.0</b>	<b>0.5</b>	<b>0.1</b>	<b>0.3</b>	<b>0.5</b>	<b>0.5</b>	<b>0.6</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>
U.S., children <sup>a</sup>	35,129,304	0.5	0.3	0.3	0.2	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
U.S., adults <sup>a</sup>	12,732,925	1.1	1.2	0.9	0.5	0.5	0.2	0.2	0.2	0.3	0.2	0.1	0.0	0.1
U.S., adult expansion <sup>a</sup>	22,395,721	1.3	1.4	1.0	0.9	0.8	0.2	0.2	0.4	0.4	0.3	0.1	0.0	0.1
U.S., eligible on the basis of disability <sup>a</sup>	8,553,856	7.7	6.8	6.7	4.5	1.6	0.3	1.3	1.9	1.8	2.4	0.8	0.6	0.6
U.S., eligible on the basis of age (65+) <sup>a</sup>	6,444,765	6.2	5.9	5.4	2.1	0.4	0.0	0.7	2.7	1.5	3.1	1.6	0.6	1.0
U.S., dual eligibles <sup>a</sup>	9,578,364	6.8	6.2	5.9	3.0	0.7	0.1	1.0	2.4	1.5	3.0	1.3	0.8	0.9
U.S., 1915(c) waiver enrollees <sup>a</sup>	1,478,318	11.5	10.5	10.0	5.8	1.0	0.1	2.3	4.3	2.8	4.5	1.7	0.8	1.1
U.S., MFP participants <sup>a</sup>	15,568	20.5	21.5	17.7	10.5	3.5	0.3	2.8	11.7	6.9	11.3	4.2	2.6	1.9
U.S., pregnant <sup>a</sup>	4,589,222	1.3	1.6	1.0	0.6	0.5	0.1	0.2	0.1	0.4	0.1	0.0	0.0	0.0
U.S., postpartum <sup>a</sup>	3,818,177	1.2	1.4	0.8	0.3	0.3	0.1	0.1	0.1	0.3	0.0	0.0	0.0	0.0
U.S., CKD with ESRD <sup>a</sup>	331,355	23.3	31.2	19.7	7.2	2.4	0.2	2.3	11.1	10.4	19.8	7.9	30.0	2.1
U.S., CKD without ESRD <sup>a</sup>	3,859,409	9.6	10.4	8.5	4.8	2.2	0.3	1.1	5.2	3.1	7.3	2.6	0.0	1.5
U.S., IDD <sup>a</sup>	1,880,057	6.7	4.7	5.1	4.0	0.4	0.0	1.6	1.5	1.6	1.0	0.2	0.1	0.2
U.S., any SUD <sup>a</sup>	4,551,652	7.9	8.7	6.2	7.1	8.9	2.1	1.0	2.6	2.7	1.9	0.9	0.3	0.6
U.S., OUD <sup>a</sup>	2,011,730	8.8	9.5	7.2	6.9	11.0	4.7	1.2	2.2	2.8	1.7	0.8	0.2	0.5
U.S., any MH condition <sup>a</sup>	15,744,044	5.6	5.4	4.5	5.3	2.0	0.4	0.9	1.7	1.6	1.7	0.7	0.2	0.4
Alabama	986,852	0.1	0.6	0.1	0.4	0.1	0.0	DS	0.3	0.3	0.3	0.1	0.0	0.1

State	Number of Beneficiaries	% of beneficiaries who used NEMT to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Alaska	260,488	4.8	6.1	4.1	1.3	1.6	0.1	0.9	0.9	2.6	0.5	0.2	0.1	0.3
Arizona	2,148,729	4.2	3.7	3.5	3.0	1.8	0.2	0.4	0.5	1.0	0.9	0.3	0.2	0.2
Arkansas	999,895	1.9	1.8	1.1	0.9	0.2	0.0	0.2	0.4	0.6	0.5	0.2	0.1	0.1
California	12,997,219	0.7	0.7	0.5	0.3	0.1	0.0	0.1	0.2	0.2	0.3	0.1	0.1	0.1
Colorado	1,582,709	1.9	1.9	1.6	1.0	0.6	0.1	0.5	0.5	0.4	0.4	0.1	0.1	0.1
Connecticut	1,037,905	1.2	1.3	0.8	0.9	0.6	0.2	0.2	0.6	0.5	0.4	0.1	0.1	0.1
Delaware	269,519	1.2	1.0	1.1	0.4	0.5	0.3	0.1	0.2	0.1	0.2	0.1	0.1	0.1
District of Columbia	270,259	0.5	0.4	0.3	0.3	0.1	0.0	0.2	0.3	0.2	0.1	0.1	0.0	0.0
Florida	4,556,248	1.3	1.3	1.1	0.6	0.2	0.0	0.0	0.3	0.3	0.3	0.1	0.1	0.1
Georgia	2,193,756	1.8	1.8	1.5	0.9	0.2	0.0	0.2	0.5	0.4	0.6	0.2	0.2	0.2
Hawaii	434,869	1.0	1.0	0.8	0.3	0.2	0.0	0.0	0.3	0.2	0.3	0.1	0.2	0.1
Idaho	421,266	2.1	1.5	1.7	1.3	0.3	0.0	0.5	0.5	0.4	0.4	0.1	0.1	0.1
Illinois	3,355,719	1.6	1.8	1.2	1.3	0.5	0.0	0.2	0.6	0.4	0.7	0.3	0.1	0.2
Indiana	1,869,584	1.7	2.0	1.4	0.9	0.5	0.1	0.2	0.5	0.6	0.4	0.2	0.1	0.1
Iowa	785,287	2.7	2.2	2.2	1.3	0.4	0.1	0.7	0.6	0.5	0.6	0.2	0.1	0.2
Kansas	434,050	1.6	1.1	1.3	0.7	0.1	0.0	0.2	0.2	0.2	0.3	0.1	0.1	0.1
Kentucky	1,612,999	1.9	1.9	1.6	1.0	0.5	0.1	0.2	0.4	0.5	0.6	0.2	0.1	0.2
Louisiana	1,779,076	1.1	1.0	1.0	0.6	0.3	0.1	0.1	0.2	0.3	0.3	0.1	0.0	0.1
Maine	350,973	4.5	4.2	3.8	2.9	1.1	0.4	0.5	1.3	1.1	1.1	0.5	0.1	0.4
Maryland	1,494,837	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.0	0.0
Massachusetts	1,792,821	3.7	3.4	3.1	2.1	1.0	0.5	0.8	1.3	1.0	1.3	0.5	0.2	0.4
Michigan	2,957,624	1.6	1.6	1.4	1.0	0.4	0.1	0.2	0.3	0.5	0.4	0.2	0.0	0.1
Minnesota	1,348,309	6.0	4.9	4.8	3.1	1.3	0.3	2.0	1.4	1.5	1.4	0.4	0.1	0.4
Mississippi	693,638	3.0	3.0	2.7	1.0	0.3	0.0	0.4	0.6	0.7	0.9	0.3	0.3	0.3
Missouri	1,266,163	2.8	2.9	2.4	1.6	0.5	0.0	0.4	0.7	0.8	0.8	0.3	0.2	0.3
Montana	285,628	0.6	0.8	0.5	0.5	0.3	0.0	0.1	0.2	0.3	0.2	0.1	0.0	0.1
Nebraska	350,822	1.9	2.1	1.6	1.1	0.4	0.0	0.3	0.7	0.4	0.6	0.2	0.1	0.2
Nevada	860,999	1.2	1.3	0.9	1.0	0.6	0.0	0.1	0.4	0.3	0.3	0.1	0.1	0.1

State	Number of Beneficiaries	% of beneficiaries who used NEMT to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
New Hampshire	235,959	2.5	2.1	2.2	1.3	1.2	0.8	0.2	0.6	0.5	0.5	0.2	0.1	0.2
New Jersey	1,954,150	2.8	2.5	2.4	1.3	0.9	0.3	0.5	0.9	0.9	0.9	0.4	0.2	0.3
New Mexico	879,789	2.0	2.1	1.4	1.1	0.9	0.2	0.4	0.4	0.7	0.5	0.2	0.1	0.1
New York	7,327,659	3.6	2.6	3.0	1.5	0.8	0.1	0.6	1.0	0.6	1.2	0.6	0.2	0.4
North Carolina	2,059,376	1.8	1.9	1.6	0.7	0.3	0.0	0.4	0.6	0.5	0.7	0.2	0.2	0.2
North Dakota	129,185	1.3	1.4	1.1	1.1	0.6	0.1	0.2	0.6	0.5	0.4	0.2	0.1	0.1
Ohio	3,104,714	1.9	2.6	1.4	1.8	0.9	0.1	0.2	1.1	1.0	0.9	0.5	0.1	0.2
Oklahoma	1,061,119	1.9	1.8	1.7	0.9	0.2	0.0	0.3	0.5	0.4	0.6	0.3	0.2	0.2
Oregon	1,221,682	3.5	3.4	3.1	1.6	1.2	0.4	0.9	1.0	0.9	0.9	0.3	0.1	0.3
Pennsylvania	3,396,490	0.2	0.8	0.1	0.6	0.4	0.0	0.0	0.4	0.3	0.2	0.1	0.0	0.1
Puerto Rico	1,469,009	1.2	0.6	1.1	0.2	0.0	DS	0.1	0.0	0.1	0.5	0.2	0.2	0.1
Rhode Island	346,960	2.2	1.6	1.7	1.5	0.9	0.4	0.4	0.3	0.4	0.5	0.2	0.1	0.2
South Carolina	1,180,770	2.4	1.6	1.8	0.8	0.2	0.0	0.4	0.2	0.2	0.5	0.1	0.1	0.2
South Dakota	129,633	1.2	1.1	1.1	0.6	0.3	DS	0.4	0.6	0.2	0.5	0.2	0.1	0.1
Tennessee	1,623,203	2.0	2.1	1.7	1.0	0.5	0.1	0.1	0.7	0.4	0.6	0.3	0.2	0.2
Texas	5,060,106	1.4	1.2	1.2	0.5	0.1	0.0	0.3	0.4	0.3	0.4	0.1	0.1	0.1
Utah	466,082	0.0	0.0	0.0	0.0	0.0	DS	DS	DS	0.0	DS	DS	DS	DS
Vermont	198,517	2.2	1.9	1.9	1.4	0.8	0.3	0.5	0.5	0.2	0.6	0.3	0.0	0.2
Virgin Islands	24,134	0.5	0.5	0.3	0.1	DS	DS	0.0	0.1	0.2	0.3	0.1	0.1	0.1
Virginia	1,777,416	3.6	3.2	3.1	1.4	0.9	0.5	0.6	0.8	0.6	0.9	0.3	0.2	0.3
Washington	2,112,585	1.2	1.4	1.0	0.8	0.3	0.0	0.2	0.4	0.6	0.4	0.1	0.0	0.1
West Virginia	599,777	3.6	4.1	3.3	1.8	1.5	0.7	0.5	0.9	1.2	1.0	0.6	0.1	0.4
Wisconsin	1,382,974	4.0	3.6	3.5	1.9	0.9	0.4	0.9	0.8	0.9	1.0	0.3	0.2	0.3
Wyoming	77,236	0.2	0.9	0.2	0.3	0.1	DS	0.0	0.3	0.4	0.2	0.1	0.0	0.0

Source: Mathematica's analysis of the 2021 preliminary TAF

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on

Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B3.4b. Average monthly number of NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services among beneficiaries who used NEMT to access each service type in 2021, by beneficiary subgroup**

State	Average monthly # of NEMT ride days used to access each service type:												
	Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>0.7</b>	<b>0.5</b>	<b>0.7</b>	<b>0.6</b>	<b>1.2</b>	<b>3.2</b>	<b>0.4</b>	<b>0.3</b>	<b>0.2</b>	<b>0.5</b>	<b>0.2</b>	<b>4.4</b>	<b>0.6</b>
U.S., children <sup>a</sup>	0.3	0.2	0.6	0.3	0.3	1.3	0.2	0.5	0.1	0.2	0.1	2.9	0.5
U.S., adults <sup>a</sup>	0.6	0.5	0.5	0.5	2.1	4.4	0.4	0.3	0.2	0.3	0.2	3.8	0.6
U.S., adult expansion <sup>a</sup>	0.6	0.4	0.4	0.5	1.1	2.4	0.3	0.2	0.2	0.3	0.2	2.9	0.5
U.S., eligible on the basis of disability <sup>a</sup>	0.9	0.6	1.0	0.7	1.1	3.4	0.7	0.4	0.3	0.6	0.3	4.5	0.6
U.S., eligible on the basis of age (65+) <sup>a</sup>	0.7	0.4	0.6	0.5	0.9	3.4	0.4	0.2	0.2	0.5	0.3	4.6	0.5
U.S., dual eligibles <sup>a</sup>	0.8	0.5	0.8	0.6	0.9	3.3	0.6	0.3	0.3	0.5	0.3	4.4	0.5
U.S., 1915(c) waiver enrollees <sup>a</sup>	1.2	0.7	1.3	1.0	0.9	3.8	1.0	0.4	0.4	0.8	0.3	5.1	0.6
U.S., MFP participants <sup>a</sup>	0.6	0.5	0.5	0.6	0.5	1.7	0.4	0.3	0.2	0.5	0.2	5.5	0.5
U.S., pregnant <sup>a</sup>	0.4	0.3	0.4	0.4	1.2	2.6	0.3	0.2	0.2	0.3	0.2	4.0	0.5
U.S., postpartum <sup>a</sup>	0.3	0.3	0.3	0.3	1.1	2.4	0.2	0.2	0.2	0.3	0.1	4.3	0.4
U.S., CKD with ESRD <sup>a</sup>	1.2	1.2	0.6	0.7	0.7	3.0	0.4	0.3	0.3	0.8	0.3	4.4	0.7
U.S., CKD without ESRD <sup>a</sup>	0.7	0.4	0.6	0.6	0.8	2.9	0.4	0.2	0.2	0.4	0.2	0.3	0.5
U.S., IDD <sup>a</sup>	1.4	0.8	1.5	1.2	0.7	2.1	1.2	0.7	0.5	1.1	0.4	4.5	0.9
U.S., any SUD <sup>a</sup>	0.8	0.6	0.6	0.7	1.3	3.2	0.5	0.2	0.3	0.5	0.2	3.7	0.6
U.S., OUD <sup>a</sup>	1.2	0.9	0.8	1.0	2.0	3.2	0.6	0.3	0.4	0.6	0.3	3.8	0.6
U.S., any MH condition <sup>a</sup>	0.8	0.5	0.7	0.6	1.1	2.7	0.5	0.3	0.2	0.5	0.2	4.1	0.5
Alabama	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	2.2	0.2
Alaska	0.4	0.3	0.3	0.3	0.2	0.4	0.2	0.3	0.2	0.3	0.2	4.8	0.7

State	Average monthly # of NEMT ride days used to access each service type:												
	Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Arizona	0.5	0.4	0.9	0.5	1.3	1.0	0.2	0.2	0.2	0.4	0.2	5.1	0.5
Arkansas	1.3	0.3	0.9	0.4	0.2	0.3	0.3	0.2	0.2	0.3	0.2	5.4	0.4
California	0.8	0.4	0.3	0.4	0.7	2.6	0.2	0.2	0.2	0.4	0.2	4.5	0.4
Colorado	1.4	1.1	1.3	1.3	1.2	3.1	1.3	0.9	0.7	1.4	0.9	6.7	1.2
Connecticut	0.5	0.3	0.5	0.4	1.5	3.4	0.2	0.2	0.1	0.3	0.2	4.3	0.4
Delaware	0.5	0.6	0.9	0.4	2.7	3.4	0.2	0.2	0.2	0.3	0.1	0.4	0.3
District of Columbia	0.3	0.2	0.5	0.2	0.2	1.1	0.2	0.2	0.1	0.1	0.1	0.3	0.1
Florida	0.4	0.3	0.7	0.4	0.9	2.2	0.1	0.3	0.2	0.3	0.2	4.2	0.5
Georgia	0.4	0.4	1.0	0.4	0.6	4.3	0.1	0.2	0.2	0.3	0.2	6.2	0.5
Hawaii	0.3	0.4	0.3	0.3	0.4	2.9	0.1	0.2	0.1	0.3	0.1	4.0	0.4
Idaho	0.9	0.5	1.4	0.6	0.9	0.8	0.3	1.1	0.2	0.5	0.3	4.3	0.6
Illinois	0.3	0.2	0.3	0.3	0.4	0.3	0.2	0.1	0.1	0.2	0.1	0.4	0.3
Indiana	0.4	0.4	0.3	0.4	1.5	5.0	0.3	0.2	0.2	0.3	0.2	4.9	0.4
Iowa	0.6	0.3	0.9	0.4	0.7	3.3	0.2	0.4	0.1	0.4	0.2	1.0	0.5
Kansas	0.4	0.3	0.4	0.3	0.3	0.8	0.1	0.3	0.1	0.3	0.2	2.4	0.5
Kentucky	0.6	0.3	0.6	0.5	0.5	0.7	0.2	0.1	0.2	0.4	0.2	0.4	0.5
Louisiana	0.3	0.2	0.2	0.3	0.4	0.8	0.1	0.3	0.1	0.3	0.2	2.5	0.5
Maine	0.5	0.4	0.7	0.5	0.8	1.7	0.2	0.4	0.2	0.4	0.2	6.0	0.7
Maryland	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1
Massachusetts	1.2	0.7	1.3	0.8	2.2	3.9	0.5	0.4	0.3	1.0	0.5	6.5	0.7
Michigan	0.4	0.3	0.3	0.4	1.1	4.3	0.2	0.1	0.2	0.3	0.2	0.5	0.5
Minnesota	0.7	0.5	1.0	0.5	1.6	4.5	0.2	0.3	0.2	0.9	0.3	6.1	0.6
Mississippi	0.4	0.4	0.3	0.4	0.2	0.4	0.2	0.3	0.1	0.3	0.2	5.5	0.5
Missouri	1.1	0.8	0.9	1.2	0.2	0.4	1.7	0.3	0.6	0.7	0.2	6.0	0.6
Montana	1.8	0.7	1.7	1.7	0.4	2.1	2.5	0.4	0.3	1.6	0.4	1.0	1.1
Nebraska	0.5	0.3	0.8	0.4	0.3	0.5	0.2	0.3	0.1	0.3	0.2	5.8	0.4
Nevada	0.7	0.4	0.7	0.6	0.7	2.6	0.2	0.2	0.2	0.4	0.2	5.4	0.5
New Hampshire	1.0	0.9	1.1	1.0	5.8	8.0	0.8	0.4	0.8	0.7	0.3	6.5	0.7
New Jersey	0.6	0.7	1.1	0.5	1.8	2.3	0.3	0.3	0.3	0.4	0.2	6.2	0.5
New Mexico	0.4	0.4	0.3	0.4	1.3	4.6	0.2	0.3	0.1	0.3	0.2	5.4	0.5
New York	0.7	0.4	0.5	0.5	1.2	0.5	0.2	0.2	0.2	0.4	0.2	1.7	0.6



State	Average monthly # of NEMT ride days used to access each service type:												
	Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
North Carolina	0.4	0.3	0.9	0.4	0.9	3.6	0.2	0.2	0.1	0.4	0.2	4.9	0.4
North Dakota	0.5	0.3	0.3	0.4	0.9	5.0	0.3	0.2	0.1	0.3	0.1	5.3	0.3
Ohio	0.3	0.2	0.2	0.3	0.3	1.4	0.2	0.2	0.1	0.3	0.2	4.1	0.3
Oklahoma	2.2	1.1	2.6	2.3	0.4	1.8	4.8	0.4	1.0	1.1	0.3	6.1	1.0
Oregon	0.6	0.6	0.5	0.6	1.8	3.8	0.3	0.4	0.2	0.6	0.3	6.7	0.6
Pennsylvania	1.3	0.2	0.2	1.7	0.1	0.1	5.1	0.1	0.1	0.2	0.1	1.5	0.2
Puerto Rico	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	5.9	0.3
Rhode Island	0.7	0.5	1.2	0.6	0.8	1.1	0.3	0.3	0.4	0.6	0.2	3.7	0.6
South Carolina	0.4	0.3	0.8	0.3	0.3	0.6	0.2	0.1	0.1	0.3	0.2	1.9	0.5
South Dakota	0.4	0.2	0.3	0.4	0.2	0.1	0.2	0.1	0.1	0.3	0.2	1.6	0.3
Tennessee	0.4	0.3	0.5	0.4	0.3	0.6	0.1	0.2	0.1	0.3	0.2	5.9	0.3
Texas	0.5	0.4	0.5	0.4	1.5	5.7	0.2	0.6	0.2	0.5	0.2	5.2	0.5
Utah	0.6	0.1	0.5	0.2	0.4	0.3	–	0.1	0.1	0.1	0.1	–	0.1
Vermont	0.5	0.3	0.4	0.4	0.4	0.6	0.2	0.1	0.1	0.3	0.2	0.4	0.4
Virgin Islands	0.3	0.4	0.3	0.3	0.1	–	0.2	0.1	0.2	1.0	0.2	4.1	0.8
Virginia	0.6	0.7	1.1	0.5	3.3	5.7	0.3	0.4	0.3	0.4	0.2	6.8	0.6
Washington	0.5	0.3	0.5	0.5	0.3	1.1	0.4	0.3	0.2	0.4	0.2	2.7	0.5
West Virginia	0.6	0.4	0.7	0.6	0.9	1.3	0.3	0.2	0.2	0.3	0.2	3.3	0.5
Wisconsin	2.0	1.7	2.1	2.0	3.9	8.1	1.7	0.9	1.2	1.9	1.3	8.3	1.5
Wyoming	0.9	0.3	0.4	1.0	0.2	–	0.9	0.3	0.2	0.4	0.1	1.1	0.1

Source: Mathematica's analysis of the 2021 preliminary TAF

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.<sup>a</sup>Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B3.4c. Percentage of total NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services in 2021, by beneficiary subgroup**

State	Total number of NEMT ride days	% of total NEMT ride days used to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>45,218,992</b>	<b>29.1</b>	<b>18.4</b>	<b>15.7</b>	<b>20.2</b>	<b>13.1</b>	<b>7.7</b>	<b>3.1</b>	<b>3.2</b>	<b>2.6</b>	<b>6.2</b>	<b>1.2</b>	<b>10.7</b>	<b>2.0</b>
U.S., children <sup>a</sup>	2,650,611	24.0	8.7	20.5	11.8	1.3	0.2	4.3	2.8	2.9	0.5	0.0	0.3	0.4
U.S., adults <sup>a</sup>	2,901,775	32.2	30.8	13.8	22.8	51.4	41.8	3.0	2.4	3.7	3.2	0.5	6.8	1.9
U.S., adult expansion <sup>a</sup>	5,687,303	33.0	24.7	17.2	21.8	41.8	21.1	2.5	3.3	3.5	4.3	0.9	4.9	2.5
U.S., eligible on the basis of disability <sup>a</sup>	22,689,945	29.5	17.5	18.8	21.4	7.7	4.4	3.7	3.1	2.5	5.9	0.8	10.8	1.6
U.S., eligible on the basis of age (65+) <sup>a</sup>	11,289,204	26.8	16.0	8.2	18.4	2.5	0.8	1.9	3.7	1.9	9.8	2.6	16.8	3.1
U.S., dually eligible <sup>a</sup>	20,671,177	28.6	16.9	13.5	20.4	3.4	1.4	3.3	3.3	2.0	8.5	1.8	17.1	2.4
U.S., 1915(c) waiver enrollees <sup>a</sup>	8,357,616	27.8	15.0	16.1	20.4	1.8	0.9	5.0	3.2	2.2	7.2	1.1	7.8	1.4
U.S., MFP participants <sup>a</sup>	86,938	27.3	22.7	10.2	21.6	3.4	1.1	2.2	6.8	3.3	12.5	2.1	28.1	1.9
U.S., pregnant <sup>a</sup>	845,418	35.2	34.6	16.5	24.0	37.5	23.5	3.0	1.5	4.2	2.3	0.2	5.2	0.9
U.S., postpartum <sup>a</sup>	440,369	37.9	38.2	11.4	25.5	30.2	18.2	2.4	1.8	4.6	1.1	0.1	2.4	0.4
U.S., CKD with ESRD <sup>a</sup>	7,113,550	14.7	19.6	2.2	6.8	0.9	0.4	0.5	1.7	1.7	8.3	1.3	67.9	0.7
U.S., CKD without ESRD <sup>a</sup>	7,368,189	39.4	25.3	16.4	30.9	10.8	5.4	2.8	6.5	3.8	19.4	3.3	0.1	4.2
U.S., IDD <sup>a</sup>	8,500,739	24.2	9.6	15.9	16.3	0.7	0.2	4.9	2.5	2.2	2.6	0.2	1.0	0.5
U.S., any SUD <sup>a</sup>	10,520,472	32.9	26.1	21.5	22.0	56.1	33.3	2.4	2.9	3.5	4.3	1.0	4.6	1.6
U.S., OUD <sup>a</sup>	7,496,570	32.6	26.8	18.1	21.5	69.1	46.7	2.4	2.0	3.3	3.4	0.7	2.6	1.0
U.S., any mental health condition <sup>a</sup>	22,508,304	34.2	20.5	31.1	23.7	17.8	9.4	3.4	3.5	3.2	6.4	1.2	7.0	1.8
Alabama	31,632	6.3	32.7	17.6	3.4	4.5	0.1	0.0	14.3	9.5	18.0	5.6	23.7	3.0

State	Total number of NEMT ride days	% of total NEMT ride days used to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Alaska	136,558	38.7	41.1	7.1	31.2	8.5	1.2	4.2	6.2	14.0	3.6	1.2	9.1	5.1
Arizona	2,558,682	20.6	14.1	24.5	17.1	22.2	2.3	0.8	1.0	1.7	3.5	0.5	7.0	0.9
Arkansas	440,154	66.6	14.0	20.7	12.3	1.4	0.1	1.9	2.0	2.5	3.8	0.9	11.4	1.1
California	2,310,951	39.1	15.8	5.5	13.1	6.2	3.6	1.7	2.2	2.4	6.1	1.0	37.6	2.0
Colorado	1,655,074	28.4	22.3	13.9	24.1	8.1	3.9	7.4	4.3	3.0	6.4	1.1	5.5	1.6
Connecticut	331,615	20.4	15.9	16.8	11.1	34.4	31.4	1.4	4.7	2.3	5.0	0.8	13.5	1.5
Delaware	58,430	31.2	31.4	18.8	20.7	65.3	60.7	1.0	1.5	1.3	3.5	0.5	1.3	1.1
District of Columbia	36,112	15.2	5.8	15.7	7.1	1.8	0.8	2.5	3.6	2.4	1.5	0.5	0.3	0.5
Florida	1,795,745	16.9	12.2	13.4	12.6	4.4	3.0	0.1	2.0	1.9	3.1	0.7	10.2	1.4
Georgia	779,477	23.3	22.4	26.7	18.4	4.8	2.5	0.9	2.8	2.9	5.5	1.2	30.1	2.2
Hawaii	65,102	22.7	31.8	7.6	16.8	5.3	2.7	0.2	3.3	2.2	6.9	1.4	46.6	3.9
Idaho	376,066	25.6	9.2	24.1	12.1	3.9	0.4	1.9	6.3	1.0	2.6	0.3	4.1	0.8
Illinois	967,542	17.5	14.8	13.4	13.0	7.9	0.3	1.2	3.0	2.1	5.7	1.7	1.2	2.5
Indiana	600,278	27.3	25.4	9.9	22.3	26.2	23.2	2.3	4.1	3.5	4.5	0.9	19.0	1.6
Iowa	475,830	29.5	12.9	22.4	18.3	4.7	3.3	3.3	4.1	1.4	3.9	0.6	1.7	1.5
Kansas	61,883	45.8	24.3	21.1	32.4	3.2	0.8	2.7	5.0	1.8	6.0	0.9	9.9	3.7
Kentucky	526,672	37.1	21.9	22.2	28.2	8.5	3.4	1.6	1.5	2.4	8.1	1.5	0.7	2.2
Louisiana	192,442	37.2	25.7	13.1	32.6	11.8	7.6	1.4	5.7	3.7	7.1	1.3	8.5	3.4
Maine	388,808	24.8	17.5	20.8	18.8	9.9	6.8	1.3	4.7	1.9	4.1	0.9	5.9	2.9
Maryland	29,925	8.3	14.6	11.9	2.2	2.3	0.1	0.2	12.5	6.7	9.0	4.1	0.9	2.2
Massachusetts	3,043,255	32.0	15.3	18.3	17.2	15.7	14.4	3.0	3.2	2.2	9.2	1.6	6.4	1.9
Michigan	672,872	37.2	23.9	16.4	28.1	25.9	22.5	2.3	2.1	3.9	6.1	1.3	0.8	2.9
Minnesota	2,321,274	28.0	15.6	22.3	16.0	13.3	10.3	3.3	3.2	2.4	8.6	0.9	5.6	1.5
Mississippi	293,573	32.5	33.2	8.5	27.8	1.4	0.2	1.7	4.9	2.4	8.3	1.6	38.5	4.0
Missouri	933,523	49.2	36.0	22.2	43.5	1.7	0.2	10.8	3.2	7.5	9.0	1.0	18.9	2.3
Montana	161,208	24.1	11.7	18.0	15.7	1.8	0.8	7.6	2.1	1.5	7.2	0.5	0.3	1.1
Nebraska	108,547	36.9	24.1	31.3	25.9	3.5	0.4	2.4	6.3	2.0	5.0	1.0	22.7	2.0
Nevada	273,796	31.4	16.3	23.2	20.5	13.1	3.9	1.0	2.3	2.0	4.2	0.8	12.2	1.5
New Hampshire	264,029	27.0	18.5	14.3	21.9	71.8	68.8	1.9	2.6	3.8	3.3	0.6	4.2	1.3
New Jersey	1,549,237	24.2	26.1	19.9	17.4	23.5	10.8	2.1	3.7	3.6	5.5	1.3	17.5	1.8
New Mexico	331,295	27.3	25.1	11.2	17.4	37.7	32.4	2.6	3.2	3.3	4.3	0.8	15.9	1.9

State	Total number of NEMT ride days	% of total NEMT ride days used to access:												
		Preventive services	Lab and imaging services	Behavioral health services	E&M of acute and chronic conditions	SUD treatment services	MAT for OUD	Dental Services	PT/OT	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
New York	6,634,556	31.3	12.4	9.9	20.0	12.2	0.7	1.6	2.9	1.4	6.3	1.7	4.6	3.3
North Carolina	695,788	27.4	20.7	21.1	21.6	8.3	5.7	2.7	4.1	2.0	9.0	1.4	26.5	2.7
North Dakota	26,661	36.2	19.6	20.2	25.3	29.9	24.9	2.8	6.2	3.7	7.8	1.0	16.6	1.3
Ohio	706,926	31.5	31.1	18.0	22.3	15.8	8.5	1.7	9.0	5.9	13.7	3.5	24.3	3.4
Oklahoma	840,410	59.3	26.7	33.0	54.7	1.1	0.3	20.9	2.5	4.9	9.5	1.3	13.2	2.4
Oregon	1,059,739	28.1	24.9	11.0	23.1	27.5	18.2	3.6	5.2	2.7	6.9	1.2	9.3	2.3
Pennsylvania	485,995	19.5	14.5	12.0	12.9	3.4	0.2	5.3	4.1	3.5	3.8	1.3	2.0	1.1
Puerto Rico	288,081	18.6	6.4	2.0	15.2	0.2	0.0	0.6	0.3	0.6	5.8	1.1	51.3	2.7
Rhode Island	337,992	17.7	8.7	22.0	11.5	8.3	4.6	1.8	1.0	1.6	3.3	0.4	3.2	1.1
South Carolina	394,483	33.8	15.5	22.4	20.1	2.1	0.4	2.0	0.9	0.9	4.5	0.6	4.8	2.3
South Dakota	18,762	40.8	18.1	13.3	32.1	3.9	0.0	4.6	5.9	1.6	10.6	2.1	9.1	2.1
Tennessee	554,962	26.2	23.2	16.6	22.0	5.0	1.4	0.4	4.1	1.8	5.4	1.4	28.0	1.7
Texas	2,817,165	13.4	9.5	5.7	10.6	3.0	2.6	1.3	3.9	1.1	4.1	0.5	11.6	0.9
Utah	446	46.0	4.9	45.1	6.1	16.8	4.5	0.0	0.7	2.9	0.7	0.7	0.0	0.2
Vermont	62,597	38.4	17.7	19.8	29.4	12.9	6.4	3.3	2.3	1.1	6.1	1.6	0.5	3.1
Virgin Islands	2,918	13.7	20.5	1.7	10.0	0.1	0.0	0.8	1.2	2.6	22.7	1.3	53.8	7.6
Virginia	1,844,065	24.8	26.4	16.7	18.7	32.0	30.2	2.0	3.3	1.9	3.7	0.6	13.9	1.5
Washington	734,051	22.4	14.8	13.5	17.5	2.9	1.1	2.7	3.2	3.2	6.1	1.0	3.5	1.7
West Virginia	438,278	34.7	26.5	19.1	31.4	22.0	15.6	1.9	3.1	3.0	4.9	1.8	4.8	3.0
Wisconsin	3,786,315	34.9	24.9	16.6	29.9	14.4	12.5	6.8	2.9	4.6	7.8	1.8	6.1	1.9
Wyoming	8,660	23.4	25.0	12.6	19.1	2.0	0.0	1.4	7.2	5.5	8.2	1.0	2.2	0.5

Source: Mathematica's analysis of the 2021 preliminary TAF

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the

TAF data reflected in this table.<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B4.1. NEMT and telehealth utilization: quarterly NEMT ride days and telehealth service days per 10,000 beneficiaries, by beneficiary subgroup and type of service accessed: 2018**

State	January to March 2018				April to June 2018				July to September 2018				October to December 2018			
	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period
<b>United States<sup>a</sup></b>	<b>2,337</b>	<b>–</b>	<b>94</b>	<b>–</b>	<b>2,412</b>	<b>3.2</b>	<b>101</b>	<b>7.4</b>	<b>2,304</b>	<b>-4.5</b>	<b>108</b>	<b>6.9</b>	<b>2,500</b>	<b>8.5</b>	<b>118</b>	<b>9.3</b>
U.S., children <sup>a</sup>	407	–	66	–	376	-7.6	67	1.5	290	-22.9	70	4.5	420	44.8	79	12.9
U.S., adults <sup>a</sup>	979	–	80	–	1,005	2.7	87	8.8	1,023	1.8	94	8.0	1,070	4.6	100	6.4
U.S., adult expansion <sup>a</sup>	942	–	75	–	1,014	7.6	85	13.3	1,047	3.3	96	12.9	1,111	6.1	104	8.3
U.S., eligible on the basis of a disability <sup>a</sup>	10,644	–	262	–	10,909	2.5	279	6.5	10,346	-5.2	297	6.5	11,324	9.5	320	7.7
U.S., eligible on the basis of age (65+) <sup>a</sup>	6,854	–	78	–	7,302	6.5	82	5.1	7,212	-1.2	90	9.8	7,258	0.6	93	3.3
U.S., dually eligible <sup>a</sup>	8,973	–	145	–	9,494	5.8	154	6.2	9,379	-1.2	166	7.8	9,421	0.4	177	6.6
U.S., 1915(c) waiver enrollees <sup>a</sup>	24,152	–	179	–	25,783	6.8	176	-1.7	25,243	-2.1	179	1.7	26,371	4.5	188	5.0
U.S., MFP participants <sup>a</sup>	20,460	–	551	–	21,306	4.1	506	-8.2	21,248	-0.3	659	30.2	21,552	1.4	763	15.8
U.S., pregnant beneficiaries <sup>a</sup>	1,025	–	77	–	1,024	-0.1	85	10.4	1,035	1.1	92	8.2	1,063	2.7	101	9.8
U.S., postpartum beneficiaries <sup>a</sup>	781	–	55	–	707	-9.5	56	1.8	668	-5.5	58	3.6	601	-10.0	61	5.2
U.S., CKD with ESRD <sup>a</sup>	68,577	–	127	–	71,854	4.8	148	16.5	72,822	1.3	166	12.2	76,285	4.8	172	3.6
U.S., CKD without ESRD <sup>a</sup>	7,794	–	197	–	8,271	6.1	213	8.1	8,217	-0.7	233	9.4	8,332	1.4	246	5.6
U.S., IDD <sup>a</sup>	20,831	–	293	–	20,659	-0.8	313	6.8	18,216	-11.8	329	5.1	22,440	23.2	368	11.9
U.S., any SUD <sup>a</sup>	8,205	–	385	–	8,638	5.3	430	11.7	8,760	1.4	484	12.6	9,105	3.9	517	6.8
U.S., OUD <sup>a</sup>	12,114	–	395	–	12,947	6.9	460	16.5	13,351	3.1	533	15.9	14,080	5.5	574	7.7
U.S., any mental health condition <sup>a</sup>	6,087	–	380	–	6,320	3.8	414	8.9	6,157	-2.6	454	9.7	6,553	6.4	497	9.5
U.S., preventive services <sup>a</sup>	723	–	45	–	758	4.8	48	6.7	745	-1.7	51	6.3	756	1.5	53	3.9

