

# Medicaid Long-Term Services and Supports Beneficiaries in 2011

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## Acknowledgement

Data for this study were compiled from the 2011 and 2010 Medicaid Analytical eXtract (MAX) 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

Medicaid is the primary source of funding for people in need of long-term services and supports (LTSS), accounting for over 60 percent of total LTSS spending across all sources, including private out-of-pocket spending.<sup>1</sup> While data on Medicaid spending for LTSS have been available for many years,<sup>2</sup> comprehensive counts of the number of people receiving Medicaid LTSS have generally not been available until recently.

Last year, Truven Health Analytics, Mathematica Policy Research, and the Centers for Medicare & Medicaid Services (CMS) developed a comprehensive account of the number of individuals receiving Medicaid-funded LTSS in 2010. This report provides updated data for 2011. Data for 2011 were not available for ten states and the District of Columbia. For most of these states, we used 2010 data to provide a national estimate of LTSS beneficiaries that is as comprehensive as possible. We did not have data for either year for two states, Kansas and Maine.

For the first time, this report also provides beneficiary data based on the age of the persons receiving supports, using the 40 states with 2011 data. Data are presented for three major age groups: children under age 21, adults age 21

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<sup>1</sup> O'Shaughnessy, C. *The Basics: National Spending for Long-Term Services and Supports (LTSS)*, 2012. National Health Policy Forum, 2014. Available online at [http://www.nhpf.org/library/the-basics/Basics\\_LTSS\\_03-27-14.pdf](http://www.nhpf.org/library/the-basics/Basics_LTSS_03-27-14.pdf).

<sup>2</sup> Eiken S, Sredl K, Burwell B, and Saucier P. *Medicaid Expenditures for Long-Term Services and Supports in FFY 2013: Home and Community-Based Services were a Majority of LTSS Spending* CMS, June 30, 2015. Available on-line at <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Long-Term-Services-and-Supports/Long-Term-Services-and-Supports.html>.

through 64, and older adults starting at age 65. Data for these age groups have typically not been available, including in the annual reports on Medicaid LTSS expenditures. Age group data are particularly important for policy makers because available services can vary based on a person's age.

## Findings

An estimated 4.8 million people received Medicaid-funded LTSS during calendar year 2011. This count should be considered an underestimate because data do not include people who enrolled in a comprehensive managed care plan. Estimates may be particularly low in states that provided LTSS through a managed care program in 2011 (Arizona, California, Florida, Hawaii, Massachusetts, Michigan, Minnesota, New Mexico, New York, North Carolina, Pennsylvania, Tennessee, Texas, Wisconsin, and Washington).<sup>3</sup>

More than 3.4 million beneficiaries (71 percent) received home and community-based services (HCBS), including people who also received institutional services during the year. Over 1.6 million individuals (34 percent) received institutional services, including people who also received HCBS during the year. A majority of states supported between 60 and 80 percent of beneficiaries using HCBS.

A majority of beneficiaries in the 40 states with 2011 data were under age 65, including both children under age 21 (16 percent) and persons age 21 through 64 (39 percent). Older adults comprised 45 percent of beneficiaries. In each age group, a majority of individuals received HCBS, including people who

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<sup>3</sup> 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 <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Delivery-Systems/Medicaid-Managed-Long-Term-Services-and-Supports-MLTSS.html>.

received both HCBS and institutional services. Older adults were less likely to receive HCBS than LTSS beneficiaries under age 65.

The number of beneficiaries decreased one percent from 2010 to 2011 in the 40 states with data for both years. This decrease was driven by a significant decrease in Georgia case management beneficiaries, which may reflect the removal of a disease management program from that state's Medicaid state plan.

The data in this report were obtained from the Medicaid Analytic eXtract (MAX). We compared these data to previously published data using other sources. Please see Appendix A for information about the data and methods in this report.

# Medicaid Long-Term Services and Supports Beneficiaries in 2011

Medicaid is the primary source of funding for people in need of long-term services and supports (LTSS), accounting for over 60 percent of total spending across all sources, including private out-of-pocket spending.<sup>4</sup> While data on Medicaid spending for LTSS have been available for many years,<sup>5</sup> counts of the number of people receiving LTSS under Medicaid have generally not been available until recently.

