

Medicaid Long-Term Services and Supports Beneficiaries in 2013

September 22, 2017

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This report contains information which resulted from Contract No. HHSM-500-2010-00026I, between Mathematica Policy Research, Inc. and the Centers for Medicare & Medicaid Services (CMS), under which project Truven Health Analytics was a subcontractor.

Table of Contents

Acknowledgement	2
Executive Summary	3
National Beneficiary Data Summary	6
State Beneficiary Data Summary	8
Beneficiaries by Type of Institutional Service	12
Beneficiaries by Type of HCBS	15
Beneficiary Data by Age Group	19
Conclusion	39
Appendix A: Data Sources, Methods, and Comparison Sources	40

Acknowledgement

Most data for this study were compiled from the 2010 through 2012 Medicaid Analytical eXtract (MAX) and the 2013 Alpha-MAX data sets by a team at Mathematica Policy Research led by Carol Irvin. The methods used by the Mathematica team are described in Appendix A.

Executive Summary

Approximately 5.2 million people received Medicaid-funded long-term services and supports (LTSS) during calendar year 2013. This estimate is greater than the 4.8 million or 4.9 million LTSS beneficiaries estimated in LTSS beneficiary reports for 2010 through 2012 because 2013 data include state-reported estimates for managed LTSS programs. This report is the first in the series of LTSS beneficiary reports to include state-reported estimates for managed LTSS programs other than the Program of All-Inclusive Care for the Elderly (PACE).

Data in this report still should be considered underestimates of Medicaid institutional LTSS and home and community-based services (HCBS) beneficiaries. Only eight states provided managed care beneficiary data for this report, fewer than half of the 18 states that provided LTSS through managed care programs during 2013.¹

Most LTSS beneficiaries (3.7 million or 72 percent) received HCBS, including about 223,000 people (four percent) who also received institutional services during the year. About 1.7 million individuals (33 percent) received institutional services, including people who also received HCBS during the year. In 28 states, between 60 and 80 percent of beneficiaries used HCBS.

¹ Sixteen states provided LTSS through managed care programs in 2012 according to Saucier P, Kasten J, Burwell B, Gold L. *The Growth of Managed Long-Term Services and Supports (MLTSS) Programs: A 2012 Update* CMS, July 2012. Available on-line at https://www.medicaid.gov/medicaid-chip-program-information/by-topics/delivery-systems/downloads/mltssp_white_paper_combined.pdf. Two additional states, Kansas and Rhode Island, started programs during 2013.

A majority of beneficiaries were under age 65, including both children and youth under age 21 (16 percent) and people age 21 through 64 (40 percent). Older adults comprised 44 percent of beneficiaries. In each age group, a majority of individuals received HCBS, including people who received both HCBS and institutional services. Older adults were less likely to receive HCBS than people under age 65: only 54 percent of LTSS beneficiaries age 65 or older received HCBS compared to 82 percent of people age 21 through 64 and 86 percent of children and youth.

Data for this report were obtained from the Medicaid Analytic eXtract (MAX) and Alpha-MAX, a data set with the same layout and format as MAX that is available more quickly because some MAX business rules and minimum data requirements are not used. These data were supplemented by state-reported data for managed care programs. We compared beneficiary data to previously published data using other sources and note differences within the report. Please see Appendix A for information about data and methods.

Medicaid Long-Term Services and Supports Beneficiaries in 2013

Medicaid is the primary source of funding for paid long-term services and supports (LTSS), accounting for over 60 percent of total spending across public and private sources.² This report is the fourth annual estimate of Medicaid LTSS beneficiaries, providing data for calendar year 2013. Truven Health Analytics, now part of the IBM Watson Health business, developed the estimate with assistance from Mathematica Policy Research and the Centers for Medicare & Medicaid Services (CMS).

For the first time, we included LTSS beneficiaries in managed care programs. Eight of the 18 states with managed LTSS (MLTSS) programs in 2013 provided beneficiary data: Arizona, Kansas, Michigan, Minnesota, New Mexico, Pennsylvania, Tennessee, and Wisconsin. This report still underestimates LTSS beneficiaries because MLTSS are excluded data from ten states: California, Delaware, Florida, Hawaii, Massachusetts, New York, North Carolina, Rhode Island, Texas, and Washington.³ State MLTSS data supplemented information from the Medicaid Analytic eXtract (MAX), a set of Medicaid administrative data files designed to facilitate research, and Alpha-MAX, a data set designed to be available more quickly than MAX. These sources provided data for fee-for-service LTSS and the Program of All-Inclusive Care for the Elderly (PACE). Appendix A describes the data sources and compares data to available published benchmarks.

This report also updates beneficiary data for three major age groups: children and youth under age 21, adults age 21 through 64, and older adults starting at age 65. Age group data are particularly important for policy makers because available services can vary based on a person's age. For example, children and youth under age 21 are eligible for Medicaid state plan services under the Early and Periodic Screening, Diagnosis, and Treatment requirement that are unavailable to adults in some states, including types of LTSS such as personal care and private duty nursing. Also, states often target section 1915(c) waivers specifically to children or to older adults. Data by age group only include fee-for-service and PACE beneficiaries. We did not collect MLTSS estimates from states by age group.

² O'Shaughnessy, C. *The Basics: National Spending for Long-Term Services and Supports (LTSS), 2012*. National Health Policy Forum, 2014. http://www.nhpf.org/library/the-basics/Basics_LTSS_03-27-14.pdf.

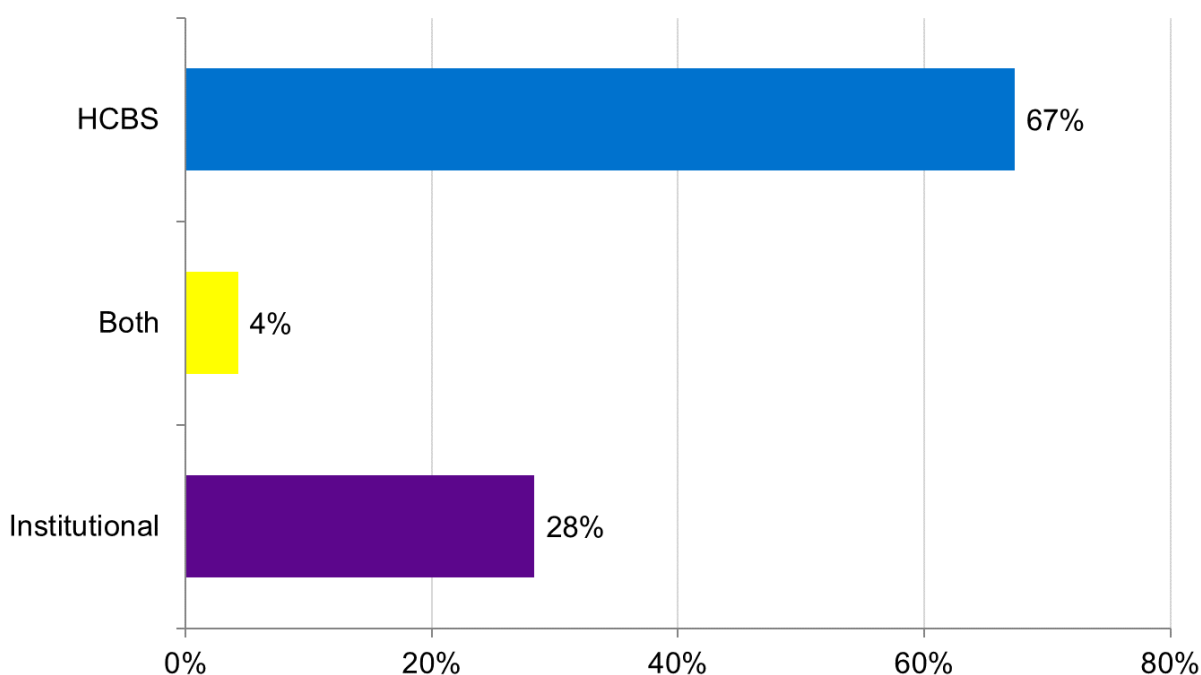
³ Sixteen MLTSS states in 2012 were identified in Saucier P, Kasten J, Burwell B, Gold L. *The Growth of Managed Long-Term Services and Supports (MLTSS) Programs: A 2012 Update* CMS, July 2012. Available on-line at https://www.medicaid.gov/medicaid-chip-program-information/by-topics/delivery-systems/downloads/mltssp_white_paper_combined.pdf. Kansas and Rhode Island started programs during 2013.

National Beneficiary Data Summary

An estimated 5.2 million people received Medicaid-funded LTSS during calendar year 2013. This estimate includes 2013 data for 43 states,⁴ a combination of 2012 fee-for-service data and 2013 managed care data for one state, 2012 data for three states, 2011 data for one state, and 2010 data for two states. No data were available for any of these years for one state (Maine).

As Figure 1 illustrates, two-thirds of Medicaid LTSS beneficiaries only received HCBS (3.5 million; 67 percent). About 28 percent of beneficiaries only received institutional services (1.5 million). Only four percent (223,000) received both HCBS and institutional services during the year, indicating a relatively small number of people moved from one to the other. When including people who received both HCBS and institutional services during the year, 72 percent of LTSS beneficiaries used HCBS.

Figure 1. Percentage of Medicaid LTSS Beneficiaries Who Received Institutional Services and HCBS, 2013



Percentages do not add up to 100% due to rounding.

Sources: MAX, Alpha-MAX, and state-reported managed LTSS data from Arizona, Kansas, Michigan, Minnesota, New Mexico, Pennsylvania, Tennessee, and Wisconsin. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans in other states. Alpha-MAX data were used in 2013. MAX data for the most recent year available were used to identify fee-for-service LTSS and PACE participants where 2013 Alpha-MAX included fewer than four quarters of data. Data for 2012 were used for Alaska, Florida, Minnesota, and North Carolina. Data for 2011 were used for Rhode Island. Data for 2010 were used for Colorado and Idaho. Maine was excluded because no data were available for 2010 through 2013.

⁴ Throughout this report, “states” refers to the 50 states and the District of Columbia.

While about two-thirds of LTSS beneficiaries received HCBS, only 51 percent of spending on LTSS expenditures were for HCBS during an overlapping time period (federal fiscal year 2013).⁵ Community supports accounted for a higher percentage of people than spending because HCBS have a lower average cost per person than institutional services.⁶

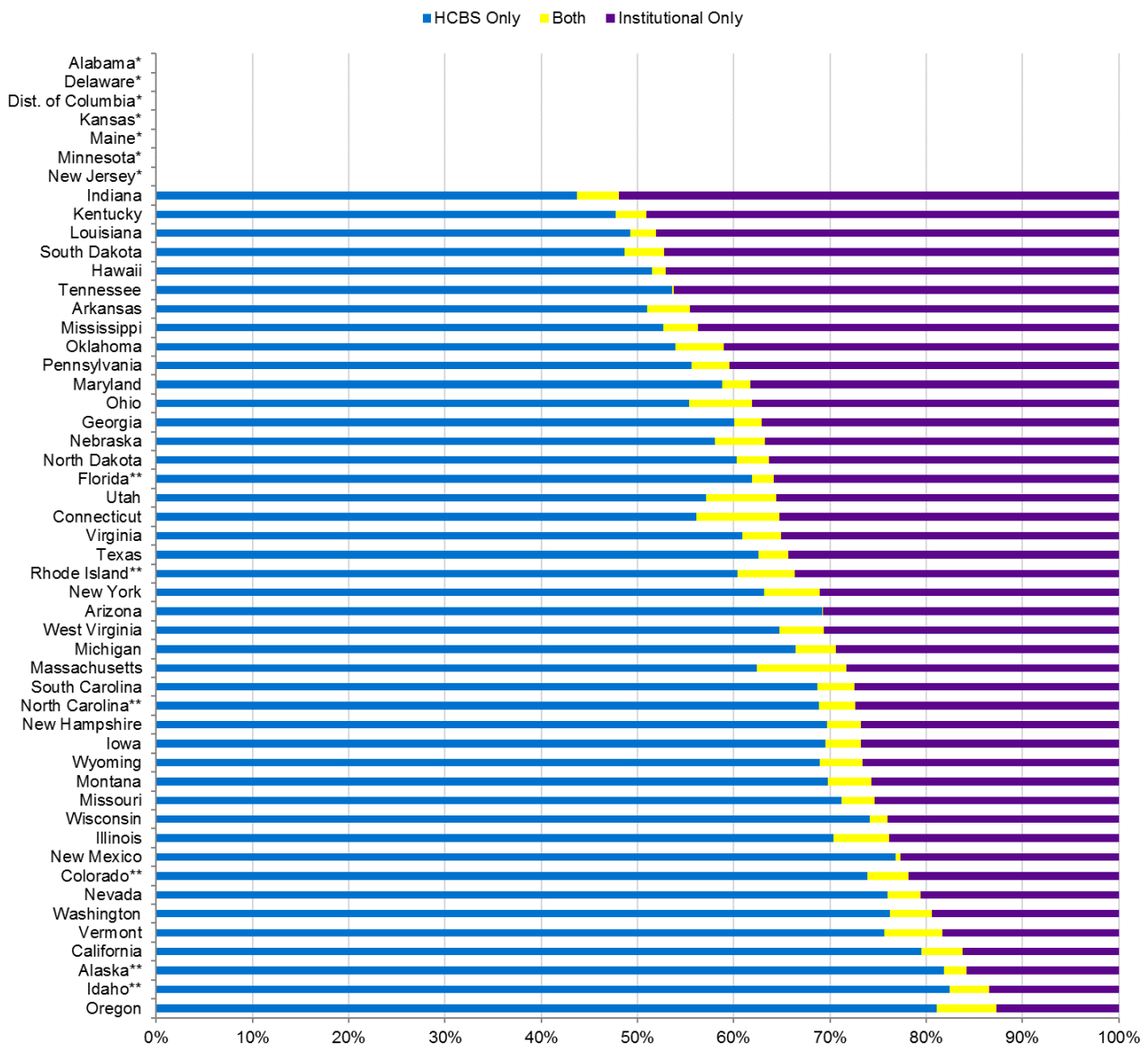
⁵ Eiken S, Sredl K, Burwell B, and Woodward R. *Medicaid Expenditures for Long-Term Services and Supports (LTSS) in FY 2015* CMS, April 14, 2017. Available on-line at <https://www.medicaid.gov/medicaid/ltss/downloads/reports-and-evaluations/ltss-expenditures-fy2015-final.pdf>.

⁶ Larson S, Eschenbacher H, Anderson L, Pettingell S, Hewitt A, Sowers M, Fay ML, Taylor B, and Agosta J. *In-Home and Residential Long-Term Supports and Services for Persons with Intellectual or Developmental Disabilities: Status and Trends Through 2014* University of Minnesota Institute on Community Integration, 2017 Available on-line at <https://risp.umn.edu/> and Reinhard SC, Accius J, Houser A, Ujvari K, Alexis J, and Fox-Grage W. *Picking Up the Pace of Change, 2017: A State Scorecard on Long-Term Services and Supports for Older Adults, People with Physical Disabilities, and Family Caregivers* AARP Public Policy Institute, June 14, 2017. Available on-line at <http://www.longtermscorecard.org/2017-scorecard>.

State Beneficiary Data Summary

People who received HCBS, including people who also received institutional services, were a majority of LTSS beneficiaries in all states except Indiana (See Figure 2). Six states provided HCBS to more than 80 percent of LTSS beneficiaries: Oregon, Idaho, Alaska, California, Vermont, and Washington. In 28 states, 60 and 80 percent of LTSS beneficiaries received HCBS.

Figure 2: Percentage of Medicaid LTSS Beneficiaries Who Received HCBS and Institutional Services by State, 2013



Sources: MAX, Alpha-MAX, and state-reported managed LTSS data from Arizona, Michigan, New Mexico, Pennsylvania, Tennessee, and Wisconsin. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans in other states.

* Data for these states are not included because data are unavailable, a data anomaly exists, or data in an available benchmark indicate a 50% or greater difference from the number of beneficiaries in data for this report. See Appendix A for more information.

** MAX data for the most recent year available were used to identify fee-for-service LTSS and PACE participants where 2013 Alpha-MAX included fewer than four quarters of data. Data for 2012 were used for Alaska, Florida, and North Carolina. Data for 2011 were used for Rhode Island. Data for 2010 were used for Colorado and Idaho.

Seven states were excluded from the state-level analysis in Figure 2 for one of the following reasons:

- Maine did not have claims data in Alpha-MAX or MAX for any year from 2010 through 2013.
- Alabama data have a very large anomaly in private duty nursing beneficiaries, reporting 100,000 more individuals than all other states combined.
- The sum of Alpha-MAX or MAX and state-reported managed care data for the District of Columbia, Kansas, and Minnesota showed at least 50 percent more beneficiaries than data from an available benchmark for three types of HCBS based on a survey of states.⁷
- Data from the available benchmark for three types of HCBS showed at least 50 percent more beneficiaries than the sum of Alpha-MAX or MAX and state-reported managed care data for Delaware and New Jersey.

