



HEALTH CARE AND HUMAN SERVICES POLICY, RESEARCH, AND CONSULTING—WITH REAL-WORLD PERSPECTIVE.

## Indiana HIP 2.0: Evaluation of Non-Emergency Medical Transportation (NEMT) Waiver

*Prepared for:* Indiana Family and Social Services Administration (FSSA)

*Submitted by:* The Lewin Group, Inc.

*November 2, 2016*

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## Executive Summary

The Special Terms and Conditions (STCs) for Indiana’s 1115 Demonstration – Healthy Indiana Plan (HIP) 2.0 – waived Indiana’s obligation to provide non-emergency medical transportation (NEMT) to certain beneficiaries for one demonstration year.<sup>1</sup> Although the waiver was scheduled to expire in February 2016 – one year after the HIP 2.0 demonstration began – the Centers for Medicare & Medicaid Services (CMS) temporarily extended it through November 30, 2016 to allow more time for data collection.

The State of Indiana submitted an initial evaluation of the Indiana HIP 2.0 NEMT waiver to CMS on March 1, 2016 based on a survey of 600 HIP 2.0 members conducted in December 2015 and January 2016.<sup>2</sup> The State of Indiana funded a second survey – administered in June 2016 – with a much larger sample size: 5,173 HIP 2.0 members as of May 2016.<sup>3</sup> Of these, there were 4,357 completed surveys from Regular Plan members and 816 completed surveys from State Plan members. The larger sample size allowed for in-depth analysis of differences in member access to health care between those receiving and not receiving NEMT services. Also, as the second survey was conducted about six months after the first survey, respondents had relatively more program experience than the respondents in the first survey. The goal of this report is to provide data analysis related to the results of the second survey asking members about their access to care during the prior six months.<sup>4</sup>

The NEMT waiver applies to all HIP members *except* the following five groups: pregnant women, medically frail individuals, Transitional Medical Assistance (TMA) participants, low-income parents and caretakers, and low-income 19- and 20-year-olds. These members qualify for Indiana’s traditional Medicaid benefit package, called the *State Plan* benefit package, which includes NEMT coverage. We refer to these members as “*members with State-provided NEMT.*” Data from members with State-provided NEMT is included for contextual purposes only, not for evaluative purposes.

HIP members who are *not* included in one of the five groups listed above are eligible for the *Regular Plan* benefit package. Although Regular Plan members are not eligible for State-provided NEMT, one of HIP’s three managed care entities (MCEs) – Anthem – provides NEMT as an added benefit to its Regular Plan enrollees. The State does not fund this benefit.<sup>5</sup> However, the NEMT services provided by Anthem are comparable to those provided by the

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<sup>1</sup> Although the HIP 2.0 demonstration lasts three years – February 1, 2015 through January 31, 2018 – the NEMT waiver only applies for a limited duration, with its extension dependent on the results of this evaluation.

<sup>2</sup> The Lewin Group. *Indiana HIP 2.0: Evaluation of Non-Emergency Medical Transportation (NEMT) Waiver*. February 2016. Retrieved from: <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/in/Healthy-Indiana-Plan-2/in-healthy-indiana-plan-support-20-nemt-eval-03112016.pdf>

<sup>3</sup> CMS has funded a national evaluation that will conduct a beneficiary study of HIP 2.0 members. This survey, which has an expected sample size of 5,182, includes questions related to NEMT. The supporting statement for the evaluation was submitted to the Office of Management and Budget in July 2016 and can be accessed through the following link: [http://www.reginfo.gov/public/do/PRAViewDocument?ref\\_nbr=201609-0938-012](http://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201609-0938-012).

<sup>4</sup> Members were asked to report on the prior six months – which would be roughly from December 2015 to May 2016.

<sup>5</sup> Per federal law 42 CFR §438.6, MCEs may cover services in addition to those covered under the State Plan, but the cost of these services cannot be included when determining payment rates.

State. We refer to these Regular Plan members enrolled in Anthem as members “with MCE-provided NEMT.” Finally, throughout the report, we refer to remaining Regular Plan members who do not have MCE-provided NEMT as members “without MCE-provided NEMT.”

To determine the impact of the waiver, this study uses Regular Plan members with MCE-provided NEMT as a comparison group to Regular Plan members without MCE-provided NEMT. We focus on comparing members with and without MCE-provided NEMT because Regular Plan members in the three different MCEs are similar across relevant dimensions *except* whether or not they receive NEMT coverage.<sup>6</sup>

We also provide data on members with State-provided NEMT for context. We do not conduct comparisons between State Plan and Regular Plan members as those eligible for the State Plan benefit package are not subject to the waiver and have different and more complex health care needs. This will affect their experiences accessing care, irrespective of NEMT coverage, so they are not an appropriate comparison group for evaluative purposes, but provide important contextual information.

To provide insights on the impact of the waiver, the survey asks members if they scheduled and missed appointments, and if an appointment was missed due to transportation related barriers. Respondents were also asked about other reasons for missing appointments, including lack of childcare, inability to get off work, they forgot about the appointment, and other less frequently-reported reasons.<sup>7</sup> Respondents could choose multiple options in responding to these questions.

Based on the survey results, there was no evidence that members without NEMT coverage were more likely to miss appointments (due to transportation barriers or other reasons) than similar members with MCE-provided benefits. Below, we highlight some of the key findings.

## **Regular Plan Members**

### *Missed appointments*

- Members were only asked if they had *missed* an appointment if they had reported *scheduling* an appointment. Among those who reported *scheduling* an appointment, 16.5 percent with MCE-provided NEMT reported *missing* an appointment, compared to 14.8 percent of members without MCE-provided NEMT. There is no statistically significant difference in these percentages.

### *Reasons for missed appointments*

Respondents who missed an appointment were asked to choose up to 13 different reasons for missing the appointment.

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<sup>6</sup> For example, members enrolled in Anthem versus the other MCEs have similar health and demographics, such as income and gender (a comparison of the demographic characteristics is provided in the Results section).

<sup>7</sup> Other options included: not having the time, not getting approval from plan, doctor not accepting insurance, high costs, felt better, needing an emergency room instead, or some other reason.

- The top three reasons for both members with and without MCE-provided NEMT coverage included they forgot about the appointment, appointment time was not convenient, and transportation problem. Most members chose more than one reason.
- When we looked at the percent of Regular Plan members that missed scheduled appointments due to transportation-related issues, we again found no significant difference between the members with MCE-provided NEMT and those without. There were 4.1 percent of members with MCE-provided NEMT who reported that transportation contributed to their reasons for missing an appointment and 4.7 percent of members without MCE-provided NEMT who reported transportation contributed to the reason for missed appointments. The difference in these numbers is not statistically significant.
- Among members that reported transportation as a reason for missing any scheduled appointment, greater than 80 percent reported at least one other reason for missing an appointment. This suggests that resolving their transportation problems may not fully resolve their access barriers.

### *Analyses by demographic characteristics*

While NEMT coverage status did not appear to be associated with differences in missed appointments when looking at members in aggregate, there were some differences for important subgroups. These include subgroups by income levels, health risk score, employment status, Plan type, gender, and age group, some of which are discussed below.

- **Income.** Among all Regular Plan members who scheduled an appointment, those with income at or below the federal poverty level (FPL) were more likely to report transportation as a reason for missing an appointment compared to those with income greater than the poverty level (5.1 percent compared to 1.7 percent,  $z=5.31$ ,  $p<0.001$ ).
- **Health Risk Score.** Risk score was examined as a proxy for health status to identify how much health care a member can be expected to use.<sup>8,9</sup> In general, a person's risk score would increase as they seek health care for more conditions. Thus, using risk scores allow us investigate whether there are different levels of transportation problems for members depending on the severity of their health care conditions. Among Regular Plan members

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<sup>8</sup> The risk scores are calculated using the Chronic Illness and Disability Payment System (CDPS) and Medicaid Rx (MRx) algorithm (a standard technique for calculating health risk for Medicaid population). The CDPS is a diagnostic classification system developed to describe different burdens of illness among Medicaid beneficiaries. In this analysis, the CDPS was supplemented with the MRx algorithm, which was designed to identify chronic conditions among beneficiaries who receive pharmacotherapy but do not have a qualifying CDPS diagnosis in their encounter records. Beneficiaries with fewer conditions and lower health care utilization have lower risk score values compared to beneficiaries with more or severe conditions. Since risk scores are continuous variables, analyses are presented in terms of risk categories. Members with between a 0.75 and 1.25 risk score are in the Medium category. Those above 1.25 are in the High category and those below 0.75 are in the low category. More details are provided in the "Methodology" section. See Methodology section for additional detail.

<sup>9</sup> Some HIP members are identified as "Medically Frail" by the state enrollment system if they have certain qualifying serious health conditions. While members designated 'medically frail' generally have higher risk scores, these concepts are not the same. The medically frail indicator is a binary indicator, whereas the risk score is continuous. Hence, the risk score can potentially help tease out the relative severity of members' conditions, since members with multiple conditions or more severe conditions will generally have higher risk scores. Also, medically frail members are eligible for State-provided NEMT, which would make them less relevant for this analysis.

who scheduled an appointment, members with higher risk scores (i.e., more comorbidities and expected health care needs) were significantly more likely to report transportation as a reason for a missed appointment relative to members with lower risk scores (i.e., fewer comorbidities and expected health care needs). We found 6.6 percent of Regular Plan members with high risk scores reported transportation contributed to a missed appointment compared to 3.4 percent of Regular Plan members with low risk scores ( $z=2.97$ ,  $p=0.001$ ) and 4.2 percent of Regular Plan members with medium risk scores ( $z=1.84$ ,  $p=0.033$ ). This could be due to the fact that members with higher risk scores may *make* more appointments and consequently could have more opportunities to *miss* appointments.

- **Gender and Employment Status.** Among Regular Plan members, both with and without MCE-provided NEMT, females were less likely to report transportation as a reason for missing an appointment than males. Moreover, full-time employment was associated with a lower likelihood to report transportation as a reason for missing an appointment compared to other employment statuses.

#### *Availability and use of different modes of transportation*

In response to questions about the *availability* of transportation, about 97.8 percent of members reported that they had access to at least one of three options: a vehicle, public transportation or assistance from another person. All members, regardless of whether they receive MCE- or State-provided NEMT, were most likely to report regular access to a vehicle (83.3 percent overall), compared to access to public transportation (57.2 percent overall). Across all NEMT coverage cohorts, slightly less than half of members reported getting help with transportation from a friend, family member or someone else, such as being driven, loaned a car, or helped with the cost of transportation.

With regard to *use* of different modes of transportation, approximately 95.4 percent of Regular Plan members who reported scheduling an appointment also reported driving themselves or having someone else drive them to their health care visit. Among members with MCE-provided NEMT, a majority (75.4 percent) reporting driving themselves to health care appointments; the next most common response was “someone else drove you” (38.5 percent). A similar proportion of members without-MCE provided NEMT reported driving themselves and being driven by another person. Relatively few members reported using medical/insurance covered transportation – such as NEMT – to get to their appointments. Only 4.6 percent of Regular Plan members with MCE-provided NEMT indicated that they used medical/insurance-covered transportation to get to medical care.

#### *Awareness of NEMT benefits*

Members with and without MCE-provided NEMT revealed a lack of awareness of their current NEMT benefits.

- About a quarter of members with MCE-provided NEMT were aware that their plan provided NEMT; whereas about one-fifth of members without MCE-provided NEMT understood that their plan did not provide NEMT.
- For members with MCE-provided NEMT, awareness of NEMT coverage was not associated with missed appointments due to transportation. Members who were aware that they receive NEMT coverage did not have lower reported rates of missed appointments due to transportation, compared to members who were not aware that they have NEMT coverage.

We also used multivariate regression analysis to investigate the effects of having NEMT coverage on missing an appointment and on reporting transportation as a reason for a missed appointment. The regressions estimated these effects while controlling for risk scores, income, education, employment, understanding of NEMT coverage, length of enrollment in HIP 2.0, self-reported availability of transportation, and geographic location. Even taking into account member demographics and other factors, lack of NEMT coverage was not a significant factor in missing appointments. The multivariate results are consistent with the results reported above.

In sum, based on survey results, we found no meaningful relationship between NEMT benefits and a member citing that they missed their health care appointments due to transportation problems. Results from this survey are consistent with the key results from the prior survey with a smaller sample of the HIP 2.0 population. The prior survey also found a relatively small proportion of members reporting missed appointments for transportation-related reasons and the proportions were similar for members with and without NEMT coverage.<sup>10</sup>

## **State Plan Members**

As noted above, for context, we also provide data on members with State-provided NEMT. Again, it is important to remember that these members should not be compared to Regular Plan members because they have more complex health needs which will contribute uniquely to their ability to attend appointments.

### *Missed appointments*

- Among those with State-provided NEMT, and who reported scheduling at least one appointment in the last six months, 18.3 percent reported a missed appointment.

### *Reasons for missed appointments*

- For members with State-provided NEMT, the most selected reason for missing an appointment was transportation. Among those that reported scheduling and missing an appointment, nearly half (48.5 percent) indicated transportation as a reason for missing the appointment. Over 85 percent of the members with State-provided NEMT that reported transportation as a reason for a missed appointment also indicated another reason.

### *Use of different modes of transportation*

- Approximately 9.5 percent of State Plan members – who have NEMT coverage – indicated that they used medical/insurance-covered transportation to get to medical care.

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<sup>10</sup> There are some differences in the survey instruments, sampling designs, and the length of respondents' enrollment in HIP. While the questions in the June 2016 survey have similar questions to those included in the first survey, there are some differences. Namely, additional questions related to NEMT were added to the June 2016 survey. Also, the initial survey covered more topics than NEMT, related to survey respondents' experiences with HIP more broadly. Moreover, minor edits to overlapping questions were made to help improve survey responses and streamline the survey (e.g., the first survey included partially open-ended questions, whereas the June 2016 survey only included closed-ended questions). For a full description of the prior survey methods and results, see: The Lewin Group. 2016. *Indiana HIP 2.0: Evaluation of Non-Emergency Medical Transportation (NEMT) Waiver*.



## *Final Report*

### *Awareness of NEMT benefits*

- Approximately 44.8 percent of State Plan members correctly reported that their plan provided NEMT.
- For members with State-provided NEMT, awareness of NEMT coverage was not associated with missed appointments due to transportation.

## Introduction

The Special Terms and Conditions (STCs) for Indiana's 1115 Demonstration – Healthy Indiana Plan (HIP) 2.0 – waived Indiana's obligation to provide non-emergency medical transportation (NEMT) to certain beneficiaries for one demonstration year.<sup>11</sup> Although the waiver was scheduled to expire in February 2016 – one year after the HIP 2.0 demonstration began – the Centers for Medicare & Medicaid Services (CMS) temporarily extended it through November 30, 2016 to allow more time for data collection.

The State of Indiana was required to evaluate the impact of the NEMT waiver on access to care. The Lewin Group was contracted to conduct the evaluation. As part of this effort, Lewin fielded a survey of HIP 2.0 members to evaluate if members without state- or MCE-provided NEMT faced transportation-related barriers to accessing care. This report details findings from the evaluation.

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<sup>11</sup> Although the HIP 2.0 demonstration lasts three years – February 1, 2015 through January 31, 2018 – the NEMT waiver only applies for a limited duration, with its extension dependent on the results of this evaluation.

## Methodology

There were four key implementation steps to this evaluation: (1) identification of the study populations; (2) development of the survey instrument; (3) identification of additional data sources that can be used for the study; and (4) specification of the target group on which the survey will be implemented.

### A. Study Populations

Under HIP 2.0, CMS granted Indiana the authority to waive NEMT to all members except for the following five groups:

- Pregnant women;
- Medically frail individuals;
- Transitional Medical Assistance participants;
- Low-income parents and caretakers; and
- Low-income 19- and 20-year-olds.

For a description of each population, see *Appendix A*. These populations qualify for Indiana’s traditional Medicaid benefit package, called the *State Plan* benefit package, which includes NEMT. For the purposes of this report, we refer to these members as “members with State-provided NEMT.”

HIP members who are *not* included in one of the five eligibility categories listed above are eligible for the *Regular Plan* benefit package, which does not include NEMT. For the purposes of this report, we refer to these members as “members without State-provided NEMT.”

Even though Regular Plan members are not categorically eligible for State-provided NEMT, one of HIP’s three managed care entities (MCEs) – Anthem – provides NEMT as an added benefit to its Regular Plan enrollees. The State does not fund this benefit.<sup>12</sup> The NEMT services that Anthem provides are comparable to those provided by the State. Also, the State-provided NEMT benefits are administered by the MCEs. See *Exhibit 1* for a summary of State-provided NEMT benefits versus Anthem-provided NEMT benefits, referred to as “MCE-provided NEMT benefits.”

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<sup>12</sup> Per federal law, 42 CFR §438.6, MCEs may cover services in addition to those covered under the State Plan, but the cost of these services cannot be included when determining payment rates.

**Exhibit 1. NEMT Benefits: State-Provided vs. MCE-Provided Benefits**

Benefit Package	State-provided NEMT Benefits	MCE-provided NEMT Benefits		
		Anthem	MDwise	MHS (Managed Health Services)
<b>Regular</b>	<b>Do not receive State-provided NEMT</b>	20 1-way trips annually (≤50 miles each)	None	None
<b>State</b>	<b>Receive State-provided NEMT</b> <i>20 1-way trips annually (&lt;50 miles each)</i>	Unlimited trips	20 1-way trips annually (≤50 miles each)	Unlimited trips

Note: State-provided NEMT benefits are slightly different from MCE-provided NEMT benefits. The State covers 20 one-way trips of *less than 50 miles* without prior authorization, whereas Anthem and MDwise cover 20 one-way trips *less than or equal to 50 miles* without prior authorization. Both members with State-provided NEMT and with MCE-provided NEMT can receive more than 20 trips if they receive prior authorization.

Our survey target population includes HIP 2.0 members enrolled in the Regular Plan, with and without MCE-provided NEMT, and in the State Plan as of May 2016.<sup>13</sup> The primary focus of this analysis is the comparison of Regular members enrolled in Anthem (with MCE-provided NEMT) to those enrolled in MDwise and Managed Health Services (MHS) (without MCE-provided NEMT). We focus on these two groups because they are similar across relevant dimensions *except* whether or not they receive NEMT. For example, members enrolled in Anthem versus the other MCEs (MDwise and MHS) have similar health and demographics, such as income and gender (a comparison of the demographic characteristics is provided in the *Results* section).

We also present results for members with State-provided NEMT. The State-provided NEMT program is limited to certain populations: pregnant women, medically frail individuals, TMA participants, low-income parents and caretakers, and low-income 19- and 20-year-olds. These populations have historically had different and more complex needs than the general HIP 2.0 population, such as the medically frail members, who qualify as such because they have one or more specified serious health conditions. Because these members have very different characteristics than those without State-provided NEMT, they are not an appropriate comparison group. We include results for this population as a reference only and not for evaluative purposes.