Last year, Truven Health Analytics, Mathematica Policy Research, and the Centers for Medicare & Medicaid Services (CMS) developed the first comprehensive account of the number of separate individuals receiving Medicaid-funded LTSS. The report provided 2010 data based on the Medicaid Analytic eXtract (MAX), a set of Medicaid administrative data files designed to facilitate Medicaid research. This report provides updated data for 2011. Data for 2011 were not available for ten states and the District of Columbia. For most of these states, we used 2010 data to provide a national estimate of LTSS beneficiaries that is as comprehensive as possible. Two states, Kansas and Maine, did not have MAX data for either year. Data in this report should be considered an underestimate because data do not include people who enrolled in a comprehensive managed care plan. Estimates may be particularly low in states that provided LTSS through a managed care program in 2011 (Arizona, California, Florida, Hawaii, Massachusetts, Michigan, Minnesota, New Mexico, New York, North Carolina, Pennsylvania, Tennessee, Texas, Wisconsin, and Washington).<sup>6</sup> Appendix A describes the MAX data source and compares components of the data to previously published benchmarks.

For the first time, this report also provides beneficiary data based on the age of the persons receiving supports. Data are presented for three major age groups: children 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

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<sup>4</sup> 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](http://www.nhpf.org/library/the-basics/Basics_LTSS_03-27-14.pdf).

<sup>5</sup> Eiken S, Sredl K, Burwell B, and Saucier P. *Medicaid Expenditures for Long-Term Services and Supports in FFY 2013: Home and Community-Based Services were a Majority of LTSS Spending* CMS, June 30, 2015. Available on-line at <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Long-Term-Services-and-Supports/Long-Term-Services-and-Supports.html>.

<sup>6</sup> 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 <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Delivery-Systems/Medicaid-Managed-Long-Term-Services-and-Supports-MLTSS.html>.

available services can vary based on a person's age. For example, children 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 all states, including types of LTSS such as personal care and private duty nursing. Also, states often target home and community-based services waivers specifically to children or to older adults. Age-group data were only obtained for the 40 states with 2011 MAX data.

Age group data have typically not been available for several reasons. Many data sources, such as CMS-64 reports used in the annual reports on Medicaid LTSS expenditures, collect data based on a program authority or service and do not break down data by age. In addition, the challenges to collecting counts of LTSS beneficiaries that we articulated last year apply to age-group specific data as well:

- LTSS are covered through a variety of mandatory and optional service categories under Medicaid, some of which are broadly defined and include both LTSS and non-LTSS services within them.
- Data sources that provide age data for beneficiaries are derived primarily from Medicaid enrollment and claims data that are submitted by states to CMS, and not all states have been able to submit complete and timely data.
- Persons receiving LTSS often receive multiple services, such as when a person moves from one LTSS setting to another, and analytic resources must be applied to avoid double-counting those persons.
- Last but not least, there is no common or uniform definition of the Medicaid LTSS population in regard to type of disability, services received, duration of services, or service setting.