⁷ Ng T, Harrington C, Musumeci M, and Reeves E. *Medicaid Home and Community-Based Services Programs: 2012 Data Update* Kaiser Family Foundation, November 2015. Available on-line at <http://kff.org/medicaid/report/medicaid-home-and-community-based-services-programs-2012-data-update/>.

Table 1: Beneficiaries Who Received Any Type of Medicaid LTSS, 2013

State	Total Unduplicated	Total Institutional Only ¹	Percent Institutional Only	Total HCBS Only ²	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
Alabama ^{3, 4}	215,922	18,433	8.5	190,563	88.3	6,926	3.2
Alaska ^{4, 5}	11,296	1,785	15.8	9,242	81.8	269	2.4
Arizona ⁶	60,347	18,544	30.7	41,758	69.2	45	0.1
Arkansas	55,175	24,595	44.6	28,131	51.0	2,449	4.4
California ⁴	798,485	129,746	16.2	634,830	79.5	33,909	4.2
Colorado ⁷	57,336	12,502	21.8	42,351	73.9	2,483	4.3
Connecticut	76,559	26,978	35.2	42,977	56.1	6,604	8.6
Delaware ⁸	8,805	6,888	78.2	1,879	21.3	38	0.4
Dist. of Columbia ⁸	22,579	5,963	26.4	15,965	70.7	651	2.9
Florida ⁵	186,607	66,879	35.8	115,582	61.9	4,146	2.2
Georgia	87,803	32,586	37.1	52,702	60.0	2,515	2.9
Hawaii	7,450	3,508	47.1	3,837	51.5	105	1.4
Idaho ⁷	26,159	3,511	13.4	21,563	82.4	1,085	4.1
Illinois ⁴	250,066	59,557	23.8	175,958	70.4	14,551	5.8
Indiana	78,776	40,891	51.9	34,471	43.8	3,414	4.3
Iowa ⁴	64,383	17,232	26.8	44,782	69.6	2,369	3.7
Kansas ^{8, 9, 10}	66,033	16,637	25.2	49,396	74.8	-	-
Kentucky ⁴	54,369	26,660	49.0	25,969	47.8	1,740	3.2
Louisiana	86,291	41,473	48.1	42,519	49.3	2,299	2.7
Maine ¹⁰	-	-	-	-	-	-	-
Maryland	57,506	21,992	38.2	33,802	58.8	1,712	3.0
Massachusetts	159,658	45,143	28.3	99,662	62.4	14,853	9.3
Michigan	151,167	44,442	29.4	100,394	66.4	6,331	4.2
Minnesota ^{5, 8, 9}	196,423	19,200	9.8	165,565	84.3	11,658	5.9
Mississippi	52,813	23,090	43.7	27,819	52.7	1,904	3.6
Missouri	122,101	30,918	25.3	86,934	71.2	4,249	3.5
Montana	16,820	4,322	25.7	11,738	69.8	760	4.5
Nebraska	23,088	8,478	36.7	13,395	58.0	1,215	5.3
Nevada	23,275	4,795	20.6	17,684	76.0	796	3.4
New Hampshire	21,853	5,857	26.8	15,232	69.7	764	3.5
New Jersey ⁸	91,335	40,525	44.4	48,234	52.8	2,576	2.8
New Mexico ^{6, 11}	34,510	7,821	22.7	26,512	76.8	177	0.5
New York	473,376	146,907	31.0	298,986	63.2	27,483	5.8
North Carolina ⁵	148,091	40,565	27.4	101,959	68.8	5,567	3.8
North Dakota	12,640	4,594	36.3	7,623	60.3	423	3.3
Ohio	199,273	75,942	38.1	110,352	55.4	12,979	6.5
Oklahoma	58,789	24,124	41.0	31,723	54.0	2,942	5.0
Oregon	59,766	7,567	12.7	48,456	81.1	3,743	6.3

State	Total Unduplicated	Total Institutional Only ¹	Percent Institutional Only	Total HCBS Only ²	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
Pennsylvania ⁴	245,556	99,383	40.5	136,477	55.6	9,696	3.9
Rhode Island ¹²	23,483	7,904	33.7	14,176	60.4	1,403	6.0
South Carolina ⁴	55,587	15,269	27.5	38,176	68.7	2,142	3.9
South Dakota	12,051	5,692	47.2	5,864	48.7	495	4.1
Tennessee ⁹	67,712	31,301	46.2	36,279	53.6	132	0.2
Texas ⁴	312,576	107,292	34.3	195,570	62.6	9,714	3.1
Utah ⁴	15,287	5,444	35.6	8,736	57.1	1,107	7.2
Vermont	15,321	2,807	18.3	11,592	75.7	922	6.0
Virginia	75,098	26,328	35.1	45,758	60.9	3,012	4.0
Washington	91,902	17,870	19.4	70,081	76.3	3,951	4.3
West Virginia	42,768	13,118	30.7	27,682	64.7	1,968	4.6
Wisconsin ⁴	103,099	24,774	24.0	76,420	74.1	1,905	1.8
Wyoming	8,712	2,322	26.7	6,008	69.0	382	4.4
United States	5,186,077	1,470,154	28.3	3,493,364	67.4	222,559	4.3

Sources: MAX, Alpha-MAX, and state-reported managed LTSS data from Arizona, Kansas, Michigan, Minnesota, New Mexico, Pennsylvania, Tennessee, and Wisconsin. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans in other states.

¹ Institutional services include nursing facilities, intermediate care facilities for individuals with intellectual disabilities (ICF/IID), inpatient psychiatric facilities for individuals under age 21, and hospital services for people age 65 and older in an institution for mental disease.

² HCBS include section 1915(c) waivers, personal care services, targeted case management, home health, rehabilitation services, private duty nursing, PACE, adult day care, and HCBS provided through a fee-for-service section 1115 demonstration or a managed care program (e.g., a section 1115 demonstration or a section 1915(b) waiver).

³ Alabama was not included in the state-level analysis in Figure 2 because the number of private duty nursing beneficiaries is 100,000 more than the national total for all other states. The reason for this data anomaly is not known.

⁴ The sum of beneficiaries using section 1915(c) waiver, personal care, and home health services in available benchmarks differs from the sum of beneficiaries for those services in this report by more than 20 percent. See Tables A-4, A-5, and A-6 for benchmarks.

⁵ This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

⁶ Arizona provided managed LTSS data as of a particular date, September 30, 2013. As a result, the managed care data indicate no beneficiaries received both institutional services and HCBS. Data are lower than the number of people who received services over the full year.

⁷ This report uses 2010 MAX data for Colorado and Idaho because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2011 and 2012.

⁸ Data are not included in the state-level analysis in Figure 2 because the sum of beneficiaries using section 1915(c) waiver, personal care, and home health services in available benchmarks differs from the sum of beneficiaries for those services in this report by more than 50 percent. See Tables A-4, A-5, and A-6 for benchmarks.

⁹ Kansas, Minnesota, and Tennessee provided MLTSS data for multiple HCBS categories. States were asked for estimates by category of service, not for unduplicated totals. Individuals who received multiple types of service were counted twice in HCBS totals.

¹⁰ MAX and Alpha-MAX do not include data for 2010 through 2013 for Kansas and Maine.

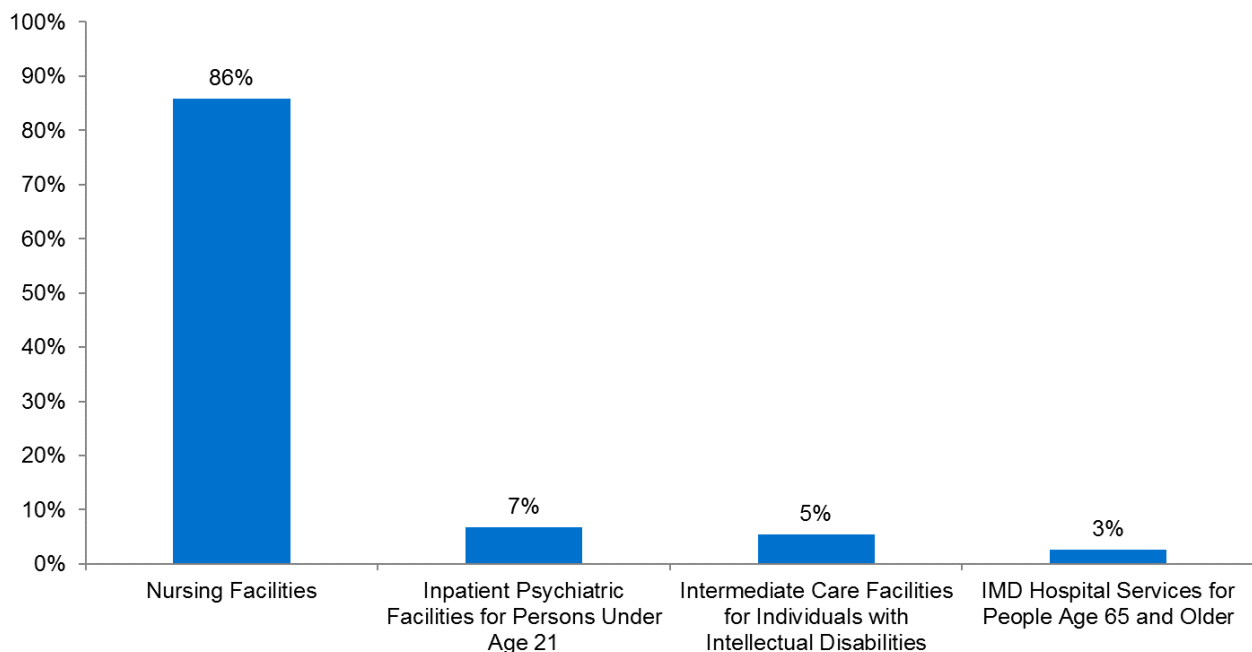
¹¹ New Mexico managed LTSS data are average monthly enrollees who received community benefits. Data are lower than the number of people who received services over the full year.

¹² This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

Beneficiaries by Type of Institutional Service

Nursing facilities were the most common type of institutional LTSS, with 86 percent of institutional beneficiaries (See Figure 3). Fifteen percent of beneficiaries received one of the other three types of institutional LTSS: inpatient psychiatric facilities for people under age 21, intermediate care facilities for individuals with intellectual disabilities (ICF/IID), and hospital services for people age 65 and older in an institution for mental disease (IMD), hereafter referred to as IMD hospital services for people age 65 and older.⁸ Data include people who also received HCBS during 2013. The sum of beneficiaries for each type of service was less than one percent greater than unduplicated total beneficiaries; few people received more than one type of institutional service.

Figure 3: Percentage of Medicaid Institutional LTSS Beneficiaries Who Received Each Type of Institutional Service, 2013



Percentages exceed 100% because some individuals received more than one type of institutional LTSS.

Sources: MAX, Alpha-MAX, and state-reported managed LTSS data from Arizona, Kansas, Michigan, Minnesota, New Mexico, Pennsylvania, Tennessee, and Wisconsin. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans in other states.

Alpha-MAX data were used in 2013. MAX data for the most recent year available were used to identify fee-for-service LTSS and PACE participants where 2013 Alpha-MAX included fewer than four quarters of data. Data for 2012 were used for Alaska, Florida, Minnesota, and North Carolina. Data for 2011 were used for Rhode Island. Data for 2010 were used for Colorado and Idaho. Maine was excluded because no data were available for 2010 through 2013.

⁸ The MAX data dictionary, also used for Alpha-MAX, calls this benefit “mental hospital services for the aged”.

Table 2 presents state institutional LTSS beneficiary data. Nursing facilities were the most common type of institutional LTSS in every state except Alaska, where more people received inpatient psychiatric facilities for children and youth under age 21. Nursing facility residents were more than 95 percent of institutional LTSS beneficiaries in eight states: Georgia, Colorado, Missouri, Rhode Island, Kansas, Massachusetts, Florida, and New Hampshire. In 22 states (44 percent of the 50 states with data), nursing facility residents were between 80 and 90 percent of all institutional LTSS beneficiaries.

Table 2: Beneficiaries Who Received Medicaid Institutional LTSS: 2013

State	Total Institutional ¹	Nursing Facilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Institutions for Mental Disease for Persons Age 65 and Older
Alabama ²	25,359	22,645	2,612	32	148
Alaska ^{2, 3}	2,054	847	1,170	19	24
Arizona	18,589	16,217	2,259	0	142
Arkansas	27,044	18,519	7,157	1,589	0
California ²	163,655	148,124	5,819	10,390	255
Colorado ^{2, 4}	14,985	14,704	44	221	24
Connecticut ²	33,582	31,798	698	989	131
Delaware ²	6,926	4,110	36	126	2,674
Dist. of Columbia ²	6,614	3,492	2,442	616	82
Florida ³	71,025	68,175	0	2,808	84
Georgia ²	35,101	34,719	0	390	0
Hawaii ²	3,613	3,044	0	2,452	0
Idaho ^{2, 4}	4,596	3,569	398	686	0
Illinois	74,108	57,942	6,560	8,320	3,852
Indiana	44,305	38,045	2,140	4,055	327
Iowa	19,601	17,407	36	2,108	122
Kansas ⁵	16,637	16,081	-	556	-
Kentucky ²	28,400	25,448	2,352	482	327
Louisiana	43,772	26,761	5,068	4,902	8,502
Maine ⁵	-	-	-	-	-
Maryland ²	23,704	20,939	2,628	121	19
Massachusetts	59,996	57,876	300	555	1,382
Michigan ²	50,773	45,569	4,967	1	290
Minnesota ^{2, 3}	30,858	27,257	718	2,870	80
Mississippi	24,994	18,715	3,513	2,764	84
Missouri	35,167	34,492	136	537	5
Montana	5,082	4,470	511	58	51
Nebraska	9,693	8,829	457	412	0
Nevada	5,591	4,103	1,374	110	9
New Hampshire ²	6,621	6,300	319	31	0

State	Total Institutional ¹	Nursing Facilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Institutions for Mental Disease for Persons Age 65 and Older
New Jersey ²	43,101	38,861	1,776	2,346	194
New Mexico	7,998	5,725	1,991	263	52
New York	174,390	153,266	10,919	8,470	3,365
North Carolina ³	46,132	39,488	2,993	3,655	54
North Dakota	5,017	4,310	129	583	4
Ohio	88,921	79,395	1,935	7,197	731
Oklahoma ²	27,066	20,369	5,071	1,718	142
Oregon	11,310	9,922	1,351	0	46
Pennsylvania	109,079	82,800	8,447	3,406	15,058
Rhode Island ⁶	9,307	8,998	159	40	160
South Carolina	17,411	14,894	1,061	1,338	163
South Dakota	6,187	5,175	721	219	101
Tennessee	31,433	27,208	3,054	1,059	176
Texas	117,006	92,431	15,010	9,859	72
Utah	6,551	5,570	130	850	41
Vermont	3,729	3,473	0	7	253
Virginia	29,340	26,264	960	1,381	890
Washington ²	21,821	18,012	959	57	2,885
West Virginia	15,086	11,273	2,634	570	734
Wisconsin	26,679	24,094	1,745	779	83
Wyoming	2,704	2,293	330	78	5
United States	1,692,713	1,454,018	115,089	92,075	43,823

Sources: MAX, Alpha-MAX, and state-reported managed LTSS data from Kansas. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans in other states.

¹ Total Institutional is the unduplicated total of beneficiaries who received one or more institutional services.

² The number of ICF/IID beneficiaries in an available point-in-time benchmark differs from the number of beneficiaries in this analysis by more than 20 percent. See Table A-3 for the benchmark.

³ This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

⁴ This report uses 2010 MAX data for Colorado and Idaho because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2011 and 2012.