State	January to March 2018				April to June 2018				July to September 2018				October to December 2018			
	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period
U.S., behavioral health services <sup>a</sup>	- 432	-	59	-	453	4.9	65	10.2	437	-3.5	73	12.3	446	2.1	79	8.2
U.S., lab and imaging services <sup>a</sup>	383	-	0	-	400	4.4	1	100.0	394	-1.5	0	-100.0	383	-2.8	0	0.0
U.S., dialysis <sup>a</sup>	202	-	0	-	206	2.0	0	0.0	203	-1.5	0	0.0	208	2.5	0	0.0
U.S., care for chronic conditions: diabetes <sup>a</sup>	145	-	1	-	152	4.8	1	0.0	149	-2.0	1	0.0	145	-2.7	1	0.0
U.S., SUD treatment services <sup>a</sup>	233	-	8	-	255	9.4	9	12.5	263	3.1	11	22.2	275	4.6	12	9.1
U.S., MAT for OUD <sup>a</sup>	116	-	0	-	127	9.5	0	0.0	131	3.1	0	0.0	143	9.2	0	0.0
U.S., cancer treatment services <sup>a</sup>	42	-	0	-	44	4.8	0	0.0	43	-2.3	0	0.0	43	0.0	0	0.0
U.S., care for chronic conditions: heart disease <sup>a</sup>	28	-	0	-	30	7.1	0	0.0	29	-3.3	0	0.0	28	-3.4	0	0.0
U.S., COVID-19 testing and treatment services <sup>a</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
U.S., E&M of acute and chronic conditions <sup>a</sup>	495	-	34	-	513	3.6	36	5.9	497	-3.1	38	5.6	497	0.0	41	7.9
U.S., PT/OT <sup>a</sup>	64	-	0	-	67	4.7	0	0.0	62	-7.5	0	0.0	64	3.2	0	0.0
U.S., dental services <sup>a</sup>	80	-	0	-	87	8.8	0	0.0	82	-5.7	0	0.0	82	0.0	0	0.0
Alabama	186	-	164	-	176	-5.4	71	-56.7	168	-4.5	62	-12.7	176	4.8	57	-8.1
Alaska	2,669	-	199	-	2,826	5.9	213	7.0	2,443	-13.6	206	-3.3	2,143	-12.3	230	11.7
Arizona	6,014	-	872	-	6,052	0.6	1063	21.9	6,245	3.2	1263	18.8	6,027	-3.5	1402	11.0
Arkansas	2,525	-	31	-	2,730	8.1	35	12.9	2,459	-9.9	87	148.6	2,390	-2.8	101	16.1
California	618	-	74	-	681	10.2	74	0.0	671	-1.5	72	-2.7	690	2.8	84	16.7
Colorado	3,435	-	10	-	3,418	-0.5	10	0.0	3,519	3.0	28	180.0	3,769	7.1	30	7.1



State	January to March 2018				April to June 2018				July to September 2018				October to December 2018			
	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period
Connecticut	2,044	-	3	-	2,271	11.1	2	-33.3	2,147	-5.5	3	50.0	2,178	1.4	3	0.0
Delaware	2,184	-	142	-	2,164	-0.9	152	7.0	2,103	-2.8	161	5.9	1,904	-9.5	179	11.2
District of Columbia	2,946	-	50	-	3,222	9.4	50	0.0	3,143	-2.5	54	8.0	3,166	0.7	54	0.0
Florida	451	-	1	-	408	-9.5	1	0.0	344	-15.7	2	100.0	720	109.3	6	200.0
Georgia	1,537	-	103	-	1,619	5.3	107	3.9	1,580	-2.4	110	2.8	1,679	6.3	107	-2.7
Hawaii	1,084	-	74	-	1,106	2.0	76	2.7	1,092	-1.3	71	-6.6	1,152	5.5	73	2.8
Idaho	5,007	-	80	-	5,124	2.3	65	-18.8	4,742	-7.5	43	-33.8	4,810	1.4	97	125.6
Illinois	1,623	-	10	-	1,447	-10.8	10	0.0	1,221	-15.6	11	10.0	1,586	29.9	11	0.0
Indiana	1,642	-	40	-	1,409	-14.2	43	7.5	1,012	-28.2	53	23.3	956	-5.5	54	1.9
Iowa	3,381	-	241	-	3,790	12.1	211	-12.4	3,419	-9.8	214	1.4	4,237	23.9	234	9.3
Kansas	622	-	152	-	623	0.2	156	2.6	616	-1.1	154	-1.3	550	-10.7	178	15.6
Kentucky	1,502	-	89	-	1,581	5.3	88	-1.1	1,572	-0.6	104	18.2	1,578	0.4	118	13.5
Louisiana	540	-	95	-	566	4.8	91	-4.2	602	6.4	99	8.8	569	-5.5	107	8.1
Maine	5,795	-	310	-	6,414	10.7	438	41.3	5,883	-8.3	307	-29.9	5,403	-8.2	468	52.4
Maryland	153	-	65	-	136	-11.1	72	10.8	70	-48.5	68	-5.6	147	110.0	77	13.2
Massachusetts	7,852	-	16	-	8,828	12.4	16	0.0	8,820	-0.1	21	31.3	9,101	3.2	22	4.8
Michigan	1,129	-	66	-	1,099	-2.7	65	-1.5	1,106	0.6	66	1.5	1,141	3.2	65	-1.5
Minnesota	5,429	-	151	-	5,343	-1.6	144	-4.6	5,296	-0.9	139	-3.5	5,483	3.5	166	19.4
Mississippi	2,152	-	50	-	2,217	3.0	52	4.0	2,257	1.8	54	3.8	2,221	-1.6	54	0.0
Missouri	2,951	-	122	-	2,906	-1.5	110	-9.8	2,736	-5.8	100	-9.1	2,849	4.1	116	16.0
Montana	1,520	-	283	-	1,386	-8.8	302	6.7	1,301	-6.1	361	19.5	1,328	2.1	393	8.9
Nebraska	2,007	-	87	-	2,040	1.6	82	-5.7	2,056	0.8	79	-3.7	2,018	-1.8	76	-3.8
Nevada	1,222	-	104	-	1,237	1.2	141	35.6	1,269	2.6	143	1.4	1,233	-2.8	158	10.5
New Hampshire	300	-	35	-	469	56.3	18	-48.6	425	-9.4	17	-5.6	445	4.7	32	88.2
New Jersey	4,108	-	36	-	4,487	9.2	38	5.6	4,512	0.6	46	21.1	4,798	6.3	35	-23.9
New Mexico	1,711	-	103	-	1,722	0.6	105	1.9	1,611	-6.4	100	-4.8	1,437	-10.8	102	2.0
New York	3,934	-	18	-	4,222	7.3	18	0.0	4,109	-2.7	17	-5.6	4,150	1.0	19	11.8
North Carolina	1,345	-	67	-	1,412	5.0	79	17.9	1,382	-2.1	85	7.6	1,332	-3.6	84	-1.2
North Dakota	599	-	262	-	601	0.3	280	6.9	551	-8.3	267	-4.6	610	10.7	314	17.6
Ohio	831	-	84	-	827	-0.5	87	3.6	776	-6.2	85	-2.3	808	4.1	79	-7.1

State	January to March 2018				April to June 2018				July to September 2018				October to December 2018			
	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period
Oklahoma	3,601	-	105	-	3,745	4.0	110	4.8	3,716	-0.8	107	-2.7	3,708	-0.2	114	6.5
Oregon	4,170	-	148	-	4,137	-0.8	155	4.7	4,358	5.3	150	-3.2	4,822	10.6	170	13.3
Pennsylvania	793	-	43	-	871	9.8	46	7.0	879	0.9	44	-4.3	877	-0.2	44	0.0
Puerto Rico	274	-	25	-	338	23.4	34	36.0	281	-16.9	32	-5.9	249	-11.4	26	-18.8
Rhode Island	4,660	-	3	-	3,377	-27.5	4	33.3	4,919	45.7	5	25.0	4,722	-4.0	6	20.0
South Carolina	1,299	-	41	-	1,500	15.5	42	2.4	1,321	-11.9	42	0.0	1,412	6.9	48	14.3
South Dakota	485	-	69	-	498	2.7	60	-13.0	518	4.0	76	26.7	518	0.0	75	-1.3
Tennessee	1,046	-	45	-	1,122	7.3	47	4.4	1,137	1.3	55	17.0	1,193	4.9	62	12.7
Texas	3,352	-	115	-	2,982	-11.0	123	7.0	1,999	-33.0	129	4.9	3,594	79.8	136	5.4
Utah	-	-	32	-	1	-	23	-28.1	-	-100.0	28	21.7	-	-	20	-28.6
Vermont	1,704	-	41	-	1,889	10.9	41	0.0	1,755	-7.1	50	22.0	1,929	9.9	45	-10.0
Virgin Islands	112	-	0	-	174	55.4	0	0.0	215	23.6	1	100.0	237	10.2	3	200.0
Virginia	708	-	56	-	886	25.1	64	14.3	2,051	131.5	62	-3.1	2,356	14.9	58	-6.5
Washington	2,289	-	102	-	2,350	2.7	123	20.6	2,384	1.4	136	10.6	2,405	0.9	151	11.0
West Virginia	981	-	63	-	1,103	12.4	81	28.6	1,604	45.4	84	3.7	1,980	23.4	81	-3.6
Wisconsin	11,997	-	108	-	12,491	4.1	99	-8.3	11,226	-10.1	98	-1.0	12,989	15.7	98	0.0
Wyoming	587	-	185	-	689	17.4	194	4.9	640	-7.1	194	0.0	651	1.7	191	-1.5

Source: Mathematica's analysis of the TAF 2018 Release 2

Notes: MFP = Money Follows the Person; CKD = chronic kidney disease; ESRD = end-stage renal disease; IDD = intellectual disabilities and other developmental delays; SUD = substance use disorder; MAT for OUD = medication-assisted treatment for opioid use disorder; E&M = evaluation and management; PT/OT = physical therapy and occupational therapy.

Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. To identify telehealth services, CMS used procedure codes and select procedure code modifiers, and place of service codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

NA = service type was not available in 2018.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B4.2. NEMT and telehealth utilization: quarterly NEMT ride days and telehealth service days per 10,000 beneficiaries, by beneficiary subgroup and type of service accessed: 2019**

State	January to March 2019				April to June 2019				July to September 2019				October to December 2019			
	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	Number of NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period
<b>United States<sup>a</sup></b>	<b>2,477</b>	<b>-1.2</b>	<b>130</b>	<b>12.1</b>	<b>2,525</b>	<b>1.9</b>	<b>138</b>	<b>6.2</b>	<b>2,472</b>	<b>-2.1</b>	<b>145</b>	<b>5.1</b>	<b>2,567</b>	<b>3.8</b>	<b>156</b>	<b>7.6</b>
U.S., children <sup>a</sup>	417	3.2	90	20.0	367	-12.0	89	-1.1	300	-18.3	91	2.2	410	36.7	104	14.3
U.S., adults <sup>a</sup>	972	-3.6	105	9.4	1,023	5.2	114	8.6	1,068	4.4	123	7.9	1,078	0.9	132	7.3
U.S., adult expansion <sup>a</sup>	1,067	-0.4	115	9.5	1,145	7.3	129	12.2	1,197	4.5	140	8.5	1,204	0.6	150	7.1
U.S., eligible on the basis of disability <sup>a</sup>	11,101	1.1	354	12.7	11,252	1.4	376	6.2	10,883	-3.3	391	4.0	11,430	5.0	405	3.6
U.S., eligible on the basis of age (65+) <sup>a</sup>	6,996	-0.2	91	-2.2	7,381	5.5	102	12.1	7,465	1.1	107	4.9	7,328	-1.8	114	6.5
U.S., dually eligible <sup>a</sup>	8,985	-0.6	184	8.9	9,418	4.8	201	9.2	9,465	0.5	211	5.0	9,237	-2.4	217	2.8
U.S., 1915(c) waiver enrollees <sup>a</sup>	25,417	-2.7	227	16.4	26,353	3.7	233	2.6	26,098	-1.0	241	3.4	26,244	0.6	258	7.1
U.S., MFP participants <sup>a</sup>	20,765	3.7	691	-0.7	22,136	6.6	730	5.6	22,374	1.1	942	29.0	22,413	0.2	927	-1.6
U.S., pregnant beneficiaries <sup>a</sup>	975	-4.5	104	7.2	994	1.9	117	12.5	1,046	5.2	125	6.8	1,031	-1.4	135	8.0
U.S., postpartum beneficiaries <sup>a</sup>	719	-7.8	72	2.9	685	-4.7	78	8.3	671	-2.0	84	7.7	583	-13.1	85	1.2
U.S., CKD with ESRD <sup>a</sup>	65,154	-1.2	177	5.4	68,149	4.6	187	5.6	71,585	5.0	222	18.7	72,946	1.9	230	3.6
U.S., CKD without ESRD <sup>a</sup>	8,000	-0.3	242	4.3	8,513	6.4	266	9.9	8,630	1.4	295	10.9	8,453	-2.1	315	6.8
U.S., IDD <sup>a</sup>	21,085	0.8	434	20.6	20,053	-4.9	442	1.8	18,611	-7.2	480	8.6	21,708	16.6	514	7.1
U.S., any SUD <sup>a</sup>	8,729	0.5	555	10.3	9,217	5.6	620	11.7	9,422	2.2	645	4.0	9,412	-0.1	684	6.0
U.S., OUD <sup>a</sup>	13,394	0.6	594	7.2	14,242	6.3	656	10.4	14,687	3.1	695	5.9	14,718	0.2	750	7.9

State	January to March 2019				April to June 2019				July to September 2019				October to December 2019			
	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	Number of NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period
U.S., any mental health condition <sup>a</sup>	6,242	1.0	530	15.7	6,461	3.5	566	6.8	6,402	-0.9	593	4.8	6,567	2.6	639	7.8
U.S., preventive services <sup>a</sup>	745	-0.5	58	9.4	772	3.6	62	6.9	773	0.1	65	4.8	747	-3.4	68	4.6
U.S., behavioral health services <sup>a</sup>	446	0.0	88	12.8	467	4.7	95	8.0	457	-2.1	96	1.1	451	-1.3	100	4.2
U.S., lab and imaging services <sup>a</sup>	389	2.9	-	-	407	4.6	-	-	417	2.5	-	-	401	-3.8	1	-
U.S., dialysis <sup>a</sup>	199	-2.5	-	-	202	1.5	-	-	208	3.0	-	-	202	-2.9	-	-
U.S., care for chronic conditions: diabetes <sup>a</sup>	144	0.7	1	0.0	150	4.2	1	0.0	151	0.7	1	0.0	143	-5.3	1	0.0
U.S., SUD treatment services <sup>a</sup>	273	0.4	12	0.0	292	7.0	14	16.7	300	2.7	15	7.1	296	-1.3	16	6.7
U.S., MAT for OUD <sup>a</sup>	140	-1.4	-	-	147	5.0	-	-	152	3.4	-	-	152	0.0	-	-
U.S., cancer treatment services <sup>a</sup>	43	4.9	-	-	45	4.7	-	-	46	2.2	-	-	44	-4.3	-	-
U.S., care for chronic conditions: heart disease <sup>a</sup>	29	7.4	-	-	30	3.4	-	-	29	-3.3	-	-	27	-6.9	-	-
U.S., COVID-19 testing and treatment services <sup>a</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
U.S., E&M of acute and chronic conditions <sup>a</sup>	500	1.6	44	10.0	519	3.8	46	4.5	522	0.6	48	4.3	497	-4.8	51	6.3

State	January to March 2019				April to June 2019				July to September 2019				October to December 2019			
	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	Number of NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period
U.S., PT/OT <sup>a</sup>	67	6.3	–	–	68	1.5	–	–	65	-4.4	–	–	65	0.0	–	–
U.S., dental services <sup>a</sup>	80	-2.4	–	–	87	8.8	–	–	87	0.0	–	–	82	-5.7	–	–
Alabama	161	-5.8	60	1.7	161	0.0	63	5.0	177	9.9	66	4.8	205	15.8	70	6.1
Alaska	2,280	4.9	230	-1.7	2,475	8.6	271	17.8	2,467	-0.3	282	4.1	2,348	-4.8	283	0.4
Arizona	6,078	-2.5	1,645	13.8	6,094	0.3	1,818	10.5	6,344	4.1	1,811	-0.4	6,428	1.3	1,865	3.0
Arkansas	1,600	-36.8	132	23.4	1,750	9.4	126	-4.5	1,674	-4.3	126	0.0	1,602	-4.3	121	-4.0
California	706	-1.1	100	14.9	732	3.7	98	-2.0	719	-1.8	112	14.3	735	2.2	127	13.4
Colorado	3,915	-2.3	44	37.5	4,058	3.7	51	15.9	4,286	5.6	75	47.1	4,208	-1.8	88	17.3
Connecticut	2,224	0.0	4	33.3	2,019	-9.2	4	0.0	1,834	-9.2	5	25.0	1,709	-6.8	10	100.0
Delaware	1,834	-7.0	253	36.8	1,779	-3.0	206	-18.6	1,598	-10.2	159	-22.8	1,480	-7.4	212	33.3
District of Columbia	3,115	-3.5	70	27.3	2,950	-5.3	95	35.7	2,873	-2.6	107	12.6	1,467	-48.9	105	-1.9
Florida	1,896	150.5	53	783.3	2,109	11.2	67	26.4	2,087	-1.0	86	28.4	2,303	10.3	103	19.8
Georgia	1,574	-8.6	124	12.7	1,586	0.8	121	-2.4	1,505	-5.1	128	5.8	1,665	10.6	139	8.6
Hawaii	1,126	-6.0	82	9.3	1,166	3.6	84	2.4	1,104	-5.3	79	-6.0	916	-17.0	83	5.1
Idaho	5,120	-2.2	101	0.0	5,029	-1.8	87	-13.9	4,821	-4.1	58	-33.3	4,701	-2.5	128	120.7
Illinois	1,683	2.1	12	0.0	1,533	-8.9	13	8.3	1,297	-15.4	17	30.8	1,626	25.4	18	5.9
Indiana	793	-20.7	66	17.9	833	5.0	74	12.1	870	4.4	77	4.1	853	-2.0	80	3.9
Iowa	3,656	-17.1	263	9.1	3,706	1.4	263	0.0	2,125	-42.7	242	-8.0	2,892	36.1	227	-6.2
Kansas	576	-0.3	318	71.0	623	8.2	278	-12.6	610	-2.1	289	4.0	606	-0.7	427	47.8
Kentucky	1,631	1.9	111	-6.7	1,678	2.9	110	-0.9	1,702	1.4	136	23.6	1,663	-2.3	167	22.8
Louisiana	572	-0.7	117	7.3	579	1.2	117	0.0	600	3.6	122	4.3	525	-12.5	120	-1.6
Maine	5,029	-10.3	644	33.3	4,034	-19.8	407	-36.8	3,136	-22.3	248	-39.1	4,214	34.4	298	20.2
Maryland	160	7.4	95	20.3	135	-15.6	101	6.3	65	-51.9	90	-10.9	162	149.2	97	7.8
Massachusetts	9,128	-4.9	27	22.7	9,854	8.0	28	3.7	9,770	-0.9	32	14.3	9,603	-1.7	34	6.3
Michigan	1,028	-12.5	80	19.4	1,086	5.6	81	1.3	1,198	10.3	82	1.2	1,131	-5.6	83	1.2
Minnesota	5,468	-6.2	175	0.6	5,951	8.8	178	1.7	6,105	2.6	177	-0.6	6,072	-0.5	207	16.9
Mississippi	1,956	-14.2	60	9.1	1,041	-46.8	71	18.3	1,875	80.1	72	1.4	1,930	2.9	65	-9.7
Missouri	2,860	-4.4	135	10.7	2,966	3.7	158	17.0	3,124	5.3	254	60.8	3,053	-2.3	271	6.7

State	January to March 2019				April to June 2019				July to September 2019				October to December 2019			
	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	Number of NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period
Montana	1,341	-3.0	460	13.6	1,446	7.8	557	21.1	3,018	108.7	628	12.7	3,012	-0.2	659	4.9
Nebraska	2,076	-2.3	101	27.8	2,130	2.6	98	-3.0	1,215	-43.0	106	8.2	1,254	3.2	107	0.9
Nevada	1,309	0.3	92	-45.2	1,401	7.0	172	87.0	1,432	2.2	141	-18.0	1,496	4.5	126	-10.6
New Hampshire	776	67.2	42	27.3	555	-28.5	40	-4.8	484	-12.8	50	25.0	490	1.2	49	-2.0
New Jersey	4,966	-1.0	34	-5.6	5,228	5.3	27	-20.6	5,215	-0.2	32	18.5	5,094	-2.3	32	0.0
New Mexico	1,581	7.6	120	15.4	1,730	9.4	133	10.8	1,795	3.8	134	0.8	1,696	-5.5	153	14.2
New York	4,178	-3.3	23	21.1	4,496	7.6	25	8.7	4,538	0.9	25	0.0	4,298	-5.3	27	8.0
North Carolina	1,470	6.4	97	11.5	1,508	2.6	97	0.0	1,537	1.9	96	-1.0	1,485	-3.4	99	3.1
North Dakota	638	-0.9	314	-5.4	674	5.6	289	-8.0	727	7.9	284	-1.7	740	1.8	335	18.0
Ohio	867	5.0	85	3.7	854	-1.5	93	9.4	863	1.1	93	0.0	857	-0.7	100	7.5
Oklahoma	3,664	-7.1	124	4.2	3,728	1.7	126	1.6	3,785	1.5	134	6.3	3,786	0.0	145	8.2
Oregon	4,949	-1.6	204	15.9	4,872	-1.6	226	10.8	4,807	-1.3	236	4.4	4,863	1.2	251	6.4
Pennsylvania	861	-5.9	50	8.7	820	-4.8	45	-10.0	889	8.4	50	11.1	893	0.4	52	4.0
Puerto Rico	256	0.0	47	74.1	200	-21.9	30	-36.2	223	11.5	42	40.0	214	-4.0	43	2.4
Rhode Island	4,442	-11.7	8	33.3	3,321	-25.2	8	0.0	3,033	-8.7	8	0.0	4,647	53.2	9	12.5
South Carolina	1,603	10.0	56	14.3	1,525	-4.9	62	10.7	1,431	-6.2	65	4.8	1,751	22.4	70	7.7
South Dakota	551	2.6	89	21.9	590	7.1	103	15.7	522	-11.5	107	3.9	486	-6.9	117	9.3
Tennessee	1,180	-1.3	64	1.6	1,113	-5.7	66	3.1	1,138	2.2	70	6.1	1,099	-3.4	66	-5.7
Texas	3,890	3.6	120	-15.5	3,189	-18.0	120	0.0	2,408	-24.5	124	3.3	3,629	50.7	130	4.8
Utah	-	-	31	40.9	-	-	34	9.7	5	-	29	-14.7	4	-20.0	27	-6.9
Vermont	1,962	-1.9	64	45.5	2,073	5.7	68	6.3	1,946	-6.1	79	16.2	2,011	3.3	74	-6.3
Virgin Islands	257	8.0	3	0.0	317	23.3	3	0.0	363	14.5	1	-66.7	332	-8.5	1	0.0
Virginia	2,195	-9.8	79	31.7	2,181	-0.6	85	7.6	2,022	-7.3	101	18.8	2,072	2.5	119	17.8
Washington	2,444	-2.7	168	7.0	2,516	2.9	176	4.8	2,517	0.0	179	1.7	2,533	0.6	186	3.9
West Virginia	1,009	-51.1	49	-42.4	2,175	115.6	77	57.1	3,370	54.9	112	45.5	3,411	1.2	165	47.3
Wisconsin	12,687	-6.6	101	0.0	13,684	7.9	110	8.9	12,901	-5.7	113	2.7	13,977	8.3	117	3.5
Wyoming	740	6.3	240	18.2	702	-5.1	235	-2.1	846	20.5	258	9.8	704	-16.8	261	1.2

Source: Mathematica's analysis of the TAF 2019 Release 1

Notes: MFP = Money Follows the Person; CKD = chronic kidney disease; ESRD = end-stage renal disease; IDD = intellectual disabilities and other developmental delays; SUD = substance use disorder; MAT for OUD = medication-assisted treatment for opioid use disorder; E&M = evaluation and management; PT/OT = physical therapy and occupational therapy.

Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. To identify telehealth services, CMS used procedure codes and select procedure code modifiers, and place of service codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

NA = service type was not available in 2019.

'—' = results could not be calculated because the state or subgroup had zero beneficiaries who qualified for inclusion in the denominator.



**Table B4.3. NEMT and telehealth utilization: quarterly NEMT ride days and telehealth service days per 10,000 beneficiaries, by beneficiary subgroup and type of service accessed: 2020**

State	January to March 2020				April to June 2020				July to September 2020				October to December 2020			
	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	Number of NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period
<b>United States<sup>a</sup></b>	2,383	-11.2	703	336.6	1,002	-58.0	5,464	677.2	1,324	32.1	4,427	-19.0	1,408	6.3	4,470	1.0
U.S., children <sup>a</sup>	356	-13.4	469	346.7	64	-82.0	3,609	669.5	128	100.0	2,831	-21.6	198	54.7	2,968	4.8
U.S., adults <sup>a</sup>	1,068	0.2	636	360.9	606	-43.3	4,977	682.5	711	17.3	4,102	-17.6	730	2.7	4,098	-0.1
U.S., adult expansion <sup>a</sup>	1,097	-5.8	653	341.2	570	-48.0	4,981	662.8	698	22.5	3,963	-20.4	711	1.9	4,057	2.4
U.S., eligible on the basis of disability <sup>a</sup>	10,427	-10.6	1,690	296.7	4,305	-58.7	13,324	688.4	5,919	37.5	11,170	-16.2	6,461	9.2	11,150	-0.2
U.S., eligible on the basis of age (65+) <sup>a</sup>	6,843	-9.4	716	491.7	3,020	-55.9	5,955	731.7	4,155	37.6	5,241	-12.0	4,337	4.4	5,121	-2.3
U.S., dually eligible <sup>a</sup>	8,541	-8.6	1,059	368.6	3,937	-53.9	8,122	666.9	5,277	34.0	6,849	-15.7	5,415	2.6	6,667	-2.7
U.S., 1915(c) waiver enrollees <sup>a</sup>	22,264	-7.2	2,012	568.4	7,757	-65.2	17,547	772.1	12,002	54.7	16,054	-8.5	12,881	7.3	16,880	5.1
U.S., MFP participants <sup>a</sup>	20,031	-7.6	1,894	160.5	12,735	-36.4	16,536	773.1	15,825	24.3	14,406	-12.9	16,046	1.4	14,170	-1.6
U.S., pregnant beneficiaries <sup>a</sup>	959	-5.8	643	365.9	491	-48.8	5,043	684.3	566	15.3	4,147	-17.8	577	1.9	4,219	1.7
U.S., postpartum beneficiaries <sup>a</sup>	724	-8.1	521	396.2	350	-51.7	3,849	638.8	376	7.4	2,928	-23.9	342	-9.0	2,799	-4.4
U.S., CKD with ESRD <sup>a</sup>	67,574	2.3	1,480	532.5	64,309	-4.8	15,368	938.4	68,325	6.2	11,873	-22.7	68,949	0.9	10,448	-12.0
U.S., CKD without ESRD <sup>a</sup>	7,685	-7.8	1,504	374.4	3,276	-57.4	11,754	681.5	4,766	45.5	9,063	-22.9	4,959	4.0	8,775	-3.2
U.S., IDD <sup>a</sup>	18,585	-14.3	2,468	371.0	3,798	-79.6	21,244	760.8	7,040	85.4	18,297	-13.9	9,580	36.1	19,388	6.0
U.S., any SUD <sup>a</sup>	9,086	-2.1	2,142	210.4	5,110	-43.8	16,254	658.8	6,065	18.7	13,743	-15.4	6,263	3.3	13,774	0.2
U.S., OUD <sup>a</sup>	14,110	-1.0	2,413	223.9	8,413	-40.4	19,562	710.7	9,594	14.0	16,809	-14.1	9,988	4.1	16,826	0.1
U.S., any mental health condition <sup>a</sup>	5,957	-7.2	2,363	283.6	2,513	-57.8	17,844	655.1	3,435	36.7	15,196	-14.8	3,684	7.2	15,625	2.8

State	January to March 2020				April to June 2020				July to September 2020				October to December 2020			
	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	Number of NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period
U.S., preventive services <sup>a</sup>	712	-8.7	373	425.4	275	-61.4	3,218	762.7	407	48.0	2,548	-20.8	402	-1.2	2,531	-0.7
U.S., behavioral health services <sup>a</sup>	432	-8.7	352	238.5	140	-67.6	2,543	622.4	199	42.1	2,202	-13.4	207	4.0	2,196	-0.3
U.S., lab and imaging services <sup>a</sup>	400	-3.6	1	0.0	220	-45.0	9	800.0	287	30.5	10	11.1	274	-4.5	10	0.0
U.S., dialysis <sup>a</sup>	216	4.3	1	100.0	205	-5.1	27	2,600.0	199	-2.9	20	-25.9	185	-7.0	15	-25.0
U.S., care for chronic conditions: diabetes <sup>a</sup>	135	-8.8	20	900.0	67	-50.4	180	800.0	90	34.3	118	-34.4	87	-3.3	105	-11.0
U.S., SUD treatment services <sup>a</sup>	299	-3.5	51	200.0	165	-44.8	435	752.9	186	12.7	384	-11.7	190	2.2	381	-0.8
U.S., MAT for OUD <sup>a</sup>	160	0.6	1	100.0	99	-38.1	32	3,100.0	108	9.1	43	34.4	112	3.7	38	-11.6
U.S., cancer treatment services <sup>a</sup>	42	-4.5	4	400.0	27	-35.7	36	800.0	32	18.5	23	-36.1	30	-6.3	21	-8.7
U.S., care for chronic conditions: heart disease <sup>a</sup>	26	-7.1	2	200.0	14	-46.2	24	1,100.0	19	35.7	14	-41.7	17	-10.5	12	-14.3
U.S., COVID-19 testing and treatment services <sup>a</sup>	4	400.0	-	-	23	475.0	31	3,100.0	33	43.5	28	-9.7	40	21.2	49	75.0
U.S., E&M of acute and chronic conditions <sup>a</sup>	481	-7.3	226	334.6	189	-60.7	1,925	751.8	280	48.1	1,407	-26.9	273	-2.5	1,385	-1.6
U.S., PT/OT <sup>a</sup>	64	-3.0	2	200.0	31	-51.6	34	1,600.0	44	41.9	25	-26.5	45	2.3	24	-4.0
U.S., dental services <sup>a</sup>	64	-25.6	-	-	23	-64.1	4	400.0	42	82.6	3	-25.0	39	-7.1	1	-66.7
Alabama	204	0.5	537	645.8	137	-32.8	4,741	782.9	161	17.5	3,905	-17.6	159	-1.2	3,284	-15.9
Alaska	2,221	-6.6	771	167.7	781	-64.8	5,179	571.7	1,157	48.1	2,772	-46.5	1,151	-0.5	3,347	20.7

State	January to March 2020				April to June 2020				July to September 2020				October to December 2020			
	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	Number of NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period
Arizona	6,098	-8.8	2,674	38.5	2,648	-56.6	8,534	219.1	3,020	14.0	8,277	-3.0	3,472	15.0	7,524	-9.1
Arkansas	1,545	-5.9	488	290.4	802	-48.1	4,878	899.6	1,217	51.7	2,745	-43.7	1,179	-3.1	2,396	-12.7
California	702	-8.0	578	341.2	465	-33.8	4,100	609.3	504	8.4	3,914	-4.5	483	-4.2	3,877	-0.9
Colorado	4,056	-8.2	817	788.0	1,699	-58.1	5,671	594.1	2,550	50.1	4,784	-15.6	2,578	1.1	5,249	9.7
Connecticut	1,606	-8.1	1,113	11,030.0	764	-52.4	11,464	930.0	761	-0.4	8,256	-28.0	767	0.8	8,485	2.8
Delaware	1,355	-11.9	916	318.3	490	-63.8	9,402	926.4	656	33.9	7,836	-16.7	720	9.8	7,463	-4.8
District of Columbia	576	-61.5	734	586.0	208	-63.9	8,785	1,096.9	258	24.0	7,996	-9.0	170	-34.1	6,269	-21.6
Florida	2,149	-12.3	448	318.7	876	-59.2	4,797	970.8	981	12.0	5,156	7.5	1,236	26.0	5,189	0.6
Georgia	1,664	-3.4	888	516.7	877	-47.3	6,612	644.6	1,065	21.4	6,100	-7.7	1,000	-6.1	5,872	-3.7
Hawaii	787	-16.0	313	268.2	558	-29.1	2,595	729.1	591	5.9	2,815	8.5	540	-8.6	2,723	-3.3
Idaho	3,832	-26.6	887	552.2	1,224	-68.1	7,758	774.6	2,529	106.6	6,212	-19.9	2,409	-4.7	7,412	19.3
Illinois	1,457	-13.2	211	1,010.5	465	-68.1	2,508	1,088.6	701	50.8	1,843	-26.5	779	11.1	2,482	34.7
Indiana	934	6.0	768	836.6	680	-27.2	7,288	849.0	929	36.6	4,218	-42.1	825	-11.2	4,088	-3.1
Iowa	2,538	-15.9	730	212.0	578	-77.2	6,210	750.7	1,105	91.2	3,817	-38.5	1,476	33.6	4,095	7.3
Kansas	580	-8.5	1,023	129.9	336	-42.1	7,339	617.4	431	28.3	4,338	-40.9	365	-15.3	5,115	17.9
Kentucky	1,475	-15.5	781	351.4	430	-70.8	6,762	765.8	676	57.2	5,190	-23.2	676	0.0	5,335	2.8
Louisiana	446	-17.6	710	482.0	249	-44.2	6,065	754.2	223	-10.4	4,605	-24.1	250	12.1	3,906	-15.2
Maine	4,695	6.3	1,745	461.1	1,628	-65.3	14,065	706.0	2,817	73.0	8,898	-36.7	2,797	-0.7	9,168	3.0
Maryland	128	-22.0	748	655.6	29	-77.3	6,181	726.3	32	10.3	5,296	-14.3	41	28.1	5,724	8.1
Massachusetts	8,300	-17.8	1,597	4462.9	1,465	-82.3	14,800	826.7	2,559	74.7	12,396	-16.2	3,156	23.3	11,503	-7.2
Michigan	1,007	-14.7	902	948.8	443	-56.0	7,227	701.2	595	34.3	5,364	-25.8	590	-0.8	5,451	1.6
Minnesota	5,631	-12.0	1,155	434.7	1,781	-68.4	9,829	751.0	3,375	89.5	7,486	-23.8	3,820	13.2	8,257	10.3
Mississippi	1,843	-7.3	613	828.8	1,346	-27.0	6,407	945.2	1,463	8.7	4,398	-31.4	1,403	-4.1	3,541	-19.5
Missouri	3,057	-3.8	1,022	262.4	1,673	-45.3	3,815	273.3	2,243	34.1	2,645	-30.7	2,199	-2.0	2,486	-6.0
Montana	2,686	-16.7	1,632	132.8	2,474	-7.9	7,905	384.4	2,627	6.2	4,534	-42.6	2,209	-15.9	5,134	13.2
Nebraska	1,199	-8.5	617	466.1	645	-46.2	5,648	815.4	858	33.0	3,669	-35.0	794	-7.5	3,684	0.4
Nevada	1,494	-5.0	571	332.6	869	-41.8	4,500	688.1	1,123	29.2	3,698	-17.8	1,027	-8.5	3,706	0.2
New Hampshire	638	25.1	1,372	2,590.2	206	-67.7	13,170	859.9	496	140.8	10,228	-22.3	806	62.5	10,410	1.8
New Jersey	4,726	-10.4	445	1,248.5	1,719	-63.6	4,622	938.7	2,190	27.4	3,068	-33.6	2,212	1.0	3,244	5.7

State	January to March 2020				April to June 2020				July to September 2020				October to December 2020			
	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	Number of NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period
New Mexico	1,638	-5.1	661	323.7	867	-47.1	5,180	683.7	1,057	21.9	4,870	-6.0	1,000	-5.4	5,822	19.5
New York	4,106	-8.6	416	1,385.7	1,534	-62.6	3,531	748.8	2,337	52.3	2,216	-37.2	2,339	0.1	2,231	0.7
North Carolina	1,418	-7.9	417	304.9	775	-45.3	4,589	1000.5	972	25.4	3,893	-15.2	945	-2.8	3,599	-7.6
North Dakota	763	-2.7	725	105.4	359	-52.9	4,848	568.7	518	44.3	2,752	-43.2	556	7.3	2,698	-2.0
Ohio	856	-4.1	796	665.4	489	-42.9	7,387	828.0	618	26.4	5,150	-30.3	631	2.1	5,874	14.1
Oklahoma	3,611	-9.3	749	399.3	2,440	-32.4	5,526	637.8	2,843	16.5	3,813	-31.0	2,584	-9.1	3,410	-10.6
Oregon	4,530	-11.1	1,172	349.0	2,556	-43.6	7,897	573.8	2,722	6.5	6,537	-17.2	2,553	-6.2	6,629	1.4
Pennsylvania	801	-13.7	297	450.0	98	-87.8	2,362	695.3	365	272.4	2,348	-0.6	313	-14.2	3,428	46.0
Puerto Rico	485	125.6	358	713.6	394	-18.8	3,122	772.1	424	7.6	3,073	-1.6	431	1.7	2,783	-9.4
Rhode Island	3,886	-21.7	2,043	22,600.0	1,602	-58.8	15,699	668.4	1,614	0.7	8,013	-49.0	2,179	35.0	12,386	54.6
South Carolina	1,567	-14.5	288	294.5	507	-67.6	3,043	956.6	751	48.1	2,279	-25.1	915	21.8	1,792	-21.4
South Dakota	525	3.3	336	177.7	324	-38.3	3,233	862.2	410	26.5	2,010	-37.8	379	-7.6	1,883	-6.3
Tennessee	1,294	211.8	537	1,178.6	790	-38.9	4,884	809.5	945	19.6	4,057	-16.9	952	0.7	3,579	-11.8
Texas	2,818	-25.5	690	411.1	712	-74.7	5,075	635.5	946	32.9	4,719	-7.0	1,618	71.0	4,181	-11.4
Utah	5	25.0	619	2110.7	1	-80.0	3,524	469.3	4	300.0	2,974	-15.6	4	0.0	4,095	37.7
Vermont	1,900	-8.7	479	547.3	554	-70.8	2,725	468.9	805	45.3	1,927	-29.3	759	-5.7	1,849	-4.0
Virgin Islands	304	-3.2	114	11,300.0	242	-20.4	900	689.5	392	62.0	702	-22.0	492	25.5	472	-32.8
Virginia	5,005	132.6	569	362.6	2,010	-59.8	5,457	859.1	2,429	20.8	4,469	-18.1	2,730	12.4	4,347	-2.7
Washington	1,384	-47.4	646	236.5	1,577	13.9	4,218	552.9	1,257	-20.3	3,625	-14.1	1,198	-4.7	3,850	6.2
West Virginia	2,954	-20.0	620	248.3	1,416	-52.1	4,593	640.8	1,795	26.8	3,186	-30.6	1,865	3.9	3,315	4.0
Wisconsin	13,003	-10.6	585	383.5	6,007	-53.8	5,447	831.1	8,307	38.3	3,902	-28.4	8,201	-1.3	4,414	13.1
Wyoming	650	-14.1	940	239.4	330	-49.2	5,796	516.6	442	33.9	3,091	-46.7	430	-2.7	3,190	3.2

Source: Mathematica's analysis of the TAF 2020 Release 1

Notes: MFP = Money Follows the Person; CKD = chronic kidney disease; ESRD = end-stage renal disease; IDD = intellectual disabilities and other developmental delays; SUD = substance use disorder; MAT for OUD = medication-assisted treatment for opioid use disorder; E&M = evaluation and management; PT/OT = physical therapy and occupational therapy.

Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services,

CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. To identify telehealth services, CMS used procedure codes and select procedure code modifiers, and place of service codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.<sup>8</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

'—' = results could not be calculated because the state or subgroup had zero beneficiaries who qualified for inclusion in the denominator.

**Table B4.4. NEMT and telehealth utilization: quarterly NEMT ride days and telehealth service days per 10,000 beneficiaries, by beneficiary subgroup and type of service accessed: 2021**

State	January to March 2021				April to June 2021				July to September 2021				October to December 2021			
	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	Number of NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period
<b>United States<sup>a</sup></b>	<b>1,397</b>	<b>-1.2</b>	<b>4,618</b>	<b>2.1</b>	<b>1,466</b>	<b>4.9</b>	<b>3,663</b>	<b>-20.7</b>	<b>1,452</b>	<b>-1.0</b>	<b>2,913</b>	<b>-20.5</b>	<b>1,424</b>	<b>-1.9</b>	<b>2,740</b>	<b>-5.9</b>
U.S., children <sup>a</sup>	221	13.9	3,010	1.3	221	0.0	2,305	-23.4	168	-24.0	1,798	-22.0	212	26.2	1,663	-7.5
U.S., adults <sup>a</sup>	649	-3.0	4,166	3.5	626	-3.5	3,453	-17.1	643	2.7	2,962	-14.2	558	-13.2	2,834	-4.3
U.S., adult expansion <sup>a</sup>	674	0.7	4,242	5.3	690	2.4	3,536	-16.6	700	1.4	3,013	-14.8	696	-0.6	2,937	-2.5
U.S., eligible on the basis of disability <sup>a</sup>	6,573	1.1	11,838	2.9	7,061	7.4	9,324	-21.2	6,957	-1.5	7,297	-21.7	6,964	0.1	6,872	-5.8
U.S., eligible on the basis of age (65+) <sup>a</sup>	4,225	-4.1	5,190	-1.9	4,692	11.1	3,956	-23.8	5,129	9.3	2,513	-36.5	4,980	-2.9	2,143	-14.7
U.S., dually eligible <sup>a</sup>	5,274	-2.9	6,914	0.5	5,789	9.8	5,334	-22.9	6,082	5.1	3,792	-28.9	5,806	-4.5	3,400	-10.3
U.S., 1915(c) waiver enrollees <sup>a</sup>	12,765	2.9	16,114	1.2	14,804	16.0	12,699	-21.2	15,712	6.1	9,341	-26.4	15,689	-0.1	8,877	-5.0
U.S., MFP participants <sup>a</sup>	13,777	-2.7	13,133	-0.6	15,420	11.9	10,204	-22.3	14,905	-3.3	10,111	-0.9	14,355	-3.7	11,032	9.1
U.S., pregnant beneficiaries <sup>a</sup>	519	-5.6	4,273	3.2	489	-5.8	3,562	-16.6	498	1.8	3,115	-12.5	473	-5.0	3,044	-2.3
U.S., postpartum beneficiaries <sup>a</sup>	422	-9.8	3,317	-2.9	364	-13.7	2,598	-21.7	349	-4.1	2,135	-17.8	291	-16.6	1,941	-9.1
U.S., CKD with ESRD <sup>a</sup>	57,967	-6.0	9,583	-6.9	60,430	4.2	6,988	-27.1	60,648	0.4	6,081	-13.0	58,942	-2.8	5,045	-17.0
U.S., CKD without ESRD <sup>a</sup>	4,718	-1.1	8,830	2.5	5,138	8.9	6,808	-22.9	5,334	3.8	5,581	-18.0	5,087	-4.6	5,254	-5.9
U.S., IDD <sup>a</sup>	10,181	7.7	19,569	2.5	11,762	15.5	14,395	-26.4	11,419	-2.9	9,710	-32.5	12,870	12.7	9,241	-4.8
U.S., any SUD <sup>a</sup>	5,962	-1.5	14,233	4.3	6,064	1.7	11,988	-15.8	6,264	3.3	10,057	-16.1	5,942	-5.1	9,633	-4.2
U.S., OUD <sup>a</sup>	9,520	-0.9	17,073	3.2	9,629	1.1	14,520	-15.0	10,039	4.3	12,281	-15.4	9,511	-5.3	11,887	-3.2
U.S., any mental health condition <sup>a</sup>	3,507	0.3	15,796	5.1	3,764	7.3	13,185	-16.5	3,802	1.0	10,821	-17.9	3,735	-1.8	10,365	-4.2
U.S., preventive services <sup>a</sup>	405	-0.2	2,658	3.7	430	6.2	2,157	-18.8	436	1.4	1,822	-15.5	402	-7.8	1,721	-5.5

State	January to March 2021				April to June 2021				July to September 2021				October to December 2021			
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U.S., behavioral health services <sup>a</sup>	210	0.5	2,324	4.6	233	11.0	1,980	-14.8	237	1.7	1,601	-19.1	222	-6.3	1,499	-6.4
U.S., lab and imaging services <sup>a</sup>	270	-1.1	13	30.0	274	1.5	8	-38.5	271	-1.1	9	12.5	241	-11.1	9	0.0
U.S., dialysis <sup>a</sup>	166	-9.3	12	-20.0	163	-1.8	8	-33.3	154	-5.5	8	0.0	132	-14.3	5	-37.5
U.S., care for chronic conditions: diabetes <sup>a</sup>	87	1.2	110	3.8	93	6.9	75	-31.8	92	-1.1	58	-22.7	83	-9.8	51	-12.1
U.S., SUD treatment services <sup>a</sup>	188	-2.6	399	3.1	189	0.5	339	-15.0	197	4.2	278	-18.0	179	-9.1	262	-5.8
U.S., MAT for OUD <sup>a</sup>	114	0.0	36	-7.7	111	-2.6	34	-5.6	117	5.4	23	-32.4	103	-12.0	19	-17.4
U.S., cancer treatment services <sup>a</sup>	30	3.4	23	9.5	30	0.0	16	-30.4	30	0.0	13	-18.8	26	-13.3	12	-7.7
U.S., care for chronic conditions: heart disease <sup>a</sup>	18	5.9	12	0.0	19	5.6	7	-41.7	18	-5.3	6	-14.3	16	-11.1	5	-16.7
U.S., COVID-19 testing and treatment services <sup>a</sup>	41	5.1	57	16.3	34	-17.1	20	-64.9	37	8.8	38	90.0	37	0.0	37	-2.6
U.S., E&M of acute and chronic conditions <sup>a</sup>	283	2.9	1,438	2.6	301	6.4	1,103	-23.3	303	0.7	951	-13.8	274	-9.6	903	-5.0
U.S., PT/OT <sup>a</sup>	47	6.8	23	-4.2	49	4.3	15	-34.8	45	-8.2	10	-33.3	41	-8.9	9	-10.0
U.S., dental services <sup>a</sup>	41	2.5	1	0.0	45	9.8	1	0.0	47	4.4	1	0.0	42	-10.6	1	0.0
Alabama	65	-56.4	2,949	-11.1	58	-10.8	2,060	-30.1	72	24.1	1,653	-19.8	145	101.4	1,398	-15.4
Alaska	1,446	25.6	4,288	27.2	1,704	17.8	3,087	-28.0	1,320	-22.5	2,645	-14.3	1,116	-15.5	2,646	0.0
Arizona	3,332	-4.6	7,662	0.9	3,130	-6.1	6,662	-13.1	3,215	2.7	5,955	-10.6	3,123	-2.9	5,354	-10.1
Arkansas	1,099	-6.9	2,375	-1.8	1,263	14.9	1,473	-38.0	1,237	-2.1	1,313	-10.9	1,153	-6.8	1,100	-16.2
California	456	-5.0	4,349	10.7	488	7.0	3,428	-21.2	496	1.6	2,984	-13.0	479	-3.4	2,632	-11.8
Colorado	2,717	4.7	5,044	-4.8	2,815	3.6	3,956	-21.6	2,951	4.8	3,162	-20.1	2,921	-1.0	2,878	-9.0

State	January to March 2021				April to June 2021				July to September 2021				October to December 2021			
	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	# NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period	Number of NEMT ride days per 10,000 beneficiaries	% change from prior period	# telehealth service days per 10,000 beneficiaries	% change from prior period
Connecticut	738	-3.3	8,470	-0.9	820	11.1	6,508	-23.2	937	14.3	4,936	-24.2	894	-4.6	4,683	-5.1
Delaware	652	-10.2	7,827	4.1	788	20.9	6,514	-16.8	451	-42.8	5,202	-20.1	449	-0.4	4,665	-10.3
District of Columbia	176	4.8	7,013	11.6	215	22.2	6,299	-10.2	427	98.6	5,311	-15.7	573	34.2	9,187	73.0
Florida	1,152	-7.7	4,752	-10.2	1,169	1.5	4,048	-14.8	1,106	-5.4	2,552	-37.0	841	-24.0	2,038	-20.1
Georgia	931	-6.2	5,851	-1.5	975	4.7	4,948	-15.4	1,009	3.5	3,949	-20.2	941	-6.7	3,572	-9.5
Hawaii	544	1.5	2,825	3.0	500	-8.1	2,542	-10.0	325	-35.0	2,665	4.8	252	-22.5	2,335	-12.4
Idaho	2,441	-0.9	6,777	-10.4	2,590	6.1	5,138	-24.2	2,508	-3.2	4,269	-16.9	2,412	-3.8	3,973	-6.9
Illinois	906	16.6	2,422	-3.4	901	-0.6	1,644	-32.1	673	-25.3	1,017	-38.1	652	-3.1	1,358	33.5
Indiana	877	6.3	4,068	-1.8	921	5.0	2,763	-32.1	866	-6.0	1,789	-35.3	839	-3.1	1,671	-6.6
Iowa	1,811	21.8	3,999	-3.1	1,683	-7.1	2,750	-31.2	1,326	-21.2	1,878	-31.7	1,784	34.5	1,728	-8.0
Kansas	389	6.0	4,884	-5.8	415	6.7	3,047	-37.6	400	-3.6	2,372	-22.2	356	-11.0	2,292	-3.4
Kentucky	656	-4.0	5,458	-0.3	872	32.9	4,177	-23.5	1,003	15.0	4,071	-2.5	1,029	2.6	3,853	-5.4
Louisiana	274	10.0	3,820	-2.9	302	10.2	2,972	-22.2	290	-4.0	2,728	-8.2	304	4.8	2,466	-9.6
Maine	2,756	-2.7	10,276	10.2	3,266	18.5	7,717	-24.9	3,279	0.4	5,487	-28.9	2,831	-13.7	5,523	0.7
Maryland	47	27.0	5,930	3.0	60	27.7	4,984	-16.0	41	-31.7	3,599	-27.8	64	56.1	3,537	-1.7
Massachusetts	3,408	5.7	12,590	6.8	4,580	34.4	10,582	-15.9	5,207	13.7	7,739	-26.9	5,199	-0.2	6,715	-13.2
Michigan	591	0.3	5,829	6.2	589	-0.3	4,842	-16.9	602	2.2	3,752	-22.5	639	6.1	3,630	-3.3
Minnesota	4,114	7.0	8,182	-1.9	4,573	11.2	6,451	-21.2	4,956	8.4	4,616	-28.4	4,869	-1.8	4,528	-1.9
Mississippi	1,183	-14.3	3,608	1.4	1,208	2.1	2,726	-24.4	1,138	-5.8	1,924	-29.4	1,026	-9.8	2,102	9.3
Missouri	2,053	-6.2	2,281	-8.9	2,213	7.8	1,537	-32.6	2,062	-6.8	1,242	-19.2	1,897	-8.0	1,079	-13.1
Montana	1,685	-24.2	4,756	-8.1	1,500	-11.0	3,753	-21.1	1,470	-2.0	3,176	-15.4	1,410	-4.1	3,196	0.6
Nebraska	857	7.5	3,545	-5.1	883	3.0	2,591	-26.9	902	2.2	2,060	-20.5	880	-2.4	1,940	-5.8
Nevada	934	-9.4	3,550	-5.2	908	-2.8	2,822	-20.5	871	-4.1	2,401	-14.9	807	-7.3	2,291	-4.6
New Hampshire	3,015	269.5	11,376	8.0	3,055	1.3	8,176	-28.1	3,191	4.5	6,210	-24.0	3,051	-4.4	6,182	-0.5
New Jersey	1,970	-11.1	3,253	-0.7	2,093	6.2	2,721	-16.4	2,232	6.6	2,252	-17.2	2,328	4.3	2,267	0.7
New Mexico	1,025	3.2	6,060	3.4	1,012	-1.3	4,298	-29.1	1,023	1.1	3,409	-20.7	963	-5.9	3,319	-2.6
New York	2,181	-7.0	2,443	8.6	2,310	5.9	2,068	-15.3	2,582	11.8	1,662	-19.6	2,638	2.2	1,740	4.7
North Carolina	939	-0.1	3,750	3.1	979	4.3	2,815	-24.9	914	-6.6	2,119	-24.7	853	-6.7	1,921	-9.3
North Dakota	606	9.8	2,667	-3.0	597	-1.5	2,023	-24.1	580	-2.8	1,677	-17.1	562	-3.1	1,668	-0.5
Ohio	630	1.9	6,243	5.0	605	-4.0	4,421	-29.2	607	0.3	3,457	-21.8	578	-4.8	3,350	-3.1
Oklahoma	2,357	-10.1	3,431	-0.8	2,577	9.3	2,417	-29.6	2,679	4.0	2,317	-4.1	2,274	-15.1	2,019	-12.9



State	January to March 2021				April to June 2021				July to September 2021				October to December 2021			
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Oregon	2,429	-5.6	6,764	0.7	2,520	3.7	5,826	-13.9	2,427	-3.7	4,865	-16.5	2,289	-5.7	4,732	-2.7
Pennsylvania	247	-21.1	4,157	19.9	415	68.0	3,850	-7.4	498	20.0	3,073	-20.2	391	-21.5	3,410	11.0
Puerto Rico	472	12.9	2,293	-17.8	566	19.9	2,013	-12.2	567	0.2	1,589	-21.1	412	-27.3	828	-47.9
Rhode Island	2,168	-1.5	12,523	0.0	2,587	19.3	10,624	-15.2	2,705	4.6	8,045	-24.3	2,783	2.9	7,635	-5.1
South Carolina	972	6.0	1,834	1.7	901	-7.3	1,201	-34.5	802	-11.0	958	-20.2	868	8.2	859	-10.3
South Dakota	447	20.2	1,596	-15.9	423	-5.4	1,019	-36.2	380	-10.2	652	-36.0	354	-6.8	682	4.6
Tennessee	935	-3.3	3,695	2.2	1,001	7.1	2,839	-23.2	885	-11.6	2,273	-19.9	808	-8.7	2,071	-8.9
Texas	1,611	-0.7	3,852	-8.5	1,567	-2.7	2,876	-25.3	1,164	-25.7	2,505	-12.9	1,741	49.6	2,098	-16.2
Utah	5	25.0	5,272	27.6	1	-80.0	3,576	-32.2	1	0.0	2,423	-32.2	3	200.0	3,224	33.1
Vermont	753	-0.5	1,757	-5.5	812	7.8	1,492	-15.1	859	5.8	1,279	-14.3	900	4.8	1,160	-9.3
Virgin Islands	664	35.2	446	-6.3	486	-26.8	490	9.9	106	-78.2	572	16.7	43	-59.4	547	-4.4
Virginia	2,620	-4.7	4,594	4.6	2,782	6.2	3,504	-23.7	2,872	3.2	2,589	-26.1	2,976	3.6	2,392	-7.6
Washington	1,104	-8.5	4,105	5.5	1,131	2.4	3,390	-17.4	929	-17.9	2,623	-22.6	597	-35.7	2,520	-3.9
West Virginia	1,760	-6.4	3,467	3.5	2,069	17.6	2,646	-23.7	2,021	-2.3	2,177	-17.7	1,935	-4.3	2,333	7.2
Wisconsin	8,864	7.4	4,415	-0.8	8,191	-7.6	3,276	-25.8	6,931	-15.4	2,651	-19.1	5,339	-23.0	2,919	10.1
Wyoming	373	-11.0	2,888	-11.0	339	-9.1	2,063	-28.6	261	-23.0	1,794	-13.0	288	10.3	1,975	10.1

Source: Mathematica's analysis of the 2021 preliminary TAF

Notes: MFP = Money Follows the Person; CKD = chronic kidney disease; ESRD = end-stage renal disease; IDD = intellectual disabilities and other developmental delays; SUD = substance use disorder; MAT for OUD = medication-assisted treatment for opioid use disorder; E&M = evaluation and management; PT/OT = physical therapy and occupational therapy.

Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one condition category. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services, E&M of acute and chronic conditions, and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. To identify physical therapy (PT) and occupational therapy (OT) services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and diagnosis codes on Medicaid claims and encounter records. To identify dental services CMS used procedure codes on Medicaid claims and encounter records. To identify telehealth services, CMS used procedure codes and select procedure code modifiers, and place of service codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>a</sup> '-' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B5.1a. Rate and frequency of NEMT utilization and modes of NEMT used, by geographic area in 2018**

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:						
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
<b>United States<sup>a</sup></b>	<b>74,831,540</b>	<b>5.0</b>	<b>1.8</b>	<b>0.1</b>	<b>1.7</b>	<b>2.0</b>	<b>0.4</b>	<b>0.0</b>	<b>1.3</b>	<b>0.4</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	25,124,082	4.9	1.9	0.2	1.7	2.5	0.2	0.0	1.2	0.4
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	13,689,194	4.8	2.1	0.1	1.6	1.7	0.2	0.0	1.6	0.4
United States, <sup>a</sup> medium metro areas <sup>b</sup>	14,930,760	4.2	1.8	0.1	1.4	1.5	0.2	0.0	1.1	0.4
United States, <sup>a</sup> small metro areas <sup>b</sup>	6,584,028	5.0	1.9	0.1	1.8	1.7	0.5	0.0	1.2	0.4
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	6,514,651	5.7	1.5	0.1	2.0	1.8	0.7	0.1	1.6	0.3
United States, <sup>a</sup> non-core areas <sup>b</sup>	4,571,702	6.7	1.4	0.1	2.3	1.9	1.2	0.4	1.6	0.3
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	1,172,678	8.4	1.3	0.1	3.1	2.6	1.7	1.5	1.4	0.5
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	31,245,389	5.4	1.7	0.2	1.9	2.5	0.3	0.1	1.3	0.4
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	19,480,656	4.9	1.7	0.1	1.7	1.8	0.4	0.0	1.3	0.4
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	14,464,670	4.4	1.9	0.1	1.4	1.5	0.5	0.0	1.3	0.4
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	9,193,249	4.3	2.4	0.1	1.4	1.3	0.4	0.0	1.5	0.4
Alabama	943,121	1.8	0.3	DS	DS	DS	DS	DS	1.8	DS
Alaska	235,173	13.3	0.7	0.0	0.8	9.4	DS	10.4	1.8	0.2
Arizona	2,043,417	12.4	1.8	0.9	8.6	6.4	1.6	0.0	1.9	3.4
Arkansas	1,000,221	5.2	1.8	DS	0.8	DS	DS	DS	1.7	1.0
California	13,057,698	1.7	1.4	0.0	0.7	0.5	0.0	DS	0.8	0.0
Colorado	1,486,585	3.8	3.2	0.1	1.6	1.4	0.4	0.0	0.6	0.6
Connecticut	961,337	5.8	1.3	DS	1.3	3.9	DS	DS	1.2	0.0
Delaware	256,764	5.4	1.7	0.1	0.9	DS	DS	DS	0.8	DS
District of Columbia	269,396	8.1	1.6	0.7	2.0	5.6	0.1	DS	0.7	DS
Florida	4,262,235	1.3	1.7	0.0	0.1	0.3	0.0	DS	0.3	0.0
Georgia	2,134,062	5.0	1.4	0.0	3.8	1.2	0.3	DS	1.2	0.0
Hawaii	384,094	4.6	1.1	0.0	2.8	1.7	DS	0.7	0.4	0.0
Idaho	316,076	5.4	3.3	0.1	2.2	3.3	1.1	DS	0.6	0.1
Illinois	3,383,999	4.5	1.2	DS	2.7	0.2	0.0	DS	1.4	0.7
Indiana	1,604,987	5.8	0.7	0.0	1.0	0.8	0.0	DS	2.4	DS
Iowa	717,703	5.5	2.4	0.5	0.7	3.0	0.8	DS	1.2	0.1
Kansas	428,545	3.8	0.7	0.0	0.3	1.0	1.2	DS	0.2	DS

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:						
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
Kentucky	1,504,402	4.4	1.4	0.1	2.9	1.3	0.0	DS	0.8	DS
Louisiana	1,638,165	3.9	0.8	0.0	2.8	0.0	0.3	DS	0.5	1.3
Maine	246,401	10.3	2.6	1.2	0.5	2.4	5.4	DS	2.1	DS
Maryland	1,394,401	1.0	0.4	DS	0.0	DS	DS	DS	0.8	0.1
Massachusetts	1,845,150	7.6	4.0	0.0	2.1	0.8	0.0	DS	5.7	1.7
Michigan	2,857,271	5.0	0.9	0.2	1.7	1.9	0.8	DS	1.3	0.3
Minnesota	1,299,440	11.0	1.6	0.2	1.8	4.1	3.6	DS	1.4	0.0
Mississippi	696,690	7.7	1.0	0.0	0.7	4.6	2.1	DS	1.8	DS
Missouri	1,174,634	7.4	1.3	0.2	4.1	1.8	0.8	DS	2.2	DS
Montana	289,095	1.6	2.8	DS	0.0	0.0	0.6	0.2	0.7	0.1
Nebraska	276,437	4.6	1.3	DS	0.5	DS	0.0	DS	1.2	DS
Nevada	788,296	4.1	1.3	1.1	1.1	1.4	0.4	DS	0.9	0.2
New Hampshire	222,290	2.0	3.3	DS	0.0	1.0	0.3	DS	0.7	0.9
New Jersey	1,814,383	7.3	2.5	0.6	2.5	4.0	0.8	DS	1.3	DS
New Mexico	836,072	4.9	1.3	0.0	0.2	2.8	1.1	0.0	1.3	0.0
New York	6,892,006	8.6	1.9	0.1	2.3	6.5	0.0	DS	1.2	DS
North Carolina	2,057,216	4.2	1.2	0.0	2.5	0.2	DS	DS	1.7	DS
North Dakota	118,436	2.8	0.8	0.0	1.1	0.3	0.4	DS	1.2	DS
Ohio	3,069,768	4.8	0.6	0.1	1.3	1.2	0.1	DS	3.0	0.1
Oklahoma	836,884	5.2	2.3	0.1	1.4	2.3	1.2	DS	1.6	DS
Oregon	1,060,739	8.5	2.1	0.4	3.7	5.8	1.5	DS	0.6	0.1
Pennsylvania	3,258,631	1.5	1.8	DS	0.1	0.0	DS	DS	1.3	0.0
Puerto Rico	1,438,531	1.3	0.9	0.2	0.1	0.3	0.0	DS	0.8	DS
Rhode Island	344,020	6.3	3.1	1.7	0.4	0.7	DS	DS	1.2	DS
South Carolina	1,172,848	5.4	1.3	0.1	4.8	DS	DS	0.0	0.3	DS
South Dakota	128,540	2.9	0.9	DS	2.7	DS	DS	DS	0.3	DS
Tennessee	1,673,580	4.4	1.0	1.6	1.8	0.1	0.0	0.0	1.6	0.3
Texas	4,907,155	4.3	2.3	0.1	0.0	2.3	0.3	0.0	0.8	1.0
Utah	385,303	DS	DS	DS	DS	DS	DS	DS	DS	DS
Vermont	19,145	1.0	1.0	DS	0.2	0.7	DS	DS	DS	DS
Virgin Islands	184,228	6.0	2.2	2.5	DS	0.5	3.2	DS	1.7	DS
Virginia	1,122,768	6.5	1.7	0.0	4.1	3.2	0.8	0.1	0.5	0.4
Washington	2,033,978	2.8	2.6	DS	DS	DS	0.0	DS	1.2	1.7
West Virginia	551,191	5.4	0.9	0.0	1.4	0.2	1.6	DS	2.5	DS

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:						
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
Wisconsin	1,256,170	10.0	4.1	1.3	1.5	4.5	1.4	DS	1.1	1.0
Wyoming	74,677	1.6	1.3	0.1	DS	0.2	0.1	DS	1.1	0.2

Source: Mathematica's analysis of the TAF 2018 Release 2

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Geographic areas reflect beneficiaries' zip code or county of residence as indicated in the TAF DE file. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). When a procedure code did not indicate a particular mode of transit, the mode of transit was identified using the servicing provider's taxonomy code instead. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B5.1b. Modes of NEMT used as a percentage of total ride days in 2018, by geographic area**

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
<b>United States<sup>a</sup></b>	<b>74,158,614</b>	<b>3.9</b>	<b>27.6</b>	<b>29.7</b>	<b>7.9</b>	<b>0.2</b>	<b>7.6</b>	<b>15.9</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	26,187,617	5.7	29.0	39.4	3.6	0.0	4.7	14.4
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	15,343,139	2.3	21.3	22.9	8.5	0.0	15.3	22.3
United States, <sup>a</sup> medium metro areas <sup>b</sup>	12,530,606	2.9	26.2	26.0	7.0	0.1	8.8	20.0
United States, <sup>a</sup> small metro areas <sup>b</sup>	6,869,177	4.2	28.2	24.9	9.3	0.2	5.7	12.4
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	6,005,014	2.8	32.1	24.3	13.5	0.2	4.6	10.6
United States, <sup>a</sup> non-core areas <sup>b</sup>	4,888,688	1.7	33.3	20.6	17.7	1.8	3.3	8.5
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	1,440,270	1.6	40.1	19.7	16.9	5.4	2.1	8.7
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	31,220,700	4.9	30.9	35.9	4.7	0.2	7.1	13.8
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	17,721,118	3.2	30.3	27.7	8.9	0.2	6.5	15.4
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	13,662,286	3.3	23.3	25.6	11.3	0.2	6.6	17.5
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	10,719,678	2.5	19.0	19.7	10.1	0.0	12.3	21.3
Alabama	57,046	0.0	0.0	0.0	0.0	0.0	97.7	1.4
Alaska	233,336	0.0	11.9	58.1	0.0	44.3	2.5	5.4
Arizona	4,963,151	2.2	71.8	34.0	4.4	0.0	1.4	23.1
Arkansas	1,067,144	0.0	31.4	0.0	0.0	0.0	2.7	22.5
California	3,515,173	0.3	49.8	26.6	1.5	0.0	16.6	0.7
Colorado	2,037,629	3.5	28.0	27.9	4.5	0.0	0.6	35.1
Connecticut	787,883	0.0	15.0	71.2	0.0	0.0	4.0	0.2
Delaware	258,815	0.2	9.6	0.0	0.0	0.0	3.0	0.0
District of Columbia	402,179	20.3	13.5	64.1	0.7	0.0	0.8	0.0
Florida	988,416	0.5	14.1	11.8	0.5	0.0	2.0	6.0
Georgia	1,587,894	1.2	81.6	8.3	2.5	0.0	6.3	0.6
Hawaii	208,009	2.2	76.4	18.7	0.0	3.1	1.4	1.1
Idaho	624,533	0.5	19.8	59.3	18.7	0.0	0.4	0.1
Illinois	1,995,591	0.0	48.0	2.8	0.1	0.0	4.9	37.4
Indiana	719,595	0.1	20.0	7.3	0.2	0.0	11.4	0.0
Iowa	1,092,041	15.7	20.0	29.4	7.2	0.0	1.1	7.8
Kansas	122,978	1.5	7.7	24.3	30.4	0.0	1.0	0.0

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
Kentucky	1,052,032	5.4	56.0	36.3	0.1	0.0	3.0	0.0
Louisiana	577,997	4.3	55.1	0.2	7.3	0.0	2.8	21.5
Maine	732,067	7.2	3.1	13.4	38.2	0.0	1.3	0.0
Maryland	63,592	0.0	0.0	0.0	0.0	0.0	30.9	25.7
Massachusetts	6,357,729	0.0	5.3	5.2	0.1	0.0	49.8	43.4
Michigan	1,473,935	3.8	40.6	29.9	15.9	0.0	4.3	7.3
Minnesota	2,553,600	3.3	7.9	19.3	17.8	0.0	1.1	0.4
Mississippi	597,418	0.1	17.0	54.6	22.8	0.0	5.7	0.0
Missouri	1,273,920	0.9	80.7	6.4	9.1	0.0	3.2	0.0
Montana	149,203	0.0	0.5	0.1	69.0	7.2	1.8	6.4
Nebraska	187,921	0.0	16.3	0.0	0.8	0.0	2.8	0.0
Nevada	461,443	13.5	7.1	59.3	16.7	0.0	2.0	2.0
New Hampshire	154,442	0.0	0.5	45.8	47.5	0.0	1.8	39.8
New Jersey	3,668,846	21.1	13.8	30.7	32.3	0.0	2.6	0.0
New Mexico	570,871	0.4	6.8	58.7	31.4	0.3	2.5	0.0
New York	12,723,371	2.2	23.2	68.2	0.0	0.0	1.7	0.0
North Carolina	1,138,810	0.0	87.3	4.9	0.0	0.0	7.7	0.0
North Dakota	27,414	0.2	59.8	16.8	16.9	0.0	6.6	0.0
Ohio	961,024	2.3	34.9	27.3	6.4	0.0	24.2	3.1
Oklahoma	1,073,404	0.3	17.4	16.3	64.1	0.0	2.0	0.0
Oregon	2,040,582	8.2	30.9	44.0	21.8	0.0	0.5	0.6
Pennsylvania	964,986	0.0	0.9	0.0	0.0	0.0	8.6	0.0
Puerto Rico	190,662	62.7	11.5	8.1	0.1	0.0	20.5	0.0
Rhode Island	569,675	20.2	2.7	1.2	0.0	0.0	1.5	0.0
South Carolina	932,151	0.4	90.4	0.0	0.0	0.0	1.3	0.0
South Dakota	34,219	0.0	98.3	0.0	0.0	0.0	1.6	0.1
Tennessee	798,636	41.4	44.8	0.4	0.0	0.4	12.2	4.4
Texas	5,267,533	1.4	0.0	26.8	5.1	0.0	3.4	63.4
Utah	39	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Vermont	2,026	0.0	43.4	56.3	0.0	0.0	0.3	0.0
Virgin Islands	270,956	47.7	0.0	4.0	48.1	0.0	1.9	0.0
Virginia	1,404,937	0.5	56.9	25.7	13.1	0.4	1.2	4.0
Washington	1,672,509	0.0	0.0	0.0	0.0	0.0	2.2	97.8
West Virginia	284,326	0.1	65.2	0.9	17.6	0.0	16.2	0.0

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
Wisconsin	5,798,491	10.8	5.8	17.8	8.7	0.0	0.5	10.8
Wyoming	15,888	5.2	0.0	15.9	1.6	0.0	7.0	72.5

Source: Mathematica's analysis of the TAF 2018 Release 2

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Because beneficiaries may use more than one mode of transit on a single day, percentages of ride days by mode of transit are not expected to sum to 100. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). When a procedure code did not indicate a particular mode of transit, the mode of transit was identified using the servicing provider's taxonomy code instead. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B5.2a. Rate and frequency of NEMT utilization and modes of NEMT used, by geographic area in 2019**

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:						
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
<b>United States<sup>a</sup></b>	<b>77,883,646</b>	<b>5.0</b>	<b>1.9</b>	<b>0.1</b>	<b>1.7</b>	<b>2.1</b>	<b>0.4</b>	<b>0.0</b>	<b>1.3</b>	<b>0.4</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	26,261,451	5.0	2.0	0.2	1.6	2.6	0.2	0.0	1.1	0.4
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	14,635,217	4.9	2.2	0.0	1.6	1.8	0.2	0.0	1.5	0.4
United States, <sup>a</sup> medium metro areas <sup>b</sup>	15,798,872	4.3	1.8	0.1	1.4	1.6	0.2	0.0	1.1	0.4
United States, <sup>a</sup> small metro areas <sup>b</sup>	6,738,385	5.1	1.9	0.1	1.7	1.8	0.5	0.0	1.2	0.5
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	6,522,629	5.8	1.5	0.1	1.9	1.8	0.7	0.1	1.6	0.4
United States, <sup>a</sup> non-core areas <sup>b</sup>	4,655,152	6.9	1.5	0.1	2.3	2.0	1.3	0.4	1.6	0.4
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	1,176,442	8.6	1.4	0.1	3.0	2.6	1.7	1.6	1.5	0.7
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	32,409,315	5.4	1.7	0.2	1.9	2.5	0.3	0.0	1.2	0.4
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	20,454,201	5.0	1.7	0.1	1.7	1.9	0.4	0.0	1.3	0.4
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	15,178,933	4.6	2.0	0.1	1.3	1.6	0.5	0.0	1.3	0.4
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	9,505,502	4.4	2.5	0.1	1.3	1.4	0.4	0.0	1.4	0.4
Alabama	934,959	1.7	0.3	DS	0.0	DS	DS	DS	1.7	0.0
Alaska	245,199	13.8	0.6	0.0	0.8	9.1	DS	10.0	3.0	0.1
Arizona	2,012,302	12.2	1.9	0.6	7.9	6.4	1.9	DS	2.1	4.0
Arkansas	963,149	4.9	1.3	DS	0.8	DS	DS	DS	1.8	1.4
California	12,745,324	1.8	1.4	0.0	0.7	0.7	0.1	DS	0.6	0.0
Colorado	1,437,138	4.2	3.4	0.1	2.0	1.3	0.4	0.0	0.5	0.7
Connecticut	974,096	5.5	1.2	DS	1.2	3.6	0.0	DS	1.3	0.0
Delaware	255,830	4.6	1.5	0.1	0.8	DS	DS	DS	0.7	DS
District of Columbia	263,203	8.4	1.3	0.6	2.1	5.8	0.1	DS	0.7	DS
Florida	4,094,374	4.8	1.8	0.0	1.0	2.7	0.1	0.0	0.9	0.1
Georgia	2,083,484	5.0	1.3	0.0	3.7	1.3	0.3	DS	1.3	0.0
Hawaii	371,609	4.7	1.0	0.0	2.5	1.8	DS	0.8	0.5	0.0
Idaho	301,648	5.2	3.4	0.1	0.4	3.7	1.1	DS	0.5	DS
Illinois	3,204,702	4.7	1.2	DS	2.7	0.3	0.0	DS	1.5	0.8
Indiana	1,580,649	4.4	0.6	DS	0.6	0.6	DS	DS	1.6	DS
Iowa	731,086	5.6	2.1	0.5	0.8	3.1	0.9	DS	1.1	0.1
Kansas	416,318	3.9	0.7	0.1	0.3	1.2	1.1	DS	0.3	DS



State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:						
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
Kentucky	1,477,255	4.5	1.5	0.2	2.9	1.5	0.0	DS	0.8	DS
Louisiana	1,687,920	3.9	0.8	0.0	2.5	0.0	0.2	DS	0.6	1.3
Maine	275,770	9.4	2.0	1.1	0.4	2.5	4.8	DS	2.1	DS
Maryland	1,378,394	1.0	0.5	DS	0.0	DS	DS	DS	0.8	0.1
Massachusetts	1,754,117	8.2	4.0	0.0	2.1	1.3	0.0	DS	6.1	1.9
Michigan	2,855,965	4.7	1.0	0.2	1.5	1.7	0.7	DS	1.3	0.2
Minnesota	1,282,705	11.4	1.7	0.2	1.7	4.3	2.0	DS	1.3	0.0
Mississippi	671,092	7.0	0.8	0.0	0.7	4.2	1.6	DS	1.7	DS
Missouri	1,121,039	7.7	1.3	0.2	4.2	2.3	0.9	DS	2.3	DS
Montana	292,707	1.8	3.8	DS	0.0	0.0	0.6	0.2	0.6	0.0
Nebraska	274,482	4.7	1.2	0.1	0.5	0.8	0.0	DS	1.2	DS
Nevada	774,732	4.0	1.6	1.2	1.1	1.3	0.5	DS	0.6	0.2
New Hampshire	220,733	1.6	2.9	DS	0.0	0.9	0.2	DS	0.5	0.8
New Jersey	1,799,271	7.7	2.6	0.5	2.6	4.3	0.9	DS	1.4	DS
New Mexico	820,733	5.1	1.3	0.0	0.3	3.0	0.8	0.1	1.6	0.0
New York	6,896,251	8.2	2.1	0.1	2.3	6.2	0.0	DS	1.1	DS
North Carolina	1,980,625	4.3	1.3	0.0	2.6	0.2	DS	DS	1.8	DS
North Dakota	115,900	3.0	0.9	0.0	1.1	0.4	0.4	DS	1.2	DS
Ohio	2,960,424	5.0	0.6	0.1	1.2	1.2	0.1	DS	3.0	0.3
Oklahoma	829,015	5.4	2.2	0.1	1.3	2.4	1.3	DS	1.7	DS
Oregon	1,066,877	8.8	2.2	0.0	3.3	5.8	1.6	DS	0.5	0.1
Pennsylvania	3,150,590	1.6	1.7	DS	0.1	0.0	0.0	DS	1.4	0.0
Puerto Rico	1,424,443	1.3	0.7	0.3	0.1	0.5	0.0	DS	0.5	DS
Rhode Island	260,563	5.9	2.6	0.8	0.4	2.8	0.0	DS	1.6	DS
South Carolina	1,156,466	5.7	1.4	0.1	4.8	DS	DS	0.0	0.3	DS
South Dakota	125,657	3.2	0.8	DS	2.9	DS	DS	DS	0.5	DS
Tennessee	1,574,316	4.7	1.0	1.7	1.9	0.1	DS	0.0	1.7	0.3
Texas	4,746,947	4.4	2.4	0.1	0.0	2.4	0.3	0.0	0.8	1.0
Utah	395,605	0.0	0.6	DS	DS	DS	DS	DS	DS	DS
Vermont	177,906	6.2	2.1	3.5	DS	0.3	3.0	0.2	1.7	DS
Virgin Islands	20,217	1.2	1.4	DS	0.2	0.8	DS	DS	0.2	DS
Virginia	1,522,989	6.5	1.9	0.0	4.3	3.5	0.7	DS	0.4	0.6
Washington	1,987,376	3.0	2.6	DS	DS	DS	DS	DS	1.3	1.8
West Virginia	550,203	7.8	1.3	0.1	2.3	0.3	3.4	DS	2.8	DS