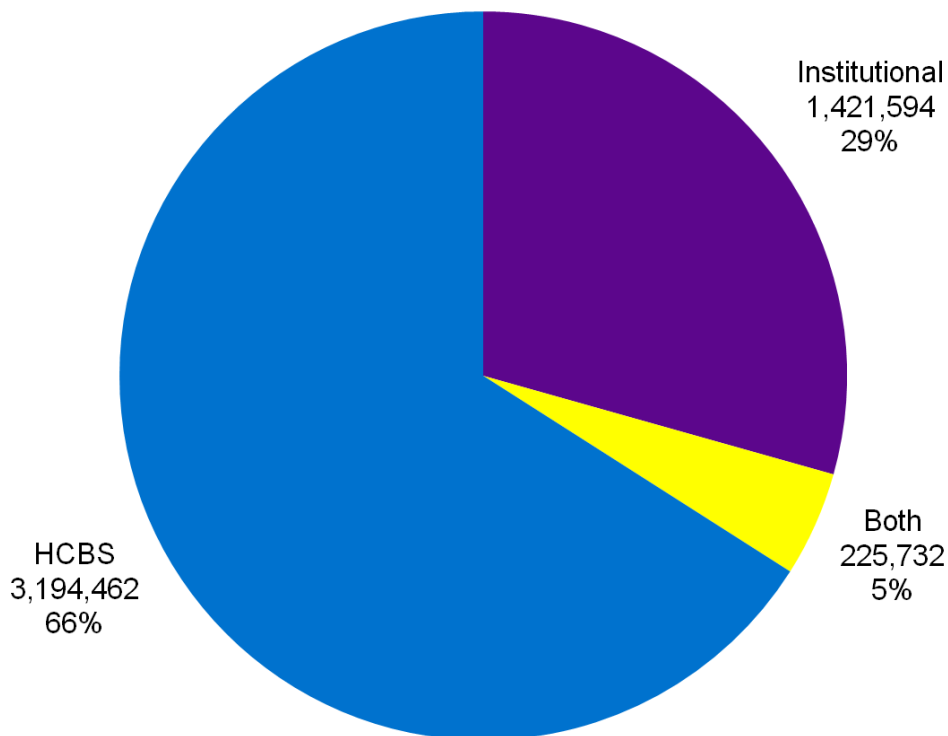
Given these challenges, this report is intended to serve as a starting point for estimating the number of LTSS beneficiaries, with the expectation that estimates will improve in the future.

## National Beneficiary Data Summary

An estimated 4.8 million people received Medicaid-funded LTSS during calendar year 2011. This estimate includes 2011 data for 40 states and 2010 data for eight states and the District of Columbia. We did not have data for either year for two states: Kansas and Maine.

Figure 1 shows the distribution of LTSS beneficiaries among institutional services and HCBS. Almost two-thirds of people only received community services (3.2 million). About 30 percent of beneficiaries only received institutional services (1.4 million). Only five percent (226 thousand) received both HCBS and institutional services during the year, indicating a relatively small number of people moving from one to the other.

**Figure 1. Number and Percentage of Medicaid LTSS Beneficiaries Receiving Institutional Services and HCBS, 2011**



Source: Medicaid Analytic eXtract (MAX). Data for 2010 are used for Arizona, Colorado, the District of Columbia, Hawaii, Idaho, Massachusetts, Ohio, Texas, and Wisconsin because these states did not have 2011 data in MAX. Kansas and Maine are excluded because MAX did not include data for either year.

Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.



While a majority of LTSS beneficiaries received HCBS, only 49 percent of spending on LTSS expenditures were for HCBS during an overlapping time period (federal fiscal year 2011).<sup>7</sup> Community supports accounted for a majority of people but about half of spending because HCBS have a lower average cost per person than institutional services.<sup>8</sup>