## **B. Survey Instrument**

The survey instrument consisted of 17 close-ended questions pertaining to member health care appointments, missed health care appointments, type of appointments missed, type of transportation most often used to get to medical appointments, and transportation problems specific to the missed appointments. Demographic questions (i.e., educational attainment, employment status, household size) were also included.

<sup>13</sup> Pregnant women enrolled in the Regular Plan are excluded from the universe because they receive NEMT.

The questions were modeled after the questions used in the first survey.<sup>14</sup> Additional questions related to NEMT were added to the June 2016 survey based upon questions being considered by CMS for their evaluation of the HIP 2.0 NEMT waiver,<sup>15</sup> as well as an evaluation of a similar waiver in Iowa.<sup>16</sup> Also, the prior survey covered topics in addition to NEMT, related to survey respondents' experiences with HIP more broadly. Moreover, minor edits to overlapping questions were made to help improve survey responses and streamline the survey.<sup>17</sup>

For questions with multiple response options, responses were randomized and rotated to reduce response bias. The full survey can be found in *Appendix D*. Data were collected by phone using computer-assisted telephone interviewing (CATI). This telephone methodology provided for interviewer assistance with complicated skip patterns, unaided responses, and consistency in evaluation and limitations of sample bias. The full survey protocol can be found in *Appendix B*.

### **C. Data Sources**

In addition to the survey responses, HIP 2.0 member enrollment and claims information were used for the study. The enrollment and claims data were obtained from the Enterprise Data Warehouse (EDW), which is maintained by the Indiana Family and Social Services Administration (FSSA), Division of Healthcare Strategies & Technology. The EDW is an enterprise-wide repository of membership, provider, utilization, and financial data.

#### **Enrollment Data**

A May 2016 membership roster was used to identify the enrollee population. HIP 2.0 fully eligible members were identified based on four recipient aid category codes: RB (Regular Basic), RP (Regular Plus), SB (State Basic) and SP (State Plus). Membership data was used as the source for demographic information about members, including length of enrollment in the program, gender, income, age, HIP plan type (i.e., Plus or Basic membership), and county of residence. County information was used to identify if the member county of residence was urban or rural based on a crosswalk list released by CMS for fiscal year (FY) 2016 of urban Core-Based Statistical Areas (CBSA) and constituent counties.<sup>18</sup> Enrollment data are also used to identify whether members actively selected their MCE, or were automatically assigned to one.<sup>19</sup>

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<sup>14</sup> For a full description of the prior survey methods and results, see: The Lewin Group. 2016. *Indiana HIP 2.0: Evaluation of Non-Emergency Medical Transportation (NEMT) Waiver*.

<sup>15</sup> Centers for Medicare and Medicaid Services. Healthy Indiana Program (HIP) 2.0 Beneficiaries Survey. Retrieved July 28, 2016 from: <https://www.cms.gov/Regulations-and-Guidance/Legislation/PaperworkReductionActof1995/PRA-Listing-Items/CMS-10615.html>

<sup>16</sup> University of Iowa Public Policy Center. Iowa Health and Wellness Plan Evaluation Interim Report (December 2015). Retrieved July 28, 2016 from: <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/ia/Wellness-Plan/ia-wellness-plan-interim-rpt-2015-2016.pdf>

<sup>17</sup> For example, the first survey included partially open-ended questions, whereas the June 2016 survey only included close-ended questions.

<sup>18</sup> CBSAs are geographic regions specified by the Office of Management and Budget and used for data collected and released by the U.S. Census Bureau. CBSAs consist of Metropolitan and Micropolitan Statistical Areas. In general, counties that fall within a Metropolitan or Micropolitan Statistical Area are considered urban, and counties outside of a Metropolitan or Micropolitan Statistical Area are considered rural. In addition to containing the county where the core urban area is located, each area includes adjacent counties with a "high degree of social and economic integration," which is measured by the number of people commuting to work in the core urban

## Claims Data

The claims data for HIP 2.0 members that was provided by Indiana FSSA included all services incurred from February 2015 through May 2016 and paid through June 2016. Additional data tables were provided that included primary and secondary diagnosis and procedure codes for the claims.

Claims data along with demographic information were used to develop member-specific risk scores, which were used as a proxy for their health status and potential health care utilization. Risk scores for each of the May 2016 enrollees are calculated using version 5.4 of the Chronic Illness and Disability Payment System (CDPS) and Medicaid Rx (MRx) algorithm.<sup>20</sup> The CDPS is a diagnostic classification system developed to describe the burden of illness specifically among Medicaid beneficiaries.<sup>21</sup> The algorithm uses the diagnoses/conditions associated with claims for beneficiaries to calculate the score.

Risk scores aim to be able to distinguish members with relatively higher or lower health care needs. For example, a risk score of two indicates a member is twice as risky (i.e., resource-intensive) as the average member. Since risk scores are continuous variables, we created risk categories to describe meaningful differences in health status. Members with scores between 0.75 and 1.25 are in the Medium risk category. Those above 1.25 are in the High risk category and those below 0.75 are in the low risk category. The risk cohorts were created using the distribution for the standardized risk score.<sup>22</sup>

Some HIP members are identified as “medically frail” by the state enrollment system if they have certain qualifying serious health conditions. We do not use this indicator in the analysis. While members designated “medically frail” generally have higher risk scores, these concepts are not the same. The medically frail indicator is a binary indicator, whereas the risk score is continuous. Hence, the risk score can potentially help tease out the relative severity of members’ conditions, since members with multiple conditions or more severe conditions will

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area. While somewhat broad, the Census Bureau data adapted by CMS allow for a high-level categorization of urban and rural populations.

<sup>19</sup> HIP members can select their MCE when they apply, or at any time before they make their first POWER Account Contribution (PAC). If a member does not select an MCE, the State’s eligibility rules engine automatically assigns them one. Members who were previously enrolled with an MCE, or with a family member previously enrolled through an MCE, are automatically assigned to that MCE. Members who have never been enrolled through one of the three MCEs are randomly assigned one.

<sup>20</sup> More information about the CDPS and MRx algorithms is available at: <http://cdps.ucsd.edu/>.

<sup>21</sup> The CDPS categorizes diagnoses into several major categories, which correspond to body systems or type of diagnosis. For example, the cardiovascular category includes diagnoses such as heart transplant, congestive heart failure, angina, and hypertension. Within a major category, there are subcategories that distinguish diagnoses that are typically associated with higher or lower costs (e.g., heart transplant is in the high subcategory for the cardiovascular group, whereas, congestive heart failure is considered medium, angina is low and hypertension is extra low). In this analysis, the CDPS was supplemented with the MRx algorithm, which was designed to identify chronic conditions among beneficiaries who receive pharmacotherapy but do not have a qualifying CDPS diagnosis in their encounter records.

<sup>22</sup> The scores were scaled such that the average risk for the member population is one (1.0) for ease of interpretation. Members having scaled risk score of less than 0.75 were classified as low risk, between 0.75 and 1.25 as medium, and greater than 1.25 as high.

generally have higher risk scores. Also, medically frail members are eligible for State-provided NEMT, which would make them less relevant for this analysis.

### Survey Data

Responses to survey questions were captured in a database that was used for the analyses. Some of the member demographic information was obtained via survey responses or derived from survey responses. Availability of public transportation, employment status, and education level were obtained directly from survey responses. Survey respondents could choose only one option for these questions. Response options have been grouped together in some instances in order to increase sample sizes for the analyses and the presentation of results. For example, for the survey question on educational attainment, respondents could choose from seven options (“grades 1 to 8,” “grades 9 to 11,” “grade 12 or GED,” “some college or technical school or 2-year degree,” “college graduate or more,” “don’t know,” “refused”). These responses were classified into two groups: “Less than or equal to high school” and “More than high school.”<sup>23</sup> For the availability of transportation questions, respondents had four response options (“Yes,” “No,” “Don’t Know,” “Refused”) which were classified into two categories, “Available” and “Not Available.” Additionally, we derived variables for analysis purposes such as “*member understanding of availability of NEMT benefit*” using a combination of member MCE enrollment classifications obtained from the enrollment data and responses to the survey question “*Does your HIP insurance plan (such as Anthem, MDwise or MHS) include this transportation service?*” More details on how the survey responses are used for the analysis are provided in the *Results* section.

### D. Sampling Design

A targeted sample size of 4,208 (1,830 with MCE-provided NEMT and 2,378 without MCE-provided NEMT) was determined to be adequate in order to detect a statistically significant difference of three percent or more between members with and without MCE-provided NEMT regarding the proportion of those populations that reported missing an appointment due to transportation. This sample size would also allow for statistical testing to detect differences of five percent or more for certain key subgroups of the population (including members below and above the FPL within both the populations with and without MCE-provided NEMT) with a confidence level of 95 percent and 80 percent power (refer to Appendix B for more details).<sup>24</sup>

Additionally, a targeted sample of 800 was determined to be adequate for the State-provided NEMT population to develop an understanding of member access to care for a population that has the State-provided NEMT benefit.

In order to ensure a representative sample by key characteristics, a stratified sampling design was implemented. Members were initially stratified by NEMT coverage status (State-provided

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<sup>23</sup> Excludes “don’t know” and “refused.” There were a total of 19 respondents who did not answer the survey question.

<sup>24</sup> As noted above, this survey included a much larger sample than the first survey in order to enable this sub-group analysis. The sample size for the first survey was determined in order to detect large differences *across* populations; it was not designed to allow for the ability to detect statistically significant differences across subgroups of members with and without NEMT benefits (e.g., by gender and age group).

NEMT, with MCE-provided NEMT and without MCE-provided NEMT). Previous analyses<sup>25</sup> had shown that member utilization of health care varies by the plan type (Basic or Plus), FPL, gender and age. Thus, additional dimensions were included for these categories to create the final strata for sampling.<sup>26</sup> However, due to the relatively smaller sample size for the members with State-provided NEMT, age was not used as a dimension to stratify the population with State-provided NEMT. Sample sizes were allocated to each stratum based on population size, ensuring a minimum number of samples are selected for the specific sub-population of interest. For more details, refer to *Appendix B - Member Survey Sampling Strategy*.

For any projection to the universe from which the sample is selected, each sample was weighted by the *sampling weight*. The sampling weight is a factor calculated by dividing the universe size of the stratum by the total number of respondents for the stratum. Member survey responses are weighted by this sampling weight to calculate the estimates presented in this report.

Typically surveys have a substantial portion of non-responses. In order to meet the target sample size for each stratum, a significantly large number of samples (about 40 times more than the target size) were randomly selected from each stratum. *Appendix B* discusses the survey protocol to achieve target sample sizes for each stratum.

*Exhibit 2* describes the final distribution of survey respondents by NEMT eligibility.

**Exhibit 2. Summary of Current Member Sample Sizes**

Surveyed HIP 2.0 Population	Total Number of Members	Number of Completed Responses
<b>Total</b>	<b>352,574</b>	<b>5,173</b>
Receive MCE-provided NEMT	99,473	1,907
Do not receive MCE-provided NEMT	117,993	2,450
Receive State-provided NEMT	135,108	816

Note: Data reflects the universe of HIP 2.0 members as of May 2016, when the survey sample was generated. See *Appendix B* for more detail on the survey sampling approach and for explanation of the sample size calculations.

There were 5,173 HIP 2.0 members who completed the survey.<sup>27</sup> There were 4,357 completed surveys from Regular Plan members, and 816 State Plan respondents.

<sup>25</sup> Indiana Healthy Indiana Plan 2.0: Interim Evaluation Report. (2016, July 6). Retrieved July 28, 2016 from <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/in/Healthy-Indiana-Plan-2/in-healthy-indiana-plan-support-20-interim-evl-rpt-07062016.pdf>.

<sup>26</sup> Since Basic Plan members typically have income less than 100 percent of the FPL, income was not used as a stratification for Basic Plan members.

<sup>27</sup> More respondents were collected than targeted. This occurred because of how the software tracking tool was utilized by the survey vendor to implement surveys and keep track of respondents in real-time. That is, since surveys directed to cell phones were conducted separately from those directed to landlines (members could be reached either via a landline or cell phone – not both), there were instances in which more than one interviewer in a stratum were concurrently completing surveys with respondents.



The overall response rate was 6.5 percent, which is calculated as the proportion of completed surveys to the total number of members attempted to be reached. The number of members contacted included people who were screened out of the survey (those who reported that they were not enrolled in HIP or those unaware of their HIP enrollment status), or who were unable to participate due to language barriers. The incidence rate, which is the number of completed surveys out of the total number of the people who answered the phone and started answering survey questions, was 42 percent.

## **E. Methods for Analyses**

All metrics for the responses presented in the report are based on weighted estimates taking into account the sampling design (described above).

To identify the differences between members with MCE-provided NEMT and members without MCE-provided NEMT, Chi-square tests for independence and z-tests were conducted.<sup>28</sup> We focus on these two groups (members with and without MCE-provided NEMT) because they are similar across all relevant dimensions except whether or not they receive NEMT. Additionally, we conducted z-tests to test for differences in key estimated metrics related to scheduling and missing appointments for subgroups of Regular Plan members with and without MCE-provided NEMT where sample sizes permitted. This is important as previous research on the HIP 2.0 population found that the prevalence of chronic conditions and utilization of health care varies by demographic characteristics.<sup>29</sup> These characteristics include plan type (Plus and Basic), income (represented as a percentage of the FPL), age, gender, rural/urban locations, length of enrollment in HIP, risk score, employment status, and self-reported availability of transportation.

Income and risk scores were converted to categorical variables for the tests of association. For income, we created two groups: members having income less than or equal to 100 percent of the FPL and greater than 100 percent of the FPL. As discussed above, risk scores are calculated using the CDPS and Medicaid Rx algorithm (refer to data sources section above for more details). Three groups were created for risk scores: (1) “Low” for members having scores below 0.75, (2) “Medium” for risk score between 0.75 and 1.25 risk score, and (3) “High” for those above 1.25.

After the initial tests of association between the responses of interest and various factors, multivariate logistic regressions were used to explore how different characteristics simultaneously influence whether or not a member missed an appointment and whether a

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<sup>28</sup> The Rao-Scott chi-square statistic is the predominant test conducted, which adjusts the Pearson chi-square statistic to take into account the effect of the survey design. Rao, J.N.K., and Scott, A. (1981). “The Analysis of Categorical Data from Complex Sample Surveys: Chi-Squared Tests for Goodness of Fit and Independence in Two-Way Tables,” *Journal of the American Statistical Association*, 76, pp, 221 - 230; Rao, J.N.K., and Scott, A. (1984). “On Chi-Squared Tests for Multiway Contingency Tables with Cell Proportions Estimated from Survey Data,” *Annals of Statistics*, 12, pp. 46 - 60. One-way t-tests were conducted for comparisons of two proportions.

<sup>29</sup> Indiana Healthy Indiana Plan 2.0: Interim Evaluation Report. (2016, July 6). Retrieved July 28, 2016 from <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/in/Healthy-Indiana-Plan-2/in-healthy-indiana-plan-support-20-interim-evl-rpt-07062016.pdf>.

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member reported transportation as an issue for missing the appointment. Such regressions allow for the ability to look at the potential influence of one variable while controlling for the effects of other variables. The key explanatory variable is whether or not a member had MCE-provided NEMT. Other factors that were explored as explanatory factors were FPL, age, gender, urban/rural location of the member, Basic or Plus membership, member's risk score, member length of enrollment, member understanding of NEMT coverage, education level attained, employment status, and self-reported availability of transportation.

## Results

This section highlights findings from the analysis. First, we describe the demographic, employment and health-related characteristics of members by NEMT-coverage status. Then, we present the analysis of the association between NEMT coverage and the likelihood of missing health care appointments.

### A. Distribution of Members

In this section, we discuss the member composition for the population of interest for the different NEMT coverage cohorts. *Exhibit 3* shows the distribution of the universe of HIP 2.0 members by a variety of demographic factors (as discussed in the “Methodology” section above). The membership distribution by plan type, income, age, length of enrollment is based on the May 2016 HIP 2.0 population of interest. The table also includes the number of survey respondents for each analysis group as reference. Plus members comprised about 68.1 percent of all members.

**Exhibit 3. The Population Distribution of HIP 2.0 Members by Various Characteristics and NEMT Coverage Status and the Number of Survey Respondents by Population Groups**

Member Characteristics	Members without State-Provided NEMT			Members with State-Provided NEMT	Total
	All	With MCE-Provided NEMT	Without MCE-Provided NEMT		
Total Surveyed Population	4,357	1,907	2,450	816	5,173
<b>HIP Membership Type</b>					
Basic (sampled number)	27.0% (1,259)	23.6% (538)	29.9% (721)	39.6% (368)	31.9% (1,627)
Plus (sampled number)	73.0% (3,098)	76.4% (1,369)	70.1% (1,729)	60.4% (448)	68.1% (3,546)
<b>Income</b>					
Less than or equal to 100% (sampled number)	82.0% (2,948)	81.5% (1,287)	82.4% (1,661)	91.5% (752)	85.7% (3,700)
Greater than 100% (sampled number)	18.0% (1,409)	18.5% (620)	17.6% (789)	8.5% (64)	14.3% (1,473)
<b>Gender</b>					
Female (sampled number)	57.9% (2,252)	58.0% (986)	57.7% (1,266)	77.2% (621)	65.3% (2,873)
Male (sampled number)	42.1% (2,105)	42% (921)	42.3% (1,184)	22.8% (195)	34.7% (2,300)
<b>Age</b>					
Ages 19-34 (sampled number)	41.9% (1,835)	39.4% (775)	44.0% (1,060)	56.1% (366)	47.3% (2,201)
Ages 35-45 (sampled number)	21.4% (926)	22.0% (411)	21.0% (515)	25.9% (203)	23.1% (1,129)
Ages 45-64 (sampled number)	36.7% (1,596)	38.6% (721)	35.0% (875)	18.0% (247)	29.5% (1,843)
<b>Length of Enrollment in HIP</b>					
≤ 6 months (sampled number)	39.1% (1,751)	39.4% (780)	38.9% (971)	25.4% (186)	33.9% (1,937)

Member Characteristics	Members without State-Provided NEMT			Members with State-Provided NEMT	Total
	All	With MCE-Provided NEMT	Without MCE-Provided NEMT		
> 6 months (sampled number)	60.9% (2,606)	60.6% (1,127)	61.1% (1,479)	74.6% (630)	66.1% (3,236)
<b>Rural/Urban Status</b>					
Rural (sampled number)	31.4% (1,467)	30.9% (629)	31.9% (838)	31.7% (288)	31.5% (1,755)
Urban (sampled number)	68.6% (2,890)	69.1% (1,278)	68.1% (1,612)	68.3% (528)	68.5% (3,418)
<b>Characteristics Derived from the Survey Questionnaire (Percentages are Sample-based Estimates)</b>					
<b>Risk Score**</b>					
Low (sampled number)	69.2% (2,932)	65.2% (1,172)	72.6% (1,760)	55.4% (405)	63.9% (3,337)
Medium (sampled number)	12.7% (577)	13.4% (296)	12.1% (281)	13.8% (112)	13.1% (689)
High (sampled number)	18.1% (848)	21.4% (439)	15.3% (409)	30.8% (299)	23.0% (1,147)
<b>Employment Status*</b>					
Part-Time (sampled number)	26.9% (1,192)	26.7% (511)	27.1% (681)	17.7% (146)	23.4% (1,338)
Full-Time (sampled number)	20.7% (1,054)	20.6% (474)	20.8% (580)	11.4% (99)	17.1% (1,153)
Unemployed (sampled number)	39.1% (1,534)	38.1% (655)	40.0% (879)	57.1% (462)	46.0% (1,996)
Other <sup>b</sup> (sampled number)	13.3% (577)	14.6% (267)	12.2% (310)	13.7% (109)	13.5% (686)
<b>Self-Reported Availability of Public Transportation*<sup>a</sup></b>					
Available (sampled number)	57.2% (2,503)	55.0% (1,065)	59.0% (1,438)	57.2% (469)	57.2% (2,972)
Not Available (sampled number)	38.2% (1,657)	39.4% (738)	37.2% (919)	39.3% (318)	38.6% (1,975)

Note: \* Percents displayed are estimated based on the weighted sample. + Based on risk scores from claims data. See “Methodology” section for more details on how risk scores are calculated. <sup>a</sup> There were 226 respondents that indicated “Don’t Know” and are not included in these estimates. <sup>b</sup> There are 41 respondents that reported “Don’t Know” or “Refused” and which are included in the “Other” category.