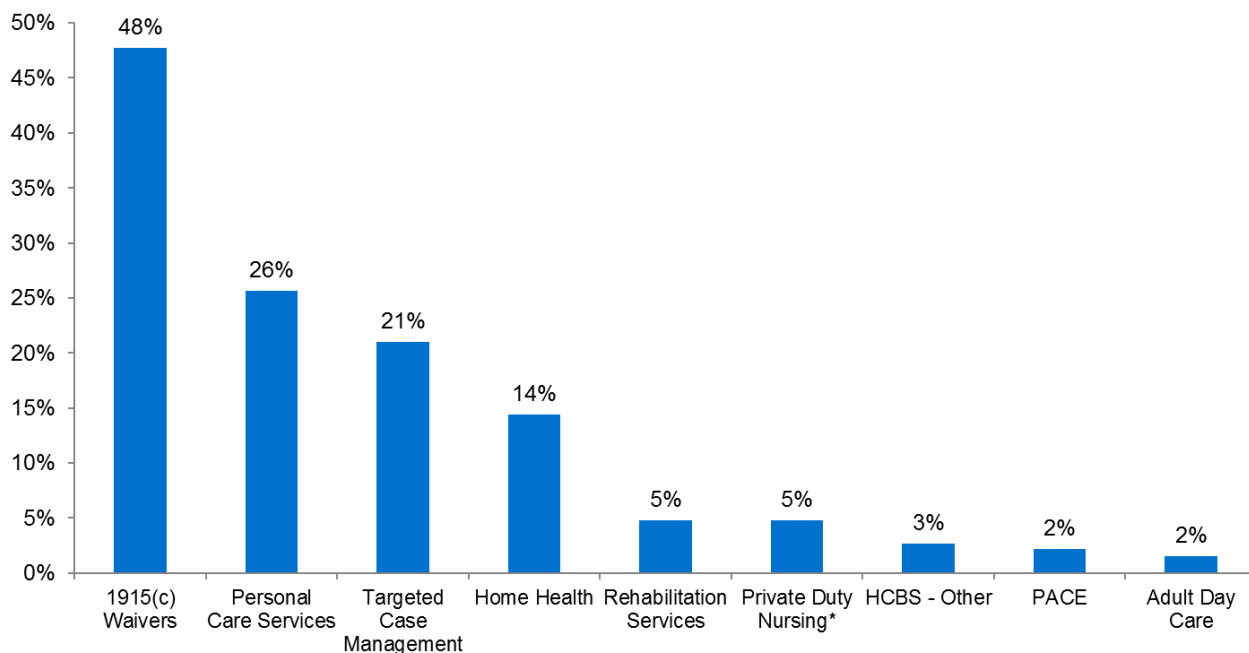
⁵ MAX and Alpha-MAX do not include data for 2010 through 2013 for Kansas and Maine.

⁶ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

Beneficiaries by Type of HCBS

Nine types of HCBS benefits were identified in this report including section 1915(c) waivers; HCBS provided through a fee-for-service section 1115 demonstration or a managed care program (called “HCBS – Other” in charts and tables); and seven state plan services: personal care, targeted case management, home health, rehabilitation services, private duty nursing, PACE, and adult day care. As shown in Figure 4, the most common type of HCBS was section 1915(c) waivers, used by 48 percent of all HCBS beneficiaries, including people who also received institutional services. Other common types of HCBS were personal care (26 percent) and targeted case management (21 percent).

Figure 4: Percentage of Medicaid HCBS Beneficiaries Who Received Each Type of HCBS, 2013



*Private duty nursing data include an anomaly in Alabama data, which indicates 100,000 more beneficiaries than all other states.

Percentages exceed 100% because some individuals received more than one type of HCBS.

Sources: MAX, Alpha-MAX, and state-reported managed LTSS data from Arizona, Kansas, Michigan, Minnesota, New Mexico, Pennsylvania, Tennessee, and Wisconsin. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans in other states. Alpha-MAX data were used in 2013. MAX data for the most recent year available were used to identify fee-for-service LTSS and PACE participants where 2013 Alpha-MAX included fewer than four quarters of data. Data for 2012 were used for Alaska, Florida, Minnesota, and North Carolina. Data for 2011 were used for Rhode Island. Data for 2010 were used for Colorado and Idaho. Maine was excluded because no data were available for 2010 through 2013.

The sum of people who received each type of HCBS was 25 percent more than the unduplicated total of HCBS participants, meaning many people received more than one type of HCBS. This could happen for several reasons, including states’ design of their section 1915(c) waiver programs. For example, some waivers specify that participants also receive state plan targeted case management. Also, a person may receive a limited amount of home health or personal care in the state plan and additional hours covered by a section 1915(c) waiver as extended state plan services.

Alpha-MAX and MAX did not specify categories of service for four state plan HCBS options authorized in 2005 or later—Community First Choice (CFC), Health Homes for People with Chronic Conditions, state plan HCBS authorized under section 1915(i), and Self-Directed Personal Assistance Services authorized under section 1915(j).⁹ As a result, these services were not included in this report. It is likely, however, that most CFC participants were included in California’s state plan personal care data. California comprised 98 percent of national federal fiscal year 2013 CFC expenditures according to a separate report on LTSS expenditures, and California’s CFC expenditures were largely offset by a decrease in personal care expenditures when the state implemented CFC in federal fiscal year 2012.¹⁰ Data in MAX and Alpha-MAX, however, show no decrease in personal care beneficiaries—the number of people increased slightly from 488,000 in 2011¹¹ to 507,000 in 2013. Many of these beneficiaries likely are receiving the CFC benefit.

As shown in Table 3 on the following pages, section 1915(c) waivers were the most common type of HCBS in 34 states (68 percent of the 50 states with data). Other states served more individuals in personal care, targeted case management, home health, and HCBS provided through a fee-for-service section 1115 demonstration or a managed care program such as a section 1915(b) waiver or a section 1115 demonstration.

⁹ These types of HCBS are included in data states submit in the Transformed Medicaid Statistical Information System (T-MSIS) and will be available for future analyses based on T-MSIS.

¹⁰ Eiken S, Sredl K, Burwell B, and Saucier P. *Medicaid Expenditures for Long-Term Services and Supports in FFY 2014: Managed LTSS Reached 15 Percent of LTSS Spending* CMS, April 15, 2016. Available on-line at <https://www.medicaid.gov/medicaid/ltss/downloads/ltss-expenditures-2014.pdf>.

¹¹ Eiken S, Sredl K, Saucier P, and Burwell B. *Medicaid Long-Term Services and Supports Beneficiaries in 2011* CMS, September 22, 2015. Available on-line at <https://www.medicaid.gov/medicaid/ltss/downloads/ltss-beneficiaries-report-2011.pdf>.

Table 3: Beneficiaries Who Received Medicaid HCBS, 2013

State	Total HCBS ¹	Section 1915(c) Waivers	Personal Care Services	Targeted Case Management	Home Health	Rehabilitation Services	Private Duty Nursing	HCBS–Other ²	PACE	Adult Day Care
Alabama ^{3, 4}	197,489	14,239	0	23,256	16,306	3,314	162,773	0	177	0
Alaska ^{5, 6}	9,511	6,266	5,178	162	302	20	19	0	0	0
Arizona ^{4, 7}	41,803	0	0	0	232	0	0	41,803	0	4
Arkansas	30,580	14,809	15,491	9,588	5,840	261	104	0	175	0
California ^{4, 5}	668,739	131,385	506,628	177,476	16,255	18,517	139	0	13,895	3,483
Colorado ⁸	44,834	38,412	0	0	11,736	1,090	239	0	2,213	0
Connecticut ⁵	49,581	26,069	1,078	15,487	31,384	0	0	0	0	89
Delaware ⁴	1,917	952	0	0	162	779	19	0	60	266
Dist. of Columbia ^{4, 5}	16,616	5,493	10,253	0	9,411	6,153	0	0	0	31
Florida ^{4, 5, 6}	119,728	85,212	0	21,603	20,201	1,394	0	0	934	0
Georgia ⁴	55,217	45,655	0	5,084	7,097	0	656	0	0	0
Hawaii ^{4, 9}	3,942	3,819	0	2,171	133	2	0	0	0	0
Idaho ^{5, 8}	22,648	14,280	4,663	9,922	1,850	2,360	3,160	0	0	1,362
Illinois ^{4, 5, 9}	190,509	153,170	2,563	30,440	8,643	10,999	485	0	0	0
Indiana	37,885	30,916	0	869	14,521	328	0	0	0	0
Iowa ⁴	47,151	30,914	0	13,156	22,962	669	0	0	246	1,746
Kansas ^{4, 5, 9, 10, 11}	49,396	41,865	0	-	7,531	-	-	-	-	-
Kentucky ⁴	27,709	26,797	0	1,607	2,072	2	0	0	0	0
Louisiana ⁴	44,818	19,342	22,357	10,717	3,839	0	0	0	367	4
Maine ¹¹	-	-	-	-	-	-	-	-	-	-
Maryland ⁴	35,514	25,390	6,480	1,935	6,411	126	883	0	172	7,680
Massachusetts ⁵	114,515	25,703	18,780	27,960	25,353	0	0	0	38,232	8,661
Michigan ⁴	106,725	21,615	79,029	64,192	3,990	1,321	1,639	0	1,016	42
Minnesota ^{4, 6, 9, 10}	177,223	87,703	35,043	19,893	77,377	226	871	0	0	0
Mississippi ^{4, 5}	29,723	24,656	631	4,475	3,993	0	136	0	0	16
Missouri	91,183	31,941	57,052	19,563	6,010	12,342	702	0	219	2,831
Montana ⁹	12,498	6,513	3,678	4,389	337	97	0	0	0	308
Nebraska ⁴	14,610	10,543	2,733	0	2,139	0	62	0	51	64
Nevada	18,480	4,858	7,073	7,584	617	4,298	0	0	0	787
New Hampshire ^{4, 5}	15,996	9,225	185	6,289	1,829	248	108	0	0	138
New Jersey ^{4, 5}	50,810	25,705	5,673	258	1,427	17,913	92	0	892	662
New Mexico ^{4, 5, 9, 12}	26,689	5,758	751	713	200	38	27	18,820	457	0
New York ⁴	326,469	121,432	53,651	105,101	75,003	54,490	2,208	0	6,530	19,109
North Carolina ^{5, 6}	107,526	24,148	58,349	26,025	33,132	0	0	0	579	53
North Dakota ^{4, 5}	8,046	5,265	833	115	388	2,287	0	0	93	4
Ohio	123,331	97,860	0	42,724	48,602	1,099	1,515	0	948	4

State	Total HCBS ¹	Section 1915(c) Waivers	Personal Care Services	Targeted Case Management	Home Health	Rehabilitation Services	Private Duty Nursing	HCBS– Other ²	PACE	Adult Day Care
Oklahoma	34,665	26,854	3,802	6,342	5,800	0	0	0	140	0
Oregon ⁵	52,199	48,030	4,564	620	346	2,267	427	0	1,198	0
Pennsylvania ^{4, 9}	146,173	119,248	0	21,498	5,449	295	7	136	4,935	0
Rhode Island ^{4, 5, 13, 14}	15,579	3,673	473	5,475	1,959	3,928	0	9,373	247	2,679
South Carolina ^{4, 5}	40,318	28,745	2,191	16,167	4,222	3,549	321	0	501	4,688
South Dakota ⁴	6,359	5,416	498	0	393	393	60	0	0	0
Tennessee ¹⁰	36,411	8,206	0	0	11,264	0	0	16,604	337	0
Texas ^{4, 9}	205,284	123,119	11,885	62,658	26,319	8,278	13	0	1,158	2,364
Utah ⁴	9,843	7,332	454	5	1,403	1,405	32	0	0	37
Vermont ¹⁴	12,514	7,112	2,445	2,186	3,667	12	0	11,547	126	0
Virginia ^{4, 5}	48,770	44,489	66	1,537	2,031	1,270	234	0	1,309	13
Washington ⁴	74,032	52,557	22,602	1,405	1,423	999	116	0	583	569
West Virginia	29,650	11,990	6,418	608	2,994	10,062	695	0	0	0
Wisconsin ^{4, 5}	78,325	64,296	0	8,391	95	3,015	57	0	4,268	0
Wyoming	6,390	4,299	0	1,364	568	2,276	0	0	47	0
United States	3,715,923	1,773,412	953,550	781,010	535,218	178,122	177,799	98,147	82,105	57,694

Sources: MAX, Alpha-MAX, and state-reported managed LTSS data from Arizona, Kansas, Michigan, Minnesota, New Mexico, Pennsylvania, Tennessee, and Wisconsin. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans in other states.

¹ Total HCBS is the unduplicated total of beneficiaries who received one or more HCBS benefits.

² "HCBS – Other" refers to HCBS provided through a fee-for-service section 1115 demonstration or a managed care program (e.g., a section 1915(b) waiver).

³ Alabama data include more than 100,000 more private duty nursing beneficiaries than the national total for all other states. The reason for this data anomaly is not known.

⁴ The number of home health beneficiaries in an available benchmark differed from the number of beneficiaries in this analysis by more than 20 percent. See Table A-4 for the benchmark.

⁵ The number of personal care beneficiaries in an available benchmark differed from the number of beneficiaries in this analysis by more than 20 percent. See Table A-5 for the benchmark.

⁶ This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

⁷ Arizona provided managed LTSS data as of a particular date, September 30, 2013. As a result, data indicate no beneficiaries received both institutional services and HCBS. Data are lower than the number of people who received services over the full year.

⁸ This report uses 2010 MAX data for Colorado and Idaho because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2011 and 2012.

⁹ The number of section 1915(c) waiver beneficiaries in two available benchmarks differed from the number of beneficiaries in this analysis by more than 20 percent. See Table A-6 for the benchmarks.

¹⁰ Kansas, Minnesota, and Tennessee provided MLTSS data for multiple HCBS categories. States were asked for estimates by category of service, not for unduplicated totals. Individuals who received multiple types of service were counted twice in HCBS totals.

¹¹ MAX and Alpha-MAX do not include data for 2010 through 2013 for Kansas and Maine.

¹² New Mexico managed LTSS data are average monthly enrollees who received community benefits. The data are included in the "HCBS – other" column because they cannot be assigned to a particular category of service.

¹³ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

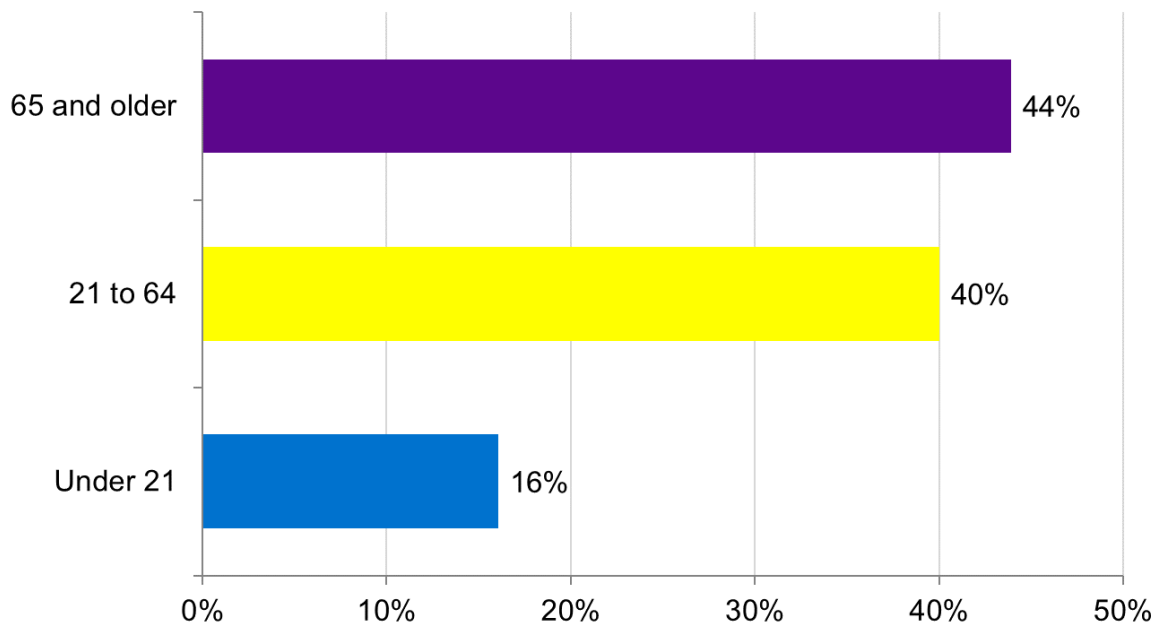
¹⁴ Rhode Island and Vermont provided services similar to section 1915(c) waivers in section 1115 demonstrations. These services were categorized as section 1915(c) waiver services in the Medicaid Statistical Information System (MSIS), the source data for MAX.

Beneficiary Data by Age Group

Figure 5 displays the distribution of LTSS beneficiaries by three age groups: people age 65 and older; adults age 21 through 64; and children and youth under age 21. Age group data are only reported for states with claims data in Alpha-MAX or MAX from 2011 through 2013. We did not obtain age group data for the first year of this report, 2010, and we did not ask states for managed care data by age group. As a result, this report does not include age group data for Colorado, Idaho, Kansas, and Maine. We used 2013 Alpha-MAX data for 42 states; 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina; and 2011 MAX data for Rhode Island.