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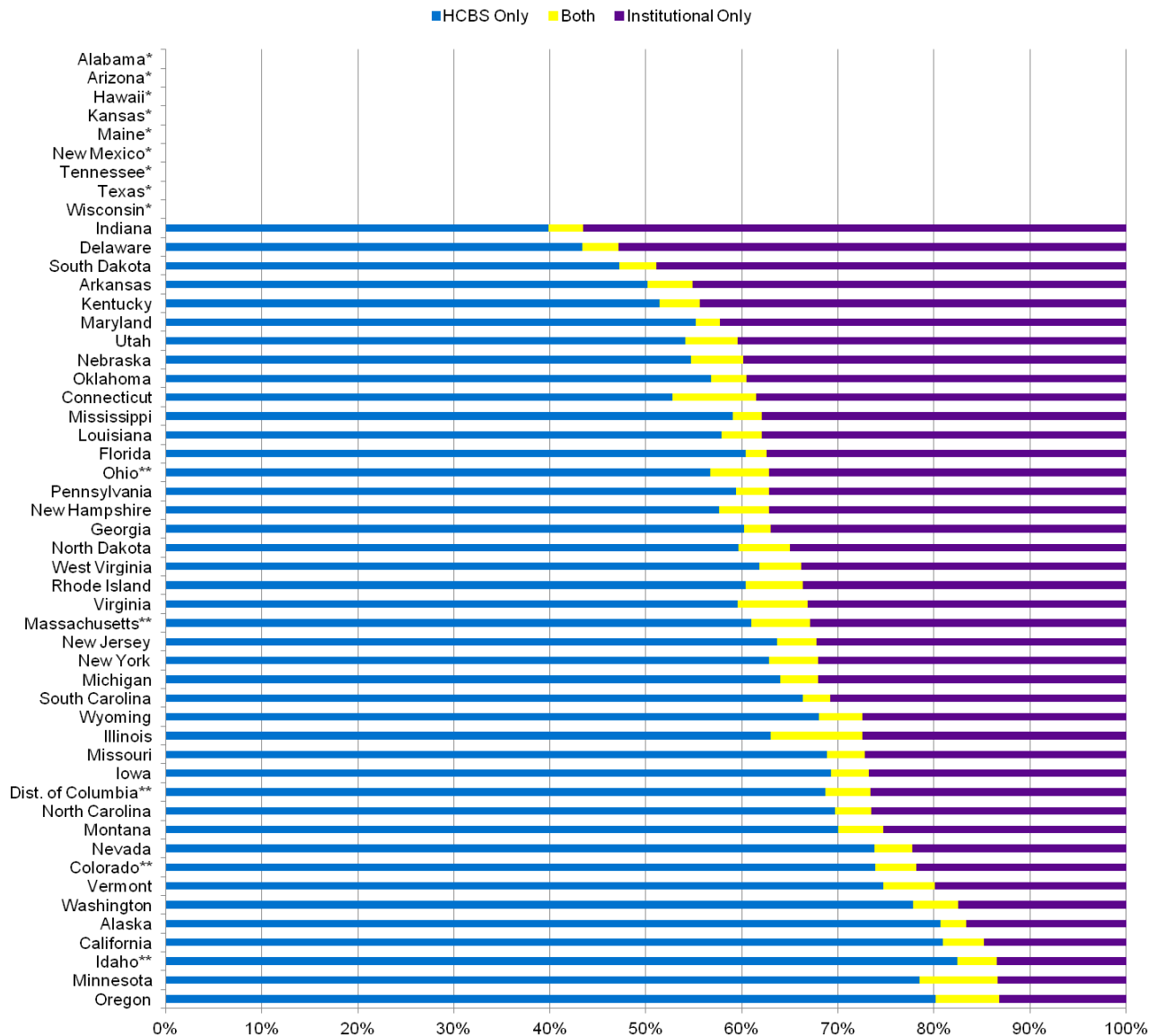
<sup>7</sup> *Ibid.*

<sup>8</sup> Larson S, Ryan A, Salmi P, Smith D, and Wourio A. *Residential Services for Persons with Intellectual and Developmental Disabilities: Status and Trends Through Fiscal Year 2011* University of Minnesota Research and Training Center on Community Living, 2012. Available on-line at <https://risp.umn.edu/> and Reinhard S, Kassner E, Houser A, Ujvari K, Mollica R, and Hendrickson L. *Raising Expectations: A State Scorecard on Long-Term Services and Supports for Older Adults, People with Physical Disabilities, and Family Caregivers* Second Edition. AARP Public Policy Institute, 2014. Available on-line at <http://www.longtermscorecard.org>.

## State Beneficiary Data Summary

In all but two states, people who received HCBS, including people who also received institutional services, were a majority of LTSS beneficiaries (See Figure 2). Only Indiana and Delaware served a majority of LTSS users in institutions. The percentage of beneficiaries who received HCBS was between 60 and 80 percent for the majority of states (27 states and the District of Columbia; 57 percent).