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:						
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
Wisconsin	1,242,617	10.1	4.5	1.2	1.4	4.5	1.4	DS	1.1	1.1
Wyoming	71,818	1.8	1.3	0.1	DS	0.2	0	DS	1.3	0.2

Source: Mathematica's analysis of the TAF 2019 Release 1

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). When a procedure code did not indicate a particular mode of transit, the mode of transit was identified using the servicing provider's taxonomy code instead. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B5.2b. Modes of NEMT used as a percentage of total ride days in 2019, by geographic area**

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
<b>United States<sup>a</sup></b>	<b>81,327,964</b>	<b>3.5</b>	<b>27.0</b>	<b>31.4</b>	<b>8.2</b>	<b>0.2</b>	<b>6.9</b>	<b>15.2</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	29,586,342	5.2	28.2	41.2	4.3	0.0	3.9	12.7
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	17,279,487	1.8	21.5	25.4	8.9	0.0	13.4	21.1
United States, <sup>a</sup> medium metro areas <sup>b</sup>	13,411,894	2.2	25.4	28.1	7.1	0.1	8.6	19.9
United States, <sup>a</sup> small metro areas <sup>b</sup>	7,373,348	3.9	26.7	26.0	9.0	0.2	5.6	13.9
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	6,267,005	2.7	31.8	24.9	13.8	0.2	4.5	11.1
United States, <sup>a</sup> non-core areas <sup>b</sup>	5,252,285	2.0	33.5	20.3	18.0	1.6	3.3	8.4
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	1,646,603	2.2	43.5	17.9	15.6	4.6	2.5	9.8
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	34,171,516	4.6	30.3	37.7	5.0	0.2	6.3	13.5
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	19,544,114	2.7	29.3	30.2	9.3	0.2	5.9	14.6
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	15,176,542	2.8	22.6	27.1	11.5	0.2	6.0	16.5
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	11,755,792	2.2	19.1	20.8	10.5	0.0	11.6	20.1
Alabama	57,482	0.0	0.2	0.0	0.0	0.0	86.9	10.8
Alaska	235,169	0.0	10.1	58.6	0.0	41.8	5.0	4.3
Arizona	5,289,466	1.5	73.0	32.0	7.3	0.0	1.8	21.7
Arkansas	670,445	0.0	47.3	0.0	0.0	0.0	4.4	19.4
California	3,617,737	0.6	44.2	35.8	4.8	0.0	10.6	1.6
Colorado	2,294,408	4.7	29.2	25.3	4.8	0.0	0.5	35.2
Connecticut	715,977	0.0	15.6	67.8	0.0	0.0	5.0	0.3
Delaware	203,718	0.1	9.6	0.0	0.0	0.0	2.5	0.0
District of Columbia	321,183	18.1	15.7	63.7	0.7	0.0	0.9	0.0
Florida	3,995,480	0.9	22.2	51.8	2.9	0.0	2.5	3.8
Georgia	1,526,360	0.8	78.8	10.0	2.6	0.0	7.6	0.7
Hawaii	203,272	2.8	72.6	21.2	0.0	3.6	1.3	1.3
Idaho	598,928	0.2	7.2	73.8	19.5	0.0	0.3	0.0
Illinois	1,963,017	0.0	47.0	4.0	0.1	0.0	5.0	39.6
Indiana	471,024	0.0	21.8	6.6	0.0	0.0	9.8	0.0
Iowa	981,475	15.4	22.8	31.3	8.9	0.0	1.1	4.5
Kansas	123,142	1.3	8.7	28.0	29.0	0.0	1.2	0.0

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
Kentucky	1,115,225	6.8	53.8	37.6	0.0	0.0	2.6	0.0
Louisiana	592,481	4.1	54.0	0.0	6.4	0.0	3.1	25.6
Maine	563,145	7.1	3.9	11.6	34.9	0.0	1.7	0.0
Maryland	65,022	0.0	0.1	0.0	0.0	0.0	29.0	34.8
Massachusetts	6,683,919	0.0	4.4	6.7	0.0	0.0	48.3	42.1
Michigan	1,453,190	4.7	39.3	29.8	16.4	0.0	4.3	5.9
Minnesota	2,690,470	0.6	7.5	21.1	12.1	0.0	0.9	0.5
Mississippi	440,599	0.0	13.0	61.7	18.9	0.0	7.0	0.0
Missouri	1,242,638	0.7	77.5	8.6	10.1	0.0	3.2	0.0
Montana	232,265	0.0	0.2	0.0	44.9	5.0	1.0	3.4
Nebraska	171,618	0.3	13.6	13.3	0.5	0.0	3.0	0.0
Nevada	532,466	22.4	6.1	50.3	18.4	0.0	1.1	2.0
New Hampshire	103,733	0.0	0.5	51.8	41.4	0.0	1.9	42.0
New Jersey	4,013,105	18.9	13.1	31.6	34.3	0.0	2.5	0.0
New Mexico	603,189	0.3	6.8	61.2	28.4	0.3	3.1	0.0
New York	13,455,939	2.6	22.5	68.2	0.0	0.0	1.5	0.0
North Carolina	1,197,915	0.0	88.1	4.9	0.0	0.0	6.9	0.0
North Dakota	33,153	0.1	52.0	29.1	13.9	0.0	5.3	0.0
Ohio	998,034	1.7	30.9	24.6	7.6	0.0	21.5	12.0
Oklahoma	1,086,526	0.3	16.4	17.1	64.1	0.0	2.1	0.0
Oregon	2,265,353	0.3	36.7	40.5	26.4	0.0	0.3	0.3
Pennsylvania	949,006	0.0	0.8	0.0	0.0	0.0	9.0	0.0
Puerto Rico	139,823	57.0	10.2	15.6	0.1	0.0	18.4	0.0
Rhode Island	412,141	1.8	2.2	36.2	0.3	0.0	1.9	0.0
South Carolina	1,030,785	0.4	82.1	0.0	0.0	0.0	1.1	0.0
South Dakota	34,668	0.0	97.9	0.0	0.0	0.0	2.2	0.0
Tennessee	808,791	39.3	44.8	0.4	0.0	0.4	12.4	6.3
Texas	5,501,087	1.3	0.0	27.1	5.1	0.0	3.4	63.2
Utah	289	0.0	0.0	0.0	0.0	0.0	2.8	7.3
Vermont	265,861	63.7	0.0	2.3	33.5	1.6	1.8	0.0
Virgin Islands	3,730	0.0	53.2	45.3	0.0	0.0	1.6	0.0
Virginia	2,129,923	0.1	57.5	28.2	13.0	0.0	1.0	4.1
Washington	1,737,498	0.0	0.0	0.0	0.0	0.0	2.4	97.6
West Virginia	589,724	1.3	46.3	0.7	43.7	0.0	8.2	0.0

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
Wisconsin	6,263,445	10.0	4.8	16.4	8.1	0.0	0.5	10.2
Wyoming	17,699	4.4	0.0	12.6	2.3	0.0	7.1	75.2

Source: Mathematica's analysis of the TAF 2019 Release 1

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Because beneficiaries may use more than one mode of transit on a single day, percentages of ride days by mode of transit are not expected to sum to 100. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). When a procedure code did not indicate a particular mode of transit, the mode of transit was identified using the servicing provider's taxonomy code instead. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B5.3a. Rate and frequency of NEMT utilization and modes of NEMT used, by geographic area in 2020**

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:						
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
<b>United States<sup>a</sup></b>	<b>79,905,774</b>	<b>4.4</b>	<b>1.4</b>	<b>0.1</b>	<b>1.4</b>	<b>1.7</b>	<b>0.3</b>	<b>0.0</b>	<b>1.3</b>	<b>0.3</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	27,524,645	4.3	1.4	0.2	1.4	2.1	0.2	0.0	1.1	0.3
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	15,823,118	4.2	1.4	0.1	1.3	1.5	0.2	0.0	1.4	0.4
United States, <sup>a</sup> medium metro areas <sup>b</sup>	16,668,152	3.7	1.3	0.1	1.1	1.3	0.1	0.0	1.1	0.3
United States, <sup>a</sup> small metro areas <sup>b</sup>	7,274,047	4.5	1.5	0.1	1.5	1.5	0.4	0.0	1.2	0.4
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	7,080,637	5.0	1.2	0.1	1.6	1.4	0.6	0.0	1.6	0.3
United States, <sup>a</sup> non-core areas <sup>b</sup>	5,096,425	5.9	1.2	0.1	1.8	1.5	1.0	0.3	1.6	0.3
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	1,205,937	7.2	1.2	0.1	2.5	1.7	1.3	1.0	1.6	0.6
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	32,499,364	4.6	1.3	0.2	1.6	2.1	0.2	0.0	1.2	0.3
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	21,254,783	4.4	1.3	0.1	1.4	1.5	0.3	0.0	1.3	0.3
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	15,828,252	4.0	1.4	0.1	1.1	1.3	0.4	0.0	1.3	0.3
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	9,967,692	3.9	1.6	0.1	1.1	1.1	0.3	0.0	1.4	0.4
Alabama	922,135	1.7	0.3	DS	DS	DS	DS	DS	1.7	0.0
Alaska	252,499	10.6	0.4	0.0	0.5	5.0	DS	6.6	3.5	0.1
Arizona	2,019,256	10.1	1.4	0.4	6.5	5.3	0.8	0.0	2.0	2.5
Arkansas	944,529	4.2	1.1	DS	0.6	DS	DS	DS	1.6	1.4
California	12,513,867	1.6	1.2	0.0	0.6	0.6	0.1	DS	0.5	0.0
Colorado	1,454,874	4.0	2.4	0.1	2.2	0.6	0.3	0.0	0.6	0.7
Connecticut	984,143	3.8	0.9	DS	0.8	2.1	DS	DS	1.2	0.0
Delaware	250,185	2.9	1.2	DS	0.4	DS	DS	DS	0.3	DS
District of Columbia	265,153	1.5	0.9	0.3	0.5	DS	DS	DS	0.7	DS
Florida	4,129,591	4.2	1.3	0.0	0.7	2.2	0.1	0.0	1.0	0.1
Georgia	2,079,229	4.3	1.1	0.0	3.1	1.1	0.2	DS	1.3	0.0
Hawaii	391,314	2.9	1.0	0.0	1.8	0.6	DS	0.4	0.5	0.0
Idaho	380,763	3.9	2.3	0.0	0.3	2.7	0.8	DS	0.5	DS
Illinois	3,198,790	4.5	0.7	DS	2.4	0.3	0.1	DS	1.9	0.6
Indiana	1,700,169	3.8	0.7	DS	0.5	0.4	DS	DS	1.5	DS
Iowa	729,111	4.8	1.4	0.3	0.6	2.6	0.8	DS	1.0	0.0

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:						
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
Kansas	402,542	3.3	0.6	0.1	0.3	1.0	1.0	DS	0.3	DS
Kentucky	1,593,316	3.8	0.9	0.1	2.4	1.1	0.0	DS	0.7	DS
Louisiana	1,695,454	2.7	0.6	0.0	1.9	0.0	0.1	DS	0.5	0.6
Maine	321,586	9.3	1.4	0.7	0.6	1.8	4.3	DS	2.6	DS
Maryland	1,401,822	0.7	0.3	DS	DS	DS	DS	DS	0.6	0.1
Massachusetts	1,699,452	7.3	2.0	0.0	1.7	1.1	0.0	DS	5.3	1.7
Michigan	2,807,445	3.8	0.8	0.1	0.9	1.4	0.6	DS	1.3	0.2
Minnesota	1,254,822	9.9	1.2	0.1	1.8	3.3	2.3	DS	1.4	0.0
Mississippi	645,996	6.1	0.9	0.0	0.6	3.8	0.6	DS	1.7	DS
Missouri	1,077,683	6.9	1.2	0.1	3.7	1.9	0.7	DS	2.3	DS
Montana	275,158	1.8	4.5	DS	0.0	0.0	0.6	0.2	0.6	0.0
Nebraska	305,155	3.6	0.9	0.1	0.2	0.8	0.0	DS	1.3	DS
Nevada	787,230	3.3	1.6	0.8	0.8	1.2	0.4	DS	0.4	0.2
New Hampshire	220,933	2.0	1.4	0.0	0.1	1.1	0.3	DS	0.6	0.6
New Jersey	1,797,248	6.4	1.9	0.5	2.0	3.3	0.7	DS	1.4	DS
New Mexico	840,462	4.4	1.0	0.0	0.2	2.3	0.8	0.0	1.6	0.0
New York	6,905,505	7.1	1.5	0.1	1.9	5.2	0.0	DS	1.1	DS
North Carolina	1,920,724	3.8	1.0	0.0	2.3	0.2	DS	DS	1.6	DS
North Dakota	115,907	2.9	0.7	0.0	0.9	0.6	0.3	DS	1.3	DS
Ohio	2,939,651	4.7	0.5	0.0	0.9	1.2	0.1	DS	2.9	0.3
Oklahoma	877,696	4.7	2.0	0.1	1.2	1.9	1.1	DS	1.6	DS
Oregon	1,107,651	7.3	1.6	0.0	2.8	4.9	1.1	DS	0.5	1.5
Pennsylvania	3,195,860	1.8	0.8	DS	0.2	0.0	0.0	DS	1.5	0.0
Puerto Rico	1,408,374	2.0	1.0	0.7	0.4	0.6	0.0	DS	0.7	0.0
Rhode Island	324,179	5.6	2.1	0.8	0.6	2.8	0.0	DS	1.6	DS
South Carolina	1,123,582	4.8	1.1	0.0	4.1	DS	DS	0.0	0.4	DS
South Dakota	121,793	3.4	0.6	DS	2.4	DS	DS	DS	1.3	DS
Tennessee	1,619,458	4.4	0.8	1.6	1.9	0.4	0.0	0.0	1.7	0.2
Texas	4,612,937	3.6	1.4	0.1	0.0	1.9	0.3	0.0	0.8	0.8
Utah	406,278	0.0	1.0	DS	DS	DS	DS	DS	DS	0.0
Vermont	176,465	5.2	1.2	2.9	DS	0.1	1.9	0.1	1.6	DS
Virgin Islands	22,632	1.2	1.4	DS	0.5	0.5	DS	DS	0.2	DS

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:						
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
Virginia	1,615,118	7.0	1.7	0.0	3.6	2.9	0.4	DS	1.1	0.3
Washington	1,991,070	3.0	1.4	DS	DS	DS	0.0	DS	1.3	1.8
West Virginia	563,410	7.7	1.2	0.1	2.7	0.0	3.3	DS	2.5	DS
Wisconsin	1,282,128	8.6	3.6	0.8	1.2	3.6	1.1	DS	1.1	0.9
Wyoming	70,728	1.7	0.9	0.0	DS	0.2	DS	DS	1.3	0.2

Source: Mathematica's analysis of the TAF 2020 Release 1

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). When a procedure code did not indicate a particular mode of transit, the mode of transit was identified using the servicing provider's taxonomy code instead. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.



**Table B5.3b. Modes of NEMT used as a percentage of total ride days in 2020, by geographic area**

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
<b>United States<sup>a</sup></b>	<b>53,113,028</b>	<b>4.2</b>	<b>28.2</b>	<b>34.2</b>	<b>8.7</b>	<b>0.1</b>	<b>7.1</b>	<b>10.4</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	19,107,406	6.3	29.6	44.2	4.9	0.0	5.1	7.9
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	10,617,807	2.5	24.8	29.6	6.8	0.0	12.1	15.3
United States, <sup>a</sup> medium metro areas <sup>b</sup>	8,722,072	3.1	28.3	31.5	7.7	0.1	8.8	13.7
United States, <sup>a</sup> small metro areas <sup>b</sup>	5,412,369	3.7	27.2	28.6	11.2	0.2	5.3	9.4
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	4,717,001	2.9	29.4	27.2	16.1	0.2	5.7	8.0
United States, <sup>a</sup> non-core areas <sup>b</sup>	4,046,387	2.5	30.2	20.3	20.1	1.0	4.6	6.4
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	1,135,805	2.5	39.8	17.4	17.0	3.3	3.4	8.5
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	22,528,056	5.5	31.4	40.9	5.0	0.1	7.0	8.7
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	13,287,216	3.4	30.2	32.0	10.8	0.1	6.5	9.9
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	10,097,918	3.2	23.3	29.0	12.0	0.1	6.3	12.0
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	6,733,617	2.4	20.9	23.9	11.0	0.0	10.1	14.6
Alabama	55,649	0.0	0.1	0.0	0.0	0.0	81.5	16.0
Alaska	134,604	0.0	12.6	47.6	0.0	37.7	11.4	2.7
Arizona	3,319,548	0.9	69.3	41.7	8.6	0.0	2.6	16.9
Arkansas	472,262	0.0	40.8	0.0	0.0	0.0	5.8	30.7
California	2,732,949	0.6	49.2	38.2	5.6	0.0	8.3	1.3
Colorado	1,589,154	2.1	36.7	26.4	4.0	0.0	0.7	30.3
Connecticut	371,245	0.0	18.0	54.2	0.0	0.0	9.8	0.6
Delaware	99,488	0.0	9.0	0.0	0.0	0.0	1.3	0.0
District of Columbia	41,133	59.6	33.4	0.0	0.0	0.0	6.3	0.0
Florida	2,589,757	0.7	22.7	55.9	3.3	0.0	4.0	3.8
Georgia	1,061,724	0.7	74.7	10.4	2.7	0.0	11.0	0.8
Hawaii	122,312	3.5	75.8	19.3	0.0	2.5	2.3	1.3
Idaho	386,310	0.1	7.0	71.5	21.1	0.0	1.0	0.0
Illinois	1,203,583	0.0	59.8	4.8	0.5	0.0	10.3	24.5
Indiana	531,450	0.0	17.0	4.1	0.0	0.0	8.2	0.0
Iowa	549,205	11.6	21.4	37.3	14.4	0.0	1.9	2.3
Kansas	92,069	1.1	9.1	27.6	29.0	0.0	1.5	0.0

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
Kentucky	616,199	7.5	53.0	36.0	0.1	0.0	4.4	0.0
Louisiana	314,663	2.6	66.5	0.1	3.8	0.0	5.1	17.1
Maine	486,267	1.8	4.3	14.1	40.8	0.0	2.9	0.0
Maryland	29,508	0.0	0.0	0.0	0.0	0.0	53.8	30.2
Massachusetts	2,778,581	0.0	6.4	9.0	0.1	0.0	54.7	36.7
Michigan	935,479	1.3	34.6	36.1	18.7	0.0	6.4	4.4
Minnesota	1,731,086	2.8	9.5	21.3	15.5	0.0	1.5	0.8
Mississippi	401,438	0.0	14.7	68.7	9.3	0.0	7.4	0.0
Missouri	977,874	1.2	77.4	8.5	9.3	0.0	4.0	0.0
Montana	255,387	0.0	0.1	0.0	36.6	2.5	0.9	1.9
Nebraska	111,421	0.4	9.3	30.9	0.3	0.0	5.1	0.0
Nevada	449,991	31.6	4.2	44.9	15.4	0.0	0.9	3.1
New Hampshire	69,689	0.0	2.0	57.7	34.6	0.0	3.3	32.8
New Jersey	2,370,159	28.8	14.3	31.8	21.0	0.0	4.3	0.0
New Mexico	428,322	0.1	8.5	54.8	32.0	0.3	4.5	0.1
New York	8,445,499	2.0	20.8	72.5	0.0	0.0	2.2	0.0
North Carolina	853,261	0.0	87.2	4.6	0.0	0.0	8.1	0.0
North Dakota	26,839	0.3	46.3	36.9	9.9	0.0	7.4	0.0
Ohio	766,885	1.6	29.2	28.3	4.6	0.0	25.6	8.7
Oklahoma	909,154	0.4	16.5	15.6	65.1	0.0	2.6	0.0
Oregon	1,445,796	0.1	36.1	39.4	27.8	0.0	0.6	9.5
Pennsylvania	463,687	0.0	2.4	0.1	0.0	0.0	19.3	0.0
Puerto Rico	298,585	58.0	15.8	17.8	0.0	0.0	14.7	0.3
Rhode Island	434,487	3.6	3.8	56.9	0.5	0.0	2.4	0.0
South Carolina	715,323	0.5	87.5	0.0	0.0	0.0	1.7	0.0
South Dakota	25,849	0.0	91.0	0.0	0.0	0.0	9.1	0.0
Tennessee	656,062	38.0	44.9	2.1	0.0	0.4	16.3	3.6
Texas	2,701,175	2.1	0.0	41.6	6.7	0.0	6.1	43.5
Utah	520	0.0	0.0	0.0	0.0	0.0	0.4	18.3
Vermont	125,428	60.5	0.0	0.8	36.3	0.6	3.6	0.0
Virgin Islands	4,128	0.0	67.7	28.5	0.0	0.0	3.9	0.0
Virginia	2,142,028	0.2	35.8	31.7	7.2	0.0	2.4	2.5
Washington	969,589	0.0	0.0	0.0	0.0	0.0	4.2	95.8
West Virginia	603,619	2.8	37.4	0.0	53.9	0.0	6.0	0.0

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
Wisconsin	4,508,383	9.8	4.7	18.3	9.8	0.0	0.7	6.6
Wyoming	11,458	4.5	0.0	10.2	1.7	0.0	10.8	73.9

Source: Mathematica's analysis of the TAF 2020 Release 1

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). When a procedure code did not indicate a particular mode of transit, the mode of transit was identified using the servicing provider's taxonomy code instead. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

Table B5.4a. Rate and frequency of NEMT utilization and modes of NEMT used, by geographic area in 2021

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:						
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
<b>United States<sup>a</sup></b>	<b>85,257,543</b>	<b>3.9</b>	<b>1.5</b>	<b>0.1</b>	<b>1.3</b>	<b>1.4</b>	<b>0.3</b>	<b>0.0</b>	<b>1.2</b>	<b>0.3</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	29,238,733	3.9	1.5	0.1	1.3	1.9	0.2	0.0	1.1	0.3
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	17,116,195	3.7	1.6	0.1	1.2	1.2	0.1	0.0	1.3	0.3
United States, <sup>a</sup> medium metro areas <sup>b</sup>	17,825,319	3.3	1.4	0.1	1.1	1.0	0.1	0.0	1.1	0.3
United States, <sup>a</sup> small metro areas <sup>b</sup>	7,771,516	4.0	1.6	0.1	1.4	1.3	0.3	0.0	1.2	0.3
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	7,556,998	4.4	1.3	0.1	1.4	1.3	0.5	0.0	1.5	0.2
United States, <sup>a</sup> non-core areas <sup>b</sup>	5,383,136	5.2	1.3	0.1	1.7	1.2	0.9	0.2	1.5	0.2
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	1,276,579	6.5	1.2	0.1	2.3	1.6	1.1	0.8	1.6	0.4
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	34,161,160	4.1	1.4	0.1	1.4	1.8	0.2	0.0	1.1	0.3
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	22,769,348	3.9	1.4	0.1	1.3	1.3	0.3	0.0	1.2	0.3
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	17,151,658	3.6	1.6	0.1	1.1	1.1	0.3	0.0	1.2	0.3
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	10,906,779	3.4	1.8	0.0	1.0	0.9	0.3	0.0	1.3	0.3
Alabama	986,852	1.1	0.3	DS	DS	DS	DS	DS	1.1	0.0
Alaska	260,488	10.6	0.5	DS	0.6	4.8	DS	5.8	3.8	0.1
Arizona	2,148,729	8.4	1.5	0.2	5.6	4.3	0.7	0.0	1.9	1.7
Arkansas	999,895	3.8	1.2	DS	0.5	DS	DS	DS	1.5	1.2
California	12,997,219	1.5	1.2	0.0	0.6	0.7	0.1	DS	0.4	0.0
Colorado	1,582,709	4.0	2.6	0.1	2.4	0.6	0.1	0.0	0.6	0.6
Connecticut	1,037,905	2.9	1.0	DS	0.6	1.2	DS	DS	1.3	0.0
Delaware	269,519	2.4	1.1	DS	1.5	DS	DS	DS	0.3	DS
District of Columbia	270,259	1.7	0.8	0.7	0.5	0.0	DS	DS	0.6	DS
Florida	4,556,248	3.1	1.5	0.0	0.4	1.8	0.0	0.0	0.7	0.1
Georgia	2,193,756	3.6	1.2	0.0	2.5	0.8	0.1	DS	1.3	0.0
Hawaii	434,869	2.0	0.9	0.0	1.3	0.3	DS	0.1	0.4	0.0
Idaho	421,266	3.4	2.8	0.0	0.2	2.4	0.7	DS	0.4	DS
Illinois	3,355,719	4.2	0.8	DS	2.2	0.3	0.1	DS	1.9	0.4
Indiana	1,869,584	3.7	0.8	DS	0.5	0.5	0.0	DS	1.5	DS
Iowa	785,287	4.3	1.8	0.2	0.6	2.1	0.9	DS	0.9	0.0
Kansas	434,050	2.9	0.6	0.1	0.3	0.9	0.9	DS	0.2	DS
Kentucky	1,612,999	3.3	1.1	0.1	2.2	1.0	0.0	DS	0.6	DS

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:							
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown	
Louisiana	1,779,076	2.6	0.7	0.0	2.2	0.0	0.0	DS	0.6	0.1	
Maine	350,973	8.0	1.8	0.7	0.5	1.7	3.3	DS	2.4	DS	
Maryland	1,494,837	0.7	0.3	DS	DS	DS	DS	DS	0.6	0.1	
Massachusetts	1,792,821	6.3	2.8	DS	1.6	1.0	0.0	DS	4.6	1.4	
Michigan	2,957,624	3.4	0.8	0.0	0.7	1.1	0.4	DS	1.4	0.3	
Minnesota	1,348,309	9.2	1.7	0.1	1.8	2.9	2.4	DS	1.4	0.1	
Mississippi	693,638	5.0	0.9	0.0	0.4	3.1	0.5	DS	1.5	DS	
Missouri	1,266,163	5.6	1.3	0.1	2.9	1.5	0.5	DS	2.0	DS	
Montana	285,628	1.7	3.2	DS	0.0	DS	0.5	0.2	0.8	0.3	
Nebraska	350,822	3.6	0.9	0.1	0.2	0.7	DS	DS	1.4	DS	
Nevada	860,999	2.6	1.6	0.6	0.5	1.1	0.2	DS	0.5	0.2	
New Hampshire	235,959	4.3	2.5	0.0	0.5	2.7	0.7	DS	0.9	0.1	
New Jersey	1,954,150	5.2	1.9	0.4	1.7	2.5	0.5	DS	1.3	DS	
New Mexico	879,789	4.0	1.0	0.0	0.2	2.0	0.7	0.0	1.6	DS	
New York	7,327,659	6.4	1.6	0.1	1.7	4.7	0.0	DS	1.1	DS	
North Carolina	2,059,376	3.5	1.1	0.0	2.0	0.2	0.1	DS	1.5	0.0	
North Dakota	129,185	2.7	0.8	0.1	0.8	0.6	0.2	DS	1.3	DS	
Ohio	3,104,714	4.5	0.5	0.0	0.8	1.3	0.1	DS	2.8	0.3	
Oklahoma	1,061,119	3.7	2.1	0.1	1.6	1.0	0.8	DS	1.4	DS	
Oregon	1,221,682	6.0	1.5	0.0	2.2	4.2	0.8	DS	0.5	1.6	
Pennsylvania	3,396,490	1.8	0.8	0.0	0.2	0.0	DS	DS	1.5	0.0	
Puerto Rico	1,469,009	2.4	0.9	1.6	0.2	0.0	0.0	DS	0.8	DS	
Rhode Island	346,960	5.3	2.4	0.8	0.6	2.6	0.0	DS	1.7	DS	
South Carolina	1,180,770	4.1	1.3	0.0	3.4	DS	DS	0.0	0.5	DS	
South Dakota	129,633	3.1	0.6	DS	2.3	DS	DS	DS	1.0	DS	
Tennessee	1,623,203	4.0	0.9	1.4	1.7	0.5	0.0	0.0	1.6	0.1	
Texas	5,060,106	3.0	1.8	0.0	0.3	1.5	0.2	0.0	0.7	0.6	
Utah	466,082	0.0	0.4	DS	DS	DS	DS	DS	0.0	0.0	
Vermont	198,517	4.3	1.3	2.3	DS	0.1	1.6	DS	1.4	0.0	
Virgin Islands	24,134	1.4	1.2	DS	0.6	0.6	DS	DS	0.2	DS	
Virginia	1,777,416	6.1	1.9	0.0	3.8	1.8	0.5	DS	1.0	0.3	
Washington	2,112,585	2.7	1.1	DS	DS	DS	0.0	DS	1.2	1.6	
West Virginia	599,777	6.8	1.4	0.0	2.4	DS	2.4	DS	2.7	DS	
Wisconsin	1,382,974	7.3	3.7	0.5	1.0	2.9	0.8	DS	1.1	0.8	

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:						
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
Wyoming	77,236	1.4	0.8	0.0	DS	0.1	DS	DS	1.2	0.1

Source: Mathematica's analysis of the 2021 preliminary TAF

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). When a procedure code did not indicate a particular mode of transit, the mode of transit was identified using the servicing provider's taxonomy code instead. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B5.4b. Modes of NEMT used as a percentage of total ride days in 2021, by geographic area**

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
<b>United States<sup>a</sup></b>	<b>55,454,075</b>	<b>3.8</b>	<b>28.0</b>	<b>32.5</b>	<b>8.5</b>	<b>0.1</b>	<b>7.2</b>	<b>11.6</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	19,715,629	5.5	29.0	42.6	4.8	0.0	5.0	9.4
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	11,680,475	2.4	23.6	28.1	6.7	0.0	12.1	16.9
United States, <sup>a</sup> medium metro areas <sup>b</sup>	9,102,110	3.1	28.2	28.6	7.6	0.1	9.2	15.0
United States, <sup>a</sup> small metro areas <sup>b</sup>	5,573,030	3.7	28.8	27.3	10.8	0.2	5.8	9.9
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	5,063,388	2.9	30.0	27.2	16.1	0.1	5.3	8.4
United States, <sup>a</sup> non-core areas <sup>b</sup>	4,205,661	2.5	31.7	19.3	19.9	1.1	4.3	6.8
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	1,185,997	2.5	41.3	17.6	17.1	3.4	3.5	8.8
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	22,968,816	4.9	31.5	39.1	4.9	0.1	7.0	10.0
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	14,027,648	3.3	30.1	31.0	10.6	0.1	6.5	10.8
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	10,781,271	3.2	23.2	27.7	11.7	0.1	6.4	13.2
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	7,579,890	2.2	20.2	22.0	10.8	0.1	10.4	15.9
Alabama	31,709	0.0	0.0	0.0	0.0	0.0	82.9	15.4
Alaska	151,974	0.0	12.8	42.9	0.1	38.0	11.6	4.7
Arizona	3,154,585	0.4	72.5	39.6	9.7	0.0	2.9	14.6
Arkansas	517,966	0.0	44.2	0.0	0.0	0.0	5.3	26.6
California	2,724,720	0.6	49.2	41.3	8.0	0.0	6.2	0.4
Colorado	1,869,360	2.2	38.6	23.3	2.1	0.0	0.8	33.1
Connecticut	354,893	0.0	15.6	50.8	0.0	0.0	10.4	0.8
Delaware	81,512	0.0	52.7	0.0	0.0	0.0	1.6	0.0
District of Columbia	43,444	57.0	37.0	0.0	0.0	0.0	5.7	0.0
Florida	2,456,265	1.3	17.5	55.3	1.8	0.1	3.0	5.2
Georgia	1,021,572	0.5	75.0	9.7	2.3	0.0	11.1	1.1
Hawaii	87,693	3.1	78.7	9.0	0.0	0.6	3.4	1.0
Idaho	462,116	0.0	6.6	78.2	15.2	0.0	0.5	0.0
Illinois	1,213,171	0.0	59.8	5.0	0.6	0.0	11.4	22.5
Indiana	667,714	0.0	15.6	4.3	0.6	0.0	6.8	0.0
Iowa	692,770	15.1	25.0	24.5	16.0	0.0	1.4	1.6
Kansas	91,228	1.6	9.8	23.8	31.4	0.0	1.4	0.0

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
Kentucky	663,422	3.7	55.2	38.5	0.1	0.0	3.6	0.0
Louisiana	350,516	0.6	87.6	0.1	1.0	0.0	5.0	2.4
Maine	571,912	3.7	3.9	14.7	41.2	0.0	2.6	0.0
Maryland	30,766	0.0	0.0	0.0	0.0	0.0	53.5	40.8
Massachusetts	3,602,667	0.0	5.9	9.1	0.1	0.0	50.8	38.4
Michigan	943,308	1.1	34.2	33.6	17.9	0.0	7.1	7.8
Minnesota	2,426,664	2.3	8.2	16.9	12.6	0.0	1.2	2.0
Mississippi	353,393	0.0	13.2	69.8	9.4	0.0	7.7	0.0
Missouri	1,034,570	2.3	77.3	8.6	8.3	0.0	3.7	0.0
Montana	178,137	0.0	0.2	0.0	50.5	3.8	1.6	12.3
Nebraska	123,928	0.3	10.9	26.9	0.0	0.0	6.1	0.0
Nevada	410,422	35.2	3.4	48.3	8.0	0.0	1.4	3.9
New Hampshire	293,480	0.1	3.9	58.3	33.4	0.0	1.2	3.0
New Jersey	2,213,143	29.8	14.5	29.5	21.6	0.0	4.8	0.0
New Mexico	414,419	0.2	7.8	55.8	31.3	0.4	4.8	0.0
New York	8,783,542	2.0	21.1	71.9	0.0	0.0	2.2	0.0
North Carolina	884,755	0.0	86.1	5.3	1.3	0.0	7.8	0.2
North Dakota	31,091	6.6	42.8	37.1	7.4	0.0	7.2	0.0
Ohio	779,793	1.5	27.2	35.7	4.9	0.0	24.7	5.1
Oklahoma	911,511	0.4	24.7	5.4	67.2	0.0	2.5	0.0
Oregon	1,262,320	0.1	28.6	45.6	29.2	0.0	0.8	16.1
Pennsylvania	510,250	0.9	2.5	0.1	0.0	0.0	19.4	0.0
Puerto Rico	343,852	74.4	9.9	0.6	0.2	0.0	15.9	0.1
Rhode Island	515,737	3.1	4.5	58.2	1.0	0.0	2.2	0.0
South Carolina	704,718	0.3	85.4	0.0	0.0	0.0	2.1	0.0
South Dakota	27,914	0.0	93.8	0.0	0.0	0.0	6.2	0.0
Tennessee	629,412	37.4	45.7	4.5	0.0	0.4	16.1	3.5
Texas	3,070,890	1.0	2.3	31.1	4.3	0.0	5.0	56.5
Utah	480	0.0	3.3	3.3	0.0	0.0	16.9	61.9
Vermont	126,276	58.4	0.0	1.3	37.6	0.0	3.8	0.4
Virgin Islands	4,225	0.0	64.0	32.1	0.0	0.0	4.0	0.0
Virginia	2,351,698	0.5	39.8	22.9	10.8	0.0	2.0	2.9
Washington	734,822	0.0	0.0	0.0	0.0	0.0	5.4	94.6
West Virginia	645,744	2.6	40.9	0.0	49.3	0.0	7.4	0.0



State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
Wisconsin	4,240,941	8.0	4.6	17.3	9.1	0.0	0.7	10.2
Wyoming	9,222	4.1	4.7	5.1	2.0	0.0	13.0	50.3

Source: Mathematica's analysis of the 2021 preliminary TAF

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). When a procedure code did not indicate a particular mode of transit, the mode of transit was identified using the servicing provider's taxonomy code instead. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B6.1 Number of NEMT ride days per 10,000 child beneficiaries in 2018–2021, by health condition and geography**