The largest age group was older adults age 65 or older (44 percent). A majority of beneficiaries were under age 65, however. People age 21 through 64 were 40 percent of beneficiaries and children and youth under age 21 comprised 16 percent of beneficiaries.

Figure 5. Distribution of Medicaid LTSS Beneficiaries by Age Group, 2013

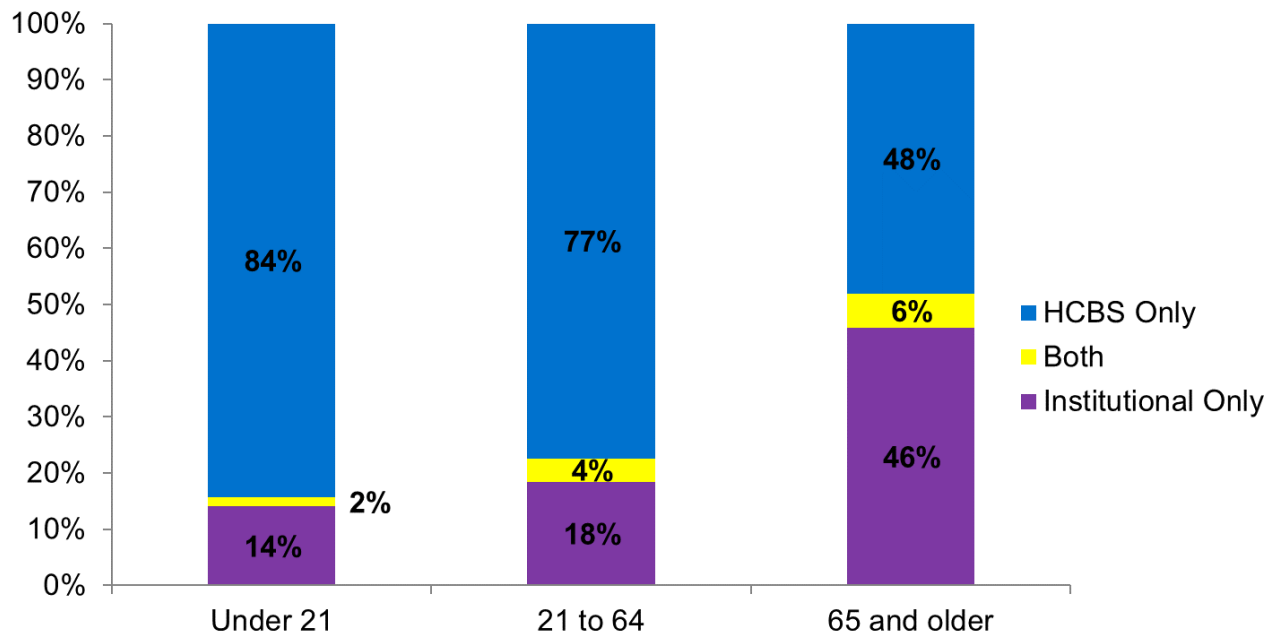


Sources: MAX and Alpha-MAX. Alpha-MAX data were used in 2013. MAX data for the most recent year available were used to identify fee-for-service LTSS and PACE participants where 2013 Alpha-MAX included fewer than four quarters of data. Colorado, Idaho, Kansas, and Maine were excluded because no data were available for 2011 through 2013.

Age was defined based on the beneficiary's age as of January 1 of the data year. Age data were not available for 390,810 beneficiaries, eight percent of 2013 LTSS beneficiaries, for three reasons: 1) age data were not collected from states that reported managed care beneficiaries; 2) age data were not collected for states for which 2011 through 2013 Alpha-MAX or MAX data were used; and 3) age data were not available for one percent of LTSS beneficiaries in Alpha-MAX or MAX.

For each age group, more people used HCBS than received institutional services. Older adults were more likely to have institutional supports. Only 54 percent of people age 65 or older received HCBS, when including people who received both institutional services and HCBS, compared to more than 80 percent of people in younger age groups.

Figure 6: Percentage of Medicaid LTSS Beneficiaries Who Received HCBS by Age Group, 2013



Sources: MAX and Alpha-MAX. Alpha-MAX data were used in 2013. MAX data for the most recent year available were used to identify fee-for-service LTSS and PACE participants where 2013 Alpha-MAX included fewer than four quarters of data. Colorado, Idaho, Kansas, and Maine were excluded because no data were available for 2011 through 2013.

Age was defined based on the beneficiary's age as of January 1 of the data year. Age data were not available for 390,810 beneficiaries, eight percent of 2013 LTSS beneficiaries, for three reasons: 1) age data were not collected from states that reported managed care beneficiaries; 2) age data were not collected for states for which 2011 through 2013 Alpha-MAX or MAX data were used; and 3) age data were not available for one percent of LTSS beneficiaries in Alpha-MAX or MAX.

A series of tables starting on the following page show state-level data by age group in order from younger to older groups.

Table 4 presents summary data for institutional services and HCBS for children and youth under age 21. More than 80 percent of beneficiaries received HCBS, including people who received both HCBS and institutional services in a year, in a majority of states with data (27 of 47; 57 percent). Data from eight states indicated fewer than half of beneficiaries received HCBS: New Mexico, Arkansas, Mississippi, Delaware, Oklahoma, the District of Columbia, Tennessee, and Arizona. Four of these states—New Mexico, Delaware, Tennessee, and Arizona—may appear on this list because managed care data are missing; MLTSS programs are not included in this table as explained in Appendix A.

Table 4: Children and Youth under Age 21 Who Received Any Type of Medicaid LTSS, 2013

State	Total Unduplicated	Total Institutional Only ¹	Percent Institutional Only	Total HCBS Only ²	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
Alabama ³	116,771	1,718	1.5	114,044	97.7	1,009	0.9
Alaska ⁴	2,821	1,119	39.7	1,643	58.2	59	2.1
Arizona	2,306	2,279	98.8	25	1.1	2	0.1
Arkansas	10,878	6,102	56.1	4,359	40.1	417	3.8
California	105,454	8,901	8.4	95,586	90.6	967	0.9
Connecticut	4,166	716	17.2	3,382	81.2	68	1.6
Delaware	374	250	66.8	119	31.8	5	1.3
Dist. of Columbia	2,776	2,348	84.6	329	11.9	99	3.6
Florida ⁴	18,339	327	1.8	17,933	97.8	79	0.4
Georgia	6,644	36	0.5	6,604	99.4	4	0.1
Hawaii	1,685	27	1.6	1,643	97.5	15	0.9
Illinois	39,133	6,085	15.5	32,346	82.7	702	1.8
Indiana	9,066	2,349	25.9	6,506	71.8	211	2.3
Iowa	15,455	295	1.9	15,049	97.4	111	0.7
Kentucky	10,348	2,328	22.5	7,851	75.9	169	1.6
Louisiana	13,557	5,217	38.5	8,179	60.3	161	1.2
Maryland	8,101	2,544	31.4	5,501	67.9	56	0.7
Massachusetts	11,149	2,377	21.3	8,371	75.1	401	3.6
Michigan	15,570	4,569	29.3	10,808	69.4	193	1.2
Minnesota ⁴	24,826	401	1.6	24,078	97.0	347	1.4
Mississippi	6,166	3,567	57.8	2,354	38.2	245	4.0
Missouri	6,525	134	2.1	6,362	97.5	29	0.4
Montana	2,806	402	14.3	2,283	81.4	121	4.3
Nebraska	1,987	282	14.2	1,696	85.4	9	0.5
Nevada	6,315	1,209	19.1	4,889	77.4	217	3.4
New Hampshire	2,758	272	9.9	2,421	87.8	65	2.4
New Jersey	19,973	1,445	7.2	17,986	90.1	542	2.7
New Mexico	3,638	1,955	53.7	1,674	46.0	9	0.2

State	Total Unduplicated	Total Institutional Only ¹	Percent Institutional Only	Total HCBS Only ²	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
New York	69,147	9,968	14.4	56,663	81.9	2,516	3.6
North Carolina ⁴	17,346	3,228	18.6	13,950	80.4	168	1.0
North Dakota	2,819	217	7.7	2,583	91.6	19	0.7
Oklahoma	17,351	2,233	12.9	14,840	85.5	278	1.6
Ohio	7,471	5,002	67.0	2,341	31.3	128	1.7
Oregon	5,499	1,194	21.7	4,097	74.5	208	3.8
Pennsylvania	47,143	7,525	16.0	39,169	83.1	449	1.0
Rhode Island ⁵	3,737	147	3.9	3,541	94.8	49	1.3
South Carolina	9,154	666	7.3	8,107	88.6	381	4.2
South Dakota	2,063	791	38.3	1,239	60.1	33	1.6
Tennessee	3,440	3,059	88.9	343	10.0	38	1.1
Texas	77,552	8,721	11.2	67,271	86.7	1,560	2.0
Utah	2,117	301	14.2	1,802	85.1	14	0.7
Vermont	3,644	2	0.1	3,636	99.8	6	0.2
Virginia	10,673	1,181	11.1	9,359	87.7	133	1.2
Washington	5,863	835	14.2	4,967	84.7	61	1.0
West Virginia	6,333	1,903	30.0	4,169	65.8	261	4.1
Wisconsin	8,133	1,684	20.7	6,312	77.6	137	1.7
Wyoming	1,465	299	20.4	1,135	77.5	31	2.1
Total ⁶	770,537	108,210	14.0	649,545	84.3	12,782	1.7

Sources: MAX and Alpha-MAX. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

¹ Institutional services include nursing facilities, intermediate care facilities for individuals with intellectual disabilities, inpatient psychiatric facilities for individuals under age 21, and IMD hospital services for people age 65 and older.

² HCBS include section 1915(c) waivers, personal care services, targeted case management, home health, rehabilitation services, private duty nursing, PACE, adult day care, and HCBS provided through a fee-for-service section 1115 demonstration or a managed care program (e.g., a section 1115 demonstration or a section 1915(b) waiver).

³ Alabama data include more than 30,000 more private duty nursing beneficiaries than the national total for all other states. The reason for this data anomaly is not known.

⁴ This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

⁵ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

⁶ Data are not included for Colorado, Idaho, Kansas and Maine because Alpha-MAX and MAX did not include 2011 through 2013 data for these states.

As shown in Table 5, the most common institutional service for children and youth was inpatient psychiatric facilities for people under age 21 (about 105,000 beneficiaries). These facilities were the most common type of institutional service in 40 of the 47 states with data (85 percent). Four states reported nursing facility services were the most common type of institutional LTSS for children and youth (Florida, Hawaii, Massachusetts, and Vermont) and two states reported ICF/IID were the most common type (Georgia and Iowa). The remaining state, Delaware, reported a greater number of children and youth received IMD hospital services for people age 65 and older, a benefit unavailable to this age group. Delaware was one of nine states where data indicated children and youth under age 21 received a benefit for people age 65 or older; the reason for this error is not known.

Table 5: Children and Youth under Age 21 Who Received Medicaid Institutional LTSS, 2013

State	Total Institutional Only ¹	Nursing Facilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Institutions for Mental Disease for Persons Age 65 and Older
Alabama	2,727	116	2,611	0	0
Alaska ²	1,178	1	1,168	12	0
Arizona	2,281	83	2,199	0	0
Arkansas	6,519	9	6,238	307	0
California	9,868	2,827	5,682	1,415	3
Connecticut	784	96	685	3	0
Delaware	255	42	36	1	178
Dist. of Columbia	2,447	9	2,439	0	0
Florida ²	406	286	0	127	0
Georgia	40	13	0	27	0
Hawaii	42	39	0	4	0
Illinois	6,787	40	6,403	347	24
Indiana	2,560	185	2,139	248	0
Iowa	406	91	15	305	0
Kentucky	2,497	160	2,321	17	0
Louisiana	5,378	22	4,924	462	0
Maryland	2,600	13	2,587	0	0
Massachusetts	2,778	2,492	289	0	0
Michigan	4,762	332	4,430	1	9
Minnesota ²	748	19	597	133	0
Mississippi	3,812	11	3,512	304	0
Missouri	163	30	132	1	0
Montana	523	4	511	8	0
Nebraska	291	42	219	31	0
Nevada	1,426	40	1,370	17	0
New Hampshire	337	43	291	31	0

State	Total Institutional Only ¹	Nursing Facilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Institutions for Mental Disease for Persons Age 65 and Older
New Jersey	1,987	239	1,745	3	0
New Mexico	1,964	2	1,962	8	0
New York	12,484	1,239	10,506	791	0
North Carolina ²	3,396	18	2,992	394	0
North Dakota	236	3	129	106	0
Oklahoma	2,511	130	1,926	472	0
Ohio	5,130	89	5,028	90	0
Oregon	1,402	81	1,321	0	0
Pennsylvania	7,974	56	7,783	135	0
Rhode Island ³	196	3	151	16	42
South Carolina	1,047	1	1,015	34	0
South Dakota	824	5	721	99	0
Tennessee	3,097	7	3,053	39	0
Texas	10,281	123	9,607	594	0
Utah	315	126	128	71	0
Vermont	8	7	0	0	1
Virginia	1,314	238	960	133	1
Washington	896	30	864	2	0
Wisconsin	2,164	7	2,037	93	47
West Virginia	1,821	14	1,724	88	1
Wyoming	330	0	330	0	0
Total ⁴	120,992	9,463	104,780	6,969	306

Sources: MAX and Alpha-MAX. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

¹ Total Institutional is the unduplicated total of beneficiaries who received one or more institutional services.

² This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

³ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

⁴ Data are not included for Colorado, Idaho, Kansas and Maine because Alpha-MAX and MAX did not include 2011 through 2013 data for these states.

The most common type of HCBS for children and youth under age 21 was section 1915(c) waiver services (244,000 individuals), followed by targeted case management (227,000 individuals; see Table 6). For 19 of the 47 states with data (40 percent), section 1915(c) waiver services were the most common type of HCBS. Targeted case management was the most common type of HCBS for 16 states (34 percent).

Table 6: Children and Youth under age 21 Who Received Medicaid HCBS, 2013

State	Total HCBS Only ¹	Section 1915(c) Waivers	Personal Care	Targeted Case Management	Home Health	Rehabilitation Services	Private Duty Nursing	HCBS-Other ²	PACE	Adult Day Care
Alabama ³	115,053	777	0	3,094	4,700	3,245	108,186	0	0	0
Alaska ⁴	1,702	1,564	136	122	12	19	20	0	0	0
Arizona	27	0	0	0	27	0	0	27	0	0
Arkansas	4,776	971	636	2,749	626	257	76	0	0	0
California	96,553	48,665	34,529	74,250	6,041	15,319	136	0	0	497
Connecticut	3,450	977	0	790	2,215	0	0	0	0	0
Delaware	124	35	0	0	33	35	16	0	0	16
Dist. of Columbia	428	24	17	0	24	387	0	0	0	0
Florida ⁴	18,012	7,326	0	8,570	3,766	0	1,322	0	0	0
Georgia	6,608	2,756	0	4,105	151	0	597	0	0	0
Hawaii	1,658	1,549	0	449	133	1	0	0	0	0
Illinois	33,048	20,590	2,563	9,062	2,474	1,355	485	0	0	0
Indiana	6,717	5,692	0	714	1,620	163	0	0	0	0
Iowa	15,160	7,247	0	4,138	8,504	38	0	0	0	130
Kentucky	8,020	7,915	0	864	96	0	0	0	0	0
Louisiana	8,340	4,097	2,195	3,622	1,315	0	0	0	0	0
Maryland	5,557	1,993	230	141	3,523	16	653	0	0	1,026
Massachusetts	8,772	221	3,404	4,684	2,447	0	0	0	0	8
Michigan	11,001	638	9,128	1,534	377	332	1,453	0	0	0
Minnesota ⁴	24,425	5,846	10,165	5,529	10,280	453	127	0	0	0
Mississippi	2,599	377	134	1,950	263	0	109	0	0	0
Missouri	6,391	2,543	920	3,652	763	467	679	0	4	120
Montana	2,404	1,506	249	852	13	6	0	0	0	21
Nebraska	1,705	1,190	412	0	215	0	6	0	0	0
Nevada	5,106	195	151	3,007	246	2,842	0	0	0	14
New Hampshire	2,486	1,685	6	403	700	96	84	0	0	1
New Jersey	18,528	734	472	4	91	17,774	72	0	0	2
New Mexico	1,683	966	24	673	49	0	27	0	0	0
New York	59,179	31,469	2,791	6,889	7,311	35,535	1,467	0	0	261
North Carolina ⁴	14,118	5,386	1,338	9,574	3,448	0	0	0	0	0
North Dakota	2,602	2,413	11	11	46	213	0	0	0	0

State	Total HCBS Only ¹	Section 1915(c) Waivers	Personal Care	Targeted Case Management	Home Health	Rehabilitation Services	Private Duty Nursing	HCBS-Other ²	PACE	Adult Day Care
Oklahoma	15,118	7,626	0	10,686	6,319	1	912	0	0	0
Ohio	2,469	810	123	1,504	977	0	0	0	0	0
Oregon	4,305	3,081	1,023	533	11	270	197	0	0	0
Pennsylvania	39,618	29,932	0	9,899	1,267	274	5	0	0	0
Rhode Island ⁵	3,590	10	3	3,108	191	0	1,855	432	0	3
South Carolina	8,488	3,033	1,163	5,690	356	3,136	278	0	0	115
South Dakota	1,272	1,047	1	0	121	242	58	0	0	0
Tennessee	381	381	0	0	0	0	0	0	0	0
Texas	68,831	13,398	11,329	38,086	23,264	8,089	13	0	0	67
Utah	1,816	1,589	42	4	325	4	26	0	0	0
Vermont	3,642	544	2,201	1,020	829	0	0	3,139	0	0
Virginia	9,492	8,375	42	236	145	1,008	214	0	0	1
Washington	5,028	1,632	3,129	52	52	433	22	0	0	35
Wisconsin	4,430	2,163	155	473	121	1,317	692	0	0	0
West Virginia	6,449	2,328	0	3,564	2	1,494	52	0	46	0
Wyoming	1,166	816	0	241	102	408	0	0	0	0
Total⁶	662,327	244,112	88,722	226,528	95,591	95,229	119,839	3,598	50	2,317

Sources: MAX and Alpha-MAX. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

¹ Total HCBS is the unduplicated total of beneficiaries who received one or more HCBS benefits.