**Figure 2: Percentage of Medicaid LTSS Beneficiaries who Received HCBS and Institutional Services by State, 2011**



Source: Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

\* Data for these states are not included because data are unavailable, a data anomaly exists, or data in an available benchmark indicate the number of beneficiaries is at least 50% greater than the number of beneficiaries in MAX data. See Appendix A for more information.

\*\* Data for 2010 are used for these states because they did not have MAX data for 2011.

Oregon, Minnesota, and Idaho each provided HCBS to 87 percent of all people who received Medicaid LTSS. Four other states also served more than 80 percent of beneficiaries with LTSS: California, Alaska, Vermont, and Washington. As explained in Table 1, nine states were excluded from state-level analysis. States were excluded for four reasons:

- Missing claims data from Kansas and Maine
- A data anomaly in Alabama data
- Data from available benchmarks for institutional services that showed at least 50 percent more beneficiaries than the data from MAX for Hawaii. This state provides LTSS through a managed care program, which is not included in the MAX data.
- Data from available benchmarks for three types of HCBS that showed at least 50 percent more beneficiaries than the data from MAX for Arizona, New Mexico, Tennessee, Texas, and Wisconsin. All of these states provide LTSS through managed care programs, which are not included in the MAX data.

**Table 1: Beneficiaries who Received Any Type of Medicaid Long-Term Services and Supports, 2011**

State	Total Unduplicated	Total Institutional Only <sup>1</sup>	Percent Institutional Only	Total HCBS Only <sup>2</sup>	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
Alabama <sup>3,4</sup>	188,803	21,631	11.5	161,122	85.3	6,050	3.2
Alaska <sup>4</sup>	10,748	1,786	16.6	8,673	80.7	289	2.7
Arizona <sup>5,6</sup>	19,475	19,220	98.7	221	1.1	34	0.2
Arkansas	54,713	24,702	45.1	27,435	50.1	2,576	4.7
California	768,709	113,572	14.8	621,915	80.9	33,222	4.3
Colorado <sup>5</sup>	57,336	12,502	21.8	42,351	73.9	2,483	4.3
Connecticut	68,432	26,380	38.5	36,124	52.8	5,928	8.7
Delaware	9,269	4,901	52.9	4,022	43.4	346	3.7
Dist. of Columbia <sup>4,5</sup>	15,036	4,002	26.6	10,323	68.7	711	4.7
Florida	179,036	66,929	37.4	108,077	60.4	4,030	2.3
Georgia	90,361	33,408	37.0	54,397	60.2	2,556	2.8
Hawaii <sup>4,5,7</sup>	3,795	209	5.5	3,499	92.2	87	2.3
Idaho <sup>5</sup>	26,159	3,511	13.4	21,563	82.4	1,085	4.1
Illinois <sup>4</sup>	241,123	66,129	27.4	151,893	63.0	23,101	9.6
Indiana	72,941	41,254	56.6	29,106	39.9	2,581	3.5
Iowa <sup>4</sup>	66,684	17,849	26.8	46,203	69.3	2,632	3.9
Kansas <sup>8</sup>	-	-	-	-	-	-	-
Kentucky <sup>4</sup>	64,997	28,821	44.3	33,407	51.4	2,769	4.3
Louisiana <sup>4</sup>	105,711	40,131	38.0	61,181	57.9	4,399	4.2
Maine <sup>8</sup>	-	-	-	-	-	-	-
Maryland	58,550	24,747	42.3	32,323	55.2	1,480	2.5
Massachusetts <sup>5</sup>	127,015	41,813	32.9	77,450	61.0	7,752	6.1
Michigan	145,275	46,544	32.0	92,962	64.0	5,769	4.0
Minnesota <sup>4</sup>	146,051	19,538	13.4	114,607	78.5	11,906	8.2
Mississippi	61,018	23,166	38.0	36,036	59.1	1,816	3.0
Missouri	115,959	31,527	27.2	79,890	68.9	4,542	3.9
Montana <sup>4</sup>	17,464	4,415	25.3	12,229	70.0	820	4.7
Nebraska	25,147	10,016	39.8	13,757	54.7	1,374	5.5
Nevada	23,048	5,135	22.3	17,015	73.8	898	3.9
New Hampshire	17,672	6,572	37.2	10,181	57.6	919	5.2
New Jersey	122,722	39,559	32.2	78,168	63.7	4,995	4.1
New Mexico <sup>6</sup>	15,981	8,535	53.4	7,258	45.4	188	1.2
New York	422,358	135,554	32.1	265,305	62.8	21,499	5.1
North Carolina	155,830	41,376	26.6	108,678	69.7	5,776	3.7
North Dakota <sup>4</sup>	13,529	4,735	35.0	8,070	59.6	724	5.4
Ohio <sup>5</sup>	207,516	77,223	37.2	117,692	56.7	12,601	6.1
Oklahoma	59,188	23,369	39.5	33,606	56.8	2,213	3.7