Approximately 14.3 percent of HIP 2.0 members had income above the FPL; about 65.3 percent were female and nearly half (47.3 percent) were between 19 and 34 years old.

The majority of members lived in urban locations (approximately 68.5 percent) and about two-thirds of members were enrolled for more than six months.

Note that, among Regular Plan members in the population, the distribution by different demographics is very similar between those *with* and *without* MCE-provided NEMT.

There are substantial differences when comparing members in the Regular Plan to those in the State Plan, which highlights the inappropriateness of directly comparing members in the Regular and State Plans.

*Exhibit 3* also displays the distribution of three characteristics (Risk Score, Employment Status and Self-Reported Availability of Public Transportation) that were derived from the survey responses. In this case, estimated population percentages were calculated from sample responses using the sample weights. About two-thirds of members were characterized as having “low” risk (i.e., having expected health care costs 25 percent or more below the average member). Approximately 40.5 percent of members indicated being employed part-time (23.4 percent) or full-time (17.1 percent). Also, most members indicated that public transportation (such as a bus) was available in their area.

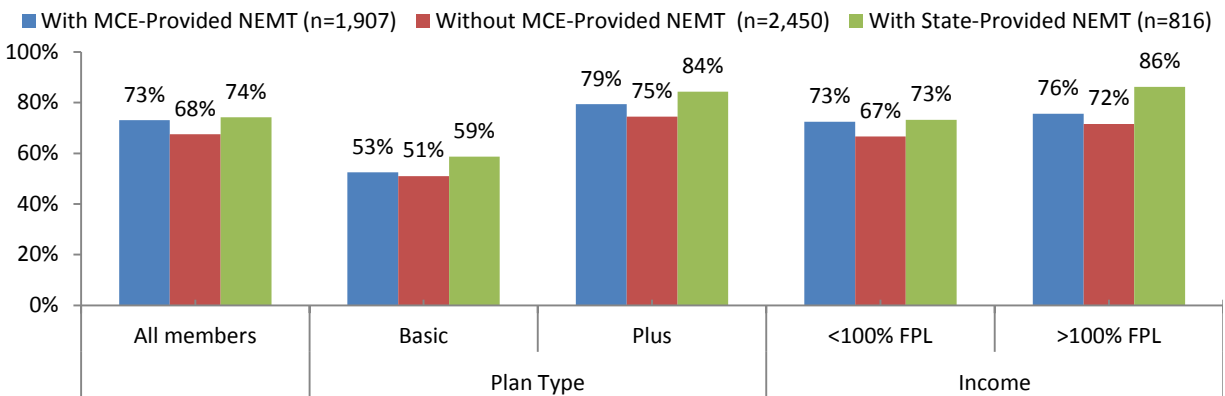
## B. Survey Results

All analyses presented in the report are based on survey responses, which are weighted to reflect the universe of HIP 2.0 members subject to the study.

### Members Scheduling any Health Care Appointment in Last Six Months

Members were first asked whether they made any appointments for a health care visit such as a check-up or routine visit to a doctor, clinic or a specialist, in the last six months (excluding emergency visits to the hospital). *Exhibit 4* shows the proportion of members who reported making at least one appointment by the three NEMT coverage populations, HIP 2.0 plan type, and income.

**Exhibit 4. Percentage of Members who Scheduled at least one Appointment in the Last 6 Months, by NEMT Coverage Status, Plan Type, and Income**



Note: Estimates displayed rounded to nearest whole number. 17 members (nine with MCE-provided NEMT, five without MCE-provided NEMT, and three with State-provided NEMT) reported “Don’t know.” Refer to *Appendix E, Exhibit E1* for sample sizes and standard errors for each cohort.

A higher proportion of members with MCE-provided NEMT (73.0 percent) reported making a health care appointment in the last six months than those without MCE-provided NEMT (67.5 percent). This difference was statistically significant ( $z=3.92$ ,  $p<0.001$ ).<sup>30</sup> Among members with State-provided NEMT benefits, 74.2 percent reported making a health care appointment in the last six months.

<sup>30</sup> A test of independence between responding to scheduling a health care appointment and NEMT-coverage for Regular Plan members also shows a significant association (Rao-Scott Chi-square =15.42,  $p= <0.001$ )

This overall pattern with those having NEMT coverage scheduling more appointments is also observed when investigating the proportions by various subgroups, including; HIP 2.0 plan type (Plus or Basic), income levels, gender, age, length of enrollment, employment status, urban/rural status, and self-reported availability of public transportation (refer to *Exhibit 4* and *Appendix E, Exhibit E1*). The exception to the pattern is for members with high risk scores; members with high risk scores are similarly likely to make appointments, *regardless* of whether they have NEMT.

### Members Missing a Scheduled Health Care Appointment in Last Six Months

Members who indicated having scheduled any health care appointment in the last six months were asked whether they missed any appointments during that time. *Exhibit 5* displays the proportion of members who missed an appointment *among those that scheduled an appointment*.

**Exhibit 5. Proportion of Members who Reported a Missed Appointment, among Members who Reported Scheduling any Health Care Appointment in Last Six Months, by NEMT Coverage and Demographic Factors**

HIP 2.0 Member Characteristics	All	Members Without State-provided NEMT		Members With State-provided NEMT
		Members With MCE-Provided NEMT	Members Without MCE-Provided NEMT	
All members	15.6%	16.5%	14.8%	18.3%
<b>HIP Membership Type</b>				
Basic	21.4%	19.9%	22.4%	24.1%
Plus	14.1%	15.8%	12.5%	15.7%
<b>Income</b>				
Less than or equal to 100%	16.8%	17.6%	16.1%	19.4%
Greater than 100%	10.3%	11.7%	9.0%	7.3%
<b>Gender</b>				
Male	18.0%	18.1%	18.0%	25.4%
Female	14.1%	15.5%	12.7%	16.3%
<b>Age</b>				
19-35 years	15.8%	15.1%	16.4%	18.9%
36+ years	15.5%	17.3%	13.6%	18.0%
<b>Length of Enrollment in HIP</b>				
<6 months	14.7%	15.2%	14.2%	19.1%
>6 months	16.1%	17.2%	15.0%	18.2%
<b>Risk Score</b>				
Low	12.7%	13.0%	12.4%	18.0%
Medium	15.8%	17.7%	13.7%	11.0%
High	21.1%	20.9%	21.4%	21.1%
<b>Employment Status</b>				
Part-time	13.3%	16.0%	10.8%	16.4%
Full-time	14.2%	13.5%	14.7%	18.1%
Unemployed	17.8%	17.7%	17.8%	18.8%
Other	15.5%	17.6%	13.3%	19.2%

HIP 2.0 Member Characteristics	All	Members Without State-provided NEMT		Members With State-provided NEMT
		Members With MCE-Provided NEMT	Members Without MCE-Provided NEMT	
<b>Rural/Urban Status</b>				
Rural	15.3%	17.6%	13.4%	17.3%
Urban	15.7%	15.9%	15.5%	18.9%
<b>Self-Reported Availability of Public Transportation</b>				
Available	15.9%	16.7%	15.2%	19.3%
Not available	14.9%	16.8%	13.1%	16.9%

Note: Members were asked this question *only* if they reported making a health care appointment in the six months prior to being surveyed. Refer to *Appendix E, Exhibit E2* for sample sizes and standard errors for each cohort.

Among members with MCE-provided NEMT that indicated scheduling an appointment, about 16.5 percent indicated a missed appointment. The proportion was similar for members without MCE-provided NEMT (14.8 percent, no statistically significant difference).<sup>31</sup>

The survey also captured the experiences of the population who receive State-provided NEMT. This group has more complex health issues that will contribute to missed appointments so it is not appropriate to compare them to the population without State-provided NEMT. The data is reported for completeness. Among members with State-provided NEMT who reported scheduling an appointment in the last six months (n=594), 18.3 percent missed an appointment (n=112). This translates to 13.7 percent of the overall State-provided NEMT population (including those who did and those who did not schedule appointment) missing an appointment, (i.e., 112 out of 816).

In general, similar proportions of Regular Plan members with and without MCE-provided NEMT reported missing an appointment for each of the subgroups investigated. In fact, among the Regular Plan members, the only subgroups with statistically significant differences in the proportion of members reporting a missed appointment were: 1) members in rural areas (17.6 percent for those with MCE-provided NEMT versus 13.4 percent for those without,  $z=1.71$ ,  $p=0.044$ ), 2) older members (17.3 percent versus 13.6 percent,  $z=1.97$ ,  $p=0.025$ ), and 3) members employed part-time (16.0 percent versus 10.8 percent,  $z=1.95$ ,  $p=0.025$ ).

When looking at all Regular Plan members (irrespective of whether they had MCE-provided NEMT) who had reported scheduling an appointment, there were statistically significant differences in the likelihood of missing an appointment by certain demographic characteristics; including, plan type, income level, risk score, gender and employment status. Basic members have a significantly higher likelihood of missing appointments compared to members in Plus (21.4 percent compared to 14.1 percent,  $z=4.03$ ,  $p<0.001$ ). Those with incomes over the FPL were less likely to miss a health care appointment than those with incomes less than or equal to the FPL (10.3 percent versus 16.8 percent,  $z=-4.96$ ,  $p<0.001$ ). Members with high risk scores were more likely to miss a health care appointment relative to those with low risk scores (21.1 percent versus 12.7 percent,  $z=4.75$ ,  $p<0.001$ ) or medium risk scores (21.1 percent versus 15.8 percent,  $z=2.25$ ,  $p=0.012$ ). Members that indicated being employed full-time were significantly less likely

<sup>31</sup> The corresponding test for independence also shows no association (Rao-Scott Chi-square=1.41,  $p=0.234$ ).

to miss an appointment than unemployed members (14.2 percent versus 17.8 percent,  $z=-1.89$ ,  $p=0.029$ ). Females were less likely than males to miss a health care appointment (14.1 percent versus 18.0 percent,  $z=-2.68$ ,  $p=0.004$ ).

There were no statistically significant differences by age, length of enrollment, living in an urban versus rural area, or self-reported availability of public transportation.

For context, there were relatively few survey respondents who indicated a missed appointment. There were 214 members with MCE-provided NEMT who reported missing an appointment, (out of 1,346 who reported scheduling an appointment) and 231 without MCE-provided NEMT (out of 1,639). Based on these survey responses, we can project that the estimated number of members in the population who scheduled and missed an appointment in the last six months is about 11,900 for members with MCE-provided NEMT and 11,700 for those without MCE-provided NEMT.<sup>32</sup> These totals would represent about 12.0 percent and 10.0 percent of the universe of HIP 2.0 members with and without MCE-provided NEMT, respectively.<sup>33</sup>

### ***Reasons for Missing Scheduled Health Care Appointments***

In this section, we examine the different reasons why members report missing an appointment. Survey respondents who said that they missed any appointment were then asked to identify the reason(s) they missed the appointment(s). Respondents were allowed to select more than one reason (*Exhibit 6*).

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<sup>32</sup> The total HIP 2.0 population without State-provided NEMT was 217,466 in May 2016. Estimated member counts account for the sampling design and weighting methodology. Using the sample and response to the missed appointment question, the estimated number of members having a missed appointment is 11,976 (standard error = 818) for MCE-provided NEMT and 11,767 (standard error = 768) for without MCE-provided NEMT.

<sup>33</sup> This difference is statistically significant ( $z=1.97$ ,  $p=0.02$ ).



Exhibit 6. Number of Reasons Identified for Missing an Appointment, by NEMT Coverage Status

Number of Reasons Selected	Members Without State-provided NEMT				Members With State-provided NEMT (n=112)	
	Members With MCE-Provided NEMT (n=214)		Members Without MCE-Provided NEMT (n=231)			
	Number of Respondents	Percent of Members who Missed Appointment	Number of Respondents	Percent of Members who Missed Appointment	Number of Respondents	Percent of Members who Missed Appointment
<b>Number of Reasons for Missing any Appointment – All Members who Missed an Appointment</b>						
One Reason	60	27.4%	75	32.7%	24	21.0%
Two Reasons	72	36.7%	71	30.5%	31	28.8%
More than Two Reasons	81	35.5%	85	36.8%	57	50.2%
<b>Number of Reasons for Missing any Appointment – Only for Members Reporting Transportation as a Reason</b>						
One Reason- <i>Transportation Only</i> <sup>+</sup>	6	12.0%	13	20.0%	8	14.6%
<i>More than One Reason - Selecting Transportation and other reasons</i> <sup>+</sup>	46	88.0%	58	80.0%	47	85.4%

Note: Percentages are based on weighted estimates. There was one respondent who did not choose any reason for a missed appointment. + The percentages presented show the weighted proportion for the sub-cohort of members choosing transportation as a reason for missing any appointment for each NEMT coverage group.

The majority of respondents (almost two-thirds) without State-provided NEMT selected two or fewer reasons, while those with State-provided NEMT tended to select more reasons: half selected three or more reasons for missing appointments.

*Exhibits 7a* and *7b* report on the specific reasons reported by members. *Exhibit 7a* focuses on the reasons reported by members for a missed appointment, as a *percentage of members who missed appointments* and *Exhibit 7b* reports on the reasons reported by members for a missed appointment, as a percentage of members *scheduling an appointment in the last six months*.

*Exhibit 7a* displays the proportion of members who selected a specific reason for a missed appointment. Values are reported as a percentage of members that indicated they both scheduled and missed any appointment in the last six months.

**Exhibit 7a. Members Reporting Various Reasons for a Missed Appointment, as a Percentage of Members Who Missed Appointments, by NEMT Coverage Status**

Reason for Missing an Appointment	Members Without State-provided NEMT		Members With State-provided NEMT (n=112)
	With MCE-Provided NEMT (n=214)	Without MCE-Provided NEMT (n=231)	
Appointment time was not convenient	28.6%	29.2%	28.7%
Too sick to go	20.7%	22.2%	33.2%
No childcare	7.1%	7.2%	19.1%
Couldn't get off work	23.3%	18.5%	16.5%
Didn't have time to go	21.3%	20.3%	20.5%
Didn't get approval from the plan	15.6%	14.3%	13.5%
Forgot	31.8%	27.5%	32.5%
Doctor wouldn't accept your insurance	12.8%	15.8%	19.3%
Transportation problem	25.0%	32.0%	48.5%
Cost was too high	7.2%	5.4%	5.0%
Felt better and didn't want to go	9.2%	6.5%	10.5%
Went to the emergency room instead	8.2%	11.1%	14.8%
Some other reason	36.2%	39.0%	27.9%

Notes: Members were asked this question *only* if they reported missing a health care appointment in the six months prior to being surveyed. Respondents were able to select more than one option for reasons they missed an appointment; the average respondent selected at least two reasons.

'Some other reason' was indicated by the largest proportion for both members with and without MCE-provided NEMT. Since all survey questions were close-ended, members did not expand upon this response. However, the previous survey allowed for open-ended responses and 'other reasons' spanned a wide range of responses including: medical issues (kidney failure, epilepsy episode, leg injury and depression), car trouble, familial emergencies or obligations, and oversleeping.<sup>34</sup>

Among members without State-provided NEMT, the proportions indicating transportation as a reason for missing a scheduled appointment were 25.0 percent for those with MCE-provided NEMT and 32.0 percent for those without MCE-provided NEMT. Regardless of NEMT coverage status, at least 80 percent of members who selected transportation as a reason for a missed appointment, also indicated *another* reason for missing the appointment (as shown in *Exhibit 6*, members could select *multiple* reasons for missing an appointment).

Among members with State-provided NEMT who reported both scheduling and missing any health care appointment in the last six months, nearly half indicated transportation as a reason

<sup>34</sup> The Lewin Group. 2016. *Indiana HIP 2.0: Evaluation of Non-Emergency Medical Transportation (NEMT) Waiver*.

(n=55). Based on our weighting methodology, this would amount to roughly 8,900 members; about 6.6 percent of the universe of State-provided NEMT HIP 2.0 members.<sup>35</sup>

*Exhibit 7b* displays the proportion of members who selected a specific reason for a missed appointment out of the members who reported *scheduling* any health care appointment in the last six months (the previous exhibit showed the proportion out of only members who reported *missing* an appointment).