State	2018		2019		2020		2021	
	Asthma	Intellectual disabilities and other developmental delays	Asthma	Intellectual disabilities and other developmental delays	Asthma	Intellectual disabilities and other developmental delays	Asthma	Intellectual disabilities and other developmental delays
<b>United States<sup>a</sup></b>	<b>2,987</b>	<b>30,144</b>	<b>3,144</b>	<b>27,918</b>	<b>1,798</b>	<b>14,020</b>	<b>2,010</b>	<b>18,517</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	3,058	35,132	3,240	32,499	1,678	15,012	1,972	21,139
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	2,863	29,066	3,048	27,007	1,852	13,285	2,076	17,237
United States, <sup>a</sup> medium metro areas <sup>b</sup>	2,546	24,383	2,709	24,161	1,413	11,890	1,602	16,165
United States, <sup>a</sup> small metro areas <sup>b</sup>	2,759	25,422	3,016	25,782	1,922	13,830	2,074	17,425
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	3,080	24,158	3,260	20,424	2,126	12,216	2,288	14,550
United States, <sup>a</sup> non-core areas <sup>b</sup>	4,995	43,815	5,304	39,307	3,131	22,172	3,163	26,543
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	6,948	25,503	3,099	26,967	4,754	13,413	4,547	15,287
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	2,875	27,962	2,974	25,385	1,720	12,689	1,899	17,878
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	2,849	28,438	3,257	30,481	1,794	13,051	1,984	17,103
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	3,091	32,407	3,463	31,575	1,890	16,215	2,245	19,429
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	3,370	34,056	8,264	22,860	1,918	16,097	2,168	21,560
Alabama	121	267	118	324	136	271	77	176
Alaska	12,927	12,401	12,206	13,182	4,313	5,865	6,068	6,232
Arizona	12,534	68,633	12,987	63,296	7,263	30,243	7,324	43,959
Arkansas	16,501	122,688	8,158	64,745	4,608	36,128	5,732	43,183
California	519	5,864	668	8,282	366	2,397	379	2,356
Colorado	2,931	33,094	3,350	31,611	2,350	15,786	2,447	27,257
Connecticut	2,882	6,285	2,753	4,239	1,058	1,638	755	1,159
Delaware	1,854	3,570	890	1,242	374	396	539	501
District of Columbia	7,728	21,934	7,106	17,937	1,103	5,287	1,394	12,868
Florida	3,542	16,988	5,179	26,649	3,167	18,698	3,575	24,129
Georgia	1,150	2,793	1,119	2,347	927	1,494	813	1,353
Hawaii	1,077	4,378	964	4,070	304	1,623	162	1,062
Idaho	4,924	24,815	5,689	22,487	3,164	16,325	4,048	17,969
Illinois	6,790	50,522	7,545	51,812	3,511	24,156	3,186	22,011

State	2018		2019		2020		2021	
	Asthma	Intellectual disabilities and other developmental delays	Asthma	Intellectual disabilities and other developmental delays	Asthma	Intellectual disabilities and other developmental delays	Asthma	Intellectual disabilities and other developmental delays
Indiana	1,295	10,583	1,365	10,301	1,124	6,430	1,383	9,585
Iowa	5,892	88,722	5,724	76,565	2,967	37,625	4,754	56,092
Kansas	2,205	11,958	1,943	10,690	1,419	7,578	1,342	6,122
Kentucky	854	1,339	1,095	1,394	800	1,132	838	1,127
Louisiana	957	1,623	660	1,524	309	472	288	318
Maine	10,367	45,749	6,246	34,265	4,051	21,798	4,619	20,915
Maryland	335	6,447	455	6,162	190	1,931	121	1,465
Massachusetts	1,372	3,897	1,635	3,740	686	1,429	772	2,090
Michigan	1,983	7,933	1,769	7,902	1,110	5,930	1,211	5,671
Minnesota	8,895	34,591	8,304	37,567	5,404	26,676	6,580	34,413
Mississippi	2,362	10,627	2,208	4,616	1,648	4,272	1,473	5,144
Missouri	2,724	13,364	3,417	16,439	2,391	13,571	2,463	17,995
Montana	321	5,555	547	8,344	801	3,532	197	2,792
Nebraska	1,247	4,051	1,095	2,457	519	1,536	876	2,078
Nevada	1,972	6,767	2,220	6,748	1,540	5,297	846	3,166
New Hampshire	28	12	17	4	141	188	2,472	7,507
New Jersey	3,882	7,519	3,986	7,361	1,615	2,878	1,983	2,994
New Mexico	1,874	2,356	1,646	2,178	972	1,413	1,131	1,570
New York	3,252	7,375	2,972	6,671	1,758	4,300	2,046	5,596
North Carolina	929	2,152	1,048	1,992	695	1,146	641	1,160
North Dakota	499	3,881	385	3,578	1,720	2,650	1,170	2,914
Ohio	674	2,221	923	4,728	655	2,780	698	1,255
Oklahoma	2,021	20,096	2,403	20,373	1,846	15,494	2,044	15,573
Oregon	6,300	26,781	7,631	28,835	2,861	9,555	2,203	6,837
Pennsylvania	247	996	222	834	198	1,248	318	814
Puerto Rico	53	165	54	250	34	141	15	529
Rhode Island	5,610	30,811	4,372	40,158	2,675	25,963	2,474	34,802
South Carolina	3,153	25,212	4,229	39,826	2,683	19,830	2,637	19,346
South Dakota	419	398	838	468	544	191	350	91
Tennessee	1,149	2,652	1,044	2,454	1,499	2,303	959	1,903
Texas	5,326	124,137	5,675	114,615	2,521	44,605	3,074	64,628

State	2018		2019		2020		2021	
	Asthma	Intellectual disabilities and other developmental delays	Asthma	Intellectual disabilities and other developmental delays	Asthma	Intellectual disabilities and other developmental delays	Asthma	Intellectual disabilities and other developmental delays
Utah	—	—	7	2	—	—	—	6
Vermont	2,188	3,462	3,002	4,498	2,086	1,999	1,812	2,170
Virgin Islands	DS	DS	DS	DS	DS	DS	DS	DS
Virginia	2,671	22,062	3,193	28,094	2,276	23,588	2,584	21,019
Washington	250	717	254	671	255	501	335	432
West Virginia	1,116	1,546	4,684	10,161	3,817	5,438	3,198	6,318
Wisconsin	9,918	111,901	9,945	111,471	6,733	60,114	7,716	82,863
Wyoming	137	83	191	205	56	269	105	406

Source: Mathematica's analysis of the TAF 2018 Release 2, TAF 2019 Release 2, TAF 2020 Release 1, and the 2021 preliminary TAF

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with asthma and beneficiaries with intellectual disabilities or other developmental delays based on diagnosis codes on Medicaid claims and encounter records. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> 2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2020 data for Puerto Rico, Utah, and the US Virgin Islands, and 2021 data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B6.2a Number of NEMT ride days per 10,000 adult beneficiaries in 2018, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD	Pregnancy	Postpartum
<b>United States<sup>a</sup></b>	<b>213,492</b>	<b>14,595</b>	<b>29,363</b>	<b>13,579</b>	<b>33,839</b>	<b>57,563</b>	<b>3,576</b>	<b>4,020</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	257,202	16,031	39,037	18,006	39,639	76,328	3,622	4,089
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	181,241	13,796	24,635	13,174	32,799	48,423	3,844	4,414
United States, <sup>a</sup> medium metro areas <sup>b</sup>	166,326	9,832	21,419	9,268	25,469	45,075	2,421	2,658
United States, <sup>a</sup> small metro areas <sup>b</sup>	170,251	12,389	24,658	12,867	37,813	68,024	3,483	3,690
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	154,173	14,278	21,889	11,367	32,387	54,374	3,676	3,875
United States, <sup>a</sup> non-core areas <sup>b</sup>	153,015	15,561	20,928	13,776	36,693	61,258	5,097	5,685
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	202,229	29,438	37,274	20,929	40,519	55,660	10,733	12,476
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	243,583	15,310	35,356	15,912	32,491	60,674	3,900	4,572
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	176,085	12,343	24,339	11,854	30,279	50,331	3,331	3,722
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	168,346	13,148	24,191	11,826	36,817	60,795	3,229	3,420
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	120,702	9,710	15,496	10,422	33,638	53,464	3,093	3,209
Alabama	5,893	313	1,027	277	350	280	84	110
Alaska	105,938	16,403	37,793	13,733	19,196	13,033	16,136	24,295
Arizona	242,160	32,023	44,474	35,034	65,342	97,185	13,608	16,507
Arkansas	DS	789	DS	10,789	5,422	4,667	732	1,024
California	156,891	5,510	17,795	2,796	6,927	13,814	622	752
Colorado	120,659	6,397	8,947	10,380	25,364	41,471	3,457	4,198
Connecticut	179,363	8,461	21,043	8,664	24,529	41,920	2,539	3,099
Delaware	265,455	38,390	57,877	36,411	97,699	125,591	15,585	17,545
District of Columbia	182,782	18,736	51,731	18,664	20,629	28,054	8,182	14,065
Florida	2,889	506	677	462	623	1,075	70	59
Georgia	59,615	6,549	8,782	5,013	9,344	18,940	1,490	2,177
Hawaii	261,932	10,351	31,132	5,741	10,000	17,663	1,591	2,132
Idaho	DS	8,123	7,155	5,986	11,362	16,062	1,222	1,566
Illinois	74,241	4,364	10,748	3,628	10,055	23,435	1,253	1,516
Indiana	199,770	30,123	48,701	14,364	15,924	26,059	2,082	2,434
Iowa	316,000	19,715	42,757	9,139	14,102	42,080	2,151	2,762
Kansas	112,998	22,687	31,703	11,572	16,037	29,836	1,774	1,923

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD	Pregnancy	Postpartum
Kentucky	95,556	4,572	5,352	3,577	6,184	7,658	1,763	2,286
Louisiana	66,310	5,903	11,131	3,934	6,786	8,893	1,923	2,575
Maine	DS	24,069	31,617	30,614	129,338	158,699	17,070	9,903
Maryland	1,377	133	591	74	75	61	17	21
Massachusetts	144,412	9,603	23,383	10,876	28,492	38,783	3,013	3,169
Michigan	183,248	12,257	23,468	9,233	19,636	32,522	4,904	7,254
Minnesota	177,837	22,281	34,343	17,406	52,093	122,137	7,124	7,430
Mississippi	101,053	10,431	16,006	6,626	7,197	8,201	2,407	3,009
Missouri	181,429	9,732	14,079	7,551	10,409	21,655	2,956	3,881
Montana	DS	864	891	389	342	366	190	180
Nebraska	83,714	5,998	13,566	4,124	5,473	6,373	1,171	1,164
Nevada	91,923	10,923	18,235	10,217	15,294	26,395	2,293	2,909
New Hampshire	40,513	4,230	4,160	2,459	17,931	23,894	3,108	2,030
New Jersey	170,704	25,749	37,956	49,769	106,171	159,423	12,726	13,880
New Mexico	100,855	9,824	27,073	14,342	44,944	94,445	5,238	5,698
New York	475,542	25,722	51,923	32,645	57,499	121,249	10,247	11,926
North Carolina	61,490	5,399	7,600	4,670	11,927	18,660	1,351	1,596
North Dakota	25,385	3,037	4,639	1,439	1,855	1,923	586	825
Ohio	39,593	2,757	6,974	2,072	3,973	5,496	1,301	1,595
Oklahoma	21,449	4,476	6,645	3,066	3,666	4,416	1,014	1,253
Oregon	620,276	108,891	157,356	79,349	165,795	322,216	18,516	18,153
Pennsylvania	1,066	305	767	317	483	409	183	241
Puerto Rico	166,912	2,567	10,239	729	1,075	2,052	174	173
Rhode Island	142,571	6,921	12,226	12,076	57,581	84,008	4,979	5,420
South Carolina	123,317	9,186	14,681	5,356	6,752	6,904	1,804	2,462
South Dakota	3,200	1,179	3,352	860	1,002	400	330	392
Tennessee	197,681	6,825	12,600	4,293	7,398	7,202	1,744	2,274
Texas	69,460	7,971	12,897	6,906	17,817	52,654	1,360	1,510
Utah	—	3	—	1	1	2	—	—
Vermont	DS	25,446	23,814	29,703	88,053	111,510	20,522	20,532
Virgin Islands	DS	699	10,625	3,519	1,935	DS	298	174
Virginia	123,333	18,528	25,957	15,703	31,263	45,971	3,706	3,792
Washington	500	1,587	3,291	784	1,047	890	133	159
West Virginia	26,667	2,997	3,599	2,532	7,113	9,010	1,086	993
Wisconsin	171,533	23,247	34,695	35,882	124,476	228,894	12,802	13,146
Wyoming	DS	602	1,667	242	438	348	216	321

Source: Mathematica's analysis of the TAF 2018 Release 2

Notes: Includes adult beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. CMS identified pregnant beneficiaries as individuals ages 8-64 with one or more claims or encounter records reported in the IP or OT files related to a live birth or fetal loss, labor/delivery, and/or bundled payments during the calendar year. CMS identified postpartum beneficiaries as those who were within 60 days following a claim or encounter record for a live birth, fetal loss, or labor and delivery reported in the IP or OT files during the calendar year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B6.2b Number of NEMT ride days per 10,000 adult beneficiaries in 2019, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD	Pregnancy	Postpartum
<b>United States<sup>a</sup></b>	<b>190,107</b>	<b>14,680</b>	<b>27,807</b>	<b>14,316</b>	<b>36,616</b>	<b>63,833</b>	<b>3,635</b>	<b>4,056</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	235,501	16,175	36,660	18,414	44,316	89,015	3,644	4,132
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	157,094	13,941	24,224	14,546	37,581	58,745	4,084	4,458
United States, <sup>a</sup> medium metro areas <sup>b</sup>	141,916	9,520	19,031	9,565	27,522	49,894	2,659	3,071
United States, <sup>a</sup> small metro areas <sup>b</sup>	154,226	12,616	22,673	12,986	36,250	64,338	3,307	3,342
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	146,762	15,466	22,065	12,850	35,880	58,899	3,906	4,055
United States, <sup>a</sup> non-core areas <sup>b</sup>	132,413	17,616	22,105	15,613	37,536	61,151	4,983	5,600
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	179,500	35,571	34,505	28,161	42,751	55,921	11,852	13,930
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	221,247	15,540	33,377	16,853	35,533	68,988	3,876	4,450
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	156,538	12,598	23,231	12,596	33,918	57,827	3,515	3,938
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	146,106	12,674	22,207	12,548	39,278	66,081	3,417	3,634
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	105,142	10,855	16,324	11,186	35,870	57,304	3,233	3,404
Alabama	7,021	321	1,277	253	260	179	68	89
Alaska	58,333	14,093	33,202	13,405	18,947	14,822	14,521	21,043
Arizona	245,928	34,043	40,695	42,030	69,667	101,038	14,754	17,272
Arkansas	DS	1,071	DS	6,304	1,139	625	991	906
California	143,191	5,710	20,155	3,026	8,308	19,264	621	752
Colorado	161,962	9,033	19,183	12,891	35,324	59,216	4,548	4,698
Connecticut	180,195	7,962	22,853	7,914	24,374	42,174	2,614	3,079
Delaware	118,113	22,667	34,968	25,301	73,560	99,951	12,667	15,752
District of Columbia	201,951	23,031	45,372	21,396	21,319	31,859	10,679	17,552
Florida	31,479	7,860	11,137	18,215	68,281	149,125	4,946	5,239
Georgia	58,235	6,016	9,285	5,279	10,041	19,511	1,504	2,188
Hawaii	203,182	8,119	25,020	5,293	11,096	14,094	1,457	1,930
Idaho	15,385	7,262	4,413	5,125	9,689	10,062	1,069	1,437
Illinois	98,358	5,553	13,744	4,333	10,063	23,846	1,277	1,713
Indiana	134,388	19,945	29,135	10,319	14,038	24,222	1,492	1,988
Iowa	354,583	19,653	42,442	9,115	17,331	54,674	2,487	2,508
Kansas	143,846	21,745	32,368	10,646	13,998	25,671	1,427	1,742



State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD	Pregnancy	Postpartum
Kentucky	53,158	4,346	3,470	4,212	8,236	10,428	2,195	2,590
Louisiana	34,421	5,809	9,851	4,288	9,177	13,418	1,888	2,335
Maine	DS	17,590	9,233	20,551	80,310	98,287	9,869	9,675
Maryland	895	86	345	46	59	54	12	17
Massachusetts	160,556	10,718	23,474	12,250	33,137	44,655	3,524	3,771
Michigan	111,545	9,046	18,295	8,921	22,263	41,353	4,893	6,881
Minnesota	196,045	19,379	30,526	16,163	39,819	84,563	6,650	7,853
Mississippi	59,048	8,832	15,047	5,723	5,951	6,401	1,911	2,158
Missouri	192,545	11,197	18,007	8,776	13,140	28,859	3,285	4,572
Montana	DS	500	593	341	238	214	143	194
Nebraska	133,235	6,984	15,414	3,738	5,875	6,620	1,055	1,332
Nevada	118,421	12,292	26,938	13,446	23,062	43,736	3,122	3,892
New Hampshire	46,765	2,566	2,099	2,078	9,180	12,297	2,669	1,991
New Jersey	204,179	28,207	45,072	48,494	106,399	162,935	12,621	12,552
New Mexico	97,065	11,034	30,345	15,750	48,453	100,452	7,089	7,540
New York	494,722	25,655	52,749	31,693	58,919	126,594	8,933	9,559
North Carolina	51,084	4,957	6,895	4,458	11,818	18,651	1,379	1,698
North Dakota	DS	2,180	3,153	2,332	4,392	6,558	955	691
Ohio	46,645	3,325	7,544	2,177	3,878	5,216	1,130	1,322
Oklahoma	57,848	4,755	7,632	3,146	3,533	4,206	1,105	1,448
Oregon	604,811	110,751	160,560	79,251	173,471	328,255	20,037	20,145
Pennsylvania	1,071	265	752	286	428	342	162	230
Puerto Rico	119,534	1,671	7,607	356	474	297	173	78
Rhode Island	97,429	5,920	7,307	5,196	25,912	37,060	1,586	1,415
South Carolina	166,895	9,275	15,930	5,390	9,206	12,823	1,966	2,551
South Dakota	14,815	2,199	4,583	549	1,814	839	332	414
Tennessee	194,486	7,352	14,286	5,011	9,966	10,818	1,863	2,147
Texas	81,118	8,817	15,380	7,624	20,652	64,771	1,428	1,583
Utah	—	2	—	20	37	60	2	—
Vermont	DS	24,262	15,500	31,153	80,454	100,216	13,206	18,114
Virgin Islands	DS	3,242	2,000	3,187	141	DS	1,074	1,789
Virginia	93,012	19,853	24,761	22,733	43,363	64,169	5,376	5,773
Washington	1,364	3,192	952	616	669	307	100	138
West Virginia	121,765	11,966	19,085	11,462	43,793	55,940	5,086	4,548
Wisconsin	164,615	24,431	35,100	34,793	116,840	212,751	10,259	11,082
Wyoming	DS	764	1,333	343	589	852	155	224

Source: Mathematica's analysis of the TAF 2019 Release 2

Notes: Includes adult beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. CMS identified pregnant beneficiaries as individuals ages 8-64 with one or more claims or encounter records reported in the IP or OT files related to a live birth or fetal loss, labor/delivery, and/or bundled payments during the calendar year. CMS identified postpartum beneficiaries as those who were within 60 days following a claim or encounter record for a live birth, fetal loss, or labor and delivery reported in the IP or OT files during the calendar year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B6.2c Number of NEMT ride days per 10,000 adult beneficiaries in 2020, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD	Pregnancy	Postpartum
<b>United States<sup>a</sup></b>	<b>181,859</b>	<b>11,061</b>	<b>24,288</b>	<b>9,759</b>	<b>29,478</b>	<b>53,382</b>	<b>2,421</b>	<b>2,649</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	219,238	11,823	30,134	11,389	32,887	68,277	2,409	2,656
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	159,914	10,655	22,768	10,110	31,954	52,941	2,722	3,004
United States, <sup>a</sup> medium metro areas <sup>b</sup>	125,990	7,178	16,190	6,390	19,799	36,761	1,762	1,840
United States, <sup>a</sup> small metro areas <sup>b</sup>	131,420	9,329	17,624	9,415	30,666	56,708	2,488	2,779
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	122,158	10,150	16,175	8,791	28,496	48,793	2,697	2,829
United States, <sup>a</sup> non-core areas <sup>b</sup>	152,850	12,853	19,158	10,756	32,217	54,635	3,261	3,813
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	154,842	21,128	24,269	17,302	29,499	39,724	6,229	7,317
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	214,414	11,966	29,716	11,145	28,315	57,615	2,454	2,746
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	143,882	9,365	18,351	8,576	26,402	46,062	2,449	2,710
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	124,576	8,795	17,535	8,928	32,283	56,715	2,372	2,532
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	108,602	7,850	15,894	7,718	28,993	48,188	2,221	2,244
Alabama	2,581	328	826	305	403	270	100	128
Alaska	61,395	9,277	18,613	8,122	11,984	8,698	9,043	13,549
Arizona	239,080	23,414	34,700	26,980	48,916	77,649	9,061	11,175
Arkansas	DS	476	DS	2,390	2,000	2,632	455	563
California	132,990	5,152	19,068	2,076	5,346	11,002	459	526
Colorado	55,176	4,802	11,056	6,422	18,644	34,305	2,546	3,138
Connecticut	101,679	4,080	10,857	3,210	10,161	17,458	1,133	1,140
Delaware	78,802	11,415	17,101	11,628	34,337	47,719	4,545	6,174
District of Columbia	609	179	289	755	1,418	3,829	86	122
Florida	36,798	6,222	10,221	13,539	45,947	103,333	3,554	3,913
Georgia	60,244	5,333	7,026	4,455	11,933	20,115	1,211	1,499
Hawaii	152,234	5,057	18,016	2,641	7,273	14,273	864	1,190
Idaho	23,662	3,347	6,560	3,595	6,334	7,447	697	730
Illinois	91,068	4,657	15,187	2,643	8,701	21,984	758	846
Indiana	234,263	24,620	37,809	13,741	25,330	44,147	1,575	2,048
Iowa	366,161	11,617	34,068	6,076	12,789	42,809	1,490	1,827
Kansas	110,863	16,397	24,847	7,551	10,820	22,589	1,049	1,013

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD	Pregnancy	Postpartum
Kentucky	75,574	3,163	3,416	2,480	4,955	6,180	1,462	1,892
Louisiana	37,534	3,171	6,522	2,275	4,482	7,147	811	1,002
Maine	234,167	16,812	19,335	15,082	54,030	70,214	6,603	6,147
Maryland	594	76	235	32	46	37	8	10
Massachusetts	169,888	6,569	18,477	8,303	24,994	35,350	2,507	2,363
Michigan	99,624	6,298	12,704	5,777	16,441	32,378	2,873	3,715
Minnesota	183,410	14,669	27,198	11,659	39,678	90,556	5,257	5,497
Mississippi	44,565	6,380	10,641	3,827	3,874	4,338	1,397	1,712
Missouri	140,072	8,885	12,566	5,881	8,414	16,716	2,166	2,812
Montana	DS	1,306	968	444	255	116	54	56
Nebraska	91,563	3,010	9,967	1,928	3,763	6,900	785	821
Nevada	92,174	7,849	11,201	7,743	16,187	30,823	2,160	2,470
New Hampshire	DS	1,328	7,360	2,839	10,894	14,114	2,472	3,220
New Jersey	222,469	25,279	37,991	27,198	65,797	99,793	6,240	6,180
New Mexico	92,439	7,246	15,336	9,043	31,322	67,216	4,372	4,120
New York	502,862	19,027	49,949	19,519	43,938	99,597	6,137	6,464
North Carolina	41,214	3,001	3,833	2,475	7,254	11,584	775	830
North Dakota	7,333	1,534	1,727	2,523	6,148	12,305	787	597
Ohio	63,443	3,002	7,189	1,761	3,386	4,791	879	1,114
Oklahoma	137,087	4,992	10,047	2,316	2,685	2,898	876	1,054
Oregon	553,505	79,025	151,364	42,295	98,089	179,723	8,121	9,028
Pennsylvania	1,007	308	1,013	330	483	408	167	227
Puerto Rico	231,062	3,147	13,599	755	439	265	23	13
Rhode Island	203,182	8,184	13,699	8,081	47,797	71,688	2,881	3,301
South Carolina	123,615	7,024	13,940	4,281	12,874	21,590	1,533	1,922
South Dakota	10,857	2,373	3,919	951	2,008	1,039	534	615
Tennessee	187,685	7,773	18,173	4,250	7,067	7,804	1,341	1,598
Texas	77,714	6,195	15,408	4,903	15,459	52,428	978	1,033
Utah	—	—	—	152	537	696	54	52
Vermont	DS	3,760	8,500	14,737	35,036	45,019	5,985	7,815
Virgin Islands	40,000	3,268	2,439	2,114	794	DS	35	—
Virginia	190,236	21,266	35,499	24,306	76,670	126,574	6,919	7,651
Washington	21,604	3,271	6,340	1,945	1,113	1,201	237	216
West Virginia	73,478	13,944	20,082	15,405	59,533	76,739	7,088	7,071
Wisconsin	120,566	18,843	26,157	28,411	112,108	211,791	9,127	10,541
Wyoming	833	652	1,447	267	609	616	123	155

Source: Mathematica's analysis of the 2020 TAF Release 1

Notes: Includes adult beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. CMS identified pregnant beneficiaries as individuals ages 8-64 with one or more claims or encounter records reported in the IP or OT files related to a live birth or fetal loss, labor/delivery, and/or bundled payments during the calendar year. CMS identified postpartum beneficiaries as those who were within 60 days following a claim or encounter record for a live birth, fetal loss, or labor and delivery reported in the IP or OT files during the calendar year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B6.2d. Number of NEMT ride days per 10,000 adult beneficiaries in 2021, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD	Pregnancy	Postpartum
<b>United States<sup>a</sup></b>	<b>161,981</b>	<b>9,184</b>	<b>20,445</b>	<b>7,877</b>	<b>25,548</b>	<b>47,269</b>	<b>1,857</b>	<b>2,132</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	205,307	10,364	27,159	8,964	25,809	54,303	1,788	2,086
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	154,197	9,873	22,602	9,010	31,192	53,310	2,053	2,411
United States, <sup>a</sup> medium metro areas <sup>b</sup>	109,043	6,126	13,496	5,174	17,597	33,324	1,282	1,387
United States, <sup>a</sup> small metro areas <sup>b</sup>	124,720	8,237	15,720	7,874	26,143	48,682	1,912	2,109
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	122,500	9,503	15,954	8,207	27,361	46,641	2,304	2,597
United States, <sup>a</sup> non-core areas <sup>b</sup>	172,207	12,349	18,995	9,352	30,793	53,121	2,930	3,556
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	210,000	21,510	26,596	17,163	29,340	37,734	6,380	8,171
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	204,665	11,111	27,927	9,546	24,845	50,993	1,916	2,258
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	132,434	7,769	16,623	7,106	23,521	41,696	1,883	2,188
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	107,685	7,617	15,361	7,192	27,575	49,309	1,782	1,970
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	110,890	7,680	15,384	7,065	28,552	49,293	1,704	1,801
Alabama	1,149	203	572	158	215	156	46	63
Alaska	99,831	11,142	18,958	9,211	13,827	9,595	10,896	17,538
Arizona	190,747	20,606	34,796	25,022	43,190	64,259	7,793	9,202
Arkansas	DS	3,810	DS	4,030	38,387	DS	849	1,241
California	124,240	4,855	18,212	1,862	5,052	10,922	424	407
Colorado	77,876	4,694	18,527	4,843	18,043	29,751	1,970	2,384
Connecticut	89,819	3,229	10,614	2,660	10,116	17,821	642	517
Delaware	100,455	12,259	18,650	10,814	29,819	39,962	5,537	8,332
District of Columbia	3,810	275	1,154	280	447	165	94	102
Florida	36,808	5,030	7,848	8,054	29,997	68,191	2,286	2,632
Georgia	73,022	4,462	8,256	2,913	8,544	14,605	645	886
Hawaii	103,067	5,417	13,230	1,547	5,484	11,353	594	818
Idaho	93,558	4,802	9,696	4,435	9,221	11,652	736	576
Illinois	71,304	3,134	12,999	1,850	6,532	20,087	324	382
Indiana	253,662	28,047	45,557	14,805	31,310	57,882	1,733	1,899
Iowa	308,346	12,539	36,866	5,821	12,510	40,969	1,671	2,036
Kansas	132,657	11,139	22,515	4,461	7,191	16,638	681	772

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD	Pregnancy	Postpartum
Kentucky	85,165	2,600	3,806	1,784	3,242	4,103	877	1,125
Louisiana	50,641	2,873	7,021	2,930	6,573	10,658	808	1,053
Maine	284,773	13,521	21,270	14,327	60,576	83,270	6,105	7,216
Maryland	1,194	83	301	34	39	29	7	8
Massachusetts	164,000	7,991	22,802	8,335	26,276	37,834	1,899	1,762
Michigan	82,786	5,405	10,216	4,872	14,358	28,432	2,357	3,103
Minnesota	169,734	13,620	20,847	10,109	38,841	90,215	4,564	4,724
Mississippi	66,071	5,309	8,258	2,894	3,116	4,460	923	1,351
Missouri	136,728	6,802	11,859	4,809	6,877	14,367	1,604	2,069
Montana	DS	645	2,447	399	602	403	115	89
Nebraska	109,091	3,575	16,528	1,722	4,624	8,843	654	741
Nevada	53,415	5,750	7,746	4,326	9,702	17,782	1,217	1,545
New Hampshire	180,000	14,556	61,645	24,498	122,268	166,647	14,249	14,880
New Jersey	216,196	21,816	37,305	21,854	56,629	87,465	4,226	3,810
New Mexico	97,669	8,076	17,011	8,047	27,942	59,835	3,462	3,590
New York	494,098	17,204	47,020	17,016	42,821	99,778	5,049	5,913
North Carolina	57,481	3,036	5,689	2,198	6,682	10,596	637	782
North Dakota	22,174	1,669	5,229	2,216	7,656	14,667	1,525	1,375
Ohio	51,065	2,910	6,053	2,038	4,773	7,745	1,012	1,159
Oklahoma	99,675	4,525	7,284	1,858	2,431	2,480	531	710
Oregon	282,821	52,316	71,689	23,015	30,684	53,805	2,193	2,602
Pennsylvania	1,856	280	667	283	442	347	151	223
Puerto Rico	187,120	3,000	12,132	708	438	167	67	158
Rhode Island	155,870	6,824	6,348	7,223	44,879	69,761	1,947	2,161
South Carolina	111,245	6,904	14,312	3,609	12,996	22,661	1,290	1,706
South Dakota	44,000	2,720	9,219	700	2,024	1,279	422	563
Tennessee	146,451	5,541	12,157	2,898	5,769	7,904	896	1,133
Texas	64,873	5,575	13,370	3,586	9,821	35,946	609	785
Utah	—	—	—	69	112	135	6	1
Vermont	DS	7,848	7,870	8,590	29,504	36,890	4,952	5,182
Virgin Islands	DS	4,725	14,242	868	755	DS	67	18
Virginia	206,626	21,214	35,733	22,462	75,947	126,240	6,408	6,958
Washington	6,736	2,917	5,474	1,355	904	869	181	234
West Virginia	71,724	11,672	17,071	11,866	53,840	70,643	6,072	5,788
Wisconsin	133,527	15,449	25,358	21,683	89,270	173,299	6,746	7,053
Wyoming	714	328	1,220	211	403	479	108	144

Source: Mathematica's analysis of the 2021 preliminary TAF

Notes: Includes adult beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. CMS identified pregnant beneficiaries as individuals ages 8-64 with one or more claims or encounter records reported in the IP or OT files related to a live birth or fetal loss, labor/delivery, and/or bundled payments during the calendar year. CMS identified postpartum beneficiaries as those who were within 60 days following a claim or encounter record for a live birth, fetal loss, or labor and delivery reported in the IP or OT files during the calendar year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.



**Table B6.3a. Number of NEMT ride days per 10,000 adult expansion beneficiaries in 2018, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OID
<b>United States<sup>a</sup></b>	<b>166,469</b>	<b>12,682</b>	<b>21,742</b>	<b>15,450</b>	<b>27,856</b>	<b>44,555</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	207,049	15,186	30,527	19,583	32,369	54,849
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	131,656	11,891	18,995	17,491	32,166	47,514
United States, <sup>a</sup> medium metro areas <sup>b</sup>	146,438	10,017	17,987	12,673	23,809	39,646
United States, <sup>a</sup> small metro areas <sup>b</sup>	107,387	10,028	13,928	12,139	23,195	36,674
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	78,282	10,124	11,783	11,056	22,595	34,512
United States, <sup>a</sup> non-core areas <sup>b</sup>	87,427	10,161	11,477	11,254	20,201	26,530
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	140,886	19,444	18,958	19,179	29,572	31,041
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	208,388	15,626	30,510	20,013	30,690	51,098
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	137,062	10,796	17,780	13,371	25,054	39,440
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	106,193	9,539	14,661	12,584	25,533	40,339
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	95,361	8,624	12,903	12,187	26,375	41,017
Alabama	DS	DS	DS	DS	DS	DS
Alaska	119,815	21,113	26,505	15,765	14,408	11,143
Arizona	164,160	39,579	44,011	58,861	75,654	111,817
Arkansas	38,756	3,962	4,761	3,390	3,672	3,903
California	187,421	7,660	19,707	5,461	8,454	16,544
Colorado	120,051	12,476	20,357	17,919	28,305	45,816
Connecticut	210,751	19,857	32,098	23,061	36,938	59,797
Delaware	132,264	15,690	21,708	32,221	67,823	91,726
District of Columbia	194,779	20,123	36,857	19,683	15,054	17,962
Florida	DS	DS	DS	DS	DS	DS
Georgia	DS	DS	DS	DS	DS	DS
Hawaii	177,020	8,390	17,030	8,744	12,084	22,862
Idaho	DS	DS	DS	DS	DS	DS
Illinois	201,854	15,240	29,962	12,886	20,972	39,057
Indiana	42,015	6,951	8,752	7,076	15,316	24,244
Iowa	47,803	5,946	8,773	5,689	7,788	22,037
Kansas	DS	DS	DS	DS	DS	DS
Kentucky	47,953	4,815	6,766	5,151	7,181	8,182

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD
Louisiana	55,506	6,299	9,225	5,686	9,553	11,553
Maine	DS	9,027	18,108	12,433	22,222	30,858
Maryland	1,007	161	478	145	137	109
Massachusetts	112,164	9,452	17,442	15,399	26,292	36,133
Michigan	105,499	12,397	19,730	11,391	18,046	29,875
Minnesota	142,273	21,488	24,761	26,029	43,629	104,255
Mississippi	DS	DS	DS	DS	DS	DS
Missouri	DS	DS	DS	DS	DS	DS
Montana	26,036	1,808	2,536	903	1,131	1,226
Nebraska	DS	DS	DS	DS	DS	DS
Nevada	80,694	13,309	21,823	14,108	17,294	25,884
New Hampshire	75,135	13,387	13,236	21,523	90,796	120,080
New Jersey	191,723	21,361	37,355	55,118	108,673	160,203
New Mexico	65,062	11,081	21,226	18,194	43,611	91,587
New York	335,500	22,326	39,035	35,816	56,773	97,370
North Carolina	DS	DS	DS	DS	DS	DS
North Dakota	5,745	1,214	2,831	1,834	2,519	4,044
Ohio	50,899	4,148	7,147	3,382	4,361	4,938
Oklahoma	DS	DS	DS	DS	DS	DS
Oregon	206,888	32,991	52,111	43,875	105,966	221,568
Pennsylvania	4,921	466	1,256	651	878	864
Puerto Rico	157,939	2,290	7,151	704	1,774	1,450
Rhode Island	179,080	11,520	14,207	23,129	71,723	119,900
South Carolina	DS	DS	DS	DS	DS	DS
South Dakota	DS	DS	DS	DS	DS	DS
Tennessee	DS	DS	DS	DS	DS	DS
Texas	DS	DS	DS	DS	DS	DS
Utah	DS	DS	DS	DS	DS	DS
Vermont	148,235	15,511	20,930	22,785	67,407	100,362
Virgin Islands	57,241	6,439	18,765	3,107	853	4,375
Virginia	DS	DS	DS	DS	DS	DS
Washington	14,120	4,444	6,578	2,482	1,722	1,780
West Virginia	38,670	4,038	6,674	4,526	8,570	10,755
Wisconsin	DS	DS	DS	DS	DS	DS
Wyoming	DS	DS	DS	DS	DS	DS

Source: Mathematica's analysis of the TAF 2018 Release 2

Notes: Includes adult expansion beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B6.3b. Number of NEMT ride days per 10,000 adult expansion beneficiaries in 2019, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD
<b>United States<sup>a</sup></b>	<b>162,530</b>	<b>13,510</b>	<b>22,904</b>	<b>16,784</b>	<b>31,016</b>	<b>50,294</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	200,029	16,445	31,946	21,792	37,553	65,359
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	130,194	12,527	20,994	18,317	34,662	51,556
United States, <sup>a</sup> medium metro areas <sup>b</sup>	150,739	10,246	18,860	12,823	24,764	41,843
United States, <sup>a</sup> small metro areas <sup>b</sup>	108,231	11,103	14,730	13,773	26,089	41,198
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	74,521	11,491	13,639	12,902	26,770	40,950
United States, <sup>a</sup> non-core areas <sup>b</sup>	87,901	12,630	14,060	14,984	26,041	34,355
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	116,411	25,689	22,617	28,374	37,911	36,315
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	201,566	16,718	31,633	21,732	33,997	57,161
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	130,469	11,400	18,634	14,656	28,339	45,168
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	115,706	10,418	16,644	13,666	28,851	46,299
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	89,498	9,318	14,011	13,567	29,950	47,612
Alabama	DS	DS	DS	DS	DS	DS
Alaska	122,188	22,524	30,905	17,277	16,726	12,542
Arizona	158,814	43,336	45,120	70,520	86,775	132,725
Arkansas	33,538	3,843	4,262	2,940	3,298	4,480
California	186,115	8,488	21,025	5,873	10,560	22,856
Colorado	106,038	14,634	24,753	22,547	40,304	69,386
Connecticut	210,524	18,201	31,559	19,385	31,435	49,582
Delaware	35,446	14,919	15,864	25,762	57,857	78,966
District of Columbia	120,598	24,086	35,095	19,833	14,538	21,091
Florida	DS	DS	DS	DS	DS	DS
Georgia	DS	DS	DS	DS	DS	DS
Hawaii	180,177	9,583	19,138	10,578	15,374	26,701
Idaho	DS	DS	DS	DS	DS	DS
Illinois	182,035	16,211	31,734	13,841	23,463	44,269
Indiana	28,750	4,680	6,309	5,638	13,299	22,164
Iowa	69,579	6,333	8,347	5,744	8,402	23,368
Kansas	DS	DS	DS	DS	DS	DS
Kentucky	91,512	5,697	8,854	7,066	11,558	13,905
Louisiana	63,407	5,992	8,731	5,844	10,364	14,317