State	Total Unduplicated	Total Institutional Only <sup>1</sup>	Percent Institutional Only	Total HCBS Only <sup>2</sup>	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
Oregon	58,242	7,693	13.2	46,712	80.2	3,837	6.6
Pennsylvania	215,171	80,035	37.2	127,731	59.4	7,405	3.4
Rhode Island <sup>4</sup>	23,483	7,904	33.7	14,176	60.4	1,403	6.0
South Carolina	55,423	17,076	30.8	36,764	66.3	1,583	2.9
South Dakota	11,907	5,826	48.9	5,627	47.3	454	3.8
Tennessee <sup>6</sup>	45,523	34,768	76.4	10,374	22.8	381	0.8
Texas <sup>5, 6</sup>	340,889	102,200	30.0	224,427	65.8	14,262	4.2
Utah <sup>4</sup>	13,758	5,562	40.4	7,439	54.1	757	5.5
Vermont	14,916	2,964	19.9	11,146	74.7	806	5.4
Virginia	74,246	24,591	33.1	44,201	59.5	5,454	7.3
Washington	99,330	17,317	17.4	77,293	77.8	4,720	4.8
West Virginia	37,174	12,579	33.8	22,992	61.8	1,603	4.3
Wisconsin <sup>5, 6</sup>	65,657	30,005	45.7	33,116	50.4	2,536	3.9
Wyoming	8,418	2,313	27.5	5,725	68.0	380	4.5
<b>United States</b>	<b>4,841,788</b>	<b>1,421,594</b>	<b>29.4</b>	<b>3,194,462</b>	<b>66.0</b>	<b>225,732</b>	<b>4.7</b>

Data Source: Medicaid Analytic eXtract (MAX) . Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

<sup>1</sup> Institutional services include nursing facilities, intermediate care facilities for individuals with intellectual disabilities, inpatient psychiatric facilities for individuals under age 21, and mental hospital services for older adults.

<sup>2</sup> HCBS include 1915(c) waivers, services similar to 1915(c) waiver services provided in an 1115 demonstration, targeted case management, personal care services, home health, rehabilitation services, adult day care, private duty nursing, and the Program for All-Inclusive Care for the Elderly.

<sup>3</sup> Alabama was not included in state-level analysis in Figure 2 because the number of private duty nursing beneficiaries is 100,000 more than the next highest state. The reason for this data anomaly is not known.

<sup>4</sup> The sum of beneficiaries using 1915(c) waiver, personal care, and home health services in available benchmarks differs from the sum of beneficiaries in this MAX analysis by more than 20 percent for these states. See Tables A-3, A-4, and A-5 for benchmarks.

<sup>5</sup> This report uses 2010 data for Arizona, Colorado, the District of Columbia, Hawaii, Idaho, Massachusetts, Ohio, Texas, and Wisconsin because MAX does not include 2011 data for these states.

<sup>6</sup> These states are not included in state-level analysis in Figure 2 because the sum of beneficiaries using 1915(c) waiver, personal care, and home health services in available benchmarks is more than 50 percent greater than the sum of beneficiaries in this MAX analysis. See Tables A-3, A-4, and A-5 for benchmarks.