**Exhibit 7b. Members Reporting Various Reasons for a Missed Appointment, as a Percentage of Members Scheduling an Appointment in the Last Six Months, by NEMT Coverage Status**

Reason for Missing an Appointment	Members Without State-provided NEMT		Members With State-provided NEMT (n=594)
	With MCE-Provided NEMT (n=1,346)	Without MCE-Provided NEMT (n=1,639)	
<b>Members Reporting Any Reason</b>	<b>16.4%*</b>	<b>14.8%</b>	<b>18.3%</b>
Appointment time was not convenient	4.7%	4.3%	5.3%
Too sick to go	3.4%	3.3%	6.1%
No childcare	1.2%	1.1%	3.5%
Couldn't get off work	3.8%	2.7%	3.0%
Didn't have time to go	3.5%	3.0%	3.8%
Didn't get approval from the plan	2.6%	2.1%	2.5%
Forgot	5.2%	4.1%	6.0%
Doctor wouldn't accept your insurance	2.1%	2.3%	3.5%
Transportation problem	4.1%	4.7%	8.9%
Cost was too high	1.2%	0.8%	0.9%
Felt better and didn't want to go	1.5%	1.0%	1.9%
Went to the emergency room instead	1.4%	1.6%	2.7%
Some other reason	6.0%	5.8%	5.1%

Note: Members were asked the question only if they reported both scheduling and missing any health care appointment in the six months prior to being surveyed. Respondents were able to select more than one option for reasons they missed an appointment; the average respondent selected over two reasons. *Appendix E, Exhibit E3* shows the number of respondents for each of the reasons. \*There was one MCE-provided NEMT respondent who did not select a reason. Hence the sample count is 213 (compared to the total specifying a missed appointment of 214) and the estimated proportion is 16.4 percent (compared to 16.5 percent).

Among members without State-provided NEMT, 4.1 percent of those with MCE-provided NEMT and 4.7 percent of those without MCE-provided NEMT indicated transportation as at least one of their reasons for missing a scheduled appointment (the difference is not statistically significant).<sup>36</sup> There were few survey respondents who indicated transportation as a reason for a missed appointment – 52 with MCE-provided NEMT and 71 for those without MCE-provided NEMT. Based on the survey respondents and using our weighting methodology, the estimated number of the universe of HIP 2.0 members that reported transportation as a reason for missing a scheduled appointment in the last six months is about 3,000 and 3,700 for those with and

<sup>35</sup> The estimated number of members who reported transportation as a reason for missing any scheduled health care appointment is 8,910 (standard error = 1,170) for the HIP 2.0 population with State-provided NEMT.

<sup>36</sup> The corresponding test for independence also shows no association (Rao-Scott Chi-square=0.53, p= 0.468).

without MCE-provided NEMT, respectively.<sup>37</sup> This represents about 3.0 percent and 3.2 percent of HIP 2.0 members with and without MCE-provided NEMT.

### The Self-reported Most Common Reason for Missing Scheduled Health Care Appointments

After members were asked to identify any reasons they may have missed an appointment, they were asked to distinguish which of the reasons they identified was their *most common* reason. *Exhibit 8* displays the most common reasons indicated for missing an appointment by NEMT coverage status, among those who also reported both scheduling and missing any scheduled appointment in the last six months.

**Exhibit 8. Most Common Reason for Missed Appointments, by NEMT Coverage**

Top Five “Most Common Reasons”	Members Without State-provided NEMT			Members With State-provided NEMT
	All	Members With MCE-Provided NEMT	Members Without MCE-Provided NEMT	
Forgot	15.3%	17.8%	12.8%	14.5%
Some other reason	20.4%	16.3%	24.7%	10.0%
Couldn't get off work	11.8%	15.0%	8.6%	9.8%
Transportation	16.8%	13.0%	20.7%	28.9%
Too sick to go	11.2%	11.8%	10.5%	13.1%
All other reasons in survey	18.4%	19.0%	17.9%	20.2%

Note: The percentage indicates the estimated proportion of members for each *most common* reason of those who missed an appointment. “All other reasons in survey” include “Doctor wouldn’t accept your insurance,” “Cost was too high,” “Felt better and didn’t want to go,” “Went to the emergency room instead,” “The appointment time was not convenient,” “No childcare,” “Didn’t have time to go,” or “Didn’t get approval from the plan.” Some respondents chose “Don’t Know” or “Refused:” 17 for with MCE-Provided NEMT, 12 for without MCE-Provided NEMT, and four for with State-Provided NEMT.

Among members with MCE-provided NEMT who missed any appointment, ‘forgot’ (17.8 percent) and ‘some other reason’ (16.3 percent) were indicated by the largest proportions as the *most common* reasons for missing an appointment. Transportation was indicated by 13.0 percent. Among members without MCE-provided NEMT who missed any appointment, ‘some other reason’ (24.7 percent) and ‘transportation’ (20.7 percent) were indicated by the largest proportions as the most common reasons.

For members with State-provided NEMT, transportation was reported as the most common reason by the largest proportion (28.9 percent). *Appendix E, Exhibit E4* lists all the reasons and the estimated proportion of members for the cohort with scheduled appointments.

### Analyses of Transportation as a Reason for Missing Health Care Appointments

In this section, we focus on members who selected *transportation* as a reason for missing an appointment. *Exhibit 9a* provides estimates of the proportion of members who reported

<sup>37</sup> The estimated number of members who reported transportation as a reason for missing any appointment is 2,998 (standard error = 432) for those with MCE-provided NEMT and 3,762 (standard error = 454) for those without MCE-provided NEMT.

transportation as a reason for missing any appointment, among those who reported missing any appointment in the last six months, by NEMT coverage and various demographic categories. The estimates are based on the question that asked for “a reason” as opposed to the “most common” reason.

**Exhibit 9a. Proportion of Members Who Identified Transportation as a Reason for a Missed Appointment among Members who Missed an Appointment, by NEMT Coverage Status and Demographic Factors**

HIP 2.0 Member Characteristics	Members Without State-provided NEMT			Members With State-provided NEMT (n=112)
	All (n=445)	Members With MCE-Provided NEMT (n=214)	Members Without MCE-Provided NEMT (n=231)	
All members	28.5%	25.0%	32.0%	48.5%
<b>HIP Plan Type</b>				
Basic	33.6%	32.3%	34.5%	57.9%
Plus	26.5%	23.2%	30.7%	41.8%
<b>Income</b>				
Less than or equal to 100%	30.3%	26.6%	33.9%	48.5%
Greater than 100%	16.1%	15.3%	17.1%	46.2%
<b>Gender</b>				
Male	29.4%	25.4%	33.0%	54.6%
Female	27.7%	24.8%	31.1%	45.7%
<b>Age</b>				
19-35 years	33.0%	27.9%	36.6%	44.2%
36+ years	25.5%	23.6%	27.9%	51.3%
<b>Length of Enrollment (HIP)</b>				
≤6 months	28.8%	26.5%	31.0%	55.5%
>6 months	28.3%	24.3%	32.4%	46.9%
<b>Risk Score</b>				
Low	27.0%	26.4%	27.5%	44.8%
Medium	26.3%	19.6%	36.5%	23.8%
High	31.1%	26.5%	36.6%	55.1%
<b>Employment Status</b>				
Part-time	28.8%	29.7%	27.5%	33.9%
Full-time	13.6%	11.9%	14.9%	41.8%
Unemployed	35.2%	30.4%	39.6%	53.3%
Other	23.7%	15.0%	35.9%	49.5%
<b>Rural/Urban Status</b>				
Rural	29.1%	22.0%	37.2%	51.4%
Urban	28.1%	26.7%	29.5%	46.9%
<b>Self-Reported Availability of Public Transportation</b>				
Available	26.8%	24.1%	29.3%	45.9%
Not available	31.8%	26.4%	38.4%	54.6%

## *Final Report*

Note: Members were asked this question *only* if they reported missing a health care appointment in the six months prior to being surveyed.

Relatively few Regular Plan survey respondents indicated missing any scheduled appointment in the last six months – 445 out of 2,985. Among those members who missed appointments, **for all demographic categories**, the proportions of members without MCE-provided NEMT who indicated transportation as a reason for missing an appointment were generally slightly higher than the proportions for members with MCE-provided NEMT.

When comparing member characteristics *within* NEMT coverage groups, for example Basic members with MCE-provided NEMT to Plus members with MCE-provided NEMT, the patterns were generally similar for members with and without MCE-provided NEMT. For both groups, members with Basic coverage were more likely to report transportation as one of the reasons for a missed appointment, compared to those in Plus. This was similar for members with income below the poverty level compared to those above, males compared to females, younger compared to older members, members that do not work full-time compared to those that do, and members who reported not having public transportation available compared to those that did. No tests for statistical significance were performed when looking at only the members who reported missing any appointment.

*Exhibit 9b* displays the proportions of members that reported transportation as one of their reasons for missing an appointment by various demographic characteristics, among those that reported *scheduling* an appointment.

**Exhibit 9b. Proportion of Members Who Identified Transportation as a Reason for a Missed Appointment among Members who *Scheduled* an Appointment, by NEMT Coverage Status and Demographic Factors**

HIP 2.0 Member Characteristics	Members Without State-provided NEMT			Members With State-provided NEMT (n=594)
	All (n=2,985)	Members With MCE-Provided NEMT (n=1,346)	Members Without MCE-Provided NEMT (n=1,639)	
All members	4.4%	4.1%	4.7%	8.9%
<b>HIP Plan Type</b>				
Basic	7.2%	6.4%	7.7%	13.9%
Plus	3.8%	3.7%	3.8%	6.6%
<b>Income</b>				
Less than or equal to 100%	5.1%	4.7%	5.5%	9.4%
Greater than 100%	1.7%	1.8%	1.5%	3.4%
<b>Gender</b>				
Male	5.3%	4.6%	5.9%	13.9%
Female	3.9%	3.8%	4.0%	7.5%
<b>Age</b>				
19-35 years	5.2%	4.2%	6.0%	8.4%
36+ years	3.9%	4.1%	3.8%	9.2%
<b>Length of Enrollment (HIP)</b>				
≤6 months	4.2%	4.0%	4.4%	10.6%
>6 months	4.6%	4.2%	4.9%	8.5%
<b>Risk Score</b>				
Low	3.4%	3.4%	3.4%	8.1%
Medium	4.2%	3.5%	5.0%	2.6%
High	6.6%	5.6%	7.8%	11.6%
<b>Employment Status</b>				
Part-time	3.8%	4.7%	3.0%	5.5%
Full-time	1.9%	1.6%	2.2%	7.6%
Unemployed	6.3%	5.4%	7.0%	10.0%
Other	3.7%	2.6%	4.8%	9.5%
<b>Rural/Urban Status</b>				
Rural	4.5%	3.9%	5.0%	8.9%
Urban	4.4%	4.3%	4.6%	8.9%
<b>Self-Reported Availability of Public Transportation</b>				
Available	4.3%	4.0%	4.5%	8.9%
Not available	4.7%	4.4%	5.0%	9.2%

Note: Members were asked this question *only* if they reported missing a health care appointment in the six months prior to being surveyed. Refer to *Appendix E, Exhibit E5* for sample sizes and standard errors for each cohort.

Among Regular Plan members who *had scheduled any appointment* (irrespective of *with* or *without* MCE-provided NEMT), there were statistically significant differences in the proportion of members citing transportation as a reason for missing an appointment **across certain**

**demographic characteristics**; including, plan type, income, risk score, employment status, and gender. Among members who scheduled an appointment, Basic Plan members were more likely to report transportation as one of their reasons for missing an appointment compared to Plus members (7.2 percent compared to 3.8 percent,  $z=3.11$ ,  $p<0.001$ ). Members with income below the FPL were more likely than those with income above the FPL (5.1 percent compared to 1.7 percent,  $z=5.31$ ,  $p<0.001$ ). Members with high risk scores were more likely than those with low risk scores (6.6 percent compared to 3.4 percent,  $z=2.97$ ,  $p=0.001$ ) and medium risk scores (6.6 percent compared to 4.2 percent,  $z=1.84$ ,  $p=0.033$ ). Members with full-time employment were less likely than unemployed members (1.9 percent as compared to 6.3 percent,  $z=-4.58$ ,  $p<0.001$ ) and part-time employed members (1.9 percent as compared to 3.8 percent,  $z=-2.01$ ,  $p=0.022$ ). Additionally, females were less likely than males (3.9 percent versus 5.3 percent,  $z=-1.65$ ,  $p = 0.049$ ) to report transportation as a reason for missing an appointment. In other words, Basic Plan members, low-income members, members with high risk scores, unemployed/part-time employed members, and males are more likely to report transportation as a reason for missed appointments. In most instances, the patterns of demographic differences for all Regular Plan members were also exhibited when focusing on just those *with* MCE-provided or those *without* MCE-provided cohorts. No tests of statistical significance were performed by these demographic subgroups.

In general, the proportion of members reporting transportation as a reason for a missed appointment was higher for members with State-provided NEMT, relative to proportions exhibited by Regular Plan members. This is the case across all demographic categories.

### ***Different Transportation Reasons for Missing an Appointment***

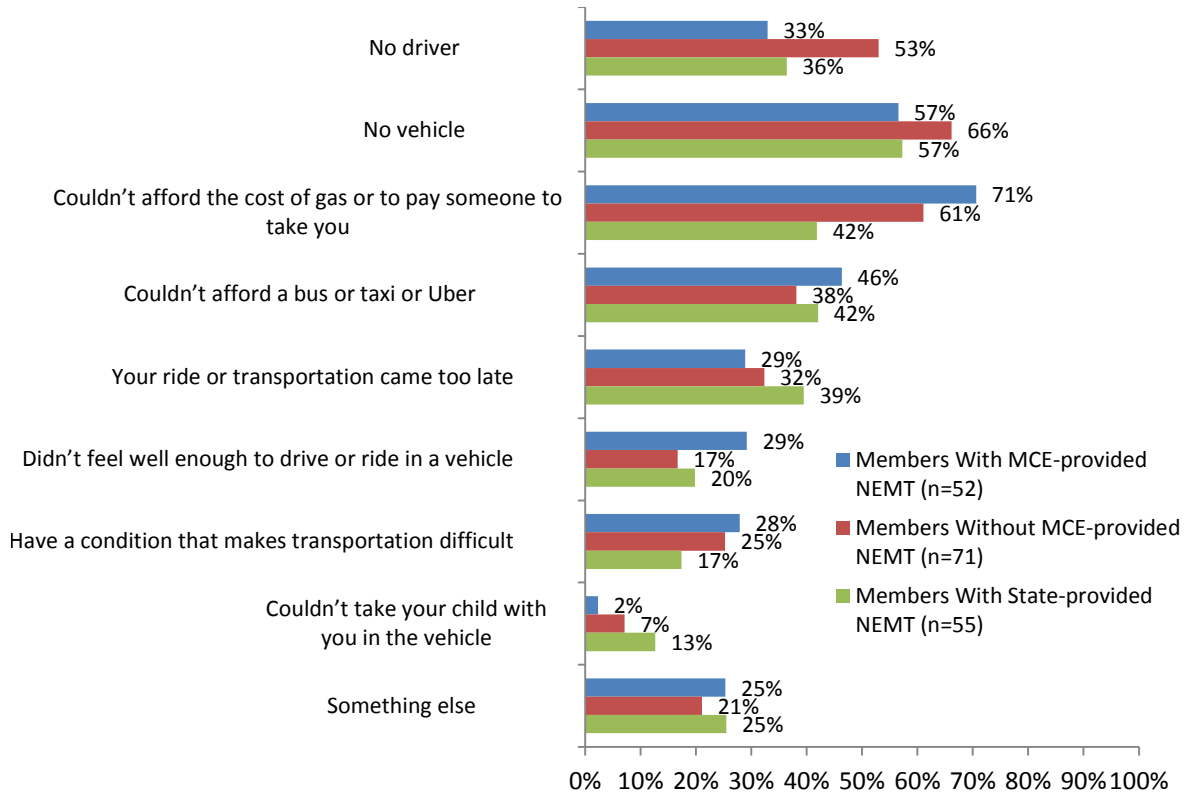
Members who indicated missing a health care appointment due to transportation were asked about the most common transportation-related reason for not being able to get to their appointment (e.g., no driver or vehicle available). Respondents could choose multiple reasons. The majority of the respondents, who indicated transportation as a reason chose two or more reasons – irrespective of NEMT coverage.<sup>38</sup> *Exhibit 10* presents the proportion of members indicating various transportation reasons why scheduled health care appointments were missed, among those who reported missing an appointment due to transportation in the last six months.

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<sup>38</sup> Of 52 MCE-provided NEMT respondents who missed an appointment due to transportation, 42 chose two or more reasons. For those without MCE-provided NEMT, 54 of the 71 respondents reporting a missed appointment due to transportation chose two or more reasons.



**Exhibit 10. Proportion of Members who Indicated a Specific Transportation Reason for a Missed Appointment, by NEMT Coverage Status**



Note: Members were asked this question *only* if they reported transportation as a reason for missing a health care appointment in the six months prior to being surveyed. The percentages are among members who reported transportation as a reason for a missed appointment, hence the small sample sizes. Refer to *Appendix E, Exhibit E6* for sample sizes.

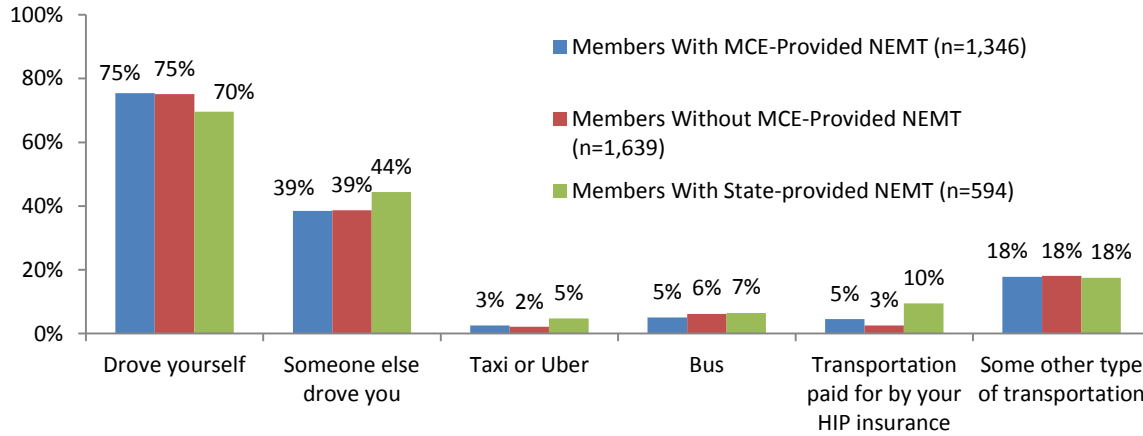
Sample sizes are small for this question as it was limited to members who indicated transportation as a reason for a missed appointment, so these results should be viewed with caution. Among members with MCE-provided NEMT, the most common transportation-related reason was that they could not afford the cost of gas or to pay someone to take them to their appointment (70.6 percent of those who missed an appointment due to transportation, n=35). Among members without MCE-provided NEMT, the most common reason was not having a vehicle (66.2 percent of those who missed an appointment due to transportation, n=45). Not having a vehicle was also the most common response among members with State-provided NEMT (57.3 percent of those who missed an appointment due to transportation, n=32).