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD
Maine	76,176	18,096	17,688	20,261	45,572	57,224
Maryland	483	98	227	71	80	75
Massachusetts	103,665	11,376	20,101	18,115	30,909	42,542
Michigan	82,254	10,989	16,771	11,034	20,114	37,136
Minnesota	152,487	23,089	27,761	26,593	41,474	88,632
Mississippi	DS	DS	DS	DS	DS	DS
Missouri	DS	DS	DS	DS	DS	DS
Montana	27,257	2,210	2,803	1,151	1,102	1,300
Nebraska	DS	DS	DS	DS	DS	DS
Nevada	93,274	15,016	23,976	18,622	25,905	41,040
New Hampshire	63,519	16,363	17,384	22,057	59,571	78,551
New Jersey	178,128	23,577	41,074	56,099	113,631	167,229
New Mexico	63,688	12,007	21,516	17,646	44,887	92,301
New York	326,787	23,168	40,342	37,128	62,575	111,333
North Carolina	DS	DS	DS	DS	DS	DS
North Dakota	8,776	2,000	4,667	4,395	6,729	18,075
Ohio	50,226	4,061	6,964	3,545	4,754	5,508
Oklahoma	DS	DS	DS	DS	DS	DS
Oregon	223,438	35,193	58,837	48,171	117,498	236,558
Pennsylvania	3,276	459	1,110	610	845	808
Puerto Rico	135,143	1,927	7,584	820	1,261	742
Rhode Island	65,000	6,366	7,155	9,419	28,901	45,629
South Carolina	DS	DS	DS	DS	DS	DS
South Dakota	DS	DS	DS	DS	DS	DS
Tennessee	DS	DS	DS	DS	DS	DS
Texas	DS	DS	DS	DS	DS	DS
Utah	DS	DS	DS	DS	DS	DS
Vermont	244,000	19,803	26,867	21,064	63,347	91,640
Virgin Islands	73,889	5,663	33,182	2,235	6,061	12,308
Virginia	DS	DS	DS	DS	DS	DS
Washington	11,648	4,903	8,000	2,843	1,957	1,750
West Virginia	71,237	12,765	18,588	15,857	41,785	53,207
Wisconsin	DS	DS	DS	DS	DS	DS
Wyoming	DS	DS	DS	DS	DS	DS

Source: Mathematica's analysis of the TAF 2019 Release 2

Notes: Includes adult expansion beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B6.3c. Number of NEMT ride days per 10,000 adult expansion beneficiaries in 2020, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD
<b>United States<sup>a</sup></b>	<b>151,729</b>	<b>10,018</b>	<b>18,091</b>	<b>11,320</b>	<b>23,302</b>	<b>38,596</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	186,505	12,308	25,719	14,367	27,257	47,085
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	115,086	8,600	15,069	11,454	24,661	38,649
United States, <sup>a</sup> medium metro areas <sup>b</sup>	136,055	7,597	14,330	8,258	17,711	30,950
United States, <sup>a</sup> small metro areas <sup>b</sup>	105,093	8,882	12,755	10,159	21,407	34,993
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	79,349	8,302	10,761	9,654	22,701	37,565
United States, <sup>a</sup> non-core areas <sup>b</sup>	83,907	9,217	10,490	9,691	20,075	29,584
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	122,857	16,905	15,543	18,461	26,056	27,827
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	188,791	12,579	25,426	14,771	25,270	42,794
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	120,160	8,355	14,199	9,996	21,837	35,775
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	110,808	7,802	13,410	9,369	22,064	36,614
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	83,001	6,459	10,449	8,559	21,704	35,637
Alabama	DS	DS	DS	DS	DS	DS
Alaska	133,276	13,955	25,778	10,784	12,587	8,050
Arizona	152,843	29,479	35,384	48,072	63,788	102,700
Arkansas	38,167	3,483	4,095	2,392	2,748	3,414
California	176,080	8,108	20,830	4,621	8,883	18,276
Colorado	128,346	11,816	21,537	14,622	29,342	47,620
Connecticut	150,790	9,320	18,194	9,176	16,787	26,330
Delaware	26,000	8,574	8,518	11,860	30,807	42,569
District of Columbia	924	493	563	983	818	887
Florida	DS	DS	DS	DS	DS	DS
Georgia	DS	DS	DS	DS	DS	DS
Hawaii	122,074	6,017	13,622	5,498	9,383	16,067
Idaho	DS	DS	DS	DS	DS	DS
Illinois	162,065	12,210	24,807	9,287	19,129	36,990
Indiana	54,530	5,213	7,884	6,149	16,450	26,469
Iowa	117,968	5,402	8,256	4,233	6,595	17,556
Kansas	DS	DS	DS	DS	DS	DS
Kentucky	69,680	4,221	6,861	4,538	7,627	8,994
Louisiana	33,821	2,943	4,133	2,551	4,607	6,295

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD
Maine	215,745	16,598	16,861	17,259	43,130	58,055
Maryland	449	64	200	43	51	45
Massachusetts	114,709	8,160	14,519	13,734	25,513	36,275
Michigan	66,321	7,348	11,640	6,881	13,913	26,312
Minnesota	164,023	18,920	24,091	20,682	39,515	90,025
Mississippi	DS	DS	DS	DS	DS	DS
Missouri	DS	DS	DS	DS	DS	DS
Montana	7,177	1,682	1,153	861	791	1,095
Nebraska	46,071	2,138	1,156	2,184	2,600	4,025
Nevada	108,148	13,934	23,020	18,299	29,144	48,666
New Hampshire	90,141	6,713	12,731	12,925	38,655	51,949
New Jersey	136,832	14,740	25,768	33,741	77,849	118,379
New Mexico	81,265	8,696	15,143	11,415	30,446	63,422
New York	321,760	16,325	31,737	24,055	47,198	88,068
North Carolina	DS	DS	DS	DS	DS	DS
North Dakota	19,636	2,463	3,729	3,842	6,706	16,702
Ohio	54,467	3,997	7,217	3,258	4,747	5,583
Oklahoma	DS	DS	DS	DS	DS	DS
Oregon	167,066	20,510	34,210	23,113	64,719	128,833
Pennsylvania	3,763	491	1,192	619	899	850
Puerto Rico	235,196	3,398	12,323	1,418	1,307	1,137
Rhode Island	145,352	9,487	12,517	17,838	60,747	97,299
South Carolina	DS	DS	DS	DS	DS	DS
South Dakota	DS	DS	DS	DS	DS	DS
Tennessee	DS	DS	DS	DS	DS	DS
Texas	DS	DS	DS	DS	DS	DS
Utah	—	—	—	6	8	14
Vermont	234,545	10,738	15,632	10,546	34,652	47,995
Virgin Islands	110,488	7,152	30,677	1,154	2,760	—
Virginia	DS	DS	DS	DS	DS	DS
Washington	18,239	4,496	6,326	2,158	1,885	1,746
West Virginia	97,193	14,972	21,065	18,239	54,323	68,391
Wisconsin	DS	DS	DS	DS	DS	DS
Wyoming	DS	DS	DS	DS	DS	DS

Source: Mathematica's analysis of the 2020 TAF Release 1



Notes: Includes adult expansion beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B6.3d. Number of NEMT ride days per 10,000 adult expansion beneficiaries in 2021, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD
<b>United States<sup>a</sup></b>	<b>149,340</b>	<b>9,532</b>	<b>17,383</b>	<b>10,312</b>	<b>22,970</b>	<b>38,747</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	184,491	11,718	24,821	12,642	24,566	42,153
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	117,769	8,200	14,705	10,684	25,430	41,240
United States, <sup>a</sup> medium metro areas <sup>b</sup>	125,362	7,176	13,203	7,591	18,291	32,793
United States, <sup>a</sup> small metro areas <sup>b</sup>	109,327	8,669	13,194	9,606	21,807	36,609
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	85,412	8,195	10,874	9,629	25,425	42,894
United States, <sup>a</sup> non-core areas <sup>b</sup>	101,395	8,905	10,501	8,899	21,048	31,438
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	115,475	16,797	15,336	18,361	27,384	28,709
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	183,858	11,891	24,350	13,603	24,419	41,405
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	123,517	8,245	14,270	9,161	22,011	36,819
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	110,224	7,344	12,670	8,442	21,863	37,337
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	87,979	6,482	10,384	7,998	22,450	38,037
Alabama	DS	DS	DS	DS	DS	DS
Alaska	34,035	12,630	19,381	11,382	12,840	9,345
Arizona	149,939	26,260	31,715	44,058	57,802	86,039
Arkansas	34,110	3,827	3,982	2,895	2,633	2,668
California	169,267	8,035	19,992	4,495	9,014	18,448
Colorado	158,771	12,316	18,889	12,646	29,631	50,588
Connecticut	100,157	7,725	13,185	8,535	18,803	30,819
Delaware	38,462	5,565	8,696	8,899	23,062	32,186
District of Columbia	1,006	1,149	1,909	832	666	749
Florida	DS	DS	DS	DS	DS	DS
Georgia	DS	DS	DS	DS	DS	DS
Hawaii	115,815	5,397	12,211	3,035	5,299	10,388
Idaho	DS	DS	DS	DS	DS	DS
Illinois	143,085	11,447	23,728	8,654	20,229	41,697
Indiana	58,853	5,322	8,924	6,393	19,015	30,272
Iowa	135,000	5,706	8,343	3,878	6,955	19,559
Kansas	DS	DS	DS	DS	DS	DS
Kentucky	78,474	4,266	6,089	3,551	5,085	5,701
Louisiana	37,780	3,672	5,714	3,147	6,325	9,377

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD
Maine	100,179	15,424	19,735	19,100	56,055	78,854
Maryland	710	88	243	44	48	42
Massachusetts	115,900	9,459	16,551	14,437	27,978	40,656
Michigan	76,492	6,992	11,423	6,410	13,972	26,415
Minnesota	159,132	18,696	25,601	19,026	40,280	88,247
Mississippi	DS	DS	DS	DS	DS	DS
Missouri	3,871	1,052	1,781	1,144	1,106	1,108
Montana	22,014	1,235	2,287	1,013	1,408	2,053
Nebraska	138,488	8,007	12,441	5,251	7,211	9,875
Nevada	93,629	10,394	18,803	13,876	27,560	47,440
New Hampshire	140,204	16,881	23,383	25,788	88,444	123,520
New Jersey	149,445	13,305	23,447	27,071	70,979	112,201
New Mexico	96,000	8,602	15,175	9,969	27,541	57,048
New York	352,047	16,030	32,414	22,759	50,769	96,298
North Carolina	DS	DS	DS	DS	DS	DS
North Dakota	33,400	2,096	2,795	4,526	9,531	23,724
Ohio	66,920	4,636	8,068	3,785	5,907	7,557
Oklahoma	26,023	1,836	3,316	1,053	1,497	1,509
Oregon	177,317	15,643	28,843	13,276	41,322	79,661
Pennsylvania	4,466	473	1,271	570	868	801
Puerto Rico	221,478	3,836	11,952	1,537	1,563	1,204
Rhode Island	164,719	10,747	18,104	16,772	61,209	98,449
South Carolina	DS	DS	DS	DS	DS	DS
South Dakota	DS	DS	DS	DS	DS	DS
Tennessee	DS	DS	DS	DS	DS	DS
Texas	DS	DS	DS	DS	DS	DS
Utah	—	—	—	5	9	11
Vermont	313,214	10,941	14,967	8,682	31,148	43,480
Virgin Islands	114,444	7,558	10,556	2,478	1,751	—
Virginia	DS	DS	DS	DS	DS	DS
Washington	19,326	3,504	5,547	1,844	1,735	1,583
West Virginia	110,634	12,913	19,150	16,778	51,581	64,833
Wisconsin	DS	DS	DS	DS	DS	DS
Wyoming	DS	DS	DS	DS	DS	DS

Source: Mathematica's analysis of the 2021 preliminary TAF

Notes: Includes adult expansion beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B6.4a. Number of NEMT ride days per 10,000 beneficiaries eligible on the basis of a disability in 2018, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OID	HCBS chronic condition: physical disability	HCBS chronic condition: intellectual disability	HCBS chronic condition: developmental disability
<b>United States<sup>a</sup></b>	<b>341,511</b>	<b>74,117</b>	<b>85,670</b>	<b>60,907</b>	<b>71,948</b>	<b>104,882</b>	<b>94,238</b>	<b>101,590</b>	<b>69,926</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	377,799	89,629	113,454	65,935	86,886	128,133	37,490	12,097	37,284
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	292,574	83,745	86,734	76,059	85,386	116,656	46,957	172,923	80,548
United States, <sup>a</sup> medium metro areas <sup>b</sup>	313,173	63,361	74,693	53,720	60,273	91,869	119,213	126,548	71,906
United States, <sup>a</sup> small metro areas <sup>b</sup>	322,372	70,681	72,720	63,581	62,447	90,615	163,613	123,814	97,744
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	339,981	60,223	65,773	50,242	50,540	69,054	101,367	130,298	56,735
United States, <sup>a</sup> non-core areas <sup>b</sup>	380,174	63,413	69,353	57,059	57,143	74,009	83,992	81,404	51,239
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	385,003	74,367	75,179	63,845	67,995	74,456	99,931	33,906	33,252
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	384,338	81,977	102,300	61,656	81,103	124,098	59,129	41,649	61,921
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	311,834	64,171	71,724	53,996	59,269	83,249	104,334	90,184	73,018
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	283,467	67,252	71,700	60,031	64,642	90,281	139,553	111,065	65,526
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	268,228	78,281	76,208	75,760	74,178	100,645	113,775	160,934	77,843
Alabama	47,998	5,879	10,298	3,121	3,640	4,424	DS	DS	DS
Alaska	386,176	74,231	100,969	37,971	43,398	51,453	DS	17,964	120,577
Arizona	521,445	182,801	175,342	184,761	201,611	239,473	DS	DS	DS
Arkansas	351,755	64,566	59,543	55,601	46,138	38,224	DS	52,500	156,667
California	292,555	42,610	66,302	18,123	31,506	49,536	DS	DS	DS
Colorado	467,388	160,351	148,630	186,478	142,250	182,870	DS	DS	DS
Connecticut	493,047	79,205	129,947	67,339	101,652	163,471	99,893	DS	80,063
Delaware	375,962	61,222	88,633	42,429	114,511	165,514	99,688	30,714	DS
District of Columbia	363,152	112,229	128,771	117,338	84,678	91,876	DS	DS	DS
Florida	17,801	10,135	5,903	18,450	3,606	4,105	DS	DS	DS
Georgia	389,936	78,211	82,976	60,740	74,268	76,968	DS	DS	DS
Hawaii	462,838	92,747	141,395	46,750	60,286	81,772	DS	DS	DS
Idaho	412,634	117,807	105,938	107,911	92,854	123,909	517,369	DS	DS
Illinois	238,802	36,683	56,698	28,078	32,464	47,450	36,424	11,306	DS
Indiana	246,826	40,354	51,497	25,249	37,079	48,301	DS	DS	DS

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD	HCBS chronic condition: physical disability	HCBS chronic condition: intellectual disability	HCBS chronic condition: developmental disability
Iowa	344,913	78,069	80,644	90,585	54,267	90,922	DS	DS	DS
Kansas	120,104	23,670	25,724	14,820	21,738	41,096	21,958	DS	16,385
Kentucky	390,154	70,855	67,044	60,608	41,025	38,013	DS	47,341	DS
Louisiana	207,555	36,083	42,984	24,540	34,200	35,947	21,799	DS	55,346
Maine	480,248	111,673	94,554	126,237	223,888	327,458	DS	DS	DS
Maryland	4,377	1,524	2,739	2,571	803	683	DS	DS	DS
Massachusetts	314,428	120,285	112,372	111,036	101,281	140,304	DS	DS	DS
Michigan	346,517	48,931	69,742	28,505	55,257	92,882	81,994	69,211	93,369
Minnesota	422,352	126,015	142,013	96,879	122,101	204,726	DS	DS	DS
Mississippi	534,629	71,021	92,055	31,522	43,121	52,026	67,953	DS	DS
Missouri	430,561	63,959	70,326	49,930	29,598	36,706	DS	DS	DS
Montana	145,939	72,648	80,305	52,403	36,221	46,567	401,600	DS	93,127
Nebraska	363,452	73,094	75,975	57,876	73,444	89,011	33,559	DS	10,048
Nevada	322,776	79,518	85,960	50,141	54,262	75,333	DS	DS	DS
New Hampshire	9,241	4,422	3,642	2,112	4,487	6,908	DS	DS	710
New Jersey	609,345	181,652	195,408	179,266	284,547	377,882	DS	DS	DS
New Mexico	388,603	71,594	94,011	49,068	100,199	177,458	75,419	DS	16,293
New York	691,017	158,663	204,614	106,914	165,808	233,545	DS	DS	DS
North Carolina	297,922	47,717	57,889	34,391	41,524	62,610	DS	DS	DS
North Dakota	175,610	28,694	37,917	18,269	25,226	35,044	33,065	DS	6,209
Ohio	166,625	27,843	40,972	13,435	16,228	18,450	DS	DS	DS
Oklahoma	492,694	94,107	84,645	96,139	45,064	62,132	DS	DS	DS
Oregon	673,218	172,762	237,908	120,239	220,170	333,103	DS	DS	DS
Pennsylvania	11,213	7,193	5,136	8,430	2,310	2,325	3,423	387,598	137,191
Puerto Rico	227,788	8,112	17,424	2,879	6,280	6,935	DS	DS	DS
Rhode Island	401,125	90,295	86,021	91,761	152,035	246,078	DS	DS	DS
South Carolina	432,077	67,082	78,552	53,605	47,103	44,811	DS	DS	DS
South Dakota	155,736	33,302	48,819	14,626	19,405	36,976	DS	DS	DS
Tennessee	386,758	54,041	64,581	41,114	43,882	38,515	DS	DS	DS
Texas	340,305	58,409	81,351	57,754	55,621	116,862	DS	5,859	DS
Utah	—	1	3	1	2	4	DS	DS	DS
Vermont	451,462	83,465	95,533	68,346	150,418	227,129	DS	DS	DS
Virgin Islands	56,923	13,613	11,935	8,438	—	DS	DS	DS	DS

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD	HCBS chronic condition: physical disability	HCBS chronic condition: intellectual disability	HCBS chronic condition: developmental disability
Virginia	203,878	68,453	61,303	74,652	56,131	69,189	DS	DS	DS
Washington	112,793	79,393	66,005	57,021	30,127	39,846	DS	DS	DS
West Virginia	135,114	32,649	30,165	33,810	19,043	22,069	DS	DS	143,494
Wisconsin	692,778	226,705	237,932	204,012	211,562	345,227	DS	DS	DS
Wyoming	74,426	26,426	35,629	15,446	26,118	35,845	DS	DS	DS

Source: Mathematica's analysis of the TAF 2018 Release 2

Notes: Includes beneficiaries eligible on the basis of a disability who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. CMS identified HCBS chronic conditions of physical disabilities, intellectual disabilities, and developmental disabilities using the HCBS chronic conditions indicators on the TAF DE file. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B6.4b. Number of NEMT ride days per 10,000 beneficiaries eligible on the basis of a disability in 2019, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD	HCBS chronic condition: physical disability	HCBS chronic condition: intellectual disability	HCBS chronic condition: developmental disability
<b>United States<sup>a</sup></b>	<b>326,006</b>	<b>75,280</b>	<b>85,609</b>	<b>63,017</b>	<b>74,995</b>	<b>113,152</b>	<b>96,088</b>	<b>85,708</b>	<b>80,522</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	356,651	91,251	113,957	68,350	92,110	141,525	41,221	10,210	35,847
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	284,830	86,021	87,816	78,554	87,962	123,561	43,475	141,676	77,315
United States, <sup>a</sup> medium metro areas <sup>b</sup>	301,237	62,869	72,493	54,589	61,612	97,343	114,553	113,036	70,997
United States, <sup>a</sup> small metro areas <sup>b</sup>	311,046	72,079	71,764	66,330	64,525	94,808	162,353	102,094	132,780
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	326,356	59,804	64,785	51,263	52,835	74,313	103,937	100,367	73,135
United States, <sup>a</sup> non-core areas <sup>b</sup>	365,054	66,101	70,525	61,023	60,169	78,825	82,885	75,301	107,154
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	396,660	79,778	78,781	71,421	75,652	78,463	96,941	46,201	133,579
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	363,704	82,814	102,013	63,215	84,543	134,574	63,599	37,857	60,920
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	299,647	64,954	72,055	56,145	62,762	91,085	105,572	74,040	84,458
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	275,367	69,131	71,576	62,804	67,722	97,332	134,772	93,206	86,690
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	262,900	81,398	76,803	78,920	76,457	107,220	112,247	133,071	86,068
Alabama	41,820	5,904	8,476	3,406	2,969	3,406	DS	DS	DS
Alaska	339,502	72,123	107,268	43,650	51,278	52,874	DS	23,478	68,261
Arizona	517,779	181,248	180,314	184,880	201,887	255,785	DS	DS	DS
Arkansas	316,321	55,123	52,339	41,291	39,613	28,609	5,897	59,632	129,440
California	257,180	40,756	63,149	19,418	35,626	61,446	DS	DS	DS
Colorado	485,382	172,641	156,145	198,335	158,231	204,553	DS	DS	DS
Connecticut	471,763	77,135	123,788	64,924	93,720	147,205	100,476	DS	83,789
Delaware	225,438	45,821	67,140	33,846	93,667	143,623	68,097	35,852	DS
District of Columbia	263,154	81,958	92,218	80,721	71,002	79,206	DS	DS	DS
Florida	291,194	74,904	76,223	62,019	70,154	127,685	DS	DS	DS
Georgia	372,722	77,108	81,597	58,869	74,171	76,416	DS	DS	DS



State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD	HCBS chronic condition: physical disability	HCBS chronic condition: intellectual disability	HCBS chronic condition: developmental disability
Hawaii	441,484	88,869	135,495	44,955	61,047	83,401	DS	DS	DS
Idaho	412,233	114,167	108,858	103,853	88,122	109,934	474,909	DS	DS
Illinois	203,014	33,551	50,478	27,675	33,854	50,696	32,941	10,329	DS
Indiana	143,583	24,352	32,129	14,720	25,289	39,134	DS	DS	DS
Iowa	370,998	71,805	78,212	82,144	62,325	127,491	DS	DS	DS
Kansas	171,541	27,314	31,335	15,059	22,376	45,111	24,619	DS	12,509
Kentucky	392,725	73,751	70,431	62,643	46,868	47,628	DS	40,825	DS
Louisiana	193,677	35,379	41,229	25,104	35,754	38,329	27,655	DS	51,927
Maine	442,415	91,109	83,083	97,607	149,781	208,476	DS	DS	DS
Maryland	4,892	1,423	2,519	2,578	751	620	DS	DS	DS
Massachusetts	337,002	128,385	119,955	116,682	110,215	150,319	DS	DS	DS
Michigan	312,083	47,047	65,640	27,895	57,311	108,685	89,669	108,387	95,011
Minnesota	433,175	130,856	147,107	104,916	125,755	203,897	DS	DS	DS
Mississippi	367,335	52,644	67,247	24,374	35,302	45,220	49,485	DS	DS
Missouri	422,131	61,697	68,652	45,856	28,726	33,746	DS	DS	DS
Montana	131,250	98,807	85,827	90,122	41,924	49,406	408,777	DS	415,720
Nebraska	345,916	65,416	73,561	51,735	63,342	76,485	32,063	DS	9,418
Nevada	312,912	80,187	89,378	57,200	62,982	85,197	DS	DS	DS
New Hampshire	10,588	2,008	2,313	2,870	6,359	10,244	DS	DS	146
New Jersey	601,538	186,366	201,090	179,609	285,648	380,595	DS	DS	DS
New Mexico	390,514	73,816	96,780	52,942	109,898	196,869	80,023	DS	18,235
New York	699,505	163,646	212,238	111,726	181,094	261,750	DS	DS	DS
North Carolina	297,571	50,052	59,447	37,622	42,797	63,165	DS	DS	DS
North Dakota	220,092	34,465	57,208	22,192	37,224	68,213	28,083	DS	5,442
Ohio	147,674	25,805	38,698	14,068	16,975	18,592	DS	DS	DS
Oklahoma	481,984	96,438	82,861	99,198	46,992	66,580	DS	DS	DS
Oregon	708,061	182,583	244,978	128,722	251,346	394,049	DS	DS	DS
Pennsylvania	10,983	7,170	4,756	8,529	2,370	2,349	4,030	324,888	131,553
Puerto Rico	189,745	6,908	13,890	2,461	4,356	1,761	DS	DS	DS
Rhode Island	299,759	70,717	59,029	88,065	88,630	134,515	DS	DS	DS
South Carolina	423,292	68,353	76,931	59,967	46,923	49,600	DS	DS	DS
South Dakota	165,027	32,883	52,353	14,300	20,770	42,008	DS	DS	DS
Tennessee	398,446	57,229	69,698	43,401	43,580	37,317	DS	DS	DS
Texas	352,505	63,608	88,012	61,933	62,534	137,509	DS	5,171	DS

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD	HCBS chronic condition: physical disability	HCBS chronic condition: intellectual disability	HCBS chronic condition: developmental disability
Utah	—	5	—	72	27	51	DS	DS	DS
Vermont	456,299	88,414	98,505	65,572	140,231	216,110	DS	DS	DS
Virgin Islands	158,261	27,984	22,105	9,184	23,125	DS	DS	DS	DS
Virginia	238,364	97,193	82,177	109,343	86,745	129,368	DS	DS	DS
Washington	114,664	82,887	67,846	60,063	30,843	40,313	DS	DS	DS
West Virginia	244,372	55,468	57,767	57,100	52,704	67,437	DS	DS	165,668
Wisconsin	709,704	243,744	246,001	221,212	224,458	365,024	DS	DS	DS
Wyoming	102,202	28,232	32,356	17,482	27,395	35,385	DS	DS	DS

Source: Mathematica's analysis of the TAF 2019 Release 2

Notes: Includes beneficiaries eligible on the basis of a disability who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. CMS identified HCBS chronic conditions of physical disabilities, intellectual disabilities, and developmental disabilities using the HCBS chronic conditions indicators on the TAF DE file. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B6.4c. Number of NEMT ride days per 10,000 beneficiaries eligible on the basis of a disability in 2020, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	ODD	HCBS chronic condition: physical disability	HCBS chronic condition: intellectual disability	HCBS chronic condition: developmental disability
<b>United States<sup>a</sup></b>	<b>316,387</b>	<b>56,227</b>	<b>71,222</b>	<b>39,811</b>	<b>56,909</b>	<b>89,104</b>	<b>67,055</b>	<b>36,714</b>	<b>56,237</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	337,706	66,795	91,540	43,152	68,401	107,528	37,660	6,143	24,746
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	285,689	57,756	69,914	43,878	65,556	99,850	33,994	54,108	33,453
United States, <sup>a</sup> medium metro areas <sup>b</sup>	289,006	46,992	60,985	32,507	45,951	74,575	73,070	50,980	42,090
United States, <sup>a</sup> small metro areas <sup>b</sup>	309,573	56,080	62,696	43,557	51,851	82,390	106,287	37,773	100,875
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	320,804	46,839	55,914	34,392	42,679	64,147	74,069	49,095	52,763
United States, <sup>a</sup> non-core areas <sup>b</sup>	371,838	53,206	62,410	41,687	45,993	65,010	62,115	37,349	126,945
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	378,984	62,819	71,153	49,004	53,955	59,893	78,352	35,107	167,897
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	348,410	62,790	85,238	40,955	64,475	105,053	50,674	17,739	39,443
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	297,412	50,098	61,549	36,761	49,144	74,162	70,859	31,168	61,490
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	275,962	51,649	59,972	39,741	51,014	77,970	86,122	40,684	68,585
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	255,295	53,172	59,433	43,451	55,008	83,238	77,129	55,087	50,744
Alabama	35,691	5,462	8,114	3,141	3,005	3,241	DS	DS	DS
Alaska	360,567	57,333	80,761	24,496	32,537	33,461	DS	11,540	32,627
Arizona	481,211	132,714	142,882	118,257	146,506	199,171	DS	DS	DS
Arkansas	324,044	47,408	47,989	31,370	35,056	35,097	19,333	45,185	75,844
California	232,150	34,915	54,055	14,353	27,864	45,257	DS	DS	DS
Colorado	476,965	131,905	126,898	135,089	121,681	163,498	DS	DS	DS
Connecticut	391,819	50,660	86,589	37,868	47,165	70,804	75,788	DS	65,159
Delaware	144,229	21,921	31,203	17,545	56,210	90,412	25,570	6,774	DS
District of Columbia	11,937	8,103	9,117	16,492	16,429	16,963	DS	DS	DS
Florida	280,914	56,065	65,372	38,660	57,129	104,272	DS	DS	DS
Georgia	373,525	61,821	74,850	39,610	57,759	67,315	DS	DS	DS
Hawaii	342,694	63,298	106,783	25,315	42,370	73,403	DS	DS	DS
Idaho	335,541	72,042	79,438	63,699	55,935	74,349	266,140	DS	DS

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	ODD	HCBS chronic condition: physical disability	HCBS chronic condition: intellectual disability	HCBS chronic condition: developmental disability
Illinois	197,687	28,327	45,571	17,567	28,477	46,067	28,942	5,074	DS
Indiana	258,184	31,019	41,953	14,335	27,708	45,825	DS	DS	DS
Iowa	423,078	54,504	65,870	46,336	46,187	108,347	DS	DS	DS
Kansas	157,877	21,086	27,642	10,784	17,287	41,182	21,112	DS	5,617
Kentucky	348,435	44,150	50,634	30,064	29,428	30,617	DS	21,134	DS
Louisiana	166,619	22,501	29,784	13,021	19,364	20,925	16,586	DS	23,136
Maine	478,997	64,810	74,577	58,993	98,197	143,277	DS	DS	DS
Maryland	4,567	1,260	2,275	1,191	519	414	DS	DS	DS
Massachusetts	288,192	63,271	73,636	54,200	84,728	124,619	DS	DS	DS
Michigan	292,851	35,007	53,430	18,802	38,866	70,738	DS	DS	DS
Minnesota	417,087	93,039	117,905	68,448	90,518	150,278	DS	DS	DS
Mississippi	411,872	52,870	69,783	20,873	30,211	38,183	52,239	DS	DS
Missouri	409,391	51,167	62,139	35,587	21,455	25,043	DS	DS	DS
Montana	114,653	107,637	76,536	109,667	46,273	51,617	312,928	DS	593,060
Nebraska	291,891	43,785	60,928	30,343	39,304	48,749	24,736	DS	5,161
Nevada	321,715	68,608	78,497	52,949	62,224	86,018	DS	DS	DS
New Hampshire	70,563	6,143	9,659	4,372	12,991	18,722	DS	DS	877
New Jersey	499,832	111,876	140,386	88,152	183,163	259,711	DS	DS	DS
New Mexico	363,989	59,405	83,766	33,342	71,418	123,870	56,016	DS	12,815
New York	650,884	112,048	162,331	67,099	124,824	186,859	DS	DS	DS
North Carolina	275,325	38,663	51,555	24,207	32,362	46,398	DS	DS	DS
North Dakota	195,171	31,040	46,492	17,930	35,407	82,115	25,882	DS	3,586
Ohio	134,022	21,626	33,204	11,233	14,950	16,078	DS	DS	DS
Oklahoma	484,140	86,194	78,621	82,981	35,194	49,568	DS	DS	DS
Oregon	573,085	103,000	137,222	63,465	118,802	200,414	DS	DS	DS
Pennsylvania	11,469	4,334	4,231	4,660	2,375	2,115	DS	135,542	57,535
Puerto Rico	392,694	15,465	31,539	5,906	11,194	13,177	DS	DS	DS
Rhode Island	490,118	72,232	88,865	76,336	139,121	218,391	DS	DS	DS
South Carolina	399,572	55,622	67,465	37,026	42,600	62,469	DS	DS	DS
South Dakota	163,601	26,645	49,915	10,454	13,550	18,248	DS	DS	DS
Tennessee	420,485	56,412	74,138	33,188	33,947	33,171	DS	DS	DS
Texas	335,797	52,040	76,660	31,841	48,828	113,065	DS	2,308	DS
Utah	—	5	188	80	122	231	DS	DS	DS

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	Any OUD	HCBS chronic condition: physical disability	HCBS chronic condition: intellectual disability	HCBS chronic condition: developmental disability
Vermont	459,244	46,636	65,499	31,583	75,221	110,858	DS	DS	DS
Virgin Islands	194,348	50,388	43,684	13,083	—	DS	DS	DS	DS
Virginia	533,857	101,856	124,417	83,426	125,547	210,884	DS	DS	DS
Washington	107,998	66,013	60,296	41,787	27,216	35,156	DS	DS	DS
West Virginia	367,179	56,236	67,737	51,136	69,398	91,359	DS	DS	127,414
Wisconsin	639,272	187,749	204,209	159,274	195,088	345,230	DS	DS	DS
Wyoming	44,188	19,235	21,482	11,428	14,564	22,753	62,082	DS	788

Source: Mathematica's analysis of the 2020 TAF Release 1

Notes: Includes beneficiaries eligible on the basis of a disability who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. CMS identified HCBS chronic conditions of physical disabilities, intellectual disabilities, and developmental disabilities using the HCBS chronic conditions indicators on the TAF DE file. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B6.4d. Number of NEMT ride days per 10,000 beneficiaries eligible on the basis of a disability in 2021, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OID	HCBS chronic condition: physical disability	HCBS chronic condition: intellectual disability	HCBS chronic condition: developmental disability
<b>United States<sup>a</sup></b>	<b>290,887</b>	<b>54,845</b>	<b>67,292</b>	<b>41,872</b>	<b>57,171</b>	<b>90,728</b>	<b>69,810</b>	<b>39,329</b>	<b>44,718</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	313,262	65,048	86,610	44,073	65,795	102,806	33,813	7,755	29,380
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	267,230	58,383	67,616	47,817	70,601	110,617	34,085	56,574	27,931
United States, <sup>a</sup> medium metro areas <sup>b</sup>	256,819	45,280	56,444	34,139	46,219	76,983	77,984	57,556	44,325
United States, <sup>a</sup> small metro areas <sup>b</sup>	283,279	53,613	59,148	45,559	51,625	81,986	116,888	38,326	61,706
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	295,688	45,863	52,939	37,201	45,123	70,872	73,314	52,960	40,984
United States, <sup>a</sup> non-core areas <sup>b</sup>	347,855	51,747	59,402	43,945	45,868	65,192	64,031	33,418	68,941
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	353,323	60,163	66,194	50,568	51,572	55,267	76,195	40,973	77,650
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	319,565	60,883	80,223	42,050	63,245	103,717	46,678	20,179	38,908
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	274,964	48,802	58,735	38,866	50,590	77,945	73,280	31,410	44,922
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	256,391	50,918	56,975	42,500	52,574	81,858	98,135	42,380	47,151
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	236,806	53,785	57,301	47,460	57,800	90,071	83,437	60,824	46,136
Alabama	20,033	3,581	5,445	2,103	2,007	2,165	DS	DS	DS
Alaska	317,500	58,714	82,363	26,609	36,960	29,943	DS	13,821	40,000
Arizona	381,380	113,286	118,944	112,070	143,009	201,433	DS	DS	DS
Arkansas	317,175	46,825	48,224	34,463	31,950	33,596	31,443	48,221	88,747
California	226,157	34,383	53,124	14,722	29,678	51,053	DS	DS	DS
Colorado	505,619	153,867	139,534	154,484	123,764	160,151	DS	DS	DS
Connecticut	318,768	44,661	68,628	36,452	41,409	63,000	60,243	DS	79,580
Delaware	116,115	17,316	23,793	12,931	47,732	76,454	26,467	670	DS
District of Columbia	9,053	3,802	3,615	10,341	4,797	4,811	DS	DS	DS
Florida	204,526	47,107	50,156	37,690	46,287	84,649	DS	DS	DS
Georgia	342,980	60,874	69,976	42,741	52,458	55,304	DS	DS	DS
Hawaii	203,609	39,465	69,087	15,281	26,414	45,877	DS	DS	DS

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OID	HCBS chronic condition: physical disability	HCBS chronic condition: intellectual disability	HCBS chronic condition: developmental disability
Idaho	341,667	80,758	79,598	75,276	63,513	78,366	336,464	DS	DS
Illinois	181,624	26,714	41,806	17,227	27,969	46,469	27,859	5,784	DS
Indiana	278,289	33,551	41,259	15,750	33,294	55,599	DS	DS	DS
Iowa	472,850	62,787	74,233	60,112	47,208	105,716	DS	DS	DS
Kansas	112,724	19,629	22,439	10,621	16,311	33,560	26,481	DS	5,491
Kentucky	338,244	50,365	52,957	35,693	26,547	27,447	DS	22,729	DS
Louisiana	158,682	24,317	31,730	14,558	21,764	25,800	17,904	DS	16,453
Maine	438,420	67,728	74,507	66,496	112,852	169,277	DS	DS	DS
Maryland	3,818	1,367	2,315	1,229	592	482	DS	DS	DS
Massachusetts	298,683	77,064	83,662	68,465	110,274	163,869	DS	DS	DS
Michigan	281,838	35,038	53,263	18,566	37,578	69,353	DS	DS	DS
Minnesota	421,259	119,738	129,311	96,029	101,997	158,190	DS	DS	DS
Mississippi	330,960	45,493	57,728	19,418	26,033	31,115	43,568	DS	DS
Missouri	405,046	49,793	58,397	38,362	18,787	21,778	DS	DS	DS
Montana	118,421	85,722	70,581	71,100	33,995	42,876	277,407	DS	299,379
Nebraska	289,200	42,749	56,564	31,661	36,935	44,767	24,219	DS	4,475
Nevada	264,627	61,327	65,496	52,858	64,883	80,599	DS	DS	DS
New Hampshire	472,143	56,757	70,483	46,060	171,838	272,147	DS	DS	7,504
New Jersey	417,739	96,238	120,961	78,420	164,999	238,846	DS	DS	DS
New Mexico	326,405	54,638	79,066	29,996	61,770	104,842	49,482	DS	11,429
New York	637,650	111,421	161,761	66,941	121,545	174,449	DS	DS	DS
North Carolina	255,780	38,577	49,888	25,977	32,147	44,492	DS	DS	DS
North Dakota	159,544	28,994	39,057	18,961	36,629	88,593	34,605	DS	3,434
Ohio	121,699	20,939	31,981	11,323	16,164	17,932	DS	DS	DS
Oklahoma	438,959	83,678	74,614	83,063	31,885	44,948	DS	DS	DS
Oregon	573,034	101,412	144,930	64,428	124,346	206,379	DS	DS	DS
Pennsylvania	13,960	4,970	5,128	5,147	2,684	2,277	DS	136,511	49,956
Puerto Rico	345,644	18,075	40,153	7,075	12,780	10,990	DS	DS	DS
Rhode Island	526,398	92,925	115,708	96,115	148,071	217,787	DS	DS	DS
South Carolina	361,576	51,186	60,816	37,967	38,869	57,906	DS	DS	DS
South Dakota	121,369	23,972	37,953	11,543	15,191	25,284	DS	DS	DS
Tennessee	320,353	44,713	57,752	29,244	31,194	33,693	DS	DS	DS
Texas	293,587	46,914	67,358	34,293	43,747	103,805	DS	2,429	DS

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OID	HCBS chronic condition: physical disability	HCBS chronic condition: intellectual disability	HCBS chronic condition: developmental disability
Utah	95	20	21	41	33	7	DS	DS	DS
Vermont	471,111	47,429	70,422	33,440	79,865	112,366	DS	DS	DS
Virgin Islands	174,800	37,619	35,000	10,000	—	DS	DS	DS	DS
Virginia	524,575	107,211	123,250	92,133	122,171	199,433	DS	DS	DS
Washington	79,840	48,449	47,333	33,404	22,288	26,031	DS	DS	DS
West Virginia	353,455	59,450	72,401	56,985	73,988	101,624	DS	DS	161,874
Wisconsin	556,878	161,808	171,931	148,202	173,415	318,222	DS	DS	DS
Wyoming	15,630	12,191	8,394	9,357	8,875	12,428	57,966	DS	934

Source: Mathematica's analysis of the 2021 preliminary TAF

Notes: Includes adult expansion beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. CMS identified HCBS chronic conditions of physical disabilities, intellectual disabilities, and developmental disabilities using the HCBS chronic conditions indicators on the TAF DE file. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.