² "HCBS – Other" refers to HCBS provided through a fee-for-service section 1115 demonstration or a managed care program (e.g., a section 1915(b) waiver).

³ Alabama data include more than 90,000 more private duty nursing beneficiaries than the national total for all other states. The reason for this data anomaly is not known.

⁴ This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

⁵ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

⁶ Data are not included for Colorado, Idaho, Kansas and Maine because Alpha-MAX and MAX did not include 2011 through 2013 data for these states.

Table 7 presents summary institutional and HCBS data for adults age 21 through 64. In most states, between 70 and 90 percent of beneficiaries received HCBS (32 of 47; 68 percent). Eight states provided HCBS to at least 90 percent of LTSS beneficiaries in this age group: Minnesota, Alabama, Alaska, New Hampshire, Oregon, Wyoming, Montana, and Vermont.

Seven states provided HCBS to less than 70 percent of beneficiaries in this age group: Pennsylvania, Indiana, New Jersey, Louisiana, Tennessee, Delaware, and Arizona. Five of these states may serve a higher percentage of beneficiaries using HCBS than the data indicate. Arizona, Delaware, and Tennessee may appear on this list because managed LTSS data are missing; they provide services through managed care programs that are not included in age group data as explained in Appendix A. Also, data in Delaware, Louisiana, and Pennsylvania may reflect an error in categorizing services. As described further in the text introducing Table 8, the data for these states indicate at least 44 percent of institutional beneficiaries age 21 through 64 received IMD hospital services for people age 65 and older.

Table 7: Adults Age 21 through 64 Who Received Any Type of Medicaid LTSS, 2013

State	Total Unduplicated	Total Institutional Only ¹	Percent Institutional Only	Total HCBS Only ²	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
Alabama ³	63,008	2,890	4.6	58,068	92.2	2,050	3.3
Alaska ⁴	4,014	186	4.6	3,742	93.2	86	2.1
Arizona	6,026	5,854	97.1	131	2.2	41	0.7
Arkansas	18,098	4,690	25.9	12,807	70.8	601	3.3
California	299,205	37,420	12.5	249,908	83.5	11,877	4.0
Connecticut	33,107	5,317	16.1	25,291	76.4	2,499	7.5
Delaware	5,066	3,481	68.7	1,562	30.8	23	0.5
Dist. of Columbia	13,616	1,488	10.9	11,764	86.4	364	2.7
Florida ⁴	62,135	14,258	22.9	46,899	75.5	978	1.6
Georgia	36,900	6,641	18.0	29,181	79.1	1,078	2.9
Hawaii	2,565	512	20.0	1,971	76.8	82	3.2
Illinois	97,420	23,266	23.9	70,373	72.2	3,781	3.9
Indiana	31,606	9,585	30.3	20,276	64.2	1,745	5.5
Iowa	21,533	3,806	17.7	17,023	79.1	704	3.3
Kentucky	19,828	5,775	29.1	13,269	66.9	784	4.0
Louisiana	40,756	16,432	40.3	22,970	56.4	1,354	3.3
Maryland	23,632	4,719	20.0	18,159	76.8	754	3.2
Massachusetts	58,891	12,099	20.5	42,534	72.2	4,258	7.2
Michigan	64,745	8,184	12.6	53,732	83.0	2,829	4.4
Minnesota ⁴	73,400	1,942	2.6	66,136	90.1	5,322	7.3
Mississippi	19,431	5,498	28.3	13,274	68.3	659	3.4

State	Total Unduplicated	Total Institutional Only ¹	Percent Institutional Only	Total HCBS Only ²	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
Missouri	67,430	8,065	12.0	57,730	85.6	1,635	2.4
Montana	8,371	619	7.4	7,426	88.7	326	3.9
Nebraska	9,079	1,895	20.9	6,875	75.7	309	3.4
Nevada	9,255	1,107	12.0	7,811	84.4	337	3.6
New Hampshire	10,942	512	4.7	10,187	93.1	243	2.2
New Jersey	25,373	8,526	33.6	16,095	63.4	752	3.0
New Mexico	6,508	1,436	22.1	4,979	76.5	93	1.4
New York	201,722	28,162	14.0	164,981	81.8	8,579	4.3
North Carolina ⁴	65,356	8,759	13.4	54,724	83.7	1,873	2.9
North Dakota	4,829	835	17.3	3,809	78.9	185	3.8
Oklahoma	83,629	23,541	28.1	54,600	65.3	5,488	6.6
Ohio	22,547	5,202	23.1	16,451	73.0	894	4.0
Oregon	27,826	1,641	5.9	25,004	89.9	1,181	4.2
Pennsylvania	92,797	28,066	30.2	60,007	64.7	4,724	5.1
Rhode Island ⁵	7,926	1,009	12.7	6,422	81.0	495	6.2
South Carolina	23,284	2,898	12.4	19,779	84.9	607	2.6
South Dakota	4,201	781	18.6	3,241	77.1	179	4.3
Tennessee	12,938	5,784	44.7	7,080	54.7	74	0.6
Texas	110,358	30,640	27.8	76,035	68.9	3,683	3.3
Utah	8,013	2,201	27.5	5,227	65.2	585	7.3
Vermont	5,743	505	8.8	4,975	86.6	263	4.6
Virginia	27,070	6,178	22.8	19,560	72.3	1,332	4.9
Washington	41,188	5,636	13.7	34,130	82.9	1,422	3.5
West Virginia	22,273	2,910	13.1	18,252	81.9	1,111	5.0
Wisconsin	21,538	3,552	16.5	17,217	79.9	769	3.6
Wyoming	4,163	267	6.4	3,771	90.6	125	3.0
Total ⁶	1,919,341	354,770	18.5	1,485,438	77.4	79,133	4.1

Sources: MAX and Alpha-MAX. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

¹ Institutional services include nursing facilities, intermediate care facilities for individuals with intellectual disabilities, inpatient psychiatric facilities for individuals under age 21, and IMD hospital services for people age 65 and older.

² HCBS include section 1915(c) waivers, personal care services, targeted case management, home health, rehabilitation services, private duty nursing, PACE, adult day care, and HCBS provided through a fee-for-service section 1115 demonstration or a managed care program (e.g., a section 1115 demonstration or a section 1915(b) waiver).

³ Alabama data include more than 30,000 more private duty nursing beneficiaries than the national total for all other states. The reason for this data anomaly is not known.

⁴ This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

⁵ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

⁶ Data are not included for Colorado, Idaho, Kansas and Maine because Alpha-MAX and MAX did not include 2011 through 2013 data for these states.

Nursing facility services were the most common institutional service for people age 21 through 64 (325,000 people; see Table 8). This type of service was the most common institutional service in 45 of the 47 states with data (96 percent). Two states, Delaware and Louisiana, reported more individuals received IMD hospital services for people age 65 and older, a benefit unavailable for this age group. These states were among 39 states where data indicated individuals under age 65 received a benefit for people age 65 or older. Age is counted as of the first day of the calendar year, so Table 8 includes people who turned 65 during 2013. However, the number of IMD hospital beneficiaries who turned 65 in 2013 is likely to be smaller than the thousands of individuals indicated in data from Delaware, Louisiana, Pennsylvania, Illinois, and Washington. The reason for the data error is not known.

Table 8: Adults Age 21 through 64 Who Received Medicaid Institutional LTSS, 2013

State	Total Institutional Only ¹	Nursing Facilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Institutions for Mental Disease for Persons Age 65 and Older
Alabama	4,940	4,912	0	28	2
Alaska ²	272	263	1	8	0
Arizona	5,895	5,827	55	0	15
Arkansas	5,291	3,414	712	1,223	0
California	49,297	41,873	121	7,830	32
Connecticut	7,816	6,981	7	774	70
Delaware	3,504	942	0	102	2,476
Dist. of Columbia	1,852	1,234	2	615	17
Florida ²	15,236	12,766	0	2,478	12
Georgia	7,719	7,414	0	312	0
Hawaii	594	459	0	335	0
Illinois	27,047	18,799	15	7,022	3,385
Indiana	11,330	8,017	0	3,357	13
Iowa	4,510	2,859	21	1,657	5
Kentucky	6,559	6,112	18	431	10
Louisiana	17,786	6,929	97	4,017	7,533
Maryland	5,473	5,344	21	107	1
Massachusetts	16,357	14,716	11	382	1,353
Michigan	11,013	10,710	260	0	48
Minnesota ²	7,264	4,765	17	2,517	4
Mississippi	6,157	4,003	1	2,166	1
Missouri	9,700	9,226	4	471	0
Montana	945	893	0	50	3
Nebraska	2,204	1,649	238	320	0
Nevada	1,444	1,354	1	92	1
New Hampshire	755	735	20	0	0

State	Total Institutional Only ¹	Nursing Facilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Institutions for Mental Disease for Persons Age 65 and Older
New Jersey	9,278	7,307	7	1,966	5
New Mexico	1,529	1,283	28	226	1
New York	36,741	29,951	382	6,179	493
North Carolina ²	10,632	7,387	0	3,297	2
North Dakota	1,020	618	0	403	0
Oklahoma	29,029	22,804	6	5,798	660
Ohio	6,096	4,683	1	1,443	5
Oregon	2,822	2,788	29	0	8
Pennsylvania	32,790	15,922	214	2,770	14,364
Rhode Island ³	1,504	1,433	1	23	48
South Carolina	3,505	2,396	1	1,120	4
South Dakota	960	795	0	115	60
Tennessee	5,858	4,981	1	874	5
Texas	34,323	20,946	5,252	8,397	6
Utah	2,786	2,069	2	707	32
Vermont	768	528	0	5	238
Virginia	7,510	5,848	0	1,031	666
Washington	7,058	4,268	44	41	2,758
Wisconsin	4,021	2,451	586	421	640
West Virginia	4,321	3,728	14	574	7
Wyoming	392	329	0	60	3
Total ⁴	433,903	324,711	8,190	71,744	34,986

Sources: MAX and Alpha-MAX. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

¹ Total Institutional is the unduplicated total of beneficiaries who received one or more institutional services.

² This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

³ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

⁴ Data are not included for Colorado, Idaho, Kansas and Maine because Alpha-MAX and MAX did not include 2011 through 2013 data for these states.

Section 1915(c) waiver services were the most common type of HCBS among people age 21 through 64 (736,000), followed by targeted case management (469,000) and personal care (399,000), as shown on Table 9. These waivers were the most common type of HCBS for 28 of the 47 states with data (60 percent). Personal care was the most common type of HCBS for this age group in seven states (15 percent) while targeted case management was the most common type of HCBS in five states (11 percent).

Table 9: Adults Age 21 through 64 Who Received Medicaid HCBS, 2013

State	Total HCBS Only ¹	Section 1915(c) Waivers	Personal Care	Targeted Case Management	Home Health	Rehabilitation Services	Private Duty Nursing	HCBS-Other ²	PACE	Adult Day Care
Alabama ³	60,118	8,302	0	18,863	7,610	0	39,904	0	45	0
Alaska ⁴	3,828	2,549	2,202	39	252	0	0	0	0	0
Arizona	172	0	0	0	168	0	0	172	0	4
Arkansas	13,408	6,020	6,463	363	3,323	1	26	0	15	0
California	261,785	65,013	184,083	97,302	8,069	2,389	0	0	781	697
Connecticut	27,790	10,399	36	13,642	16,797	0	0	0	0	1
Delaware	1,585	820	0	0	77	729	3	0	12	246
Dist. of Columbia	12,128	3,033	6,757	0	6,423	5,383	0	0	0	26
Florida ⁴	47,877	33,288	0	7,389	10,216	0	0	0	151	0
Georgia	30,259	24,991	0	757	6,394	0	1	0	0	0
Hawaii	2,053	2,040	0	1,596	0	1	0	0	0	0
Illinois	74,154	50,671	0	19,871	5,357	9,065	0	0	0	0
Indiana	22,021	17,207	0	120	8,816	141	0	0	0	0
Iowa	17,727	11,845	0	8,496	6,802	610	0	0	99	1,560
Kentucky	14,053	13,336	0	645	1,388	2	0	0	0	0
Louisiana	24,324	11,110	12,415	6,608	2,092	0	0	0	58	4
Maryland	18,913	15,985	2,577	1,478	1,542	110	220	0	25	2,388
Massachusetts	46,792	12,593	9,015	21,117	17,678	0	0	0	1,390	3,372
Michigan	56,561	4,382	48,763	43,418	2,819	813	46	0	135	6
Minnesota ⁴	71,458	29,246	15,228	14,952	45,171	338	130	0	0	0
Mississippi	13,933	11,539	478	2,018	2,134	0	6	0	0	8
Missouri	59,365	11,867	34,803	15,085	4,485	11,280	1	0	53	2,121
Montana	7,752	3,301	2,357	3,369	305	89	0	0	0	272
Nebraska	7,184	5,396	1,558	0	675	0	16	0	5	48
Nevada	8,148	2,186	3,104	4,383	336	1,337	0	0	0	245
New Hampshire	10,430	4,907	158	5,504	842	143	23	0	0	61
New Jersey	16,847	13,168	2,773	249	1,043	1	0	0	210	166
New Mexico	5,072	4,210	703	1	102	25	0	0	46	0
New York	173,560	64,496	13,453	79,459	24,671	14,163	605	0	687	10,975
North Carolina ⁴	56,597	10,956	30,875	15,346	18,762	0	0	0	49	11

State	Total HCBS Only ¹	Section 1915(c) Waivers	Personal Care	Targeted Case Management	Home Health	Rehabilitation Services	Private Duty Nursing	HCBS-Other ²	PACE	Adult Day Care
North Dakota	3,994	2,035	466	95	236	1,752	0	0	12	4
Oklahoma	60,088	46,418	0	30,135	23,220	994	546	0	268	4
Ohio	17,345	13,443	2,049	4,592	3,699	0	0	0	38	0
Oregon	26,185	24,370	2,667	67	309	1,860	136	0	163	0
Pennsylvania	64,731	52,677	0	10,687	3,570	15	1	0	727	0
Rhode Island ⁵	6,917	1,444	178	523	588	0	1,804	4,958	44	2,049
South Carolina	20,386	15,770	429	9,708	3,098	307	2	0	74	4,111
South Dakota	3,420	3,077	234	0	139	132	0	0	0	0
Tennessee	7,154	7,119	0	0	0	0	0	0	35	0
Texas	79,718	55,738	399	22,972	1,903	152	0	0	112	1,783
Utah	5,812	3,924	285	1	823	1,146	5	0	0	36
Vermont	5,238	3,428	148	967	1,843	9	0	4,837	16	0
Virginia	20,892	19,042	3	560	1,687	195	1	0	206	1
Washington	35,552	25,563	9,812	1,322	1,253	480	89	0	73	471
Wisconsin	19,363	6,040	4,152	100	2,837	8,370	0	0	0	0
West Virginia	17,986	11,164	0	4,244	82	960	2	0	2,086	0
Wyoming	3,896	2,456	0	953	329	1,584	0	0	11	0
Total⁶	1,564,571	748,564	398,623	468,996	249,965	64,576	43,567	9,967	7,626	30,670

Sources: MAX and Alpha-MAX. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

¹ Total HCBS is the unduplicated total of beneficiaries who received one or more HCBS benefits.