**Analysis of Use and Access to Different Types of Transportation**

Members who reported scheduling a health care appointment were asked how they traveled to health care visits in the past six months. Options included: “Drove yourself,” “Someone else drove you,” “Taxi or Uber,” “Bus,” “Transportation paid for by your HIP insurance,” or “Some

other type of transportation.” Members were able to select more than one option. However, the majority of members selected one response.<sup>39</sup> Results are shown in *Exhibit 11*.

**Exhibit 11. Types of Transportation Most Often Used for Health Care Visits among Members who Scheduled an Appointment, by NEMT Coverage Status**



Note: Members were asked this question *only* if they reported making any appointments for a health care visit in the six months prior to being surveyed. Across NEMT coverage categories, less than 1.0 percent of members responded ‘Don’t know.’ Refer *Appendix E, Exhibit E7* for counts of respondents.

Approximately 95.4 percent of Regular Plan members who scheduled an appointment reported driving themselves or having someone else drive them to their health care visit. Despite having NEMT, the majority of members (75.4 percent) with MCE-provided NEMT reporting driving themselves to health care appointments. The next most common response among members with MCE-provided NEMT was “someone else drove you” (38.5 percent). A similar proportion of members without-MCE provided NEMT reported driving themselves and “someone else drove you.” For the members who scheduled an appointment, a higher percentage of those with MCE-provided benefits (4.6 percent) reported that their transportation was paid for by their HIP insurance than those without MCE-provided benefits (2.5 percent). This would be expected, however, the proportions are very low even when NEMT benefits are available. It is not clear why members without NEMT benefits reported using such transportation. It is possible that although the latter did not have MCE-provided NEMT at the time of the survey, they may have *previously* had MCE or State-provided NEMT benefits.

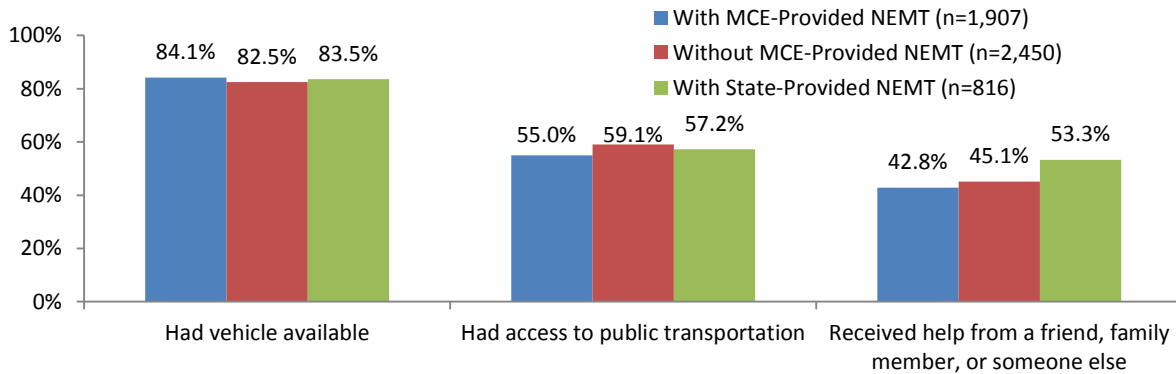
Among members with State-provided NEMT benefits having scheduled appointments, a majority also reported driving themselves to health care appointments (69.6 percent). The next most common response was that someone else drove them to their appointments (44.4 percent). In general, the reliance on transportation modes was similar regardless of NEMT coverage.

Additionally, all survey respondents were asked a series of questions about their access to various modes of transportation in the past six months. Specifically, members were asked 1) whether they had a vehicle available for themselves or members of their household to use on a

<sup>39</sup> Of 3,579 members responding to this question, 2,671 members selected only one reason and 853 members selected multiple reasons.

regular basis, 2) if there was a public transportation system, such as a bus, in their area, and 3) whether they received assistance with transportation from another person.<sup>40</sup> *Exhibit 12* presents the proportions of members with access to each mode of transportation.

**Exhibit 12. Availability of Transportation, by NEMT Coverage Status**



In total, about 97.8 percent of members reported that they had access to at least one of the three options (a vehicle, public transportation or assistance from another person). All members, regardless of whether they receive MCE- or State-provided NEMT, were most likely to report regular access to a vehicle (83.3 percent overall), compared to access to public transportation (57.2 percent overall).<sup>41</sup> Across all NEMT coverage cohorts, slightly less than half of members reported getting help with transportation from a friend, family member or someone else, such as being driven, loaned a car, or helped with the cost of transportation. Members with MCE-provided NEMT were slightly less likely to report access to public transportation (55.0 percent), compared to members without MCE-provided NEMT (59.1 percent); this difference was statistically significant ( $z = -2.48, p = 0.007$ ).

Despite differences in perceived access to public transportation, members demonstrated similar *use* of public transportation across plans. Members who indicated having a public transportation system in their area were asked whether they used it for any reason in the last six months. Among members who reported access to public transportation, about 17 percent of both members with and without NEMT reported using public transportation for any reason (results not shown in *Exhibit 12*).

### **Types of Appointments Missed Due to a Transportation Problem**

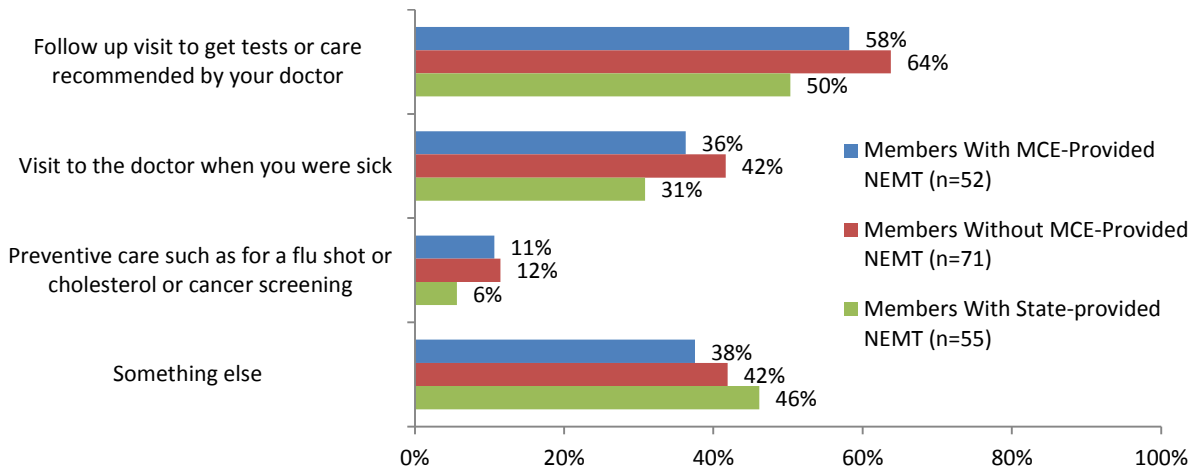
Members who indicated transportation as a reason for missing a health care appointment in the past six months were asked to identify the type of health care missed because of a transportation problem. The types included: (1) follow up visit to get tests or care recommended

<sup>40</sup> The question about *access* to public transportation does not specify within the past six months (the subsequent question asks members whether they used public transportation in the past six months). See *Appendix D* for survey questions.

<sup>41</sup> Some survey respondents indicated that they used a ‘bus’ to get to a medical appointment but then responded either that they 1) did not have access to public transportation in their area, or 2) had not used public transportation for any reason. Of the 206 respondents who indicated that they had used a bus to get to a medical appointment, 26 respondents responded that they did not have access to public transportation and another 34 responded that they had not used public transportation *for any reason*.

by your doctor, (2) visit to the doctor when you were sick, (3) preventive care such as for a flu shot or cholesterol or cancer screening, and (4) something else. *Exhibit 13* presents the proportions of members who identified each *type* of missed appointment among members who reported a missed appointment, by NEMT coverage type.

**Exhibit 13. Types of Health Care Appointments Missed because of a Transportation Problem, by NEMT Coverage Status**



Note: Members were asked this question *only* if they reported transportation as a reason for missing a health care appointment in the six months prior to being surveyed. Proportions presented are that of members for each type of missed appointment among members who reported a missed appointment, by NEMT coverage type.

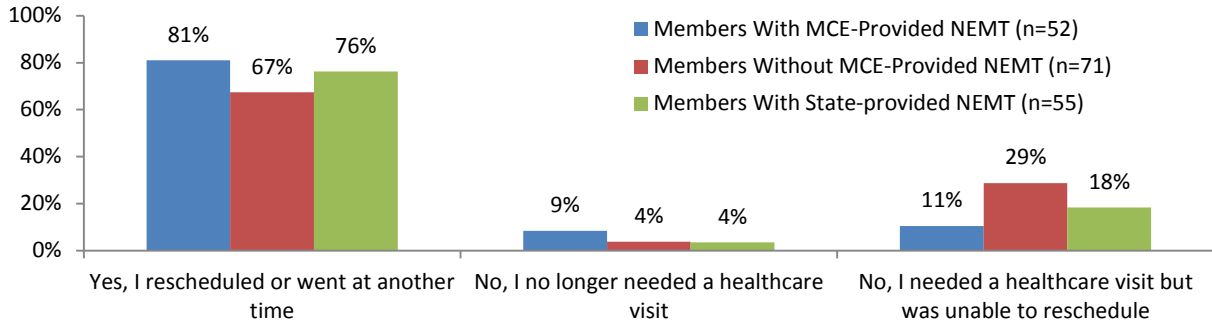
Sample sizes are small for this question as it was limited to members that indicated transportation as a reason for a missed appointment; as such, these results should be viewed with caution. In general, the patterns of missed appointments were similar regardless of NEMT coverage type. Among members who reported transportation as a reason for missing a health care appointment, the majority reported that the type of appointment missed was a follow-up visit to get tests or care recommended by their doctor for those with and without MCE-provided MCE (58.2 percent and 63.8 percent, respectively), as well as for those with State-provided NEMT (50.3 percent).

Just over one-third (36.3 percent) of members with MCE-provided NEMT reported missing a health care visit when they were sick due to transportation; a slightly higher proportion (41.7 percent) of members without MCE-provided NEMT reported missing a sick visit due to transportation, and 30.8 percent of members with State-provided NEMT reported missing a sick visit due to transportation. Again, there were few respondents in these categories and conclusions may not be drawn about their significance.

### Rescheduling Appointments

Members who indicated missing a health care appointment due to transportation in the past six months were also asked whether they rescheduled their visit and went at another time. As shown in *Exhibit 14*, the majority rescheduled or went another time, regardless of NEMT coverage status (81.0 percent of members with MCE-provided NEMT, 67.4 percent without MCE-provided NEMT, and 76.3 percent with State-provided NEMT).

**Exhibit 14. Members who rescheduled their Health Care Visit after Missing an Appointment Due to a Transportation Problem, by NEMT Coverage Status**



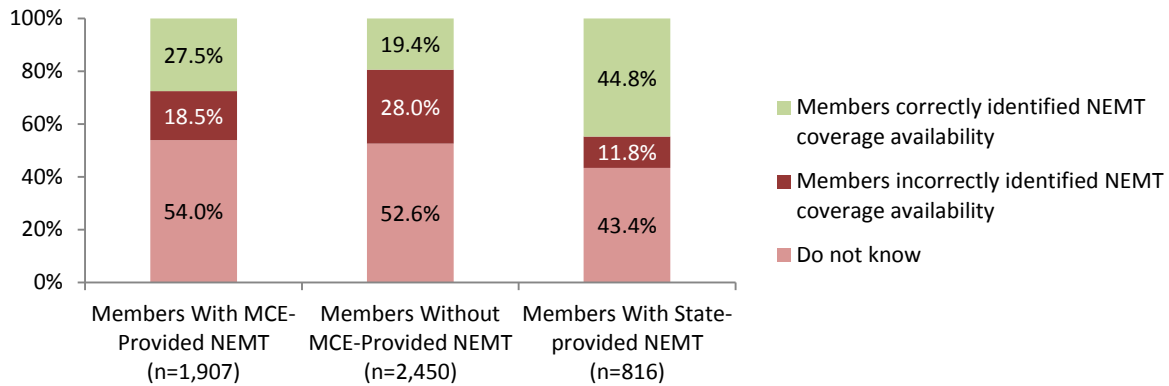
Note: Members were asked this question *only* if they reported transportation as a reason for missing a health care appointment in the six months prior to being surveyed. The percentages are among members who missed appointment due to transportation. One member with State-provided NEMT responded “Don’t Know.”

Sample sizes are small for this question as it was limited to members that indicated transportation as a reason for a missed appointment. Few respondents, approximately 10.5 percent (n=5), with MCE-provided benefits who missed an appointment due to transportation needed care but were unable to reschedule their health care visit. The corresponding percentage for those without MCE-provided NEMT was 28.8 percent (n=19). Among members with State-provided NEMT, 18.4 percent (n=10) reported not rescheduling a health care visit but still needing care.

### **Member Awareness and Use of NEMT Benefits**

Respondents were also asked questions to examine their awareness of and usage of HIP 2.0 transportation benefits and access to transportation. It is primarily the responsibility of the MCEs to educate members about their benefits. *Exhibit 15* presents the proportions of members who indicated that their plan includes NEMT coverage, by NEMT coverage type.

**Exhibit 15. Members' Awareness of NEMT benefits, by NEMT Coverage Status**



Both members with and without MCE-provided NEMT revealed a potential lack of awareness of their NEMT benefits based upon their current coverage.<sup>42</sup> Just over a quarter (27.5 percent) of members with MCE-provided NEMT indicated that their plan provided transportation services; the remainder either thought that their plan did not provide NEMT (18.5 percent) or did not know (54.0 percent).

For members *without* MCE-provided NEMT, fewer members demonstrated an understanding of their benefits: only about 19.4 percent indicated their plan did not provide NEMT, 28.0 percent thought that their plan provided NEMT, and 52.6 percent did not know. Some of the differences in knowledge of plan benefit could potentially be because they were previously enrolled in a plan that provided NEMT; for example, Anthem, the HIP State Plan, or another Medicaid program. Based on the data available, about 29 percent of the respondents who erroneously indicated that they received NEMT were previously pregnant, enrolled in the State plan or enrolled in another Medicaid program.<sup>43</sup>

Members with State-provided NEMT were more likely than members with MCE-provided NEMT to understand their benefits; 44.8 percent of State members correctly reported that their plan provided NEMT.

The awareness of NEMT coverage did not appear to be associated with missed appointments. That is, members who correctly reported that they receive NEMT based on their current coverage did not appear to have lower reported rates of missed appointments due to transportation, compared to members who incorrectly reported their NEMT coverage status.

Among members with MCE-provided NEMT who scheduled an appointment and correctly indicated that they receive NEMT coverage (n=365), 4.5 percent (15 respondents) reported transportation as a reason for missing an appointment.<sup>44</sup> There was a similar proportion (4.0

<sup>42</sup> Our designation of a member's NEMT coverage status is based on their eligibility category as of May 2016, when the survey data extract was created. Some members may have changed their NEMT coverage status in the intervening weeks between the date of the data extract and the date the survey was administered. For example, a member may have become newly-eligible for NEMT during this time if she reported a pregnancy to her MCE.

<sup>43</sup> Some additional respondents may have been enrolled in Anthem or other Medicaid programs, but data are not available at this time to evaluate this.

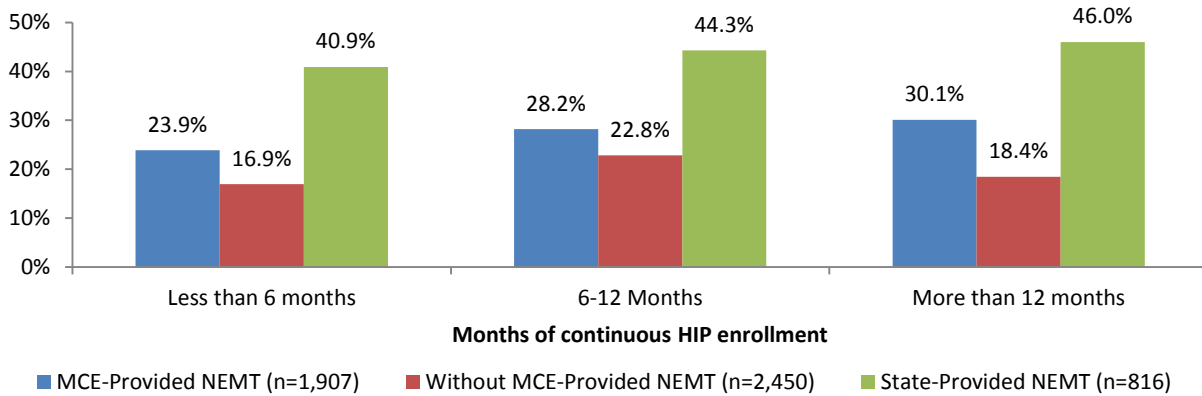
<sup>44</sup> Note that weighted proportions are reported.

percent, 37 respondents) for members with MCE-provided NEMT who scheduled an appointment and *did not think* or *did not know* that they receive NEMT coverage (n=981).

Of members with State-provided NEMT who scheduled an appointment and were aware that they receive NEMT (n=270), 7.7 percent (21 respondents) reported transportation as a reason for missing an appointment. A similar proportion, 9.9 percent (34 respondents), of those who did not think or did not know that they received NEMT coverage (n=324) reported transportation as a reason for missing an appointment.

*Exhibit 16* shows the percentage of members understanding their benefits by the duration of their continuous enrollment in HIP.

**Exhibit 16. Percentage of Members Correctly Identifying NEMT Coverage Availability, by NEMT Coverage Status and Duration of Enrollment**



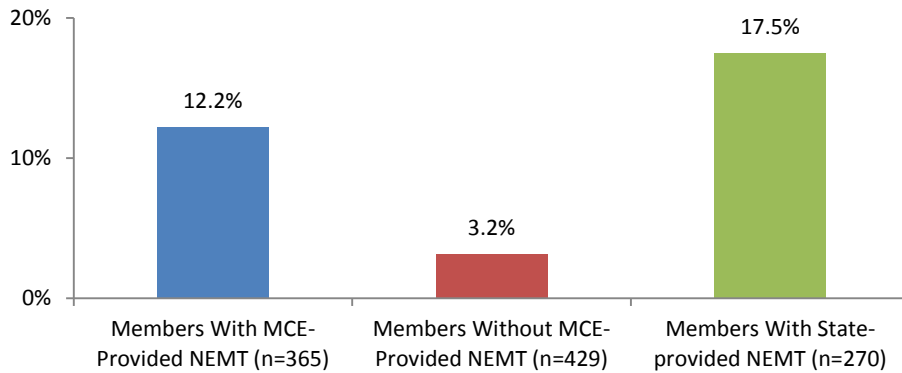
Note: Members with MCE or State-provided NEMT are categorized as ‘correctly identifying their NEMT coverage availability’ if they responded that their plan covered NEMT; members *without* MCE or State-provided NEMT are categorized as ‘correctly identifying their NEMT coverage availability’ if they responded that their plan did *not* cover NEMT.