**Table B6.5a Number of NEMT ride days per 10,000 beneficiaries eligible on the basis of age (65+) in 2018, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OID
<b>United States<sup>a</sup></b>	<b>386,041</b>	<b>55,600</b>	<b>60,948</b>	<b>57,501</b>	<b>75,963</b>	<b>100,321</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	421,971	66,904	82,249	76,248	99,582	113,081
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	353,497	64,083	65,920	69,937	80,206	121,904
United States, <sup>a</sup> medium metro areas <sup>b</sup>	361,573	41,975	46,732	44,964	53,195	79,541
United States, <sup>a</sup> small metro areas <sup>b</sup>	372,647	46,542	45,760	46,566	56,353	76,261
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	358,510	40,371	39,250	35,312	42,915	58,964
United States, <sup>a</sup> non-core areas <sup>b</sup>	398,509	41,557	39,515	35,710	47,697	60,325
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	412,474	48,549	43,054	39,679	61,373	80,660
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	429,053	63,103	77,530	72,430	86,559	118,878
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	365,651	50,673	53,987	49,612	67,502	78,711
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	329,811	46,370	46,830	46,739	65,556	82,730
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	308,545	49,412	46,597	50,693	58,509	82,026
Alabama	123,898	9,898	12,933	8,786	7,833	4,963
Alaska	379,938	55,787	63,204	55,385	50,836	75,101
Arizona	546,842	71,725	79,404	96,725	128,008	179,320
Arkansas	283,822	30,123	26,668	24,226	26,982	37,172
California	335,235	23,183	33,061	20,275	24,683	30,299
Colorado	495,486	93,951	82,502	81,840	78,736	116,041
Connecticut	467,952	36,030	41,721	33,059	65,638	108,496
Delaware	440,858	45,371	46,185	33,897	70,982	110,064
District of Columbia	294,742	41,568	54,970	93,880	48,797	46,540
Florida	23,825	5,376	4,342	4,152	2,420	2,766
Georgia	491,236	72,203	68,665	65,172	66,248	57,319
Hawaii	526,776	44,619	70,775	42,685	58,186	85,549
Idaho	495,560	72,160	63,497	82,303	92,975	121,641
Illinois	251,776	27,838	32,120	25,761	34,268	51,647
Indiana	356,320	36,857	37,619	31,275	37,264	52,890
Iowa	392,899	53,284	47,160	45,881	59,559	68,031
Kansas	75,867	7,504	7,266	6,544	13,273	22,316
Kentucky	421,317	51,241	47,508	52,641	43,817	58,674
Louisiana	125,553	10,510	9,936	7,740	14,941	18,103

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD
Maine	400,467	50,842	50,153	57,778	109,218	199,030
Maryland	12,868	3,113	4,690	4,052	3,345	3,135
Massachusetts	572,983	184,527	177,732	190,176	157,915	232,290
Michigan	237,254	21,697	21,372	16,349	81,634	151,688
Minnesota	460,871	162,270	105,922	143,579	110,486	161,098
Mississippi	577,499	55,745	55,480	32,146	36,967	52,865
Missouri	501,574	44,882	45,824	38,449	37,166	50,889
Montana	169,900	61,147	53,476	48,896	45,030	52,928
Nebraska	341,467	26,308	21,625	24,882	36,972	54,500
Nevada	231,809	60,679	51,296	51,969	33,855	39,811
New Hampshire	10,088	9,248	6,482	5,108	2,121	2,679
New Jersey	617,065	59,791	73,117	79,268	168,352	263,928
New Mexico	431,994	41,708	42,065	30,706	58,708	111,559
New York	657,496	118,840	133,981	124,950	219,287	206,354
North Carolina	322,290	28,778	30,043	23,127	42,267	63,961
North Dakota	152,121	17,069	13,800	9,535	13,791	14,405
Ohio	275,616	39,768	43,788	34,073	28,768	37,997
Oklahoma	398,370	39,569	35,361	37,552	33,424	41,684
Oregon	687,557	102,406	117,134	116,091	196,709	295,570
Pennsylvania	10,956	1,689	1,196	1,146	637	589
Puerto Rico	201,442	5,306	10,073	3,674	6,165	2,973
Rhode Island	492,475	60,623	44,790	53,403	108,141	201,388
South Carolina	408,499	35,794	39,550	36,706	36,177	28,501
South Dakota	309,675	28,946	29,084	23,475	39,015	72,444
Tennessee	488,402	44,074	45,853	36,480	44,301	50,718
Texas	339,643	32,317	38,055	24,219	46,563	76,109
Utah	—	2	95	67	—	—
Vermont	417,848	68,131	54,940	64,308	72,534	122,047
Virgin Islands	31,042	3,759	21,860	18,421	3,158	DS
Virginia	201,816	34,771	28,915	43,464	43,863	73,670
Washington	158,946	60,351	60,280	44,070	31,581	41,416
West Virginia	147,773	20,909	21,194	26,827	18,960	17,787
Wisconsin	833,087	185,206	171,834	167,876	204,286	298,416
Wyoming	43,462	15,128	12,305	21,670	26,632	26,286

Source: Mathematica's analysis of the TAF 2018 Release 2

Notes: Includes beneficiaries eligible on the basis of age (65+) who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B6.5b Number of NEMT ride days per 10,000 beneficiaries eligible on the basis of age (65+) in 2019, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD
<b>United States<sup>a</sup></b>	<b>365,956</b>	<b>56,242</b>	<b>60,920</b>	<b>56,748</b>	<b>77,802</b>	<b>110,077</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	399,174	68,068	82,740	73,488	101,690	128,993
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	346,272	64,638	64,657	68,117	78,582	120,230
United States, <sup>a</sup> medium metro areas <sup>b</sup>	338,343	40,107	43,691	41,702	54,581	88,140
United States, <sup>a</sup> small metro areas <sup>b</sup>	354,218	46,578	45,392	45,816	59,288	82,872
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	328,825	40,274	38,928	35,242	44,724	62,121
United States, <sup>a</sup> non-core areas <sup>b</sup>	358,897	42,003	39,916	39,012	49,075	59,484
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	401,573	51,789	44,727	47,367	65,918	65,562
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	405,668	63,784	77,259	70,274	90,517	132,124
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	343,718	51,578	54,222	49,354	68,059	88,543
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	314,267	46,526	46,496	45,885	62,857	83,432
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	303,341	49,638	46,617	50,827	59,912	87,712
Alabama	104,438	9,066	11,402	8,038	7,715	8,075
Alaska	312,209	48,704	54,756	56,851	44,288	51,415
Arizona	533,847	75,148	80,368	100,493	142,134	195,076
Arkansas	271,463	27,213	24,064	21,396	29,406	38,344
California	292,391	21,417	31,023	20,401	26,927	37,211
Colorado	472,785	99,637	83,872	90,222	90,658	139,940
Connecticut	468,711	35,317	40,533	33,734	64,830	107,168
Delaware	315,347	35,266	33,924	27,157	62,104	98,256
District of Columbia	205,971	29,938	39,812	70,678	59,909	63,399
Florida	334,271	55,837	47,565	36,364	40,405	60,303
Georgia	473,625	72,038	67,968	60,955	64,298	62,880
Hawaii	501,291	44,619	65,812	40,162	55,438	74,533
Idaho	471,690	69,968	61,022	79,298	87,649	111,733
Illinois	229,647	25,078	29,112	22,664	35,895	60,805
Indiana	213,066	22,126	22,915	18,009	23,230	33,952
Iowa	391,429	45,558	45,227	39,494	60,186	101,824
Kansas	105,950	8,659	7,875	7,203	18,516	29,248
Kentucky	425,413	51,191	47,758	53,019	50,284	64,332
Louisiana	116,125	9,853	9,818	7,404	14,891	17,015

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OOD
Maine	345,929	42,717	41,331	48,147	88,990	150,847
Maryland	11,269	2,968	4,292	3,866	3,295	3,105
Massachusetts	584,805	191,443	181,668	193,675	169,409	253,062
Michigan	234,364	22,068	22,270	16,008	87,497	161,287
Minnesota	491,798	171,413	110,769	150,346	116,178	173,320
Mississippi	333,675	34,819	34,710	18,945	27,886	35,727
Missouri	498,151	46,786	47,434	36,505	35,417	49,218
Montana	113,960	61,798	52,262	55,305	44,920	68,233
Nebraska	344,314	26,555	21,571	24,611	28,152	34,891
Nevada	230,736	60,440	50,258	48,929	39,840	46,422
New Hampshire	6,535	9,221	3,713	2,590	2,591	1,141
New Jersey	602,815	60,062	72,738	82,307	183,358	287,860
New Mexico	463,071	45,168	46,449	36,454	62,862	115,025
New York	670,542	123,757	140,749	131,081	226,560	243,355
North Carolina	327,195	30,662	32,146	25,685	42,963	71,426
North Dakota	125,726	15,860	13,922	10,393	16,265	33,736
Ohio	246,668	37,954	41,706	33,271	30,376	42,145
Oklahoma	422,002	41,677	39,044	40,303	35,672	42,903
Oregon	658,729	108,011	123,372	123,928	215,975	329,303
Pennsylvania	12,011	1,968	1,784	2,168	1,380	1,674
Puerto Rico	143,358	3,817	6,811	3,621	4,399	3,220
Rhode Island	292,880	44,748	26,856	49,185	71,547	125,761
South Carolina	400,140	39,510	40,234	35,247	37,973	44,614
South Dakota	335,385	30,985	35,182	27,112	28,321	76,667
Tennessee	504,540	50,262	50,410	40,453	45,430	51,046
Texas	351,484	34,406	40,178	26,196	59,414	115,249
Utah	—	5	8	29		
Vermont	440,361	74,632	61,494	67,005	77,200	132,022
Virgin Islands	80,536	8,875	28,679	6,145	526	DS
Virginia	220,382	42,284	33,205	53,722	51,048	75,321
Washington	152,517	58,245	59,393	44,233	32,553	43,816
West Virginia	219,252	32,459	32,161	39,088	26,913	37,236
Wisconsin	813,942	196,681	184,060	180,544	238,912	357,505
Wyoming	42,771	18,083	24,505	20,628	13,434	16,849

Source: Mathematica's analysis of the TAF 2019 Release 2

Notes: Includes beneficiaries eligible on the basis of age (65+) who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B6.5c Number of NEMT ride days per 10,000 beneficiaries eligible on the basis of age (65+) in 2020, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD
<b>United States<sup>a</sup></b>	<b>344,266</b>	<b>38,334</b>	<b>43,557</b>	<b>34,855</b>	<b>56,848</b>	<b>84,786</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	355,950	43,076	54,395	41,971	71,802	95,268
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	333,847	39,167	42,656	36,398	56,147	93,767
United States, <sup>a</sup> medium metro areas <sup>b</sup>	316,857	29,589	33,793	26,496	41,943	69,630
United States, <sup>a</sup> small metro areas <sup>b</sup>	342,456	37,810	38,195	33,901	49,537	78,678
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	331,843	33,653	33,327	26,351	34,939	48,734
United States, <sup>a</sup> non-core areas <sup>b</sup>	381,920	35,185	34,515	28,759	37,123	50,899
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	380,767	39,712	35,234	34,298	45,487	54,631
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	373,812	43,225	54,666	42,263	65,924	99,344
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	329,702	36,443	39,514	31,846	50,153	68,935
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	301,252	32,832	34,938	29,644	45,486	64,844
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	296,754	30,993	31,502	28,314	40,578	65,024
Alabama	101,037	8,828	11,295	8,179	7,960	7,701
Alaska	373,926	30,206	34,714	22,259	25,541	28,481
Arizona	485,604	52,406	58,436	67,435	100,506	143,725
Arkansas	296,790	26,679	22,214	18,412	27,837	34,942
California	261,426	17,320	25,255	14,255	21,770	29,136
Colorado	447,559	80,090	65,475	67,552	69,781	106,180
Connecticut	345,143	21,490	26,314	18,966	32,893	50,636
Delaware	200,741	19,380	18,525	12,209	31,967	56,269
District of Columbia	1,894	1,421	1,678	6,686	11,288	14,253
Florida	318,732	36,225	35,094	20,794	33,122	51,489
Georgia	468,845	51,498	54,221	39,635	52,077	67,413
Hawaii	368,248	27,801	41,308	23,320	35,657	64,286
Idaho	452,574	55,071	51,156	52,363	49,063	61,271
Illinois	207,498	16,872	21,858	15,648	30,179	49,713
Indiana	288,468	23,478	22,966	16,562	27,031	47,562
Iowa	396,058	32,669	31,876	23,957	38,685	65,429
Kansas	93,067	7,200	6,639	5,883	12,959	28,007
Kentucky	407,748	34,675	35,533	32,215	30,494	40,309
Louisiana	101,092	7,215	7,643	4,534	9,270	11,403

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD
Maine	402,491	33,756	30,823	31,134	47,616	75,813
Maryland	11,601	2,643	3,878	3,398	2,942	3,052
Massachusetts	508,806	79,766	85,022	78,802	103,676	170,298
Michigan	203,610	13,541	14,642	9,440	47,962	86,010
Minnesota	471,653	102,383	71,618	92,360	84,459	131,675
Mississippi	395,676	38,210	39,356	19,030	27,598	27,859
Missouri	465,195	39,289	40,180	28,062	24,940	34,539
Montana	68,411	51,305	52,547	56,235	36,187	56,138
Nebraska	324,295	20,622	19,568	17,944	23,464	38,757
Nevada	217,336	43,945	43,156	34,649	33,567	47,163
New Hampshire	43,750	5,787	5,492	3,261	4,072	5,531
New Jersey	506,512	41,089	52,301	46,241	129,879	210,253
New Mexico	422,179	37,526	40,543	27,085	46,387	83,448
New York	598,615	75,278	89,186	75,172	152,956	164,936
North Carolina	328,469	26,722	28,991	18,886	31,944	52,955
North Dakota	92,500	11,586	10,520	8,127	14,204	24,353
Ohio	220,388	28,027	31,499	22,463	23,457	32,168
Oklahoma	411,846	37,436	32,397	35,330	25,799	29,546
Oregon	612,299	97,968	112,986	107,705	175,602	263,493
Pennsylvania	16,176	1,918	2,193	2,012	1,822	2,016
Puerto Rico	374,110	10,604	18,677	8,483	6,513	4,430
Rhode Island	593,920	52,085	54,692	67,570	128,688	225,857
South Carolina	367,055	35,790	37,519	25,095	43,002	69,511
South Dakota	243,548	23,750	23,161	18,891	14,259	4,630
Tennessee	544,554	46,681	47,440	31,128	34,519	38,949
Texas	335,107	29,891	36,190	21,899	53,113	114,440
Utah	—	—	—	8	—	—
Vermont	424,487	31,722	31,034	28,026	51,013	78,333
Virgin Islands	172,273	14,172	34,297	5,534	6,842	DS
Virginia	532,913	58,868	60,567	54,071	102,913	200,606
Washington	139,726	51,829	52,745	39,278	26,005	35,495
West Virginia	267,487	31,442	30,299	30,223	32,517	52,201
Wisconsin	769,492	145,773	141,415	136,573	199,453	378,289
Wyoming	42,297	14,550	11,341	11,122	6,243	10,000

Source: Mathematica's analysis of the 2020 TAF Release 1



Notes: Includes beneficiaries eligible on the basis of age (65+) who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

'—' = results could not be calculated because the state had zero beneficiaries who qualified for inclusion in the denominator.

**Table B6.5d Number of NEMT ride days per 10,000 beneficiaries eligible on the basis of age (65+) in 2021, by health condition and geography**

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD
<b>United States<sup>a</sup></b>	<b>323,858</b>	<b>39,246</b>	<b>43,992</b>	<b>37,389</b>	<b>56,525</b>	<b>83,343</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	338,561	45,653	56,057	45,741	73,597	95,301
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	316,712	41,369	44,686	40,607	60,110	102,462
United States, <sup>a</sup> medium metro areas <sup>b</sup>	291,002	28,941	32,801	27,724	40,534	66,207
United States, <sup>a</sup> small metro areas <sup>b</sup>	321,243	35,412	36,550	33,249	45,049	74,141
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	310,916	32,843	32,440	27,801	35,695	54,108
United States, <sup>a</sup> non-core areas <sup>b</sup>	367,045	34,896	34,783	31,325	38,713	51,526
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	370,212	40,606	35,431	39,453	51,367	57,927
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	352,617	44,166	55,054	45,607	65,511	97,808
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	310,227	37,165	40,133	34,026	53,115	74,096
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	287,703	34,053	35,301	31,777	46,147	65,260
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	280,260	33,570	33,726	31,403	42,790	69,042
Alabama	48,666	4,591	5,916	4,040	3,397	2,973
Alaska	313,584	33,195	34,699	29,483	35,656	32,988
Arizona	374,177	43,208	49,017	67,085	96,260	143,320
Arkansas	272,771	25,853	22,148	20,215	22,569	22,214
California	254,960	16,327	24,186	13,326	23,961	37,242
Colorado	459,727	94,856	83,099	80,666	74,788	121,381
Connecticut	282,304	17,864	22,562	17,422	27,236	44,493
Delaware	146,761	12,904	14,723	11,692	31,210	47,557
District of Columbia	866	995	1,509	5,153	4,740	6,218
Florida	207,826	29,217	25,771	18,973	24,704	35,603
Georgia	425,523	48,074	49,658	43,219	48,869	63,433
Hawaii	251,789	19,261	30,630	16,913	29,437	59,395
Idaho	474,660	48,679	45,126	51,349	45,300	59,641
Illinois	198,155	17,621	22,715	16,729	29,862	46,612
Indiana	324,771	26,157	27,376	19,847	34,462	61,157
Iowa	373,623	32,301	31,431	28,025	41,533	79,399
Kansas	88,140	7,360	6,512	5,453	10,835	19,419
Kentucky	371,530	38,206	37,485	37,791	32,183	39,190
Louisiana	114,936	8,772	9,648	6,155	10,449	13,934

State	CKD with ESRD	Diabetes	Heart disease	Any mental health condition	Any SUD	OUD
Maine	403,913	36,753	32,181	32,992	56,444	106,653
Maryland	10,403	2,737	4,295	3,718	3,385	3,418
Massachusetts	517,917	105,744	105,240	100,554	116,725	187,640
Michigan	204,045	14,390	17,258	10,714	42,497	80,054
Minnesota	479,415	148,770	92,628	141,619	100,991	154,898
Mississippi	343,586	32,397	34,244	18,300	22,590	22,500
Missouri	477,373	38,611	40,510	27,824	25,482	32,615
Montana	67,358	45,662	47,337	49,278	36,699	54,866
Nebraska	326,690	21,046	21,156	16,594	21,545	31,520
Nevada	222,774	47,867	40,505	39,230	33,929	44,576
New Hampshire	390,732	36,777	31,019	23,955	49,239	100,185
New Jersey	461,368	36,641	48,339	44,185	117,240	189,891
New Mexico	391,232	34,988	37,056	23,802	38,762	65,703
New York	595,407	80,959	95,910	81,303	159,891	153,203
North Carolina	322,151	26,975	29,080	21,207	33,266	52,569
North Dakota	113,540	11,856	11,233	9,063	9,436	6,582
Ohio	196,595	25,598	29,124	20,944	22,171	27,419
Oklahoma	378,360	35,531	31,103	35,618	24,578	28,162
Oregon	629,801	96,965	113,042	101,411	146,285	221,263
Pennsylvania	14,373	3,108	3,320	2,849	2,608	2,451
Puerto Rico	359,181	13,524	22,675	10,924	9,157	10,172
Rhode Island	599,073	63,383	73,011	85,854	158,223	275,054
South Carolina	347,256	32,667	36,384	25,199	37,442	62,033
South Dakota	262,384	26,780	27,283	24,105	27,756	30,156
Tennessee	454,953	39,099	40,640	29,398	32,112	33,781
Texas	306,176	27,961	33,249	19,924	49,453	116,415
Utah	30	19	92	42	10	18
Vermont	431,728	35,100	31,891	29,446	41,435	60,688
Virgin Islands	124,722	10,909	35,241	11,731	42,727	DS
Virginia	509,034	56,674	59,117	59,147	102,461	202,182
Washington	99,553	39,124	40,325	32,620	20,472	26,040
West Virginia	308,483	33,382	34,329	35,274	37,661	52,090
Wisconsin	730,906	130,371	130,566	121,099	164,502	311,034
Wyoming	32,239	12,832	7,257	12,395	7,446	16,721

Source: Mathematica's analysis of the 2021 preliminary TAF

Notes: Includes beneficiaries eligible on the basis of age (65+) who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, diabetes, heart disease, and any mental health condition using diagnosis codes on Medicaid claims and encounter records. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix B). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix B.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000-24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B7.1a Number of NEMT ride days per 10,000 beneficiaries in 2018 and 2019, by eligibility group and NEMT delivery model**

	2018					2019				
	States with in-house delivery model only <sup>a</sup>	States with broker model (FFS) only <sup>b</sup>	States with broker model (capitated) only <sup>c</sup>	States with carved-in NEMT only <sup>d</sup>	States with more than 1 delivery model <sup>e</sup>	States with in-house delivery model only <sup>a</sup>	States with broker model (FFS) only <sup>b</sup>	States with broker model (capitated) only <sup>c</sup>	States with carved-in NEMT only <sup>d</sup>	States with more than 1 delivery model <sup>e</sup>
Child beneficiaries	271	615	1,250	479	1,578	279	548	1,325	451	1,615
Adult beneficiaries	768	3,220	7,073	1,612	4,156	785	2,863	6,848	1,535	4,545
Adult expansion beneficiaries	131	1,264	5,708	2,180	4,745	132	1,486	6,987	2,615	5,238
Beneficiaries eligible on the basis of a disability	13,957	50,591	69,003	39,394	45,552	15,987	48,862	72,847	38,105	47,080
Beneficiaries eligible on the basis of age (65+)	11,911	32,458	38,275	22,442	31,467	12,558	28,363	39,014	21,268	32,229
Percentage of population living below 100% FPL <sup>f</sup>	13%	13%	13%	10%	13%	13%	12%	12%	10%	12%
Percentage of population living in urban areas <sup>g</sup>	69%	73%	75%	92%	84%	69%	73%	75%	92%	85%
Percentage of population living in rural areas <sup>h</sup>	31%	27%	25%	8%	16%	31%	27%	25%	8%	15%
Percentage of NEMT expenditures claimed as Medical Assistance Program expenditures <sup>i</sup>	76%	96%	99%	100%	85%	49%	100%	99%	100%	87%

Sources: TAF 2018 Release 2, TAF 2019 Release 1, 2008–2019 American Community Survey (ACS), U.S. Census Bureau's 2010 Census Urban Area Lists, and Form CMS-64 expenditure data

Notes: Nebraska switched from one delivery model to another in 2019. CMS included data for this state in each service delivery model type category that it used at any time during the year. For 2019, CMS included Nebraska's data in the "states with more than one delivery model" category and in the "states with broker model (FFS) only" category.

<sup>a</sup> Includes the following states: Alabama, Maryland, Montana, North Carolina, South Dakota, Wyoming, U.S. Virgin Islands

<sup>b</sup> Includes the following states: Washington, Alaska, Mississippi, and Nebraska

<sup>c</sup> May be operated as a prepaid ambulatory health plan (PAHP). Includes the following states: Georgia, Kentucky, Maine, South Carolina, Delaware, Idaho, Indiana, Nevada, New Jersey, Oklahoma, Rhode Island, Utah, Vermont, West Virginia, Wisconsin

<sup>d</sup> Includes the following states: Hawaii, Tennessee, Puerto Rico

<sup>e</sup> Includes the following states: Arizona, California, Colorado, Connecticut, District of Columbia, Florida, Illinois, Iowa, Kansas, Louisiana, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, Texas, Virginia, and (for year 2019 only) Nebraska

<sup>f</sup> The percentage of the population living below 100 percent of the federal poverty level is the weighted average, among all states reporting a given model type, of the percentage of states' populations living under 100 percent federal poverty level. CMS weighted the state percentages based on the total population living in each state. The U.S. Census Bureau's poverty threshold for a family with two adults and one child was \$20,578 in 2019. For years 2018 and 2019, state-level data on the percentage of the population living below 100 percent of the federal poverty level are from the Kaiser Family Foundation (KFF) estimates, which are based on one-year estimates from the 2008–2019 American Community Survey (ACS)

<sup>g,h</sup> The percentage of the population living in rural and urban areas is the weighted average, among all states reporting a given model type, of the percentage of the states' population living in urban and rural areas, respectively. CMS weighted the state percentages based on the total population living in each state. State-level data on the percentage of the population living in urban and rural areas are from the U.S. Census Bureau's 2010 Census Urban Area Lists: List of Population, Land Area, and Percent Urban and Rural in 2010 and Changes from 2000 to 2010. For all years (2018–2021), CMS calculated the percentage of the population living in urban and rural areas using 2010 census data because this is the most recent year of data available.

<sup>i</sup> The percentage of NEMT expenditures claimed as Medical Assistance Program expenditures is the weighted average, among all states reporting a given model type, of the percentage of states' NEMT expenditures claimed as Medical Assistance Program expenditures. State-level data on the percentage of NEMT expenditures claimed as a Medical Assistance Program expenditure are based on the expenditures states reported on Form CMS-64, which categorizes NEMT expenditures as either Medical Assistance Program or administrative expenditures. CMS weighted state percentages based on the full-benefit Medicaid population in each state. States claiming Medicaid NEMT as a Medical Assistance Program expenditure, sometimes called a medical service expenditure, receive payment at the state's regular federal medical assistance percentage. States claiming Medicaid NEMT as an administrative expenditure receive payment at the federal match for Medicaid administrative activities, which

is set at 50 percent. States may claim NEMT as a medical assistance program expenditure, an administrative expenditure, or a combination of the two. Note that Form CMS-64 classifies NEMT services provided under a capitated arrangement as “capitated payments,” which excludes them from the NEMT expenditure totals. The following states did not report NEMT expenditures on Form CMS-64 in one or more years: 2018 (Colorado, Tennessee, and Vermont); 2019 (Maryland, Tennessee, and Vermont). Some states did not report NEMT expenditures on Form CMS-64 because all NEMT was provided under a capitated arrangement.

**Table B7.1b Number of NEMT ride days per 10,000 beneficiaries in 2020 and 2021, by eligibility group and NEMT delivery model**

	2020					2021				
	States with in-house delivery model only <sup>a</sup>	States with broker model (FFS) only <sup>b</sup>	States with broker model (capitated) only <sup>c</sup>	States with carved-in NEMT only <sup>d</sup>	States with more than 1 delivery model <sup>e</sup>	States with in-house delivery model only <sup>a</sup>	States with broker model (FFS) only <sup>b</sup>	States with broker model (capitated) only <sup>c</sup>	States with carved-in NEMT only <sup>d</sup>	States with more than 1 delivery model <sup>e</sup>
Child beneficiaries	142	314	793	263	832	79	472	764	231	903
Adult beneficiaries	518	1,561	5,574	1,204	3,473	219	1,348	4,652	1,088	2,820
Adult expansion beneficiaries	94	1,080	5,349	1,353	3,550	120	965	4,830	897	3,424
Beneficiaries eligible on the basis of a disability	12,657	28,821	49,861	19,016	28,547	6,477	25,037	46,048	17,269	29,641
Beneficiaries eligible on the basis of age (65+)	10,480	27,671	27,586	18,645	19,697	5,811	17,589	24,754	16,701	21,024
Percentage of population living below 100% FPL <sup>f</sup>	13%	11%	12%	13%	11%	13%	10%	12%	13%	12%
Percentage of population living in urban areas <sup>g</sup>	69%	73%	75%	71%	85%	69%	72%	75%	71%	84%
Percentage of population living in rural areas <sup>h</sup>	31%	27%	25%	29%	15%	31%	28%	25%	29%	16%
Percentage of NEMT expenditures claimed as Medical Assistance Program expenditures <sup>i</sup>	50%	100%	99%	100%	86%	48%	100%	99%	21%	85%

Sources: TAF 2020 Release 1, 2021 preliminary TAF, Census Bureau's March Current Population Survey (CPS: Annual Social Economic Supplements), 2017–2021, U.S. Census Bureau's 2010 Census Urban Area Lists, and Form CMS-64 expenditure data

Note: New Hampshire, North Carolina, Texas, and Wisconsin switched from one delivery model to another in 2020–2021. CMS included data for these states in each service delivery model type category that they used at any time during the year. For 2021, CMS included North Carolina's data in the "states with more than one delivery model" category and in the "states with an in-house delivery model only" category and included Wisconsin's data in the "states with broker model (capitated) only" category and in the "states with broker model (FFS) only" category. Although New Hampshire and Texas also switched NEMT delivery models in 2020–2021, both states fall into the category of "states with more than one delivery model" across both years.

<sup>a</sup> Includes the following states: Alabama, Maryland, Montana, North Carolina, South Dakota, Wyoming, U.S. Virgin Islands

<sup>b</sup> Includes the following states: Washington, Alaska, Mississippi, and (for year 2021) Wisconsin.

<sup>c</sup> May be operated as a prepaid ambulatory health plan (PAHP). Includes the following states: Georgia, Kentucky, Maine, South Carolina, Delaware, Idaho, Indiana, Nevada, New Jersey, Oklahoma, Rhode Island, Utah, Vermont, West Virginia, Wisconsin

<sup>d</sup> Includes the following states: Hawaii, Tennessee, Puerto Rico

<sup>e</sup> Includes the following states: Arizona, California, Colorado, Connecticut, District of Columbia, Florida, Illinois, Iowa, Kansas, Louisiana, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, Texas, Virginia, and North Carolina

<sup>f</sup> The percentage of the population living below 100 percent of the federal poverty level is the weighted average, among all states reporting a given model type, of the percentage of states' populations living under 100 percent federal poverty level. CMS weighted the state percentages based on the total population living in each state. The U.S. Census Bureau's poverty threshold for a family with two adults and one child was \$20,578 in 2019. For 2020, the state-level data on the percentage of the population living below 100 percent of the federal poverty level are from KFF estimates based on the Census Bureau's March Current Population Survey (CPS: Annual Social Economic Supplements), 2017–2021. KFF used the CPS rather than the ACS for the 2020 data on populations living in poverty because the release of ACS data was delayed due to the COVID-19 PHE. For 2021, KFF used federal poverty level data for 2020 because 2021 federal poverty level data are not yet available.

<sup>g,h</sup> The percentage of the population living in rural and urban areas is the weighted average, among all states reporting a given model type, of the percentage of the states' population living in urban and rural areas, respectively. CMS weighted the state percentages based on the total population living in each state. State-level data on the percentage of the population living in urban and rural areas are

from the U.S. Census Bureau's 2010 Census Urban Area Lists: List of Population, Land Area, and Percent Urban and Rural in 2010 and Changes from 2000 to 2010. For all years (2018–2021), CMS calculated the percentage of the population living in urban and rural areas using 2010 census data because this is the most recent year of data available.

<sup>i</sup> The percentage of NEMT expenditures claimed as Medical Assistance Program expenditures is the weighted average, among all states reporting a given model type, of the percentage of states' NEMT expenditures claimed as Medical Assistance Program expenditures. State-level data on the percentage of NEMT expenditures claimed as a Medical Assistance Program expenditure are based on the expenditures states reported on Form CMS-64, which categorizes NEMT expenditures as either Medical Assistance Program or administrative expenditures. CMS weighted state percentages based on the full-benefit Medicaid population in each state. States claiming Medicaid NEMT as a Medical Assistance Program expenditure, sometimes called a medical service expenditure, receive payment at the state's regular federal medical assistance percentage. States claiming Medicaid NEMT as an administrative expenditure receive payment at the federal match for Medicaid administrative activities, which is set at 50 percent. States may claim NEMT as a medical assistance program expenditure, an administrative expenditure, or a combination of the two. Note that Form CMS-64 classifies NEMT services provided under a capitated arrangement as "capitated payments," which excludes them from the NEMT expenditure totals. The following states did not report NEMT expenditures on Form CMS-64 in one or more years: 2020 (Kansas, Maryland, Massachusetts, New Hampshire, Tennessee, and Vermont); and 2021 (Kansas, Maryland, Massachusetts, Nebraska, New Hampshire, Tennessee, and Vermont). Some states did not report NEMT expenditures on Form CMS-64 because all NEMT was provided under a capitated arrangement.



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**APPENDIX C:**  
**SUPPLEMENTARY TECHNICAL INFORMATION**

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## a. Data source

Since 1999, the federal government has required Medicaid state agencies to report Medicaid claims and eligibility data through the Medicaid Statistical Information System (MSIS), the first national, uniform, and comprehensive Medicaid data collection system. In 2015,<sup>69</sup> MSIS was replaced by T-MSIS, or “Transformed” MSIS, representing the next generation of national Medicaid data. T-MSIS enhanced and expanded on MSIS in a number of ways. The data are more detailed (more files and data elements), and states submit data files more frequently, among other enhancements. The T-MSIS Analytic Files (TAF) are built directly from the T-MSIS data files submitted by states. The TAF are more appropriate than the T-MSIS source data for analytic tasks because of the size, complexity, and frequency of updates to the T-MSIS data, which makes them challenging to use for analytic purposes. Most important, TAF reorganizes enrollment, claims, and managed care encounter records from their date of submission by the state to the dates of enrollment and service. This reorganization facilitates the identification of beneficiaries during a specific time period, such as a calendar year, and aligns service provision with a beneficiary’s enrollment in Medicaid.

To create the tables in this report, CMS relied on the following files in the TAF:

**Annual Demographic and Eligibility (DE) File:** This file contains demographic, eligibility, and enrollment information for all Medicaid- or CHIP-eligible beneficiaries who were enrolled for at least one day during the calendar year.

**Inpatient (IP) File:** This file contains inpatient hospital claims and encounters.

**Long-Term (LT) File:** This file contains long-term care institutional claims and encounters, including claims from nursing facilities, intermediate care facilities that provide services for individuals with intellectual or developmental disabilities, mental health facilities, and independent (freestanding) psychiatric wings of acute care hospitals.

**Other Services (OT) File:** This file contains all claims and encounters for services that are not from an inpatient facility, long-term care facility, or pharmacy. These services include but are not limited to physician services; outpatient hospital services; dental services; other physician services, such as those provided by chiropractors, podiatrists, psychologists, optometrists, and so on; clinic services; laboratory services; radiology services; home health services; and personal assistance services. The file also includes managed care capitation payments.

**Pharmacy (RX) File:** This file contains claims for drugs or other services provided by an outpatient pharmacy.

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<sup>69</sup> States began transitioning their reporting to T-MSIS as early as 2011; all states and the District of Columbia completed the transition to T-MSIS by 2015. T-MSIS cutover dates for each state are available in the Resources section of the *DQ Atlas* under the overview and availability of TAF data section (CMS n.d.[a]). Available at <https://www.medicaid.gov/medicaid/data-and-systems/downloads/macbis/taf-rif-availability-chart.pdf>.

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## b. Excluded states and data quality issues

The TAF was designed to present a comprehensive, current, and reliable picture of the Medicaid program across the United States. Our analyses included the 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands. Several states had data quality issues that may have affected the validity of the results. CMS show results for these states in the tables presented in this report but exclude from the U.S. calculations. Appendix Table B.1 lists these data quality issues by state. CMS assessed four measures of data quality:

### 1. Number of Medicaid beneficiaries in the DE file.

To assess this number, CMS compared the TAF-based counts of Medicaid beneficiaries who had full or comprehensive benefits with the states' reports from the Eligibility and Enrollment Performance Indicator (PI) data set.<sup>70</sup> To examine enrollment information in the DE file, CMS compared monthly counts of Medicaid beneficiaries who had comprehensive benefits, according to the 2018, 2019, 2020, and 2021 DE files to monthly counts from the PI data. CMS evaluated the percentage of difference between the TAF-based enrollment counts and the PI data, averaged across all 12 months. When the difference between these two data sets was greater than 20 percent and less than or equal to 50 percent, CMS had a high concern about the quality of the state's TAF data. States are considered to have unusable data when the difference between the TAF-based count and the benchmark is greater than 50 percent. States with high concern or unusable data for this measure were excluded from the U.S totals for that calendar year.