² "HCBS – Other" refers to HCBS provided through a fee-for-service section 1115 demonstration or a managed care program (e.g., a section 1915(b) waiver).

³ Alabama data include more than 30,000 more private duty nursing beneficiaries than the national total for all other states. The reason for this data anomaly is not known.

⁴ This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

⁵ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

⁶ Data are not included for Colorado, Idaho, Kansas and Maine because Alpha-MAX and MAX did not include 2011 through 2013 data for these states.

Table 10 presents summary institutional and HCBS data for adults age 65 or older. Although a majority of older adults nationwide received HCBS, the same was true in only 14 of 47 states (30 percent). Five states—Alaska, Oregon, California, Washington and Illinois—served more than 70 percent of older LTSS beneficiaries in the community. About half the states with data (23 of 47; 49 percent) provided HCBS to between 30 and 50 percent of LTSS beneficiaries in this age group. In ten states, less than 30 percent of beneficiaries received HCBS: Wisconsin, South Dakota, North Dakota, Indiana, Kentucky, New Mexico, Hawaii, Delaware, Tennessee, and Arizona. Five of these states—Delaware, Hawaii, New Mexico, Tennessee, and Wisconsin—likely appear on this list because they have managed LTSS programs and this report does not include managed care data by age group, as described in Appendix A.

Table 10: Older Adults Who Received Any Type of Medicaid LTSS, 2013

State	Total Unduplicated	Total Institutional Only ¹	Percent Institutional Only	Total HCBS Only ²	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
Alabama	28,603	13,721	48.0	11,017	38.5	3,865	13.5
Alaska ⁴	3,940	473	12.0	3,335	84.6	132	3.4
Arizona	10,117	10,091	99.7	24	0.2	2	0.0
Arkansas	25,019	13,166	52.6	10,424	41.7	1,429	5.7
California	391,178	82,842	21.2	287,278	73.4	21,058	5.4
Connecticut	38,003	20,932	55.1	13,037	34.3	4,034	10.6
Delaware	3,312	3,153	95.2	149	4.5	10	0.3
Dist. of Columbia	6,173	2,126	34.4	3,860	62.5	187	3.0
Florida ⁴	97,536	52,325	53.6	42,240	43.3	2,971	3.0
Georgia	43,883	25,874	59.0	16,576	37.8	1,433	3.3
Hawaii	3,044	2,883	94.7	153	5.0	8	0.3
Illinois	111,951	29,944	26.7	71,939	64.3	10,068	9.0
Indiana	37,966	28,908	76.1	7,601	20.0	1,457	3.8
Iowa	25,396	13,099	51.6	10,743	42.3	1,554	6.1
Kentucky	23,593	17,998	76.3	4,811	20.4	784	3.3
Louisiana	31,164	19,613	62.9	10,768	34.6	783	2.5
Maryland	24,643	14,702	59.7	9,039	36.7	902	3.7
Massachusetts	87,490	30,312	34.6	47,022	53.7	10,156	11.6
Michigan	60,618	30,500	50.3	26,812	44.2	3,306	5.5
Minnesota ⁴	46,799	17,342	37.1	23,184	49.5	6,273	13.4
Mississippi	27,019	13,987	51.8	12,032	44.5	1,000	3.7
Missouri	47,663	22,709	47.6	22,369	46.9	2,585	5.4
Montana	5,303	3,227	60.9	1,763	33.2	313	5.9
Nebraska	11,181	6,299	56.3	3,985	35.6	897	8.0
Nevada	7,654	2,474	32.3	4,939	64.5	241	3.1
New Hampshire	8,003	5,059	63.2	2,488	31.1	456	5.7

State	Total Unduplicated	Total Institutional Only ¹	Percent Institutional Only	Total HCBS Only ²	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
New Jersey	45,470	30,431	66.9	13,761	30.3	1,278	2.8
New Mexico	5,467	4,428	81.0	964	17.6	75	1.4
New York	198,935	107,281	53.9	75,285	37.8	16,369	8.2
North Carolina ⁴	69,499	29,114	41.9	36,688	52.8	3,697	5.3
North Dakota	4,765	3,537	74.2	1,009	21.2	219	4.6
Oklahoma	97,485	50,139	51.4	40,134	41.2	7,212	7.4
Ohio	27,750	13,613	49.1	12,218	44.0	1,919	6.9
Oregon	26,419	4,729	17.9	19,336	73.2	2,354	8.9
Pennsylvania	99,697	61,903	62.1	33,298	33.4	4,496	4.5
Rhode Island ⁵	10,519	5,935	56.4	3,743	35.6	841	8.0
South Carolina	22,827	11,705	51.3	9,968	43.7	1,154	5.1
South Dakota	5,654	4,120	72.9	1,251	22.1	283	5.0
Tennessee	23,460	22,452	95.7	988	4.2	20	0.1
Texas	123,143	67,498	54.8	51,175	41.6	4,470	3.6
Utah	5,035	2,868	57.0	1,663	33.0	504	10.0
Vermont	5,577	2,251	40.4	2,677	48.0	649	11.6
Virginia	37,151	18,966	51.1	16,640	44.8	1,545	4.2
Washington	44,705	11,321	25.3	30,916	69.2	2,468	5.5
West Virginia	14,109	8,299	58.8	5,214	37.0	596	4.2
Wisconsin	27,474	19,524	71.1	6,951	25.3	999	3.6
Wyoming	2,987	1,723	57.7	1,038	34.8	226	7.6
Total⁶	2,105,379	965,596	45.9	1,012,505	48.1	127,278	6.0

Sources: MAX and Alpha-MAX. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

¹ Institutional services include nursing facilities, intermediate care facilities for individuals with intellectual disabilities, inpatient psychiatric facilities for individuals under age 21, and IMD hospital services for people age 65 and older.

² HCBS include section 1915(c) waivers, personal care services, targeted case management, home health, rehabilitation services, private duty nursing, PACE, adult day care, and HCBS provided through a fee-for-service section 1115 demonstration or a managed care program (e.g., a section 1115 demonstration or a section 1915(b) waiver).

³ Alabama data include almost 7,000 more private duty nursing beneficiaries than the national total for all other states. The reason for this data anomaly is not known.

⁴ This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

⁵ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

⁶ Data are not included for Colorado, Idaho, Kansas and Maine because Alpha-MAX and MAX did not include 2011 through 2013 data for these states.

As was true for adults age 21 through 64, nursing facility services were the most common institutional service for older adults (1,074,000 people; see Table 11). This type of service was the most common institutional service for this age group in all states.

Table 11: Older Adults Who Received Medicaid Institutional LTSS, 2013

State	Total Institutional Only ¹	Nursing Facilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Institutions for Mental Disease for Persons Age 65 and Older
Alabama	17,586	17,512	0	4	146
Alaska ²	605	594	0	0	12
Arizona	10,093	9,992	0	0	127
Arkansas	14,595	14,510	157	56	0
California	103,900	102,870	10	1,111	220
Connecticut	24,966	24,711	0	212	61
Delaware	3,163	3,125	0	23	17
Dist. of Columbia	2,313	2,248	0	1	65
Florida ²	55,296	55,017	0	208	88
Georgia	27,307	27,257	0	51	0
Hawaii	2,891	2,470	0	2,090	0
Illinois	40,012	38,986	0	948	443
Indiana	30,365	29,795	0	449	314
Iowa	14,653	14,426	0	145	117
Kentucky	18,782	18,627	0	34	317
Louisiana	20,396	19,649	0	420	968
Maryland	15,604	15,575	0	14	18
Massachusetts	40,468	40,275	0	173	29
Michigan	33,806	33,655	3	0	186
Minnesota ²	23,615	23,320	0	277	41
Mississippi	14,987	14,664	0	293	83
Missouri	25,294	25,226	0	65	5
Montana	3,540	3,501	0	0	46
Nebraska	7,196	7,136	0	61	0
Nevada	2,715	2,706	0	1	8
New Hampshire	5,515	5,509	7	0	0
New Jersey	31,709	31,227	0	363	188
New Mexico	4,503	4,438	1	29	51
New York	123,650	120,602	0	1,499	2,857
North Carolina ²	32,811	32,462	0	315	68
North Dakota	3,756	3,684	0	74	4
Oklahoma	57,351	56,437	0	924	71
Ohio	15,532	15,331	0	185	137

State	Total Institutional Only ¹	Nursing Facilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Institutions for Mental Disease for Persons Age 65 and Older
Oregon	7,083	7,051	0	0	38
Pennsylvania	66,399	65,493	0	500	558
Rhode Island ³	6,776	6,739	0	1	65
South Carolina	12,859	12,497	45	184	159
South Dakota	4,403	4,375	0	5	41
Tennessee	22,472	22,214	0	146	171
Texas	71,968	71,082	0	867	64
Utah	3,372	3,297	0	72	9
Vermont	2,900	2,886	0	2	13
Virginia	20,511	20,173	0	217	223
Washington	13,789	13,699	0	14	115
Wisconsin	8,895	8,811	10	56	46
West Virginia	20,523	20,345	0	117	75
Wyoming	1,949	1,931	0	18	2
Total⁴	1,092,874	1,078,130	233	12,224	8,266

Sources: MAX and Alpha-MAX. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

¹ Total Institutional is the unduplicated total of beneficiaries who received one or more institutional services.

² This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

³ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

⁴ Data are not included for Colorado, Idaho, Kansas and Maine because Alpha-MAX and MAX did not include 2011 through 2013 data for these states.

Consistent with younger age groups, the most common type of HCBS for older adults was section 1915(c) waiver services (597,000 individuals; see Table 12). The second most common type of service was state plan personal care (457,000 individuals). For 32 of the 47 states with data (68 percent), section 1915(c) waiver services were the most common type of HCBS. Personal care beneficiaries were concentrated in a smaller number of states; personal care was the most common type of HCBS in only nine states. More than half of personal care beneficiaries (288,000 people) were in California. As described on page 16, many California personal care beneficiaries likely are receiving the Community First Choice benefit.

Table 12: Older Adults Who Received Medicaid HCBS, 2013

State	Total HCBS Only ¹	Section 1915(c) Waivers	Personal Care	Targeted Case Management	Home Health	Rehabilitation Services	Private Duty Nursing	HCBS-Other ²	PACE	Adult Day Care
Alabama ³	14,882	5,160	0	1,264	3,844	0	7,409	0	132	0
Alaska ⁴	3,467	1,951	2,506	18	23	0	0	0	0	0
Arizona	26	0	0	0	26	0	0	26	0	0
Arkansas	11,853	7,818	8,392	6,452	1,361	0	2	0	160	0
California	308,336	17,693	287,962	5,629	414	738	0	0	13,114	2,280
Connecticut	17,071	14,690	1,042	1,055	11,102	0	0	0	0	88
Delaware	159	97	0	0	3	15	0	0	48	4
Dist. of Columbia	4,047	2,435	3,477	0	2,952	382	0	0	0	5
Florida ⁴	45,211	40,778	0	2,524	3,337	0	0	0	588	0
Georgia	18,009	17,768	0	49	485	0	0	0	0	0
Hawaii	161	160	0	126	0	0	0	0	0	0
Illinois	82,007	80,988	0	1,474	355	579	0	0	0	0
Indiana	9,058	8,005	0	15	4,014	24	0	0	0	0
Iowa	12,297	11,815	0	519	5,694	21	0	0	147	56
Kentucky	5,595	5,528	0	95	567	0	0	0	0	0
Louisiana	11,551	4,034	7,743	296	88	0	0	0	309	0
Maryland	9,941	7,409	3,673	316	249	0	0	0	147	4,265
Massachusetts	57,178	12,888	6,361	2,159	3,456	0	0	0	36,842	5,281
Michigan	30,118	8,444	21,134	19,240	67	8	126	0	881	36
Minnesota ⁴	29,457	26,074	957	650	5,507	49	1	0	0	0
Mississippi	13,032	12,740	19	369	1,570	0	18	0	0	8
Missouri	24,954	17,530	21,328	823	312	595	0	0	162	590
Montana	2,076	1,443	1,072	168	16	2	0	0	0	15
Nebraska	4,882	3,949	763	0	418	0	40	0	46	16
Nevada	5,180	2,477	3,818	166	12	119	0	0	0	528
New Hampshire	2,944	2,629	21	382	156	9	0	0	0	76
New Jersey	15,039	11,789	2,419	5	61	0	0	0	682	494
New Mexico	1,039	582	24	0	11	13	0	0	411	0

State	Total HCBS Only ¹	Section 1915(c) Waivers	Personal Care	Targeted Case Management	Home Health	Rehabilitation Services	Private Duty Nursing	HCBS-Other ²	PACE	Adult Day Care
New York	91,654	25,439	37,404	18,403	41,328	4,401	128	0	5,843	7,873
North Carolina ⁴	40,385	8,773	30,282	2,174	13,422	0	0	0	245	10
North Dakota	1,228	610	356	9	83	322	0	0	81	0
Oklahoma	47,346	43,774	0	1,903	18,310	104	47	0	680	0
Ohio	14,137	12,598	1,629	220	429	0	0	0	102	0
Oregon	21,690	20,573	874	6	25	137	91	0	1,035	0
Pennsylvania	37,794	33,010	0	905	252	5	1	0	4,208	0
Rhode Island ⁵	4,584	2,204	292	1,844	722	0	251	3,512	203	622
South Carolina	11,122	9,882	599	647	590	7	0	0	427	462
South Dakota	1,534	1,292	263	0	5	16	0	0	0	0
Tennessee	1,008	706	0	0	0	0	0	0	302	0
Texas	55,645	53,956	153	1,075	483	25	0	0	1,046	508
Utah	2,167	1,815	127	0	210	255	1	0	0	1
Vermont	3,326	3,136	20	199	711	3	0	3,263	110	0
Virginia	18,185	17,028	20	739	92	26	0	0	1,103	11
Washington	33,384	25,362	9,661	31	50	86	5	0	510	63
Wisconsin	5,810	3,785	2,111	0	24	375	0	0	0	0
West Virginia	7,950	4,994	0	474	11	495	0	0	2,136	0
Wyoming	1,264	1,027	0	170	73	284	0	0	36	0
Total⁶	1,139,783	596,838	456,502	72,593	122,920	9,095	8,120	6,801	71,736	23,292

Sources: MAX and Alpha-MAX. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

¹ Total HCBS is the unduplicated total of beneficiaries who received one or more HCBS benefits.

² "HCBS – Other" refers to HCBS provided through a fee-for-service section 1115 demonstration or a managed care program (e.g., a section 1915(b) waiver).

³ Alabama data include almost 7,000 more private duty nursing beneficiaries than the national total for all other states. The reason for this data anomaly is not known.

⁴ This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

⁵ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

⁶ Data are not included for Colorado, Idaho, Kansas and Maine because Alpha-MAX and MAX did not include 2011 through 2013 data for these states.

Conclusion

Almost 5.2 million individuals received Medicaid-funded LTSS during calendar year 2013. Data should be considered an underestimate; missing data includes fee-for-service data from Maine and managed LTSS data from 10 of the 18 states that provided LTSS through managed care during 2013. In addition, this estimate includes data from earlier years from seven states that did not have 2013 data in Alpha-MAX, the source used for most 2013 data in this report.

HCBS comprised two-thirds of all Medicaid LTSS beneficiaries and were a majority of LTSS beneficiaries in most states. The types of HCBS used varied among states. Section 1915(c) waivers were the most common type of HCBS in 68 percent of states with data (34) and accounted for 48 percent of all HCBS beneficiaries. In a smaller number of states, the most common type of HCBS was personal care, targeted case management, home health, or HCBS provided through a fee-for-service section 1115 demonstration or a managed care program such as a section 1915(b) waiver or a section 1115 demonstration. Nursing facility residents were 86 percent of all institutional beneficiaries and a majority of institutional beneficiaries in all states except Alaska.

For the 47 states with age group data, adults age 65 and older were the largest group of LTSS beneficiaries, comprising 44 percent of beneficiaries. A majority of people who received LTSS were under age 65, including adults age 21 through 64 (40 percent) and children and youth under age 21 (16 percent). Older adults were more likely to receive institutional services than younger LTSS beneficiaries. For each age group, a majority of beneficiaries received HCBS, including people who received both institutional services and HCBS.

As described in Appendix A, we compared this report's data to previously published data for particular types of LTSS. Beneficiary data were similar for a majority of states. However, we identified notable differences between this report and available benchmarks. We recommend additional research regarding LTSS beneficiaries and the type of supports they receive, including comparison to state sources, to identify the cause of discrepancies.