Among both members with MCE and State-provided NEMT, awareness of the benefit increases as members remain enrolled. However, there are still large proportions that did not accurately identify their NEMT coverage status even after more than 12 months of enrollment.

Because HIP members can transition between HIP and Indiana’s other Medicaid programs, during the year, we also examined response rates by duration of continuous *Medicaid* enrollment. This analysis revealed similar trends of increasing awareness for members with State-provided or MCE-provided NEMT coverage.

The members who reported having access to NEMT services were asked if they used the service in the past six months. Members with State-provided NEMT were more likely to use the NEMT benefit than members with MCE-provided NEMT (see *Exhibit 17*).

**Exhibit 17. The Percentage of Members who Reported having Used the NEMT Benefit Among Members who Reported Scheduling an Appointment and having Access to NEMT Coverage, by NEMT Coverage Status<sup>45</sup>**



About 17.5 percent (n=47) of members with State-provided NEMT, who also reported they had access to NEMT, used the service. For members with MCE-provided NEMT, 12.2 percent (n=38) of members reporting access used the service.<sup>46</sup> Members with State-provided NEMT may be more likely to take advantage of their NEMT benefits because they have different health needs (including being medically frail) and demographics from the population without State-provided NEMT.

Also, it is important to note that the survey did not include questions about the quantity or frequency of NEMT use. As such, the results reported above may not reflect total use of the benefit because members who used NEMT may have used it multiple times in the past six months.

### **Analyses of Missing and Appointment Controlling for Different Factors**

Multivariate logistic regressions were used to examine whether (1) the likelihood of having a missed appointment, and (2) missing an appointment due to transportation differed for members with and without MCE-provided NEMT, while controlling for the effects of other variables. More specifically, two binary dependent variables are used for this analysis, one indicating whether a member reported a missed appointment and the other whether a member reported transportation as a reason for a missed appointment.<sup>47</sup>

<sup>45</sup> Members without NEMT coverage indicating using the benefit may have misunderstood the question. However, over half of these individuals were previously enrolled in the State Plan or in Traditional Medicaid; therefore, their selection may not indicate an error but rather NEMT use under another plan that provided NEMT.

<sup>46</sup> Some survey respondents indicated that they used NEMT to get to a medical appointment but then responded that they 1) did not have access to NEMT or 2) had not used NEMT. Of the 152 respondents who indicated that they had used NEMT to get to a medical appointment, 39 later responded that they did not have NEMT coverage and another 31 responded that they had *not* used NEMT.

<sup>47</sup> Members were asked the question about a missed appointment *only* if they reported scheduling an appointment. *Only* members who reported missing an appointment were asked whether transportation was a reason for missing an appointment. For each question, survey respondents could choose “Yes,” “No,” “Don’t know,” or “Refused.” Binary outcome variables were created from the response to have value either as “Yes” or “Other.” All responses that were not a “Yes” were coded as “Other.”



Regressions were developed for the member sub-population who reported scheduling an appointment in the last 6 months (n = 2,985). All variables are measured at the individual level. The key independent variable of interest in the regression models was an indicator for whether the member was enrolled in an MCE that provided NEMT coverage or not. Additional characteristics considered influential on whether a member would be more or less likely to make and miss appointments were also considered for the regressions. These characteristics included Plan membership type (Plus or Basic), FPL, age, gender, education, employment status, length of enrollment, member understanding of benefits<sup>48</sup> and self-reported availability of transportation. Additionally, we controlled for member health status using risk scores. For details on the model specifications, refer to *Appendix E*.

In the previous sections, we presented the likelihood of a missed appointment by risk groups, age group, and length of enrollment group. For the regressions, the actual score, age, and length of enrollment in months were used instead of the categorical variables described above. See *Appendix E, Exhibit E8* for the means and proportions for the various independent variables used in the regressions.

Consistent with findings discussed in the earlier sections, the regression did not reveal a significant association between MCE-provided NEMT coverage status and missing an appointment whether due to a transportation reason or for any reason (*Exhibit 18*).

**Exhibit 18. Logistic Regression Analysis of Missed Appointments for Any Reason and for a Transportation Problem**

Parameter	Level	Missing an Appointment for Any Reason			Missing an Appointment due to a Transportation Reason		
		Coefficients	Standard Error	Odds Ratio	Coefficients	Standard Error	Odds Ratio
Intercept		-1.34**	0.31		-1.99**	0.55	
NEMT coverage (Ref = "With MCE")	Without MCE	-0.13	0.11	0.88	0.15	0.20	1.16
Plan Type (Ref = "Plus")	Basic	0.46**	0.13	1.59	0.55**	0.22	1.73
FPL (Ref = "> 100")	<=100	0.34**	0.14	1.40	0.62**	0.30	1.86
Gender (Ref = "Male")	Female	-0.23**	0.11	0.80	-0.18	0.20	0.84
Age in years		-0.01*	0.00	0.99	-0.01*	0.01	0.99
Benefit Understand (Ref = "No")	Yes	0.10	0.13	1.11	0.25	0.21	1.28
HIP length of enrollment (in months)		0.00	0.01	1.00	0.01	0.02	1.01
Employment (Ref = "Not	Part time	-0.21	0.15	0.81	-0.23	0.27	0.79

<sup>48</sup> The survey question asked respondents if they knew their HIP 2.0 plan covered NEMT services. If members with MCE or State-provided NEMT responded that their plan covered NEMT, then the members were classified as "Know benefit." Additionally, members without MCE or State-provided NEMT are categorized as "Know benefit" if they responded that their plan did not cover NEMT. All other members were categorized to "Not know benefits."

Parameter	Level	Missing an Appointment for Any Reason			Missing an Appointment due to a Transportation Reason		
		Coefficients	Standard Error	Odds Ratio	Coefficients	Standard Error	Odds Ratio
employed")	Full time	-0.17	0.16	0.85	-1.00**	0.33	0.37
	Other	-0.18	0.18	0.84	-0.48	0.31	0.62
Education (Ref = "High School or Less")	> High School	-0.10	0.12	0.90	0.03	0.21	1.04
Urban / Rural (Ref = "Rural")	Urban	0.00	0.12	1.00	-0.01	0.21	0.99
Availability of Transportation - Vehicle (Ref = "Not available")	Available	-0.36**	0.15	0.70	-1.56**	0.21	0.21
Availability of Transportation - Public (Ref = "Not available")	Available	0.05	0.11	1.06	-0.20	0.20	0.82
Risk Score		0.18**	0.04	1.19	0.14**	0.06	1.15
<b>Model Fit Statistics</b>							
R-square <sup>+</sup>		0.597			0.7567		
Chi-Square (Likelihood)		3914.25, df=15, p <0.001			6092.08, df=15, p <0.001		
C – statistics <sup>+2</sup>		0.639			0.774		
Sample Size <sup>+3</sup>		2,966			2,966		

\*\*indicates estimate significant at  $\alpha = 0.05$ ; \*indicates significant at  $\alpha = 0.1$ ; +This is the generalized coefficient of determination. Cox, D. R. and Snell, E. J. (1989), *The Analysis of Binary Data*, Second Edition, London: Chapman & Hall; +2 Rank correlation for assessing predictive ability of model. +3 The 19 sample respondents who did not respond to the question on education status were dropped during model fit.

Factors that were significantly associated with missed appointments, whether due to transportation or any reason, included plan type (Basic/Plus), income, member health status measured by risk scores, and member age. Members under the FPL had a higher likelihood of missing appointments compared to members over the FPL. Basic members appear more likely to miss an appointment compared to Plus members, while members having higher risk scores appear more likely to miss an appointment. Also, members that reported having access to a vehicle had a lower likelihood of missing an appointment.

There was no statistically significant association between gender and reporting transportation as a reason for missing an appointment. However, females were associated with a lower likelihood for missing an appointment for any reason compared to males. Full-time employment was associated with a lower likelihood of missing an appointment due to transportation relative to being unemployed.

## Limitations

This analysis has potential limitations. The first is the possibility of selection bias among members enrolled in Anthem compared to members enrolled in other MCEs. For example, members who have more *need* for NEMT may be more likely to select the MCE that provides NEMT coverage. If so, our comparison group (members with MCE-provided NEMT) would not be entirely comparable to members without NEMT coverage, thus biasing our estimates. While the regression framework can control for measurable differences between members with and without MCE-provided NEMT in our sample, it would not be able to control for unobserved differences that could influence which plans members enroll in and the degree to which unmet NEMT needs are experienced.

To assess the presence of selection bias in MCE enrollment, we analyzed enrollment data describing whether members actively chose their MCE or were automatically (i.e., randomly) assigned to one. All HIP 2.0 members can select their MCE when they apply, or at any time before they make their first POWER Account Contribution (PAC). If a member does not select an MCE, the State's eligibility rules engine automatically assigns them one. However, members who were previously enrolled with an MCE (e.g. if they converted into HIP 2.0 from another Indiana Medicaid program) and members with a family member previously enrolled through an MCE are automatically assigned to that MCE. It is not clear whether members in some of these scenarios may have previously actively been involved in choosing their plan, or not.<sup>49</sup>

There were 210 surveyed members definitively identified as having actively chosen their plan and 1,084 surveyed members who were definitively identified as being auto-assigned. For the remaining surveyed members, it was not clear whether or not the member played an active or passive role in the selection of their MCE.

To assess the potential effect of selection bias in MCE enrollment on our results, we limited the analysis to the 706 members who were automatically assigned an MCE and reported scheduling an appointment in the prior six months. Because these members did not select their MCE, they are likely free from selection bias. When restricting the analysis to these members, we observed similar trends of missed appointments due to transportation. Consistent with all members, members auto-assigned to Anthem and members auto-assigned to other MCEs exhibit similar rates of missed appointments due to transportation (5.2 percent versus 6.4 percent respectively, no statistically significant difference). In other words, even after removing the possibility of selection bias, our results remained consistent: Anthem members were *not* less likely to miss appointments due to transportation.

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<sup>49</sup> For example, many of the remaining members were auto-assigned to a given MCE because they were previously enrolled with that MCE under HIP 1.0. Although these members were technically 'auto-assigned' to an MCE, they may have played some role in the choice. That is, a member may have chosen Anthem under HIP 1.0 because Anthem also provided NEMT under HIP 1.0. Or, a member may have been randomly assigned to Anthem under HIP 1.0, and then reassigned to Anthem under HIP 2.0 because he did not make a selection on his application. As such, these members cannot be definitely categorized as having chosen their MCE or as having been randomly auto-assigned one, though they may in actuality belong to one of these two categories.

Furthermore, members who actively selected Anthem did not exhibit more awareness of their NEMT benefits, compared to members who were automatically assigned an MCE. As such, it is unlikely that these members would have an NEMT-related selection bias towards Anthem.

In addition, because the analysis is based on survey results, it also has some key limitations inherent to all survey data. The first of these is recall bias. Members were asked to report on past missed appointments; therefore, the quality of the results depends to a large extent on members' ability to accurately recall whether and why they missed appointments. Recall bias may occur when respondents do not remember all events within a specified time frame (e.g., forgetting a scheduled appointment within the past six months). Also, members may attribute events outside of the time frame to within it (e.g., reporting a scheduled appointment that happened eight months prior to the interview as being within the past six months). These issues are common to surveys. Given survey responses are based on member perception, there could also be potential inconsistencies in member responses between questions<sup>50</sup> due to a variety of reasons including recall bias and subjective interpretations of a question. This can lead to anomalous results when the data are analyzed (such as, members reporting NEMT usage when the benefit was not actually available to them during the study period, because such benefits had been available and utilized at some point in the past). To minimize recall bias, the survey look-back timeframe was limited to the past six months. This timeframe is utilized in other validated survey instruments (e.g. the Consumer Assessment of Healthcare Providers and Systems (CAHPS) Clinician & Group Survey) and is considered enough to allow for the proper trade-off between recall of information and allowing participants enough of a reference frame to obtain larger numbers of health care events.<sup>51</sup>

It should also be noted that the survey asked about missing scheduled appointments. It may be possible that a member needed health care but did not schedule an appointment because he or she did not think it would be possible to get to the appointment. Thus, asking about scheduled appointments may underreport unmet NEMT needs.

Another potential limitation is non-response bias. Members who were not able to be contacted or who did not complete the survey could have different responses than members who did complete the survey. However, data is not available on the non-respondents to assess this potential bias.

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<sup>50</sup> Checks were done comparing member responses across different questions. For example, response to use of bus to go to health care appointment was compared with response to use of public transportation. There were 34 respondents (of 5,173) who said they used bus to go to health care appointment and in a later question responded "No" to using public transportation. Overall the survey responses were relatively consistent.

<sup>51</sup> Agency for Healthcare Research and Quality (AHRQ). Introducing the New CAHPS Clinician & Group Survey 3.0. Webcast, September 2015. [http://www.ahrq.gov/sites/default/files/wysiwyg/cahps/news-and-events/events/20150917/introducing\\_the\\_new\\_cahps\\_c&g\\_survey3.0.pdf](http://www.ahrq.gov/sites/default/files/wysiwyg/cahps/news-and-events/events/20150917/introducing_the_new_cahps_c&g_survey3.0.pdf).

## Appendix A. NEMT Benefits, by Population

Exhibit A1. State-provided NEMT Benefits, By Population

Benefit Package	Population	Description	State-provided NEMT Benefits
Regular	Non-Pregnant Adults	Regular Plan members who are not pregnant (or 60 days post-partum)	None
State	Medically Frail	Members with serious physical, mental, and behavioral health conditions	20 1-way trips annually (<50 miles each)
	Low-Income Parents and Caretaker Relatives	Members with income below 19 percent of the federal poverty level (FPL) who assume primary responsibility for a dependent child	20 1-way trips annually (<50 miles each)
	Transitional Medical Assistance Participants	Low-income parents/caretaker relatives between 19 – 185 percent of the FPL who would lose Medicaid coverage due to increased earnings, but who, under Transitional Medical Assistance, continue to receive Medicaid services for up to 1 year	20 1-way trips annually (<50 miles each)
	Low-Income 19- and 20-Year-Olds	Members with income below 19 percent of the FPL who live in the home of a parent or caretaker relative	20 1-way trips annually (<50 miles each)
	Pregnant Women	Pregnant women, up to 60 days post-partum	20 1-way trips annually (<50 miles each)

Note: Members can receive more than 20 trips if they receive prior authorization from their MCE.

## Appendix B. Survey Sampling Approach

### Member Survey Sampling Strategy

A detailed description of the development of the estimated sample size needed for the study and the sampling design is provided below.

Sample size calculation requires identification of the objective of the study and underlying assumptions about the population. The primary objective of this study is to be able to detect meaningful differences in responses between members with and without-MCE provided NEMT services in the aggregate, as well as differences within certain subgroups of those populations. For this study, two important metrics of interest are the proportion of members missing health care appointments and the proportion that reported transportation as a reason for missing an appointment. Assumptions for these metrics, along with the population distribution between the two NEMT-coverage cohorts, were used to formulate the underlying assumptions to calculate the targeted study sample size.

Based on enrollment information, members without MCE-provided NEMT services comprised approximately 55 percent of the without State-provided NEMT population. Also, based on a previous survey<sup>52</sup>, it can be assumed that the proportion of members with MCE-provided NEMT that missed an appointment due to transportation would be no more than 10 percent. Given this distribution and the null proportion assumption, a sample size of 2,800 would enable identifying a difference of three percent when comparing members with and without MCE-provided NEMT. A null proportion of 20 percent was assumed for the proportion of members reporting a missed appointment for any reason. Under these assumptions, a sample size of 2,800 would enable detecting a difference of five percent or more.

The above estimates are for detecting differences between the populations with and without MCE-provided NEMT in the aggregate. When looking at subpopulations, much larger sample sizes would be needed to ensure similar levels of detectable differences. For example, if aiming to ensure similar levels of confidence to test for difference in response between with and without MCE-provided NEMT for each of the four subpopulations: (1) members with Basic coverage and female, (2) members with Basic coverage and male, (3) members with Plus coverage and female, and (4) members with Plus coverage and male, a total of 11,200 (2,800 for each subpopulation) would need to be surveyed. Conducting a survey on such a large sample requires significant time and resources. However, using a similar population distribution and null proportion assumptions, a sample size of approximately 1,100 (for each subpopulation) allows testing for identifying a detectable difference of five percent. Similarly, having a sample size of 610, would allow for a seven percent detectable difference. As described below, the sampling design aimed to have 610 members in each subpopulation of interest.

Keeping in consideration the time and resources, a sample size of 4,200 was targeted for the Regular Plan members to ensure the ability to test for differences at the aggregate level with high confidence, as well as to allow for meaningful testing of differences at specific subpopulation levels, such as by income and gender groups.

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<sup>52</sup> The Lewin Group. 2016. *Indiana HIP 2.0: Evaluation of Non-Emergency Medical Transportation (NEMT) Waiver*.

Additionally, a targeted sample of 800 was estimated for the State-provided NEMT population to develop an understanding of member access to care for a population that has the State-provided NEMT benefit. Larger sample sizes provide better estimates. However, it also requires availability of resources. As discussed earlier in the report, the member characteristics between State-provided and without State-provided NEMT benefits are very different and hence not directly comparable. Thus, the objective of surveying the State Plan population is only to provide a reliable estimate for this population rather than to conduct statistical testing in aggregate or by specific subgroups.

Overall, a sample size of 5,000 (4,200 for Regular Plan and 800 for State Plan) members were targeted for this survey.

In order to ensure a representative sample by key characteristics, a stratified sampling design was implemented. Members were initially stratified by NEMT coverage status (State-provided NEMT, with MCE-provided NEMT, and without MCE-provided NEMT). Previous analyses<sup>53</sup> had shown that member utilization of health care varies by the plan type (Basic or Plus), FPL, gender, and age. Thus, additional dimensions are included for these categories to create the final strata for sampling.<sup>54</sup> However, due to the relatively smaller sample size for the members with State-provided NEMT, age was not used as a dimension to stratify the population with State-provided NEMT.