*Data quality note:* Missing or invalid procedure codes make it difficult to identify Medicaid beneficiaries who use NEMT or have any specific type of medical condition. Additionally, a low volume of claims in TAF may cause the study to underestimate the number of Medicaid beneficiaries who use NEMT.

### 2. Volume of claims in the OT file.

To assess claims in this file, CMS examined the volume of OT claims (including FFS claims and managed care encounter records<sup>71</sup>) compared with other states and the national median. To evaluate claim volumes, CMS computed the total volume of header records, total volume of line records, and average number of lines per header. CMS deemed states in which any of the three measures fell below 10 percent of the national median to have incomplete data unusable for analysis. CMS had a high level of

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<sup>70</sup> PI data represent enrollment in full or comprehensive benefits in Medicaid by state at a single point in time during the enrollment period. More information is available at <https://www.medicaid.gov/medicaid/program-information/medicaid-and-chip-enrollment-data/report-highlights/index.html>.

<sup>71</sup> States submit two types of records into T-MSIS; FFS claims and managed care encounter records. Managed care encounter records reflect services provided to a beneficiary enrolled in a managed care plan. Historically, in the early years of T-MSIS and its predecessor system, MSIS, state reporting of managed care encounter records was less complete compared with FFS claims. However, the ACA included provisions requiring states to report managed care encounter data to CMS as a condition for receiving federal matching payments for Medicaid. For example, the ACA stipulates that federal matching payments should not be made for individuals for whom a state does not report enrollee encounter data to CMS. CMS has conducted technical assistance with states and issued guidance to help states improve encounter reporting in T-MSIS, many states have modified their managed care contracts to require encounter reporting, and states have made needed systems modifications to accept and report these encounter data to CMS in T-MSIS (CMS, n.d.[c]). Regarding current managed care encounter data quality in T-MSIS, CMS has a low or medium concern about the quality of states' managed care encounter data reported in the T-MSIS OT file (the file into which states report NEMT data) for 36 of the 40 states with a comprehensive managed care (CMC) program in 2021, 28 of 33 states with a CMC program in 2020, 33 of 42 states with a CMC program in 2019, and 34 of 41 states with a CMC program in 2018 (CMS, n.d.[a]).

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concern about the data in states in which any of these measures were between 10 and 50 percent of the national median. States with high concern or unusable data for this measure were excluded from the U.S. totals for that calendar year.

Although an unexpectedly high volume of OT may in some cases also signal a data quality issue, for the subset of states displaying an unusually high volume of OT claims in 2018, 2019, 2020, and 2021, CMS determined that this pattern did not represent a quality issue but stemmed from the structure of these states' data systems and submission processes.

3. **Missing or invalid procedure codes in the OT file.** To assess this issue, CMS evaluated missingness in the procedure code field on professional claims in the OT file. Procedure codes are an essential component for identifying NEMT services. To examine the severity of data quality issues related to procedure codes, as a starting point, CMS examined whether a state had an unexpectedly high rate of missing or invalid procedure codes on all OT professional claims in the OT file. States were categorized as high concern if only 50 to 80 percent of OT professional claims had a valid procedure code. CMS considered states in which less than 50 percent of the OT professional claims had a valid procedure code to have unusable data. For the subset of states with unusable data or a high concern about the quality of the procedure code data element on all OT professional claims, CMS further examined the rates of missing or invalid procedure codes on OT transportation claims (those with a Type of Service code of 056, which includes both emergency and non-emergency transportation services). High rates of missing or invalid procedure codes on transportation claims can result in an underestimate of the number of Medicaid beneficiaries using NEMT services. CMS excluded states with more than 20 percent of OT transportation claims with a missing or invalid procedure code from the U.S. totals for that calendar year.
4. **Proportion of NEMT claims and encounters that linked back to an eligibility record.** To assess this measure of data quality, CMS evaluated the proportion of NEMT claims and encounters that linked back to an eligibility record in the DE file. CMS excluded states with less than 90 percent of NEMT claims and encounters linking to an eligibility record from the U.S. totals for that calendar year. (Essentially, CMS required that at least 90 percent of NEMT claims link to an eligibility record for the state to be included in the U.S. totals.)

More information on these and other data quality measures is available in the *DQ Atlas* (<https://www.medicaid.gov/dq-atlas/welcome>).

### **c. Analysis of NEMT Medical Assistance Program expenditures and administrative expenditures reported by states on Form CMS-64 data**

Tables C3.a, C3.b, C3.c, and C3.d provide detailed information about the amount and percentages of NEMT expenditures states reported as Medical Assistance Program expenditures versus administrative expenditures on their form CMS-64 data for FY 2018, FY 2019, FY 2020, and FY 2021. This information is not submitted by states as part of T-MSIS but is submitted separately by states through the Medicaid Budget and Expenditure System. However, it is important to note that expenditures reported under the NEMT line items on the Form CMS-64 undercount total NEMT expenditures; this is because NEMT services provided under capitated arrangements (such as those provided through comprehensive managed care plans or transportation prepaid ambulatory health plans [PAHPs]) are reported under the managed care line items instead of the NEMT line items in this data source.

**Table C.1. TAF data quality issues by state, CY 2018, 2019, 2020, and 2021**

State	TAF Data Quality 2018			TAF Data Quality 2019			TAF Data Quality 2020			TAF Data Quality 2021		
	Total Medicaid enrollment	Volume of claims—OT File	Missing procedure code—OT prof. claims	Total Medicaid enrollment	Volume of claims—OT File	Missing procedure code—OT prof. claims	Total Medicaid enrollment	Volume of claims—OT File	Missing procedure code—OT prof. claims	Total Medicaid enrollment	Volume of claims—OT File	Missing procedure code—OT prof. claims
Alabama	---	---	---	---	---	---	---	---	---	---	---	---
Alaska	---	---	---	---	---	---	---	---	---	---	---	---
Arizona	---	---	---	---	---	---	---	---	---	---	---	---
Arkansas	---	---	---	---	---	---	---	---	---	---	---	---
California	---	---	---	---	---	---	---	---	---	---	---	---
Colorado	---	---	---	---	---	---	---	---	---	---	---	---
Connecticut	---	---	---	---	---	---	---	---	---	---	---	---
Delaware	---	---	---	---	---	---	---	---	---	---	---	---
District of Columbia	---	---	---	---	---	---	---	---	---	---	---	---
Florida	---	High concern (low volume)	---	---	---	---	---	---	---	---	---	---
Georgia	---	---	---	---	---	---	---	---	---	---	---	---
Hawaii	---	---	---	---	---	---	---	---	---	---	---	---
Idaho	---	---	---	---	---	---	---	---	---	---	---	---
Illinois	---	---	---	---	---	---	---	---	---	---	---	---
Indiana	---	---	---	---	---	---	---	---	---	---	---	---
Iowa	---	---	---	---	---	---	---	---	---	---	---	---
Kansas	---	---	---	---	---	---	---	---	---	---	---	---
Kentucky	---	---	---	---	---	---	---	---	---	---	---	---
Louisiana	---	---	---	---	---	---	---	---	---	---	---	---
Maine	---	---	---	---	---	---	---	---	---	---	---	---
Maryland	---	---	---	---	---	---	---	---	---	---	---	---
Massachusetts	---	High concern (high volume)	---	---	High concern (high volume)	---	---	High concern (high volume)	---	---	High concern (high volume)	---
Michigan	---	---	---	---	---	---	---	---	---	---	---	---

State	TAF Data Quality 2018			TAF Data Quality 2019			TAF Data Quality 2020			TAF Data Quality 2021		
	Total Medicaid enrollment	Volume of claims—OT File	Missing procedure code—OT prof. claims	Total Medicaid enrollment	Volume of claims—OT File	Missing procedure code—OT prof. claims	Total Medicaid enrollment	Volume of claims—OT File	Missing procedure code—OT prof. claims	Total Medicaid enrollment	Volume of claims—OT File	Missing procedure code—OT prof. claims
Minnesota	---	High concern (high volume)	---	---	High concern (high volume)	---	---	High concern (high volume)	---	---	High concern (high volume)	---
Mississippi	---	---	---	---	---	---	---	---	---	---	---	---
Missouri	---	---	---	---	---	---	---	---	---	---	---	---
Montana	---	---	---	---	---	---	---	---	---	---	---	---
Nebraska	---	---	---	---	---	---	---	---	---	---	---	---
Nevada	---	---	---	---	---	---	---	---	---	---	---	---
New Hampshire	---	---	---	---	---	---	---	---	---	---	---	---
New Jersey	---	High concern (high volume)	---	---	High concern (high volume)	---	---	High concern (high volume)	---	---	High concern (high volume)	---
New Mexico	---	---	---	---	---	---	---	---	---	---	---	---
New York	---	---	---	---	---	---	---	---	---	---	---	---
North Carolina	---	---	---	---	---	---	---	---	---	---	---	---
North Dakota	---	---	---	---	---	---	---	---	---	---	---	---
Ohio	---	---	---	---	---	---	---	---	---	---	---	---
Oklahoma	---	---	---	---	---	---	---	---	---	---	---	---
Oregon	---	---	---	---	---	---	---	---	---	---	---	---
Pennsylvania	---	---	---	---	---	---	---	---	---	---	---	---
Puerto Rico	Unclassified	High concern (low volume)	---	Unclassified	High concern (low volume)	---	Unclassified	High concern (low volume)	---	Unclassified	High concern (low volume)	---
Rhode Island	High concern	High concern (high volume)	---	High concern	High concern (high volume)	---	---	---	---	---	---	---
South Carolina	---	---	---	---	---	---	---	---	---	---	---	---
South Dakota	---	---	---	---	---	---	---	---	---	---	---	---
Tennessee	---	---	---	---	---	---	---	---	---	---	---	---



State	TAF Data Quality 2018			TAF Data Quality 2019			TAF Data Quality 2020			TAF Data Quality 2021		
	Total Medicaid enrollment	Volume of claims—OT File	Missing procedure code—OT prof. claims	Total Medicaid enrollment	Volume of claims—OT File	Missing procedure code—OT prof. claims	Total Medicaid enrollment	Volume of claims—OT File	Missing procedure code—OT prof. claims	Total Medicaid enrollment	Volume of claims—OT File	Missing procedure code—OT prof. claims
Texas	---	---	---	---	---	---	---	---	---	---	---	---
Utah	---	---	Unusable	---	---	Unusable	---	---	Unusable	---	---	Unusable
Vermont	---	---	---	---	---	---	---	---	---	---	---	---
Virgin Islands	Unclassified	High concern (low volume)	---	Unclassified	High concern (low volume)	---	Unclassified	High concern (low volume)	---	Unclassified	High concern (low volume)	---
Virginia	---	---	---	---	---	---	---	---	---	---	---	---
Washington	---	---	---	---	---	---	---	---	---	---	---	---
West Virginia	---	---	---	---	---	---	---	---	---	---	---	---
Wisconsin	---	---	---	---	---	---	---	---	---	---	---	---
Wyoming	---	---	---	---	---	---	---	---	---	---	---	---

Source: *DQ Atlas* and Mathematica's analysis of 2018, 2019, 2020, and 2021 TAF DE and OT files.

Note: Dashes represent a low or medium level of concern about the quality of the data; "unclassified" = measure could not be calculated because the benchmark data were not available for the state or territory.

**Table C.2. Percentage of NEMT claims and encounters linking back to an eligibility record**

State	2018	2019	2020	2021
Alabama	97.1%	96.4%	99.4%	99.0%
Alaska	100.0%	99.9%	100.0%	100.0%
Arizona	99.9%	100.0%	100.0%	100.0%
Arkansas	99.4%	99.7%	99.9%	99.9%
California	99.9%	99.9%	99.9%	99.9%
Colorado	99.8%	99.9%	100.0%	100.0%
Connecticut	100.0%	100.0%	100.0%	100.0%
Delaware	100.0%	100.0%	100.0%	100.0%
District of Columbia	99.9%	99.9%	99.9%	100.0%
Florida	99.9%	99.9%	100.0%	100.0%
Georgia	100.0%	100.0%	100.0%	100.0%
Hawaii	91.7%	99.3%	100.0%	100.0%
Idaho	99.9%	100.0%	100.0%	100.0%
Illinois	99.9%	99.9%	99.9%	100.0%
Indiana	100.0%	100.0%	100.0%	100.0%
Iowa	100.0%	100.0%	100.0%	100.0%
Kansas	100.0%	100.0%	100.0%	100.0%
Kentucky	99.8%	99.9%	99.9%	100.0%
Louisiana	100.0%	100.0%	100.0%	100.0%
Maine	100.0%	100.0%	99.9%	100.0%
Maryland	100.0%	100.0%	100.0%	100.0%
Massachusetts	99.9%	99.9%	99.9%	99.9%
Michigan	100.0%	100.0%	100.0%	100.0%
Minnesota	98.3%	99.9%	100.0%	100.0%
Mississippi	100.0%	100.0%	100.0%	100.0%
Missouri	100.0%	100.0%	100.0%	100.0%
Montana	100.0%	100.0%	100.0%	100.0%
Nebraska	100.0%	100.0%	100.0%	100.0%
Nevada	100.0%	100.0%	100.0%	100.0%
New Hampshire	100.0%	100.0%	100.0%	100.0%
New Jersey	94.8%	98.5%	99.8%	99.9%
New Mexico	100.0%	100.0%	100.0%	100.0%
New York	100.0%	100.0%	100.0%	100.0%
North Carolina	100.0%	100.0%	100.0%	100.0%
North Dakota	99.9%	100.0%	100.0%	99.9%

State	2018	2019	2020	2021
Ohio	99.8%	99.9%	99.9%	100.0%
Oklahoma	96.2%	96.1%	99.9%	99.9%
Oregon	100.0%	100.0%	100.0%	100.0%
Pennsylvania	98.8%	98.7%	99.9%	99.8%
Puerto Rico	100.0%	100.0%	100.0%	99.3%
Rhode Island	99.8%	<b>82.8%*</b>	99.8%	99.9%
South Carolina	99.8%	99.9%	99.9%	99.8%
South Dakota	100.0%	99.7%	99.9%	100.0%
Tennessee	<b>89.5%*</b>	<b>89.4%*</b>	100.0%	100.0%
Texas	99.9%	99.9%	99.9%	99.9%
Utah	100.0%	100.0%	100.0%	100.0%
Vermont	99.7%	100.0%	100.0%	99.9%
Virgin Islands	99.9%	99.5%	99.7%	99.9%
Virginia	100.0%	100.0%	100.0%	100.0%
Washington	100.0%	100.0%	99.9%	99.9%
West Virginia	99.9%	99.9%	99.9%	100.0%
Wisconsin	99.9%	99.8%	99.9%	99.9%
Wyoming	100.0%	99.9%	100.0%	99.9%

Source: *DQ Atlas* and Mathematica's analysis of 2018, 2019, 2020, and 2021 TAF DE and OT files.

Note: CMS excluded states with <90 percent of NEMT claims and encounters that linked to an eligibility record (indicated in bold with an asterisk) from the national totals in this report for most tables for the year(s) affected.

**Table C.3a. State NEMT expenditures claimed as Medical Assistance Program expenditures versus administrative expenditures reported on Form CMS-64, FY 2018**

State	Medical assistance program expenditures	Administrative expenditures	Total expenditures	% NEMT expenditures claimed as medical assistance program expenditures	% NEMT expenditures claimed as administrative expenditures
Alabama	\$0	\$10,178,956	\$10,178,956	0.0%	100.0%
Alaska	\$87,445,828	\$0	\$87,445,828	100.0%	0.0%
Arizona	\$97,227,134	\$0	\$97,227,134	100.0%	0.0%
Arkansas	\$54,072,256	\$0	\$54,072,256	100.0%	0.0%
California	\$35,128,075	\$0	\$35,128,075	100.0%	0.0%
Colorado	\$0	\$0	\$0	--	--
Connecticut	\$58,679,891	\$10,599,146	\$69,279,037	84.7%	15.3%
Delaware	\$19,127,923	\$0	\$19,127,923	100.0%	0.0%
District of Columbia	\$27,877,523	\$0	\$27,877,523	100.0%	0.0%
Florida	\$12,556,920	\$0	\$12,556,920	100.0%	0.0%
Georgia	\$100,801,923	\$328,979	\$101,130,902	99.7%	0.3%
Hawaii	\$113,077	\$0	\$113,077	100.0%	0.0%
Idaho	\$19,834,505	\$0	\$19,834,505	100.0%	0.0%
Illinois	\$26,289,871	\$0	\$26,289,871	100.0%	0.0%
Indiana	\$26,628,540	\$64,382	\$26,692,922	99.8%	0.2%
Iowa	\$501,434	\$0	\$501,434	100.0%	0.0%
Kansas	(\$1,968)	\$0	(\$1,968)	100.0%	0.0%
Kentucky	\$114,907,523	\$560,000	\$115,467,523	99.5%	0.5%
Louisiana	\$770,111	\$0	\$770,111	100.0%	0.0%
Maine	\$40,456,710	\$0	\$40,456,710	100.0%	0.0%
Maryland	\$3,942	\$0	\$3,942	100.0%	0.0%
Massachusetts	\$0	\$207,270,368	\$207,270,368	0.0%	100.0%
Michigan	\$21,022,948	\$3,852,405	\$24,875,353	84.5%	15.5%
Minnesota	\$0	\$26,667,249	\$26,667,249	0.0%	100.0%
Mississippi	\$32,903,412	\$0	\$32,903,412	100.0%	0.0%
Missouri	\$40,178,558	\$4,998,084	\$45,176,642	88.9%	11.1%
Montana	\$4,291,090	\$0	\$4,291,090	100.0%	0.0%
Nebraska	\$9,532,252	\$0	\$9,532,252	100.0%	0.0%
Nevada	\$14,597,187	\$0	\$14,597,187	100.0%	0.0%
New Hampshire	\$7,013,663	\$1,224,806	\$8,238,469	85.1%	14.9%
New Jersey	\$155,153,061	\$0	\$155,153,061	100.0%	0.0%

State	Medical assistance program expenditures	Administrative expenditures	Total expenditures	% NEMT expenditures claimed as medical assistance program expenditures	% NEMT expenditures claimed as administrative expenditures
New Mexico	\$4,119,601	\$0	\$4,119,601	100.0%	0.0%
New York	\$5,827,092	\$0	\$5,827,092	100.0%	0.0%
North Carolina	\$177,205,434	\$7,581,718	\$184,787,152	95.9%	4.1%
North Dakota	\$814,710	\$0	\$814,710	100.0%	0.0%
Ohio	\$24,613,048	\$0	\$24,613,048	100.0%	0.0%
Oklahoma	\$40,588,605	\$0	\$40,588,605	100.0%	0.0%
Oregon	\$13,580,915	\$0	\$13,580,915	100.0%	0.0%
Pennsylvania	\$42,146,650	\$98,067,189	\$140,213,839	30.1%	69.9%
Puerto Rico	\$0	\$0	\$0	--	--
Rhode Island	\$186,651	\$0	\$186,651	100.0%	0.0%
South Carolina	\$81,563,697	\$0	\$81,563,697	100.0%	0.0%
South Dakota	\$1,149,379	\$2,963,373	\$4,112,752	27.9%	72.1%
Tennessee	\$0	\$0	\$0	--	--
Texas	\$166,055,208	\$352,540	\$166,407,748	99.8%	0.2%
Utah	\$8,226,667	\$0	\$8,226,667	100.0%	0.0%
Vermont	\$0	\$0	\$0	--	--
Virgin Islands	\$2,630,371	\$0	\$2,630,371	100.0%	0.0%
Virginia	\$58,787,930	\$0	\$58,787,930	100.0%	0.0%
Washington	\$96,303,440	\$6,452,783	\$102,756,223	93.7%	6.3%
West Virginia	\$33,155,949	\$0	\$33,155,949	100.0%	0.0%
Wisconsin	\$86,402,529	\$0	\$86,402,529	100.0%	0.0%
Wyoming	\$0	\$538,573	\$538,573	0.0%	100.0%

Source: Mathematica's analysis of FY 2018 Form CMS-64 data.

Note: Numbers in parenthesis constitute negative values.

**Table C.3b. State NEMT expenditures claimed as Medical Assistance Program expenditures versus administrative expenditures reported on Form CMS-64, FY 2019**

State	Medical Assistance Program expenditures	Administrative expenditures	Total expenditures	% NEMT expenditures claimed as Medical Assistance Program expenditures	% NEMT expenditures claimed as administrative expenditures
Alabama	\$2,306,713	\$10,687,766	\$12,994,479	17.8%	82.2%
Alaska	\$110,658,368	\$0	\$110,658,368	100.0%	0.0%
Arizona	\$144,918,588	\$0	\$144,918,588	100.0%	0.0%
Arkansas	\$40,740,107	\$0	\$40,740,107	100.0%	0.0%
California	\$33,713,408	\$0	\$33,713,408	100.0%	0.0%
Colorado	\$0	\$33,654,368	\$33,654,368	0.0%	100.0%
Connecticut	\$57,599,206	\$7,594,231	\$65,193,437	88.4%	11.6%
Delaware	\$19,643,986	\$0	\$19,643,986	100.0%	0.0%
District of Columbia	\$31,161,921	\$0	\$31,161,921	100.0%	0.0%
Florida	\$9,381,262	\$0	\$9,381,262	100.0%	0.0%
Georgia	\$101,385,929	\$327,515	\$101,713,444	99.7%	0.3%
Hawaii	\$180,528	\$0	\$180,528	100.0%	0.0%
Idaho	\$22,019,793	\$0	\$22,019,793	100.0%	0.0%
Illinois	\$15,703,116	\$0	\$15,703,116	100.0%	0.0%
Indiana	\$34,421,189	\$1,595	\$34,422,784	100.0%	0.0%
Iowa	\$426,988	\$0	\$426,988	100.0%	0.0%
Kansas	(\$24)	\$0	(\$24)	100.0%	0.0%
Kentucky	\$95,195,477	\$560,000	\$95,755,477	99.4%	0.6%
Louisiana	\$396,562	\$0	\$396,562	100.0%	0.0%
Maine	\$39,765,094	\$0	\$39,765,094	100.0%	0.0%
Maryland	\$0	\$0	\$0	--	--
Massachusetts	\$0	\$210,078,167	\$210,078,167	0.0%	100.0%
Michigan	\$20,437,899	\$3,015,248	\$23,453,147	87.1%	12.9%
Minnesota	\$0	\$29,498,054	\$29,498,054	0.0%	100.0%
Mississippi	\$39,163,386	\$0	\$39,163,386	100.0%	0.0%
Missouri	\$41,140,999	\$5,283,933	\$46,424,932	88.6%	11.4%
Montana	\$5,015,385	\$0	\$5,015,385	100.0%	0.0%
Nebraska	\$7,413,064	\$0	\$7,413,064	100.0%	0.0%
Nevada	\$17,566,741	\$0	\$17,566,741	100.0%	0.0%
New Hampshire	\$2,401,423	\$1,047,888	\$3,449,311	69.6%	30.4%
New Jersey	\$149,505,863	\$0	\$149,505,863	100.0%	0.0%

State	Medical Assistance Program expenditures	Administrative expenditures	Total expenditures	% NEMT expenditures claimed as Medical Assistance Program expenditures	% NEMT expenditures claimed as administrative expenditures
New Mexico	\$4,572,971	\$0	\$4,572,971	100.0%	0.0%
New York	\$11,585,726	\$0	\$11,585,726	100.0%	0.0%
North Carolina	\$138,460,902	\$9,287,860	\$147,748,762	93.7%	6.3%
North Dakota	\$1,075,442	\$0	\$1,075,442	100.0%	0.0%
Ohio	\$22,239,510	\$0	\$22,239,510	100.0%	0.0%
Oklahoma	\$40,523,306	\$0	\$40,523,306	100.0%	0.0%
Oregon	\$17,264,053	\$0	\$17,264,053	100.0%	0.0%
Pennsylvania	\$40,305,820	\$87,254,977	\$127,560,797	31.6%	68.4%
Puerto Rico	\$0	\$0	\$0	--	--
Rhode Island	\$273,252	\$0	\$273,252	100.0%	0.0%
South Carolina	\$82,687,871	\$0	\$82,687,871	100.0%	0.0%
South Dakota	\$1,144,700	\$2,675,484	\$3,820,184	30.0%	70.0%
Tennessee	\$0	\$0	\$0	--	--
Texas	\$161,686,371	\$285,324	\$161,971,695	99.8%	0.2%
Utah	\$8,464,206	\$0	\$8,464,206	100.0%	0.0%
Vermont	\$0	\$0	\$0	--	--
Virgin Islands	\$4,891,612	\$0	\$4,891,612	100.0%	0.0%
Virginia	\$55,373,661	\$204	\$55,373,865	100.0%	0.0%
Washington	\$101,609,874	\$0	\$101,609,874	100.0%	0.0%
West Virginia	\$32,258,664	\$0	\$32,258,664	100.0%	0.0%
Wisconsin	\$86,013,489	\$0	\$86,013,489	100.0%	0.0%
Wyoming	\$0	\$555,423	\$555,423	0.0%	100.0%

Source: Mathematica's analysis of FY 2019 Form CMS-64 data.

Note: Numbers in parenthesis constitute negative values.

**Table C.3c. State NEMT expenditures claimed as Medical Assistance Program expenditures versus administrative expenditures reported on Form CMS-64, FY 2020**

State	Medical Assistance Program expenditures	Administrative expenditures	Total expenditures	% NEMT expenditures claimed as Medical Assistance Program expenditures	% NEMT expenditures claimed as administrative expenditures
Alabama	\$2,901,730	\$9,894,387	\$12,796,117	22.7%	77.3%
Alaska	\$82,912,679	\$0	\$82,912,679	100.0%	0.0%
Arizona	\$138,481,040	\$0	\$138,481,040	100.0%	0.0%
Arkansas	\$43,665,374	\$0	\$43,665,374	100.0%	0.0%
California	\$28,412,776	\$0	\$28,412,776	100.0%	0.0%
Colorado	\$0	\$48,551,586	\$48,551,586	0.0%	100.0%
Connecticut	\$57,664,838	\$8,420,153	\$66,084,991	87.3%	12.7%
Delaware	\$22,650,580	\$0	\$22,650,580	100.0%	0.0%
District of Columbia	\$31,566,965	\$0	\$31,566,965	100.0%	0.0%
Florida	\$11,579,943	\$0	\$11,579,943	100.0%	0.0%
Georgia	\$106,054,738	\$337,589	\$106,392,327	99.7%	0.3%
Hawaii	\$71,269	\$0	\$71,269	100.0%	0.0%
Idaho	\$34,301,697	\$0	\$34,301,697	100.0%	0.0%
Illinois	\$13,171,120	\$0	\$13,171,120	100.0%	0.0%
Indiana	\$34,711,440	\$0	\$34,711,440	100.0%	0.0%
Iowa	\$258,841	\$0	\$258,841	100.0%	0.0%
Kansas	\$0	\$0	\$0	--	--
Kentucky	\$112,585,338	\$559,999	\$113,145,337	99.5%	0.5%
Louisiana	\$922,465	\$0	\$922,465	100.0%	0.0%
Maine	\$48,766,525	\$0	\$48,766,525	100.0%	0.0%
Maryland	\$0	\$0	\$0	--	--
Massachusetts	\$315	(\$27,456,285)	(\$27,455,970)	0.0%	100.0%
Michigan	\$16,713,457	\$2,858,350	\$19,571,807	85.4%	14.6%
Minnesota	\$0	\$24,293,487	\$24,293,487	0.0%	100.0%
Mississippi	\$32,941,232	\$0	\$32,941,232	100.0%	0.0%
Missouri	\$45,874,430	\$3,278,017	\$49,152,447	93.3%	6.7%
Montana	\$4,443,945	\$0	\$4,443,945	100.0%	0.0%
Nebraska	\$10,688	\$0	\$10,688	100.0%	0.0%
Nevada	\$71,647,792	\$0	\$71,647,792	100.0%	0.0%
New Hampshire	\$155,809	(\$1,986,521)	(\$1,830,712)	-8.5%	108.5%
New Jersey	\$178,105,012	\$0	\$178,105,012	100.0%	0.0%



State	Medical Assistance Program expenditures	Administrative expenditures	Total expenditures	% NEMT expenditures claimed as Medical Assistance Program expenditures	% NEMT expenditures claimed as administrative expenditures
New Mexico	\$4,311,633	\$0	\$4,311,633	100.0%	0.0%
New York	\$6,844,333	\$0	\$6,844,333	100.0%	0.0%
North Carolina	\$210,749,734	\$8,382,329	\$219,132,063	96.2%	3.8%
North Dakota	\$1,095,519	\$0	\$1,095,519	100.0%	0.0%
Ohio	\$19,824,608	\$0	\$19,824,608	100.0%	0.0%
Oklahoma	\$39,823,415	\$0	\$39,823,415	100.0%	0.0%
Oregon	\$1,195,203	\$0	\$1,195,203	100.0%	0.0%
Pennsylvania	\$35,976,935	\$80,060,753	\$116,037,688	31.0%	69.0%
Puerto Rico	\$0	\$0	\$0	--	--
Rhode Island	\$204,865	\$0	\$204,865	100.0%	0.0%
South Carolina	\$84,614,616	\$0	\$84,614,616	100.0%	0.0%
South Dakota	\$996,141	\$2,689,396	\$3,685,537	27.0%	73.0%
Tennessee	\$0	\$0	\$0	--	--
Texas	\$175,376,135	\$265,656	\$175,641,791	99.8%	0.2%
Utah	\$8,303,774	\$0	\$8,303,774	100.0%	0.0%
Vermont	\$0	\$0	\$0	--	--
Virgin Islands	\$4,274,434	\$0	\$4,274,434	100.0%	0.0%
Virginia	\$54,906,202	\$0	\$54,906,202	100.0%	0.0%
Washington	\$89,862,327	\$0	\$89,862,327	100.0%	0.0%
West Virginia	\$38,395,382	\$0	\$38,395,382	100.0%	0.0%
Wisconsin	\$93,389,983	\$11	\$93,389,994	100.0%	0.0%
Wyoming	\$0	\$468,709	\$468,709	0.0%	100.0%

Source: Mathematica's analysis of FY 2020 Form CMS-64 data.

Note: Numbers in parenthesis constitute negative values.

**Table C.3d. State NEMT expenditures claimed as Medical Assistance Program expenditures versus administrative expenditures reported on Form CMS-64, FY 2021**

State	Medical Assistance Program expenditures	Administrative expenditures	Total expenditures	% NEMT expenditures claimed as Medical Assistance Program expenditures	% NEMT expenditures claimed as administrative expenditures
Alabama	\$2,053,532	\$9,136,770	\$11,190,302	18.4%	81.6%
Alaska	\$57,084,421	\$0	\$57,084,421	100.0%	0.0%
Arizona	\$114,021,061	\$0	\$114,021,061	100.0%	0.0%
Arkansas	\$45,300,653	\$0	\$45,300,653	100.0%	0.0%
California	\$40,613,785	\$0	\$40,613,785	100.0%	0.0%
Colorado	\$0	\$63,042,654	\$63,042,654	0.0%	100.0%
Connecticut	\$57,518,809	\$8,459,591	\$65,978,400	87.2%	12.8%
Delaware	\$27,594,335	\$0	\$27,594,335	100.0%	0.0%
District of Columbia	\$24,362,330	\$0	\$24,362,330	100.0%	0.0%
Florida	\$17,620,734	\$0	\$17,620,734	100.0%	0.0%
Georgia	\$122,511,146	\$440,602	\$122,951,748	99.6%	0.4%
Hawaii	\$78,231	\$0	\$78,231	100.0%	0.0%
Idaho	\$39,933,003	\$0	\$39,933,003	100.0%	0.0%
Illinois	\$12,738,283	\$0	\$12,738,283	100.0%	0.0%
Indiana	\$19,869,988	\$0	\$19,869,988	100.0%	0.0%
Iowa	\$269,327	\$393,469	\$662,796	40.6%	59.4%
Kansas	\$0	\$0	\$0	--	--
Kentucky	\$138,014,708	\$680,000	\$138,694,708	99.5%	0.5%
Louisiana	\$858,918	\$0	\$858,918	100.0%	0.0%
Maine	\$50,946,966	\$0	\$50,946,966	100.0%	0.0%
Maryland	\$0	\$0	\$0	--	--
Massachusetts	\$175	\$178,630	\$178,805	99.9%	0.1%
Michigan	\$18,581,725	\$7,445,104	\$26,026,829	71.4%	28.6%
Minnesota	\$0	\$21,842,093	\$21,842,093	0.0%	100.0%
Mississippi	\$42,514,126	\$0	\$42,514,126	100.0%	0.0%
Missouri	\$51,683,141	\$1,990,217	\$53,673,358	96.3%	3.7%
Montana	\$4,577,834	\$0	\$4,577,834	100.0%	0.0%
Nebraska	\$0	\$0	\$0	--	--
Nevada	\$25,728,435	\$0	\$25,728,435	100.0%	0.0%
New Hampshire	\$576,239	\$934	\$577,173	99.8%	0.2%

State	Medical Assistance Program expenditures	Administrative expenditures	Total expenditures	% NEMT expenditures claimed as Medical Assistance Program expenditures	% NEMT expenditures claimed as administrative expenditures
New Jersey	\$189,827,762	\$0	\$189,827,762	100.0%	0.0%
New Mexico	\$10,530,378	\$0	\$10,530,378	100.0%	0.0%
New York	\$4,308,615	\$0	\$4,308,615	100.0%	0.0%
North Carolina	\$102,969,848	\$6,548,430	\$109,518,278	94.0%	6.0%
North Dakota	\$1,164,463	\$0	\$1,164,463	100.0%	0.0%
Ohio	\$19,300,732	\$0	\$19,300,732	100.0%	0.0%
Oklahoma	\$35,777,037	\$0	\$35,777,037	100.0%	0.0%
Oregon	\$19,052,288	\$0	\$19,052,288	100.0%	0.0%
Pennsylvania	\$42,481,109	\$67,144,500	\$109,625,609	38.8%	61.2%
Puerto Rico	\$0	\$0	\$0	--	--
Rhode Island	\$221,140	\$0	\$221,140	100.0%	0.0%
South Carolina	\$71,302,123	\$0	\$71,302,123	100.0%	0.0%
South Dakota	\$928,335	\$2,447,272	\$3,375,607	27.5%	72.5%
Tennessee	\$0	\$0	\$0	--	--
Texas	\$137,586,201	\$221,072	\$137,807,273	99.8%	0.2%
Utah	\$10,217,284	\$0	\$10,217,284	100.0%	0.0%
Vermont	\$0	\$0	\$0	--	--
Virgin Islands	\$5,693,460	\$0	\$5,693,460	100.0%	0.0%
Virginia	\$83,527,618	\$0	\$83,527,618	100.0%	0.0%
Washington	\$100,250,474	\$0	\$100,250,474	100.0%	0.0%
West Virginia	\$39,159,695	\$0	\$39,159,695	100.0%	0.0%
Wisconsin	\$112,113,845	\$0	\$112,113,845	100.0%	0.0%
Wyoming	\$0	\$404,975	\$404,975	0.0%	100.0%

Source: Mathematica's analysis of FY 2021 Form CMS-64 data.

Note: Numbers in parenthesis constitute negative values.

#### d. Identifying claims and encounters for NEMT services

To identify beneficiaries who use NEMT, CMS identified claims and encounters that had NEMT procedure codes by using the codes in Appendix Table B.3. NEMT providers in most states use national procedure codes when they submit NEMT claims, but providers in some states use local or state-specific procedure codes on some claims. This report considers local or state-specific codes as valid procedure codes for transportation claims when documentation was available from the state or other sources that indicated the description of the code or cross-walked the code to its corresponding national procedure code.

**Table C.4. Procedure codes used to identify claims and encounters for NEMT services**

Procedure code	Procedure code description	Procedure code type
A0080	Volunteer vehicle mileage	HCPCS
A0090	Individual vehicle mileage	HCPCS
A0100	Non-emergency transport: taxi	HCPCS
A0110	Public or mass transportation	HCPCS
A0120	Non-emergency transport: minibus	HCPCS
A0130	Non-emergency transport: wheelchair van	HCPCS
A0140	Non-emergency transport: air	HCPCS
A0426	Ambulance service, advanced life support, non-emergency transport	HCPCS
A0428	Ambulance service, basic life support, non-emergency transport, (BLS)	HCPCS
S0209	Wheelchair van mileage	HCPCS
S0215	Non-emergency transportation mileage	HCPCS
T2003	Non-emergency transportation: encounter or trip	HCPCS
T2004	Non-emergency transportation: commercial carrier pass	HCPCS
T2005	Non-emergency transportation: stretcher van	HCPCS
T2049	Non-emergency transportation: stretcher van, mileage	HCPCS
Z2713	Non-emergency transportation	State-specific - Arkansas
X0200	Non-emergency transport: wheelchair van	State-specific - California
X0202	Non-emergency transport: wheelchair van	State-specific - California
X0204	Non-emergency transport: wheelchair van	State-specific - California
X0206	Non-emergency transport: wheelchair van	State-specific - California
X0406	Non-emergency transport: wheelchair van	State-specific - California
X0400	Ambulance service, basic life support, non-emergency transport, (BLS)	State-specific - California
X0032	Ambulance service, basic life support, non-emergency transport, (BLS)	State-specific - California
Z5424	Non-emergency transportation mileage	State-specific - California
Z8597	Non-emergency transportation: encounter or trip	State-specific - California
Z5410	Non-emergency transportation: encounter or trip	State-specific - California
Z5412	Non-emergency transportation: encounter or trip	State-specific - California
X0210	Non-emergency transportation: stretcher van	State-specific - California
X0404	Non-emergency transportation: stretcher van	State-specific - California
A0999	Transportation broker	State-specific - Oregon
W7274	Transportation (non-emergency trip): 0–20 miles	State-specific - Pennsylvania
W7275	Transportation (non-emergency trip): 20–40 miles	State-specific - Pennsylvania
W7276	Transportation (non-emergency trip): 40–60 miles	State-specific - Pennsylvania