Appendix A: Data Sources, Methods, and Comparison Sources

Sources

For most states, Medicaid LTSS beneficiary data was obtained from the 2013 Alpha-MAX data set. Alpha-MAX is a data set designed to be available more quickly than the Medicaid Analytical eXtract (MAX) used in previous versions of this report. Alpha-MAX has the same layout and format as MAX, but does not apply all of the MAX business rules and minimum data requirements. For example, MAX includes seven quarters of claims that states submitted to the Medicaid Statistical Information System (MSIS) for each calendar year. Seven quarters are used to ensure data completeness because some claims are submitted or adjusted well after the end of the calendar year. Alpha-MAX is updated with each quarter's MSIS submission, so Alpha-MAX data can contain fewer than seven quarters of claims.

We used Alpha-MAX for 2013 data from 42 states that had at least four quarters of MSIS data. For states with fewer quarters of Alpha-MAX data, there was a noticeable decrease in beneficiaries that suggested incomplete data. We used the most recent year of available MAX data for seven states with fewer than four quarters of 2013 Alpha-MAX data: 2012 data for Alaska, Florida, Minnesota, and North Carolina; 2011 data for Rhode Island; and 2010 data for Colorado and Idaho. MAX did not have data for Kansas and Maine for any year from 2010 through 2013.

For each year and state, Alpha-MAX and MAX include a single eligibility data file and four files of claims and encounter data: one each for institutional LTSS, inpatient admissions, prescription drugs, and all other services including physician services and HCBS. The eligibility file for each state includes a single record for each person enrolled in Medicaid during the calendar year. Each record in the state eligibility files includes a small amount of demographic information, a series of monthly enrollment indicators, and summary expenditure information. The expenditure information includes total overall Medicaid expenditures for the calendar year and expenditures for specific categories of services, including institutional LTSS and HCBS types of service. Each category of HCBS expenditures was further delineated by whether the expenditures were for section 1915(c) waiver services or state plan services.

The approach to identifying LTSS beneficiaries in MAX relied heavily on expenditure information, as described under "Methods" on the following page. Managed care encounter data do not consistently identify expenditures, so this report uses Alpha-MAX and MAX only for beneficiaries who receive fee-for-service LTSS or PACE. To supplement these data, Truven Health collected managed LTSS beneficiary data from states with managed LTSS programs. This data collection occurred at the same time as Truven Health

collected managed care data for annual reports on LTSS expenditures¹² and focused on the same categories of service: nursing facilities, ICF/IID, personal care, home health, section 1915(c) waiver services, and HCBS similar to supports in section 1915(c) waiver services provided under managed care program authorities such as section 1115 demonstrations, section 1915(b) waivers, section 1915(a) contracts, and section 1932(a) state plan amendments. The latter category is called “HCBS - Other” in the data tables. Eight states provided data, which are included in the report.

Methods – Alpha-MAX and MAX

To identify people who received institutional LTSS in Alpha-MAX and MAX data, Mathematica Policy Research selected all Medicaid enrollees who had positive expenditures for the types of institutional services shown in Table 2 of the report. Mathematica first developed counts of users by type of institutional service and then the total overall count of unique institutional LTSS beneficiaries.

To identify HCBS users, Mathematica used monthly indicators of enrollment in section 1915(c) waivers and the HCBS expenditure information in the eligibility records. MAX and Alpha-MAX include three section 1915(c) waiver indicators for each month to capture enrollment in multiple section 1915(c) waivers during the year. Mathematica used all three monthly waiver indicators to identify everyone who was reported to be enrolled in at least one section 1915(c) waiver during the year. Some states underreport enrollment in section 1915(c) waivers. Therefore, Mathematica also identified everyone who had positive expenditures for all types of section 1915(c) waiver services, including personal care, home health, rehabilitative services, adult day care, private duty nursing, and targeted case management.

To identify enrollees who received other state plan HCBS, Mathematica identified all enrollees who had positive expenditures for any type of state plan HCBS. To prevent counting people who received post-acute home health services, Mathematica only included home health beneficiaries if they had positive expenditures for three or more consecutive months. Lastly, Mathematica used monthly indicators of enrollment in managed care plans to identify PACE enrollees. Similar to the approach for institutional LTSS, Mathematica first developed counts of users for each category of HCBS and then the total overall count of the unique number of HCBS users.

Mathematica considered all fee-for-service HCBS users in the three states with global section 1115 demonstrations as of 2010 (Arizona, Rhode Island, and Vermont) to have received HCBS through a section

¹² Eiken S, Sredl K, Burwell B, and Woodward R. *Medicaid Expenditures for Long-Term Services and Supports (LTSS) in FY 2015 CMS*, April 14, 2017. Available on-line at <https://www.medicaid.gov/medicaid/ltss/downloads/reports-and-evaluations/ltss expenditures fy2015 final.pdf>.

1115 waiver. These individuals are listed under “HCBS – Other” in the data tables, which includes fee-for-service HCBS within section 1115 demonstrations as well as managed LTSS data.

For all states with data from 2011 or later, Mathematica provided data by age group. A person’s age was identified as of January 1 of the data year based on the person’s date of birth in the MAX or Alpha-MAX eligibility file. Age data was not available for one percent of these beneficiaries. We did not obtain age data for MAX 2010, so age group data are not included for two states for which 2010 is the most recent year of MAX data (Colorado and Idaho).

Methods – State-Reported Managed LTSS

Truven Health requested 2013 LTSS beneficiary data at the same time it requested expenditures data for the 2015 LTSS expenditures report, which was written the same year. States were asked the number of beneficiaries who received nursing facility, ICF/IID, section 1915(c) waiver, personal care, home health, and services similar to section 1915(c) waivers provided in other program authorities such as a section 1915(b) waiver, a section 1915(a) program, or a section 1115 demonstration. Eight of the 18 states with managed LTSS programs other than PACE¹³ provided data: Arizona, Kansas, Michigan, Minnesota, New Mexico, Pennsylvania, Tennessee, and Wisconsin.

To reduce state burden, Truven Health did not request a breakdown of data by age group. We also did not request unduplicated participants for multiple categories of service. Data in the tables are the sum of state-reported managed care beneficiaries and the data from Alpha-MAX or MAX. Double-counting of participants is possible, either because a person received both fee-for-service and managed care LTSS during the year within a category of service or because a person received more than one type of managed LTSS.

State-reported MLTSS data for nursing facility beneficiaries in the four states that also had data from Alpha-MAX or MAX (Arizona, Minnesota, New Mexico, and Tennessee) were not included in this report because double-counting was likely. The sum of Alpha-MAX or MAX data and state-reported data was more than 2.5 times the number of Medicaid beneficiaries in a point-in-time estimate based on the Certification and Survey Provider Enhanced Reports (CASPER) system. Nationally, the full-year beneficiary estimate is between 1.5 and 2 times a point-in-time estimate. Even in states with managed care programs, nursing facility residents may receive services on a fee-for-service basis before a plan is selected, which appears to have been

¹³ Sixteen states provided LTSS through managed care programs other than PACE in 2012 according to Saucier P, Kasten J, Burwell B, Gold L. *The Growth of Managed Long-Term Services and Supports (MLTSS) Programs: A 2012 Update* CMS, July 2012. Available on-line at https://www.medicaid.gov/medicaid-chip-program-information/by-topics/delivery-systems/downloads/mltssp_white_paper_combined.pdf. Two additional states, Kansas and Rhode Island, started programs during 2013.

common in these states. A person may receive nursing facility services on a fee-for-service basis if the cost of nursing facility services, and the person's eligibility for those services, leads to a person's enrollment into Medicaid (for example, if a person "spent down" their assets and became Medicaid-eligible).

Table A-1 shows the state-reported MLTSS data included in this report by state and by category of service.

Table A-1: State-Reported Managed LTSS Beneficiaries, 2013

State	Total LTSS	Total Institutional	Nursing Facility	ICF/IID	Total HCBS	Section 1915(c) Waivers	Personal Care	Home Health	HCBS - Other ¹
Arizona ²	41,567	0	0	0	41,567	0	0	0	41,567
Kansas ³	66,033	16,637	16,081	556	49,396	41,865	0	7,531	0
Michigan	8,151	0	0	0	8,151	8,151	0	0	0
Minnesota ³	48,451	0	0	0	48,451	25,900	7,944	14,607	0
New Mexico ⁴	18,820	0	0	0	18,820	0	0	0	18,820
Pennsylvania	136	0	0	0	136	0	0	0	136
Tennessee ³	27,868	0	0	0	27,868	0	0	11,264	16,604
Wisconsin ⁵	45,810	0	0	0	45,810	45,810	0	0	0
Total	256,836	16,637	16,081	556	240,199	121,726	7,944	33,402	77,127

¹ "HCBS – Other" refers to HCBS provided through a fee-for-service section 1115 demonstration or a managed care program (e.g., a section 1915(b) waiver)

² Arizona provided managed LTSS data as of a particular date, September 30, 2013. Data are lower than the number of people who received services over the full year. "HCBS - Other" data includes people who received home health.

³ Kansas, Minnesota, and Tennessee provided data for multiple HCBS categories. States were asked for estimates by category of service, not for unduplicated totals. Individuals who received more than one type of service were counted twice in HCBS totals.

⁴ New Mexico managed LTSS data are average monthly enrollees who received community benefits. The data are counted as "HCBS – Other" because they cannot be assigned to a particular category of service.

⁵ Wisconsin's managed care data were from the CMS 372 report for section 1915(c) waivers in its managed care program. Data for other services were not available.

Limitations

Beneficiary counts in this report should be considered underestimates, particularly in those states with MLTSS programs that did not provide state-reported data in 2013: California, Delaware, Florida, Hawaii, Massachusetts, New York, North Carolina, Rhode Island, Texas, and Washington. In addition, no Alpha-MAX and MAX data were available for Kansas or Maine because of data quality issues with the states' Medicaid Statistical Informational System (MSIS) data files, the source data for Alpha-MAX and MAX. Age group data do not include any state-reported MLTSS data, and therefore further underestimate the number of beneficiaries.

Comparison to Other Sources

We benchmarked 2013 beneficiary data to four sources that have previously published data for particular services:

- A report based on the Certification and Survey Provider Enhanced Reports (CASPER) system data for nursing facilities by the Kaiser Family Foundation and the University of California-San Francisco¹⁴
- ICF/IID data based on a survey of states as part of the National Residential Information Systems Project (RISP) by the University of Minnesota¹⁵
- An annual data update on home health, personal care, and section 1915(c) waivers based on a survey of states by the Kaiser Family Foundation and the University of California-San Francisco¹⁶
- A report on section 1915(c) waivers based on CMS 372 data by Truven Health Analytics¹⁷

National comparison data for other types of Medicaid LTSS were unavailable. Tables A-2 through A-6 in Appendix A compare benchmark data to the estimates in this report. For each type of service, data in this analysis were similar to the comparison sources for a majority of states. However, we found notable differences in several states, especially for home health, personal care, and section 1915(c) waivers.

For most services, we defined a notable difference as one of at least 20 percent. For nursing facilities, the comparison was imperfect because CASPER data reflect the number of nursing facility residents at a particular point in time while MAX data identified the number of beneficiaries over an entire year. Many nursing facility residents experience transitions to hospitals and private homes during a year,¹⁸ so the number of people served over a year is greater than the number of residents on a given day. For nursing facility data, we considered a difference notable only if the number of beneficiaries in CASPER data was greater than the number of people identified in this report for a full year; this discrepancy did not occur for any state in 2013.

¹⁴ Harrington C, Carrillo H, Garfield, R. *Nursing Facilities, Staffing, Residents, and Facility Deficiencies, 2009 Through 2015* Kaiser Family Foundation, July 2017. Available on-line at <http://www.kff.org/medicaid/report/nursing-facilities-staffing-residents-and-facility-deficiencies-2009-through-2015/>.

¹⁵ Larson S, Eschenbacher H, Anderson L, Pettingell S, Hewitt A, Sowers M, Fay ML, Taylor B, and Agosta J. *In-Home and Residential Long-Term Supports and Services for Persons with Intellectual or Developmental Disabilities: Status and Trends Through 2014* University of Minnesota Institute on Community Integration, 2017 Available on-line at <https://risp.umn.edu/>.

¹⁶ Ng T, Harrington C, Musumeci M, and Ubry P. *Medicaid Home and Community-Based Services Programs: 2013 Data Update* Kaiser Family Foundation, October 2016. Available on-line at <http://www.kff.org/medicaid/report/medicaid-home-and-community-based-services-programs-2013-data-update/>.

¹⁷ Eiken S. *Medicaid 1915(c) Waiver Data Based on the CMS 372 Report, 2013-2014* CMS, publication forthcoming.

¹⁸ Reinhard SC, Accius J, Houser A, Ujvari K, Alexis J, and Fox-Grage W. *Picking Up the Pace of Change, 2017: A State Scorecard on Long-Term Services and Supports for Older Adults, People with Physical Disabilities, and Family Caregivers* AARP Public Policy Institute, June 14, 2017. Available on-line at <http://www.longtermscorecard.org/2017-scorecard>.

Footnotes in Tables 1 through 3 indicate states with differences of 20 percent or more. Without further research, we do not know which source is more accurate. The better source may vary by state and type of service.

Exclusion of States from State-Level Analysis

Seven states were excluded from the state-level analysis of the percentage of LTSS beneficiaries who received HCBS in Figure 2. States were excluded for four reasons:

- Alabama was excluded because MAX reported an unrealistically high number of private duty nursing beneficiaries. The data indicate Alabama has 100,000 more beneficiaries than the national total from all other states. This data anomaly at least doubles the state’s reported HCBS beneficiaries.
- Maine did not have available data for any year from 2010 through 2013.
- The sum of Alpha-MAX or MAX and state-reported managed care data for the District of Columbia, Kansas, and Minnesota showed at least 50 percent more beneficiaries than data from the annual HCBS data update by the Kaiser Family Foundation and the University of California-San Francisco. This data update provides benchmarks for three types of HCBS—section 1915(c) waivers, personal care, and home health—based on a survey of states¹⁹.
- Data from the annual HCBS data update showed at least 50 percent more beneficiaries than the sum of Alpha-MAX or MAX and state-reported managed care data for Delaware and New Jersey.

Tables A-2 through A-6 on the following pages display the benchmark data for 2013 in comparison to the data in this report, called the “LTSS Beneficiary Report” in the tables.

¹⁹ Ng T, Harrington C, Musumeci M, and Ubry P. *Medicaid Home and Community-Based Services Programs: 2013 Data Update* Kaiser Family Foundation, October 2016. Available on-line at <http://www.kff.org/medicaid/report/medicaid-home-and-community-based-services-programs-2013-data-update/>.

Table A-2: Comparison of Data Sources for Beneficiaries Who Received Medicaid Nursing Facility Services: 2013

State	CASPER: Medicaid Beneficiaries on a Single Day	LTSS Beneficiary Report: People Served During a Calendar Year	CASPER as a Percentage of LTSS Beneficiary Report
Alabama	14,918	22,645	66%
Alaska ¹	486	847	57%
Arizona	6,642	16,217	41%
Arkansas	11,930	18,519	64%
California	67,692	148,124	46%
Colorado ²	9,726	14,704	66%
Connecticut	16,454	31,798	52%
Delaware	2,523	4,110	61%
Dist. of Columbia	2,064	3,492	59%
Florida ¹	42,049	68,175	62%
Georgia	21,394	34,719	62%
Hawaii	1,574	3,044	52%
Idaho ²	2,477	3,569	69%
Illinois	44,065	57,942	76%
Indiana	24,275	38,045	64%
Iowa	11,653	17,407	67%
Kansas ³	10,007	16,081	62%
Kentucky	15,042	25,448	59%
Louisiana	18,682	26,761	70%
Maine ³	4,156	0	n/a
Maryland	14,935	20,939	71%
Massachusetts	25,979	57,876	45%
Michigan	24,169	45,569	53%
Minnesota ¹	14,351	27,257	53%
Mississippi	12,063	18,715	64%
Missouri	23,107	34,492	67%
Montana	2,633	4,470	59%
Nebraska	6,231	8,829	71%
Nevada	2,725	4,103	66%
New Hampshire	4,438	6,300	70%
New Jersey	28,228	38,861	73%
New Mexico	3,573	5,725	62%
New York	73,457	153,266	48%
North Carolina ¹	24,134	39,488	61%
North Dakota	2,892	4,310	67%
Ohio	48,258	79,395	61%
Oklahoma	12,747	20,369	63%
Oregon	4,192	9,922	42%
Pennsylvania	49,244	82,800	59%

State	CASPER: Medicaid Beneficiaries on a Single Day	LTSS Beneficiary Report: People Served During a Calendar Year	CASPER as a Percentage of LTSS Beneficiary Report
Rhode Island ⁴	5,281	8,998	59%
South Carolina	10,267	14,894	69%
South Dakota	3,421	5,175	66%
Tennessee	17,240	27,208	63%
Texas	58,385	92,431	63%
Utah	2,772	5,570	50%
Vermont	1,730	3,473	50%
Virginia	16,996	26,264	65%
Washington	10,211	18,012	57%
West Virginia	6,941	11,273	62%
Wisconsin	16,107	24,094	67%
Wyoming	1,375	2,293	60%
United States	855,894	1,454,018	60%

“n/a” - not applicable because LTSS Beneficiary Report data indicated zero beneficiaries.