As discussed above, a sample size of 610 allows testing to detect a statistically significant difference of seven percent between two groups when the larger group represents about 55 percent of the population and the underlying null proportion is 10 percent. To allow for potentially testing for differences within certain subpopulations (e.g., by plan type, gender and income) for the population without State-provided NEMT, a minimum sample size of 610 was first allocated to six sub-cohorts of interest: (1) females with Basic coverage, (2) males with Basic coverage, (3) females with Plus and greater than 100 percent of the FPL, (4) males with Plus and greater than 100 percent of the FPL, (5) females with Plus and less than 100 percent of the FPL, and (6) males with Plus and less than 100 percent of the FPL. Then the rest of the sample was distributed in proportion to the population size. Within each sub-cohort, the sample size was distributed between the age strata based on population size. The sample size for those with State-provided NEMT was distributed considering the population distribution across the different strata.

For any projection to the universe, each sample gets weighted by the *sampling weight*. The sampling weight is a factor calculated by dividing the population size for the stratum with the sample size from the stratum.

Typically surveys have a substantial portion of non-responses. In order to meet the target sample sizes for each stratum, a significantly large number of members (about 40 times more

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<sup>53</sup> Indiana Healthy Indiana Plan 2.0: Interim Evaluation Report. (2016, July 6). Retrieved July 28, 2016 from <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/in/Healthy-Indiana-Plan-2/in-healthy-indiana-plan-support-20-interim-evl-rpt-07062016.pdf>

<sup>54</sup> Since Basic Plan members typically have income less than 100 percent of the FPL, income was not used as a stratification for Basic Plan members.

than the target size) were randomly selected from each stratum. A total of 187,868 samples were selected to ensure a target sample of 5,008.<sup>55</sup>

**Exhibit B1. Summary of Current Member Sample Sizes from Survey Analysis Plan**

State/ Regular*	Plan Type	% FPL	Gender	Total Population		Members Surveyed	
				Anthem	MDwise or MHS	Anthem	MDwise or MHS
Regular	Basic	All	F	12,705	19,028	270	364
Regular	Basic	All	M	10,791	16,234	268	357
<b>Regular</b>	<b>Basic Total</b>			<b>23,496</b>	<b>35,262</b>	<b>538</b>	<b>721</b>
Regular	Plus	>100	F	11,505	12,730	303	386
Regular	Plus	>100	M	5,846	6,352	290	365
Regular	Plus	0-100	F	33,520	36,359	413	516
Regular	Plus	0-100	M	25,106	27,290	363	462
<b>Regular</b>	<b>Plus Total</b>			<b>75,977</b>	<b>82,731</b>	<b>1,369</b>	<b>1,729</b>
<b>Regular Total</b>				<b>99,473</b>	<b>117,993</b>	<b>1,907</b>	<b>2,450</b>
State	Basic	All	F	16,172	26,705	114	181
State	Basic	All	M	3,996	6,693	28	45
<b>State</b>	<b>Basic Total</b>			<b>20,168</b>	<b>33,398</b>	<b>142</b>	<b>226</b>
State	Plus	>100	F	2,316	3,822	10	18
State	Plus	>100	M	1,054	1,476	12	13
State	Plus	0-100	F	21,216	34,090	112	186
State	Plus	0-100	M	6,661	10,907	37	60
<b>State</b>	<b>Plus Total</b>			<b>31,247</b>	<b>50,295</b>	<b>171</b>	<b>277</b>
<b>State Total</b>				<b>51,415</b>	<b>83,693</b>	<b>313</b>	<b>503</b>
<b>Grand Total</b>				<b>150,888</b>	<b>201,686</b>	<b>2,220</b>	<b>2,953</b>

\*State = With State-provided NEMT, Regular = Without State-provided NEMT

The survey team randomly selected participants in each of the stratum to be surveyed (survey protocol detailed below). *Exhibit B1* illustrates the population count and number of respondents by NEMT coverage, plan type, FPL and gender. Responses were obtained from 5,173 participants.<sup>56</sup> More respondents were collected than targeted. This occurred because of how the software tracking tool was utilized by the survey vendor to keep track of respondents in real-time. That is, since surveys directed to cell phones were conducted separately from those directed to landlines, there were instances in which more than one interviewer in a stratum were concurrently completing surveys with respondents.

<sup>55</sup> Total sample size of 5,000 adjusted to target of 5,008 after sample size allocation to all strata.

<sup>56</sup> The survey team attempted reaching out to 79,658 members to obtain the 5,173 completed responses. Once the target sample size was achieved for each stratum, the survey team did not attempt to call any other members for the stratum.



## **Survey protocol**

The survey firm<sup>57</sup> conducting the member survey used computer-assisted telephone interviewing (CATI) to collect data. This telephone methodology provides for interviewer assistance with complicated skip patterns, unaided responses, and consistency in evaluation and limitations of sample bias. Additionally, it provides for expedient collection of the data, allows for better sample control, and can provide more complete data than other types of data collection methodologies. Prior to starting the interviewing, a thorough briefing was conducted with all interview and supervisory personnel assigned to the project. During the briefing, interviewers conducted practice interviews and were monitored by supervisory staff. There was also supervisory monitoring and monitoring by the Quality Control staff during the data collection.

CATI was used to set quotas for each category of HIP 2.0 membership. The survey firm then randomly identified participants in each of the categories. When the quota (i.e., total number of interviews) was reached in a category, no additional attempts to reach individuals were made in that category. The CATI system pulled a random selection from the sample for each quota group. Any phone numbers found inactive (i.e., instances where it would not be possible to call again) were flagged and were not included in additional contact attempts during the survey period. Inactive phone numbers include: disconnected numbers, wrong numbers, fax numbers, a response of “no such person lives here,” those who refused to start the survey, and those who started but were “qualified refusals.” Qualified refusals were those who stayed on the phone long enough to answer the qualifying questions, but refused or dropped off at some point and did not complete the survey. All “live” numbers such as those at which a busy signal or answering device was reached would be eligible to be called again until the quota for each membership category was filled.

To maximize response rates, calling took place between 9 am and 9 pm on weekdays, and 10 am to 9 pm on weekends. Any individual who was interested in taking the survey, but who could not participate at the time he or she was initially reached, was given the option of a callback at a specific time. The CATI system would then initiate a call at the scheduled time. If the person was available, the interview would be conducted. If there was no answer, the number would be placed in the “live” category with the potential to be called back.

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<sup>57</sup> AIRvan Consulting served as the survey contractor on this project. They provide services in market research, communication programs, and qualitative and quantitative research. The company abides by professional standards of the Council of American Research Organizations (CASRO), the Marketing Research Association, the Public Relations Society of America, the American Marketing Association, and the International Association of Business Communicators. The call center, Opinion Access Corp. (OAC), is comprised of recognized industry experts who have worked in the field of marketing research quantitative data collection for over two decades. OAC uses state-of-the-art CATI interviewing with quality controls and monitoring and supervisor-to-interviewer ratios that meet or exceed standards set by the Marketing Research Association. They are a CAHPS certified research facility.

## **Appendix C. Special Terms and Conditions Applicable to NEMT Study**

### ***Special Terms and Conditions (STC), Section V, Paragraph 2***

**2. Non-Emergency Medical Transportation (NEMT).** In DY 1, the State is not obligated to provide NEMT to individuals enrolled in the new adult group except for pregnant women and individuals determined to be medically frail. This waiver authority will be provided for one year and then evaluated, allowing the State and CMS to consider the impact on access to care.

CMS may only consider a request to amend this STC if the State has submitted an amendment request in conformity with Section III, paragraphs 6 and 7, and an evaluation of NEMT as described in Section XIII, paragraph 4.

## Appendix D. Survey Instrument

### SCREENER

**The State of Indiana runs an insurance program called the Healthy Indiana Plan, or HIP, for Hoosiers age 19 to 64. Are you enrolled in HIP at this time?**

YES → CONTINUE

NO → GO TO CLOSE

DON'T KNOW → GO TO CLOSE

REFUSED → GO TO CLOSE

### NEMT QUESTIONS

**Q1. In this survey, I'll ask about your experience with HIP in the last six months – or if you have been in HIP less than six months, about your experience during that time. In the last six months, did you make any appointments for a healthcare visit such as a check-up or routine visit to a doctor, clinic or a specialist? Don't include any emergency visits to the hospital.**

YES → CONTINUE TO NEXT QUESTION

NO → SKIP TO Q9

DON'T KNOW → SKIP TO Q9

REFUSED → SKIP TO Q9

**Q2. When you needed to get to your scheduled healthcare visits in the past 6 months, please tell me yes or no if you used this type of transportation.**

- A. DROVE YOURSELF
- B. SOMEONE ELSE DROVE YOU
- C. TAXI OR UBER
- D. BUS
- E. TRANSPORTATION PAID FOR BY YOUR HIP INSURANCE
- F. SOME OTHER TYPE OF TRANSPORTATION

ALL CONTINUE TO NEXT QUESTION

**Q3. In the last six months, have you missed any scheduled healthcare visits, such as doctor, clinic, or specialist appointments?**

YES → CONTINUE TO NEXT QUESTION

NO → SKIP TO Q9

DON'T KNOW → SKIP TO Q9

REFUSED → SKIP TO Q9

**Q4. I'm going to read a few words or phrases about missing a scheduled healthcare visit. For each phrase, please tell me yes or no if it was a reason you missed a healthcare visit in the last 6 months.**

- A. THE APPOINTMENT TIME WAS NOT CONVENIENT
- B. TOO SICK TO GO
- C. NO CHILDCARE
- D. COULDN'T GET OFF WORK
- E. DIDN'T HAVE TIME TO GO
- F. DIDN'T GET APPROVAL FROM THE PLAN
- G. FORGOT
- I. DOCTOR WOULDN'T ACCEPT YOUR INSURANCE
- J. TRANSPORTATION PROBLEM
- K. COST WAS TOO HIGH
- L. FELT BETTER AND DIDN'T WANT TO GO
- M. WENT TO THE EMERGENCY ROOM INSTEAD
- N. SOME OTHER REASON

IF ANY QUESTION 4A-4M HAS A "YES" ANSWER ASK Q 5

IF ALL QUESTIONS HAVE "NO"/ DON'T KNOW/ REFUSE ANSWER SKIP TO Q9

**Q5. Which is the most common reason you missed an appointment? (ONE SELECTION ONLY)**

ALL CONTINUE TO NEXT QUESTION

**Q6. Think about the time you missed a scheduled healthcare visit because of a transportation problem. I'm going to read a few words or phrases. For each one please tell me yes or no if this was part of the problem.**

- A. NO DRIVER
- B. NO VEHICLE
- C. COULDN'T AFFORD THE COST OF GAS OR TO PAY SOMEONE TO TAKE YOU
- D. COULDN'T AFFORD A BUS OR TAXI OR UBER
- E. YOUR RIDE OR TRANSPORTATION CAME TOO LATE
- F. DIDN'T FEEL WELL ENOUGH TO DRIVE OR RIDE IN A VEHICLE
- G. HAVE A CONDITION THAT MAKES TRANSPORTATION DIFFICULT
- H. COULDN'T TAKE YOUR CHILD WITH YOU IN THE VEHICLE
- I. SOMETHING ELSE

ALL CONTINUE TO NEXT QUESTION

**Q7. Think about the type of healthcare you missed because of a transportation problem. I'll read some choices. For each choice, please tell me yes or no if this was the type of appointment you missed.**

- A. FOLLOW UP VISIT TO GET TESTS OR CARE RECOMMENDED BY YOUR DOCTOR
- B. VISIT TO THE DOCTOR WHEN YOU WERE SICK
- C. PREVENTIVE CARE SUCH AS FOR A FLU SHOT OR CHOLESTEROL OR CANCER SCREENING
- D. SOMETHING ELSE

ALL CONTINUE TO NEXT QUESTION

**Q8. After you missed a scheduled healthcare visit because of transportation problems, did you reschedule and go at another time? Would you say...**

- YES, I RESCHEDULED OR WENT AT ANOTHER TIME
  - NO, I NO LONGER NEEDED A HEALTHCARE VISIT
  - NO, I NEEDED A HEALTHCARE VISIT BUT WAS UNABLE TO RESCHEDULE
  - DON'T KNOW
  - REFUSED
- ALL CONTINUE TO NEXT QUESTION

#### INDIVIDUAL TRANSPORTATION QUESTIONS

**Q9. Some HIP insurance plans include transportation services to help members get to and from healthcare visits such as doctor, clinic or specialist appointments. Members have a phone number to call for a ride. Does your HIP insurance plan (such as Anthem, MDwise or MHS) include this transportation service?**

YES → CONTINUE TO NEXT QUESTION

NO → SKIP TO Q11

DON'T KNOW → SKIP TO Q11

REFUSED → SKIP TO Q11

**Q10. In the last 6 months, have you used any transportation services provided by your HIP insurance plan to get to or from a scheduled healthcare visit?**

YES

NO

DON'T KNOW

REFUSED

ALL CONTINUE TO NEXT QUESTION

**Q11. During the last 6 months, was there a vehicle available for you or members of your household to use on a regular basis?**

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YES

NO

DON'T KNOW

REFUSED

ALL CONTINUE TO NEXT QUESTION

**Q12. In the last 6 months, did you get help with transportation from a friend, family member or someone else such as driving you, loaning you a car or helping with the cost?**

YES

NO

DON'T KNOW

REFUSED

ALL CONTINUE TO NEXT QUESTION

**Q13. Is there a public transportation system, such as a bus, in your area?**

YES → CONTINUE TO NEXT QUESTION

NO → SKIP TO Q15

DON'T KNOW → SKIP TO Q15

REFUSED → SKIP TO Q15

**Q14. In the last 6 months, have you used the public transportation system, such as a bus, in your area for any reason?**

YES

NO

DON'T KNOW

REFUSED

ALL CONTINUE TO NEXT QUESTION

DEMOGRAPHICS

**Q15. What is the highest grade or year of school you completed? Please stop me when I read the highest level.**

GRADES 1 TO 8  
GRADES 9 TO 11  
GRADE12 OR GED  
SOME COLLEGE OR TECHNICAL SCHOOL OR 2-YEAR DEGREE  
COLLEGE GRADUATE OR MORE  
DON'T KNOW  
REFUSED

ALL CONTINUE TO NEXT QUESTION

**Q16. Which of the following best describes your employment status?**

EMPLOYED PART-TIME  
EMPLOYED FULL-TIME  
UNEMPLOYED  
SOMETHING ELSE  
DON'T KNOW  
REFUSED  
ALL CONTINUE TO NEXT QUESTION

**Q17. How many total people are there in your household, including you, any adults, and any children?**

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
MORE THAN 10  
DON'T KNOW  
REFUSED

ALL CONTINUE TO CLOSE

CLOSE

*Those are all of our questions. On behalf of Indiana HIP we thank you for your opinions.*

## Appendix E. Survey Statistics Methodology and Results Tables

### Model Specification

Logistic regression analysis was used to investigate the relationship between the discrete response for missed appointment and a set of potential explanatory variables. For the study, we modeled the chance of missing an appointment (missed appointment and transportation as reason for missed appointment) as a function of NEMT coverage, member plan type, FPL, gender, age, understanding of benefits, length of enrollment in the program, employment status, education, rural/urban, self-reported availability of transportation, and risk score. The logistic regression models that were developed can be described by the following equation:

$$\log\left(\frac{p}{1-p}\right) = \alpha + \beta_1 \text{NEMTcoverage} + \beta_2 \text{PlanType} + \beta_3 \text{FPL} + \beta_4 \text{Gender} + \beta_5 \text{Age} \\ + \beta_6 \text{benefitunderstand} + \beta_7 \text{HIPloe} + \beta_8 \text{Employment} + \beta_9 \text{Education} \\ + \beta_{10} \text{Urban} + \beta_{11} \text{Transpavailvehicle} + \beta_{12} \text{Transpavailpublic} \\ + \beta_{13} \text{RiskScore} + \epsilon$$

where,

- $p$  = probability of a missed appointment (or a missed appointment due to transportation)
- $\beta_1, \dots, \beta_{13}$  represent the different coefficients associated with the factors considered to be predictive of missing an appointment
- $\epsilon$  = random error
- NEMTcoverage = indicator of whether a member is *with* or *without* MCE-provided NEMT benefit
- PlanType = indicator for Basic / Plus membership status
- FPL = indicator for having less than 100 percent of the FPL or greater than 100 percent of the FPL
- Gender = indicator for male or female
- Age = member age in years
- Benefitunderstand = indicator for whether the member understands his or her NEMT coverage<sup>48</sup>
- HIPloe = member length of enrollment in HIP 2.0 in months
- Employment = member employment status based on member survey response
- Education = indicator of whether the member has completed high school or not
- Urban = urban/rural indicator based on member address (discussed in data sources section)
- Transpavailvehicle = indicators for the availability of a vehicle
- Transpavailpublic = indicator for the availability of public transportation (based on self-reported survey data)
- RiskScore = scaled member risk score

Regressions were developed for the member sub-population who reported scheduling an appointment in the last six months. It is to be noted that the sub-population was identified using member responses from the survey which is not related to the sampling design. Due to this method of identifying the sub-population, the sample sizes within domain and the potential



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variability need to be accounted for. For the model fit, we ensured appropriate domain specific weighting that also accounts for the underlying sampling design. All our analysis was done using the PROC SURVEYLOGISTIC in SAS.