Data Sources:

Certification and Survey Provider Enhanced Reports (CASPER): Harrington C, Carrillo H, Garfield, R. *Nursing Facilities, Staffing, Residents, and Facility Deficiencies, 2009 Through 2015* Kaiser Family Foundation, July 2017. Available on-line at <http://www.kff.org/medicaid/report/nursing-facilities-staffing-residents-and-facility-deficiencies-2009-through-2015/>. Medicaid beneficiaries were calculated by multiplying the number of nursing facility residents by the percentage of residents with Medicaid as the primary payer.

LTSS Beneficiary Report: MAX, Alpha-MAX, and state-reported managed LTSS data from Arizona, Kansas, Michigan, Minnesota, New Mexico, Pennsylvania, Tennessee, and Wisconsin. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans in other states.

Notes:

¹ This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

² This report uses 2010 MAX data for Colorado and Idaho because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2011 and 2012.

³ MAX and Alpha-MAX do not include data for 2010 through 2013 for Kansas and Maine.

⁴ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

Table A-3: Comparison of Data Sources for Beneficiaries Who Received Medicaid Intermediate Care Facilities for Individuals with Intellectual Disabilities (ICF/IID) Services: 2013

State	RISP: Medicaid Beneficiaries on a Single Day	LTSS Beneficiary Report: People Served During a Calendar Year	RISP as a Percentage of LTSS Beneficiary Report
Alabama	14	32	44%
Alaska ¹	0	19	0%
Arizona	0	0	n/a
Arkansas	1,468	1,589	92%
California	8,468	10,390	82%
Colorado ²	184	221	83%
Connecticut	555	989	56%
Delaware	56	126	44%
Dist. of Columbia	352	616	57%
Florida ¹	2,857	2,808	102%
Georgia	248	390	64%
Hawaii	79	2,452	3%
Idaho ²	487	686	71%
Illinois	7,560	8,320	91%
Indiana	3,760	4,055	93%
Iowa	2,005	2,108	95%
Kansas ³	509	556	92%
Kentucky	394	482	82%
Louisiana	4,941	4,902	101%
Maine ³	205	0	n/a
Maryland	152	121	126%
Massachusetts	499	555	90%
Michigan	0	1	0%
Minnesota ¹	1,726	2,870	60%
Mississippi	2,514	2,764	91%
Missouri	569	537	106%
Montana	67	58	116%
Nebraska	391	412	95%
Nevada ⁴	100	110	91%
New Hampshire	25	31	81%
New Jersey	3,035	2,346	129%
New Mexico	229	263	87%
New York	7,127	8,470	84%
North Carolina ¹	3,273	3,655	90%
North Dakota	539	583	92%
Ohio	6,678	7,197	93%
Oklahoma ⁴	1,265	1,718	74%
Oregon	0	0	n/a
Pennsylvania	3,247	3,406	95%

State	RISP: Medicaid Beneficiaries on a Single Day	LTSS Beneficiary Report: People Served During a Calendar Year	RISP as a Percentage of LTSS Beneficiary Report
Rhode Island ^{4, 5}	42	40	105%
South Carolina	1,256	1,338	94%
South Dakota	191	219	87%
Tennessee	1,007	1,059	95%
Texas	9,025	9,859	92%
Utah	824	850	97%
Vermont	6	7	86%
Virginia	1,346	1,381	97%
Washington	834	57	1463%
West Virginia	565	570	99%
Wisconsin	877	779	113%
Wyoming	80	78	103%
United States	81,631	92,075	89%

“n/a” - not applicable because LTSS Beneficiary Report data indicated zero beneficiaries.

Data Sources:

National Residential Information Systems Project (RISP): Larson S, Eschenbacher H, Anderson L, Pettingell S, Hewitt A, Sowers M, Fay ML, Taylor B, and Agosta J. *In-Home and Residential Long-Term Supports and Services for Persons with Intellectual or Developmental Disabilities: Status and Trends Through 2014* University of Minnesota Institute on Community Integration, 2017 Available on-line at <https://risp.umn.edu/>.

LTSS Beneficiary Report: MAX, Alpha-MAX, and state-reported managed LTSS data from Arizona, Kansas, Michigan, Minnesota, New Mexico, Pennsylvania, and Tennessee. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans in other states.

Notes:

¹ This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

² This report uses 2010 MAX data for Colorado and Idaho because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2011 and 2012.

³ MAX and Alpha-MAX do not include data for 2010 through 2013 for Kansas and Maine.

⁴ RISP data for 2014 were used for Nevada, Oklahoma, and Rhode Island because 2013 data indicated less than half the residents in 2012 and 2014 data, suggesting a data anomaly.

⁵ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

Table A-4: Comparison of Data Sources for Beneficiaries Who Received Medicaid Home Health Services: 2013

State	Kaiser Family Foundation (KFF)	LTSS Beneficiary Report ¹	KFF as a Percentage of LTSS Beneficiary Report
Alabama	5,231	16,306	32%
Alaska ²	307	302	102%
Arizona	40,364	232	17398%
Arkansas	6,387	5,840	109%
California	21,035	16,255	129%
Colorado ³	12,603	11,736	107%
Connecticut	31,676	31,384	101%
Delaware	1,130	162	698%
Dist. of Columbia	5,403	9,411	57%
Florida ²	10,562	20,201	52%
Georgia	4,631	7,097	65%
Hawaii	2,032	133	1528%
Idaho ³	1,811	1,850	98%
Illinois	11,655	8,643	135%
Indiana	13,051	14,521	90%
Iowa	13,189	22,962	57%
Kansas ⁴	3,803	7,531	50%
Kentucky	15,036	2,072	726%
Louisiana	10,813	3,839	282%
Maine ⁴	2,537	0	n/a
Maryland	4,108	6,411	64%
Massachusetts	24,895	25,353	98%
Michigan	13,764	3,990	345%
Minnesota ²	10,056	77,377	13%
Mississippi	1,104	3,993	28%
Missouri	6,543	6,010	109%
Montana	378	337	112%
Nebraska	2,671	2,139	125%
Nevada	691	617	112%
New Hampshire	3,546	1,829	194%
New Jersey	19,032	1,427	1334%
New Mexico	581	200	291%
New York	104,325	75,003	139%
North Carolina ²	32,767	33,132	99%
North Dakota	1,120	388	289%
Ohio	47,937	48,602	99%
Oklahoma	5,058	5,800	87%
Oregon	414	346	120%
Pennsylvania	7,692	5,449	141%

State	Kaiser Family Foundation (KFF)	LTSS Beneficiary Report ¹	KFF as a Percentage of LTSS Beneficiary Report
Rhode Island ⁵	1,350	1,959	69%
South Carolina	893	4,222	21%
South Dakota	1,706	393	434%
Tennessee	11,165	11,264	99%
Texas	133,544	26,319	507%
Utah	4,479	1,403	319%
Vermont	3,210	3,667	88%
Virginia	3,738	2,031	184%
Washington	3,668	1,423	258%
West Virginia	3,041	2,994	102%
Wisconsin	4,803	95	5056%
Wyoming	602	568	106%
United States	672,137	535,218	126%

"n/a" - not applicable because LTSS Beneficiary Report data indicated zero beneficiaries.

Data Sources:

Kaiser Family Foundation: Ng T, Harrington C, Musumeci M, and Ubry P. *Medicaid Home and Community-Based Services Programs: 2013 Data Update* Kaiser Family Foundation, October 2016. Available on-line at <http://www.kff.org/medicaid/report/medicaid-home-and-community-based-services-programs-2013-data-update/>.

LTSS Beneficiary Report: MAX, Alpha-MAX, and state-reported managed LTSS data from Kansas, Michigan, Minnesota, Pennsylvania, and Tennessee. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans in other states.

Notes:

¹ For fee-for-service data, people were included in the LTSS Beneficiary Report only if they had positive expenditures for three or more consecutive months.

² This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

³ This report uses 2010 MAX data for Colorado and Idaho because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2011 and 2012.

⁴ MAX and Alpha-MAX do not include data for 2010 through 2013 for Kansas and Maine.

⁵ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

Table A-5: Comparison of Data Sources for Beneficiaries Who Received Medicaid Personal Care Services: 2013

State	Kaiser Family Foundation (KFF)	LTSS Beneficiary Report	KFF as a Percentage of LTSS Beneficiary Report
Alabama	0	0	n/a
Alaska ¹	3,657	5,178	71%
Arizona	0	0	n/a
Arkansas	15,356	15,491	99%
California	305,132	506,628	60%
Colorado ²	0	0	n/a
Connecticut	0	1,078	0%
Delaware	0	0	n/a
Dist. of Columbia	2,098	10,253	20%
Florida ¹	12,364	0	n/a
Georgia	0	0	n/a
Hawaii	0	0	n/a
Idaho ²	2,070	4,663	44%
Illinois	0	2,563	0%
Indiana	0	0	n/a
Iowa	0	0	n/a
Kansas ³	365	0	n/a
Kentucky	0	0	n/a
Louisiana	19,431	22,357	87%
Maine ³	3,088	0	n/a
Maryland	5,593	6,480	86%
Massachusetts	24,292	18,780	129%
Michigan	68,133	79,029	86%
Minnesota ¹	24,297	35,043	69%
Mississippi	0	631	0%
Missouri	58,960	57,052	103%
Montana	3,558	3,678	97%
Nebraska	2,325	2,733	85%
Nevada	6,494	7,073	92%
New Hampshire	32	185	17%
New Jersey	20,748	5,673	366%
New Mexico	16,013	751	2132%
New York	64,032	53,651	119%
North Carolina ¹	47,905	58,349	82%
North Dakota	1,200	833	144%
Ohio	0	0	n/a
Oklahoma	3,858	3,802	101%
Oregon	700	4,564	15%
Pennsylvania	0	0	n/a

State	Kaiser Family Foundation (KFF)	LTSS Beneficiary Report	KFF as a Percentage of LTSS Beneficiary Report
Rhode Island ⁴	0	473	0%
South Carolina	0	2,191	0%
South Dakota	427	498	86%
Tennessee	0	0	n/a
Texas	11,125	11,885	94%
Utah	400	454	88%
Vermont	2,354	2,445	96%
Virginia	0	66	0%
Washington	25,684	22,602	114%
West Virginia	6,898	6,418	107%
Wisconsin	15,654	0	n/a
Wyoming	0	0	n/a
United States	774,243	953,550	81%

"n/a" - not applicable because LTSS Beneficiary Report data indicated zero beneficiaries.

Data Sources:

Kaiser Family Foundation: Ng T, Harrington C, Musumeci M, and Ubry P. *Medicaid Home and Community-Based Services Programs: 2013 Data Update* Kaiser Family Foundation, October 2016. Available on-line at <http://www.kff.org/medicaid/report/medicaid-home-and-community-based-services-programs-2013-data-update/>.

LTSS Beneficiary Report: MAX, Alpha-MAX, and state-reported managed LTSS data from Arizona, Kansas, Michigan, Minnesota, New Mexico, Pennsylvania, Tennessee, and Wisconsin. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans in other states.

Notes:

¹ This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

² This report uses 2010 MAX data for Colorado and Idaho because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2011 and 2012.

³ MAX and Alpha-MAX do not include data for 2010 through 2013 for Kansas and Maine.

⁴ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

Table A-6: Comparison of Data Sources for Beneficiaries who Received Medicaid Section 1915(c) Waiver Services: 2013

State	Kaiser Family Foundation (KFF)	CMS 372	LTSS Beneficiary Report	KFF as a Percentage of LTSS Beneficiary Report	CMS 372 as a Percentage of LTSS Beneficiary Report
Alabama	14,788	13,976	14,239	104%	98%
Alaska ¹	5,327	5,456	6,266	85%	87%
Arizona	0	0	0	n/a	n/a
Arkansas	14,821	14,558	14,809	100%	98%
California	114,674	114,659	131,385	87%	87%
Colorado ²	37,152	37,203	38,412	97%	97%
Connecticut	24,256	24,266	26,069	93%	93%
Delaware	947	950	952	99%	100%
Dist. of Columbia	4,931	4,932	5,493	90%	90%
Florida ¹	82,115	89,590	85,212	96%	105%
Georgia	52,063	44,748	45,655	114%	98%
Hawaii	2,659	2,661	3,819	70%	70%
Idaho ²	14,554	14,554	14,280	102%	102%
Illinois	113,731	113,636	153,170	74%	74%
Indiana	31,262	26,697	30,916	101%	86%
Iowa	28,900	28,900	30,914	93%	93%
Kansas ³	28,181	28,222	41,865	67%	67%
Kentucky	24,253	24,631	26,797	91%	92%
Louisiana	17,528	17,724	19,342	91%	92%
Maine ³	5,922	5,922	0	n/a	n/a
Maryland	23,853	24,433	25,390	94%	96%
Massachusetts	27,564	26,534	25,703	107%	103%
Michigan	20,913	20,592	21,615	97%	95%
Minnesota ¹	68,915	66,572	87,703	79%	76%
Mississippi	24,136	23,441	24,656	98%	95%
Missouri	31,211	31,211	31,941	98%	98%
Montana	5,349	5,297	6,513	82%	81%
Nebraska	10,706	10,705	10,543	102%	102%
Nevada	4,607	4,669	4,858	95%	96%
New Hampshire	8,114	8,375	9,225	88%	91%
New Jersey	25,242	25,603	25,705	98%	100%
New Mexico	10,048	7,344	5,758	175%	128%
New York	112,926	96,169	121,432	93%	79%
North Carolina ¹	27,239	24,956	24,148	113%	103%
North Dakota	4,605	4,588	5,265	87%	87%
Ohio	91,583	91,583	97,860	94%	94%
Oklahoma	26,390	26,378	26,854	98%	98%

State	Kaiser Family Foundation (KFF)	CMS 372	LTSS Beneficiary Report	KFF as a Percentage of LTSS Beneficiary Report	CMS 372 as a Percentage of LTSS Beneficiary Report
Oregon	45,082	45,082	48,030	94%	94%
Pennsylvania	84,533	84,216	119,248	71%	71%
Rhode Island ^{4, 5}	0	0	3,673	0%	0%
South Carolina	24,467	26,996	28,745	85%	94%
South Dakota	5,261	5,188	5,416	97%	96%
Tennessee	7,844	8,023	8,206	96%	98%
Texas	52,305	52,305	123,119	42%	42%
Utah	7,068	7,068	7,332	96%	96%
Vermont ⁵	0	0	7,112	0%	0%
Virginia	40,819	40,966	44,489	92%	92%
Washington	53,360	53,440	52,557	102%	102%
West Virginia	11,256	11,253	11,990	94%	94%
Wisconsin	70,597	74,112	64,296	110%	115%
Wyoming	4,248	4,248	4,299	99%	99%
United States	1,548,305	1,524,632	1,773,276	87%	86%

"n/a" - not applicable because LTSS Beneficiary Report data indicated zero beneficiaries.

Data Sources:

Kaiser Family Foundation: Ng T, Harrington C, Musumeci M, and Ubry P. *Medicaid Home and Community-Based Services Programs: 2013 Data Update* Kaiser Family Foundation, October 2016. Available on-line at <http://www.kff.org/medicaid/report/medicaid-home-and-community-based-services-programs-2013-data-update/>.

CMS 372: Eiken S. *Medicaid Section 1915(c) Waiver Data Based on the CMS 372 Report, 2013-2014* CMS, publication forthcoming.

LTSS Beneficiary Report: MAX, Alpha-MAX, and state-reported managed LTSS data from Arizona, Kansas, Michigan, Minnesota, New Mexico, Pennsylvania, Tennessee, and Wisconsin. Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans in other states.

Notes:

¹ This report uses 2012 MAX data for Alaska, Florida, Minnesota, and North Carolina because Alpha-MAX included fewer than four quarters of 2013 data.

² This report uses 2010 MAX data for Colorado and Idaho because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2011 and 2012.

³ MAX and Alpha-MAX do not include data for 2010 through 2013 for Kansas and Maine.

⁴ This report uses 2011 MAX data for Rhode Island because Alpha-MAX included fewer than four quarters of 2013 data and MAX data were not available for 2012.

⁵ Rhode Island and Vermont provide services similar to section 1915(c) waivers in section 1115 demonstrations, but categorized these services as section 1915(c) waiver services in the Medicaid Statistical Information System (MSIS), the source data for MAX.