Results Tables

Exhibit E1. Proportion of Members Making Any Appointments for a Health Care Visit, by Plan Type and Demographic Factors

HIP 2.0 Member Characteristics	Members Without State-provided NEMT						Members With State-provided NEMT (n=816)		
	Members With MCE-Provided NEMT			Members Without MCE-Provided NEMT			Members surveyed	Members With State-provided NEMT (n=816)	Standard Error
	Members surveyed	Members With MCE-Provided NEMT (n=1,907)	Standard Error	Members surveyed	Members Without MCE-Provided NEMT (n=2,450)	Standard Error			
All members	1,907	73.0%	1.01%	2,450	67.5%	0.96%	816	74.2%	1.5%
<b>HIP Membership Type</b>									
Basic	538	52.5%	2.1%	721	51.0%	1.9%	368	58.8%	1.7%
Plus	1,369	79.4%	1.2%	1,729	74.6%	1.1%	448	84.3%	2.6%
<b>Income</b>									
Less than or equal to 100%	1,287	72.5%	1.2%	1,661	66.6%	1.1%	752	73.2%	1.5%
Greater than 100%	620	75.7%	1.8%	789	71.6%	1.7%	64	86.2%	4.6%
<b>Gender</b>									
Male	921	65.6%	1.6%	1,184	61.9%	1.5%	195	72.2%	3.1%
Female	986	78.5%	1.3%	1,266	71.7%	1.3%	621	74.8%	1.7%
<b>Age</b>									
19-35 years	804	64.1%	1.7%	1,125	61.1%	1.5%	389	63.2%	2.4%
36+ years	1,103	79.2%	1.2%	1,325	73.1%	1.3%	427	83.4%	1.7%
<b>Length of Enrollment in HIP</b>									
≤6 months	780	66.3%	1.8%	971	59.2%	1.7%	186	57.4%	3.6%
>6 months	1,127	77.4%	1.2%	1,479	72.7%	1.2%	630	78.9%	1.6%
<b>Risk Score</b>									
Low	1,172	60.5%	1.5%	1,760	57.7%	1.2%	405	57.7%	2.4%
Medium	296	86.7%	2.0%	281	88.1%	2.1%	112	82.7%	3.6%
High	439	93.1%	1.3%	409	93.9%	1.3%	299	91.7%	1.6%
<b>Employment Status</b>									
Part-time	511	72.5%	2.1%	681	65.7%	1.9%	146	71.9%	3.7%
Full-time	474	64.1%	2.4%	580	63.8%	2.1%	99	69.1%	4.6%
Unemployed	655	77.7%	1.6%	879	69.3%	1.6%	462	73.0%	2.0%
Other	267	74.7%	2.8%	310	72.1%	2.7%	109	86.2%	3.2%
<b>Rural/Urban Status</b>									
Rural	629	74.2%	1.8%	838	68.4%	1.7%	288	76.5%	2.4%
Urban	1,278	72.5%	1.3%	1,612	67.0%	1.2%	528	72.9%	1.9%
<b>Availability of Public Transportation</b>									
Available	1,065	70.9%	1.4%	1,438	65.0%	1.3%	469	72.1%	2.0%
Not Available	738	75.6%	1.6%	919	70.2%	1.6%	318	78.2%	2.3%

Exhibit E2. The Proportion of Members Reporting a Missed Appointment in the Past Six Months Among Members that Reported Scheduling an Appointment, by NEMT Coverage and Demographic Factors

HIP 2.0 Member Characteristics	Members Without State-provided NEMT								Members With State-provided NEMT		
	All		Members With MCE-Provided NEMT			Members Without MCE-Provided NEMT					
	Percent	Standard Error	Members Surveyed	Percent	Standard Error	Members Surveyed	Percent	Standard Error	Members Surveyed	Percent	Standard Error
All members	15.6%	0.7%	1,346	16.5%	1.1%	1,639	14.8%	0.9%	594	18.3%	1.6%
<b>HIP Membership Type</b>											
Basic	21.4%	1.6%	279	19.9%	2.4%	365	22.4%	2.2%	216	24.1%	2.9%
Plus	14.1%	0.8%	1,067	15.8%	1.2%	1,274	12.5%	1.0%	378	15.7%	1.9%
<b>Income</b>											
Less than or equal to 100%	16.8%	0.9%	881	17.6%	1.3%	1,074	16.1%	1.1%	539	19.4%	1.7%
Greater than 100%	10.3%	1.0%	465	11.7%	1.6%	565	9.0%	1.3%	55	7.3%	3.4%
<b>Gender</b>											
Male	18.0%	1.2%	593	18.1%	1.8%	735	18.0%	1.6%	140	25.4%	3.8%
Female	14.1%	0.9%	753	15.5%	1.4%	904	12.7%	1.2%	454	16.3%	1.7%
<b>Age</b>											
19-35 years	15.8%	1.1%	496	15.1%	1.7%	673	16.4%	1.5%	242	18.9%	2.5%
36+ years	15.5%	0.9%	850	17.3%	1.4%	966	13.6%	1.2%	352	18.0%	2.0%
<b>Length of Enrollment in HIP</b>											
≤6 months	14.7%	1.2%	502	15.2%	1.8%	573	14.2%	1.6%	105	19.1%	3.9%
>6 months	16.1%	0.9%	844	17.2%	1.4%	1,066	15.0%	1.2%	489	18.2%	1.7%
<b>Risk Score</b>											
Low	12.7%	0.9%	686	13.0%	1.4%	1,005	12.4%	1.1%	229	18.0%	2.5%
Medium	15.8%	1.8%	252	17.7%	2.6%	249	13.7%	2.3%	92	11.0%	3.2%
High	21.1%	1.6%	408	20.9%	2.2%	385	21.4%	2.2%	273	21.1%	2.5%
<b>Employment Status</b>											
Part-time	13.3%	1.3%	359	16.0%	2.1%	448	10.8%	1.6%	103	16.4%	3.7%
Full-time	14.2%	1.5%	304	13.5%	2.1%	368	14.7%	2.0%	67	18.1%	4.8%
Unemployed	17.8%	1.2%	488	17.7%	1.8%	598	17.8%	1.6%	331	18.8%	2.2%

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HIP 2.0 Member Characteristics	Members Without State-provided NEMT								Members With State-provided NEMT		
	All		Members With MCE-Provided NEMT			Members Without MCE-Provided NEMT			Members Surveyed	Percent	Standard Error
	Percent	Standard Error	Members Surveyed	Percent	Standard Error	Members Surveyed	Percent	Standard Error			
Other	15.5%	2.0%	195	17.6%	3.0%	225	13.3%	2.5%	93	19.2%	3.9%
<b>Rural/Urban Status</b>											
Rural	15.3%	1.2%	455	17.6%	1.9%	559	13.4%	1.5%	217	19.3%	2.1%
Urban	15.7%	0.9%	891	15.9%	1.3%	1,080	15.5%	1.2%	377	16.9%	2.4%
<b>Availability of Public Transportation</b>											
Available	15.9%	1.0%	728	16.7%	1.5%	929	15.2%	1.3%	331	16.9%	2.4%
Not Available	14.9%	1.1%	541	16.8%	1.8%	636	13.1%	1.4%	245	19.3%	2.1%

Note: Members were asked this question *only* if they reported making a health care appointment in the six months prior to being surveyed. “Percent” is the estimated proportion of members having missed an appointment for the member cohort who scheduled an appointment (includes those who reported missing an appointment as well as those who did not report a missed appointment).

Exhibit E3. Members Reporting Various Reasons for a Missed Appointment, as a Percentage of Members Scheduling an Appointment in the last 6 Months, by NEMT Coverage Status

Reason for Missing an Appointment	Members Without State-provided NEMT				Members With State-provided NEMT	
	Members With MCE-Provided NEMT		Members Without MCE-Provided NEMT		Number of Respondents	Percent of Members who Scheduled Appointment (n=594)
	Number of Respondents	Percent of Members who Scheduled Appointment (n=1,346)	Number of Respondents	Percent of Members who Scheduled Appointment (n=1,639)		
<b>Members Reporting Any Reason*</b>	<b>213</b>	<b>16.4%</b>	<b>231</b>	<b>14.8%</b>	<b>112</b>	<b>18.3%</b>
Appointment time was not convenient	65	4.7%	69	4.3%	32	5.3%
Too sick to go	38	3.4%	47	3.3%	36	6.1%
No childcare	16	1.2%	15	1.1%	22	3.5%
Couldn't get off work	55	3.8%	47	2.7%	19	3.0%
Didn't have time to go	51	3.5%	46	3.0%	23	3.8%
Didn't get approval from the plan	36	2.6%	33	2.1%	15	2.5%
Forgot	65	5.2%	65	4.1%	37	6.0%
Doctor wouldn't accept your insurance	30	2.1%	35	2.3%	22	3.5%
Transportation problem	52	4.1%	71	4.7%	55	8.9%
Cost was too high	16	1.2%	12	0.8%	6	0.9%
Felt better and didn't want to go	21	1.5%	17	1.0%	12	1.9%
Went to the emergency room instead	19	1.4%	24	1.6%	17	2.7%
Some other reason	75	6.0%	90	5.8%	32	5.1%

Note: Members were asked this question only if they reported both scheduling and missing any health care appointment in the six months prior to being surveyed. Respondents were able to select more than one option for reasons they missed an appointment; the average respondent selected over two reasons. \*There was one MCE-provided NEMT respondent who did not select a reason for missed appointment. Hence the sample count is 213 (compared to the total specifying missed appointment of 214) and the estimated proportion is 16.4 percent (compared to 16.5 percent).

Exhibit E4. Percentage of Members Selecting Most Common Reason for Missed Appointments among Members who Scheduled a Health Care Appointment in the Last 6 Months, by NEMT Coverage

Most Common Reason for Missing an Appointment	Members Without State-provided NEMT				Members With State-provided NEMT	
	Members With MCE-Provided NEMT		Members Without MCE-Provided NEMT			
	Number of Respondents	Percent of Members who Scheduled Appointment (n=1,346)	Number of Respondents	Percent of Members who Scheduled Appointment (n=1,639)	Number of Respondents	Percent of Members who Scheduled Appointment (n=594)
Appointment time was not convenient	14	1.0%	17	1.0%	4	0.7%
Too sick to go	21	1.9%	22	1.6%	14	2.4%
No childcare	7	0.5%	3	0.2%	6	1.0%
Couldn't get off work	36	2.5%	22	1.3%	11	1.8%
Didn't have time to go	1	0.1%	6	0.3%	3	0.5%
Didn't get approval from the plan	8	0.6%	4	0.3%	1	0.2%
Forgot	35	2.9%	30	1.9%	17	2.7%
Doctor wouldn't accept your insurance	6	0.4%	8	0.5%	5	0.8%
Transportation problem	25	2.1%	44	3.1%	32	5.3%
Cost was too high	3	0.1%	1	0.1%	1	0.1%
Felt better and didn't want to go	3	0.3%	3	0.1%	0	0.0%
Went to the emergency room instead	1	0.1%	2	0.1%	2	0.2%
Some other reason	36	2.7%	57	3.6%	12	1.8%

Note: Members were asked this question *only* if they reported missing a health care appointment in the six months prior to being surveyed. One member who responded to the question regarding any reason for missed appointment refused to answer the question about the most common reason for missed appointment. Some respondents chose "Don't Know" or "Refused:" 17 for with MCE-provided NEMT, 12 for without MCE-provided NEMT, and four for with State-provided NEMT.

Exhibit E5. Proportion of Members Who Identified Transportation as a Reason for a Missed Appointment Among Members who Scheduled an Appointment, by NEMT coverage and demographics

HIP 2.0 Member Characteristics	Members Without State-Provided NEMT								Members With State-Provided NEMT		
	All		Members With MCE-Provided NEMT			Members Without MCE-Provided NEMT					
	Percent	Standard Error	Members Surveyed	Percent	Standard Error	Members Surveyed	Percent	Standard Error	Members Surveyed	Percent	Standard Error
All members	4.4%	0.4%	1,346	4.1%	0.6%	1,639	4.7%	0.6%	594	8.9%	1.2%
<b>HIP Membership Type</b>											
Basic	7.2%	1.0%	279	6.4%	1.5%	365	7.7%	1.4%	216	13.9%	2.4%
Plus	3.7%	0.4%	1,067	3.7%	0.6%	1,274	3.8%	0.6%	378	6.6%	1.3%
<b>Income</b>											
Less than or equal to 100%	5.1%	0.5%	881	4.7%	0.7%	1,074	5.5%	0.7%	539	9.4%	1.2%
Greater than 100%	1.7%	0.4%	465	1.8%	0.7%	565	1.5%	0.5%	55	3.4%	2.6%
<b>Gender</b>											
Male	5.3%	0.7%	593	4.6%	1.0%	735	5.9%	1.0%	140	13.9%	3.0%
Female	3.9%	0.5%	753	3.8%	0.7%	904	4.0%	0.7%	454	7.5%	1.2%
<b>Age</b>											
19-35 years	5.2%	0.7%	496	4.2%	1.0%	673	6.0%	1.0%	242	8.4%	1.8%
36+ years	3.9%	0.5%	850	4.1%	0.7%	966	3.8%	0.7%	352	9.2%	1.5%
<b>Length of Enrollment in HIP</b>											
≤6 months	4.2%	0.7%	502	4.0%	1.0%	573	4.4%	1.0%	105	10.6%	3.0%
>6 months	4.6%	0.5%	844	4.2%	0.7%	1,066	4.9%	0.7%	489	8.5%	1.2%
<b>Risk Score</b>											
Low	3.4%	0.5%	686	3.4%	0.8%	1,005	3.4%	0.6%	229	8.1%	1.8%
Medium	4.2%	0.9%	252	3.5%	1.2%	249	5.0%	1.4%	92	2.6%	1.6%
High	6.6%	0.9%	408	5.6%	1.2%	385	7.8%	1.5%	273	11.6%	1.9%
<b>Employment Status</b>											
Part-time	3.8%	0.8%	359	4.7%	1.3%	448	3.0%	0.9%	103	5.5%	2.2%
Full-time	1.9%	0.6%	304	1.6%	0.7%	368	2.2%	0.8%	67	7.6%	3.3%

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HIP 2.0 Member Characteristics	Members Without State-Provided NEMT								Members With State-Provided NEMT		
	All		Members With MCE-Provided NEMT			Members Without MCE-Provided NEMT					
	Percent	Standard Error	Members Surveyed	Percent	Standard Error	Members Surveyed	Percent	Standard Error	Members Surveyed	Percent	Standard Error
Unemployed	6.3%	0.8%	488	5.4%	1.1%	598	7.0%	1.1%	331	10.0%	1.6%
Other	3.7%	1.0%	195	2.6%	1.1%	225	4.8%	1.6%	93	9.5%	2.9%
<b>Rural/Urban Status</b>											
Rural	4.5%	0.7%	455	3.9%	1.0%	559	5.0%	1.0%	217	8.9%	1.9%
Urban	4.4%	0.5%	891	4.3%	0.7%	1,080	4.6%	0.7%	377	8.9%	1.4%
<b>Availability of Public Transportation</b>											
Available	4.3%	0.5%	728	4.0%	0.8%	929	4.5%	0.7%	331	8.9%	1.5%
Not Available	4.7%	0.7%	541	4.4%	1.0%	636	5.0%	1.0%	245	9.2%	1.9%

Note: Members were asked this question *only* if they reported missing a health care appointment in the six months prior to being surveyed. “Percent” are estimated proportion of member having transportation as reason for missing appointment for member cohort with scheduled an appointment (includes missed and did not miss appointment).



Exhibit E6. The proportion of Members Specifying a specific Transportation Problem for a Missed Appointment, Among those who Reported Scheduling an Appointment, by NEMT Coverage Plan

Specific Reason for Transportation as Problem	Members Without State-provided NEMT				Members With State-provided NEMT (n=55)	
	Members With MCE-Provided NEMT (n=52)		Members Without MCE-Provided NEMT (n=71)		Number of Respondents	Percent of Members who Scheduled Appointment
	Number of Respondents	Percent of Members who Scheduled Appointment	Number of Respondents	Percent of Members who Scheduled Appointment		
No driver	18	1.4%	36	2.5%	19	3.2%
No vehicle	28	2.3%	45	3.1%	32	5.1%
Couldn't afford the cost of gas or to pay someone to take you	35	2.9%	42	2.9%	24	3.7%
Couldn't afford a bus or taxi or Uber	23	1.9%	27	1.8%	23	3.7%
Your ride or transportation came too late	14	1.2%	22	1.5%	22	3.5%
Didn't feel well enough to drive or ride in a vehicle	14	1.2%	12	0.8%	11	1.8%
Have a condition that makes transportation difficult	13	1.2%	18	1.2%	10	1.5%
Couldn't take your child with you in the vehicle	1	0.1%	5	0.3%	7	1.1%
Something else	14	1.0%	16	1.0%	14	2.3%

Note: Members were asked this question *only* if they reported missing a health care appointment due to transportation in the six months prior to being surveyed. However, the proportions reported here are out of all members who scheduled an appointment, regardless of whether they indicated a missed appointment.

Exhibit E7. Types of Transportation Most Often Used for Health Care Visits among Members who Scheduled a Health Care Appointment, by NEMT coverage status

Transportation Mode	Members Without State-provided NEMT				Members With State-provided NEMT	
	Members With MCE-Provided NEMT		Members Without MCE-Provided NEMT		Number of Respondents	Percent of Members who Scheduled Appointment (n=594)
	Number of Respondents	Percent of Members who Scheduled Appointment (n=1,346)	Number of Respondents	Percent of Members who Scheduled Appointment (n=1,639)		
Drove yourself	1,031	75.4%	1,249	74.9%	415	69.6%
Someone else drove you	493	38.5%	607	38.7%	261	44.4%
Taxi or Uber	31	2.5%	37	2.1%	28	4.8%
Bus	68	5.1%	98	6.2%	40	6.5%
Transportation paid for by your HIP insurance	56	4.6%	40	2.5%	56	9.5%
Some other type of transportation	226	17.8%	291	18.1%	105	17.5%

Note: Members were asked this question *only* if they reported making any appointments for a health care visit in the six months prior to being surveyed. Across NEMT coverage categories, less than 1.0% of members responded “don’t know.”

Exhibit E8. Descriptive Statistics for Variables used in the Logistic Regressions - Restricted to Members who Scheduled Health Care Appointment

Statistics	Overall			With-MCE		Without-MCE	
	n	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.
Proportion of cohort by NEMT coverage	2,985			47.7%	0.5%	52.3%	0.5%
Proportion having Basic Plan	644	19.9%	0.5%	17.0%	0.6%	22.6%	0.7%
Proportion having less than or equal to 100 FPL	1,955	80.9%	0.3%	80.7%	0.5%	81.1%	0.5%
Proportion Female	1,657	61.8%	0.5%	62.3%	0.7%	61.3%	0.7%
Proportion understand benefit	689	23.5%	0.8%	27.9%	1.3%	19.4%	1.0%
<b>Distribution by Employment Status</b>							
Part time	807	26.4%	0.9%	26.5%	1.3%	26.3%	1.1%
Full time	672	18.9%	0.7%	18.0%	1.0%	19.7%	1.0%
Unemployed	1,086	40.7%	1.0%	40.5%	1.4%	41.0%	1.3%
Other	420	13.9%	0.7%	15.0%	1.1%	13.0%	0.9%
<b>Distribution by Education*</b>							
High School or Less	1,277	43.2%	1.0%	46.2%	1.5%	40.4%	1.3%
More than High School	1,689	56.2%	1.0%	53.3%	1.4%	58.9%	1.3%
Proportion having vehicle available for transportation	2,552	84.5%	0.7%	84.8%	1.1%	84.2%	1.0%
Proportion having public transportation available	1,657	55.2%	1.0%	53.4%	1.5%	56.8%	1.3%
Proportion living in urban area	1,971	66.0%	0.9%	67.0%	1.4%	65.0%	1.3%
Average age	2,985	40.6	0.14	41.3	0.19	39.9	0.20
Average length of HIP 2.0 enrollment (in months)	2,985	9.8	0.10	9.8	0.15	9.8	0.13
Average scaled risk score	2,985	1.0	0.02	1.1	0.04	0.9	0.03

Note: "Estimate" are projected numbers based on sample for the domain of members having scheduled appointments, *s.e.* is the standard error for the estimate considering the sampling design and domain of interest. \*19 respondents did not answer the survey question.