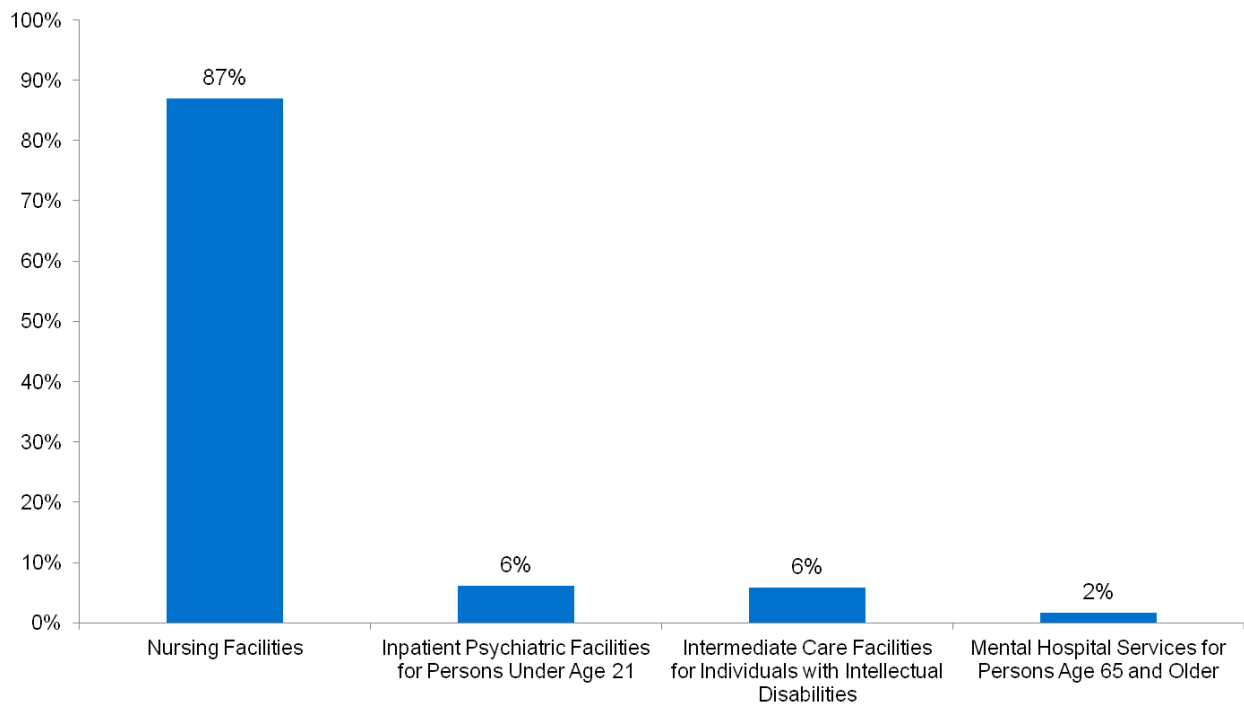
<sup>7</sup> Hawaii is not included in state-level analysis in Figure 2 because the sum of beneficiaries using nursing facility and ICF/IID in available point-in-time benchmarks is more than 50 percent greater than the sum of beneficiaries in this MAX analysis. See Tables A-1 and A-2 for benchmarks.

<sup>8</sup> MAX does not include 2010 or 2011 data for Kansas and Maine. These states are not included in state-level analysis.

## Beneficiaries by Type of Institutional Service

Four types of institutional LTSS were used in this analysis: nursing facilities, intermediate care facilities for individuals with intellectual disabilities (ICF/IID), inpatient psychiatric facilities for people under age 21, and mental hospital services for people age 65 and older. Figure 3 shows the percentage of total institutional beneficiaries who received each type of service. Data include people who also received HCBS during 2011.

**Figure 3: Percentage of Medicaid Institutional LTSS Beneficiaries who Received Each Type of Institutional Service, 2011**



Source: Medicaid Analytic eXtract (MAX). Data for 2010 are used for Arizona, Colorado, the District of Columbia, Hawaii, Idaho, Massachusetts, Ohio, Texas, and Wisconsin because these states did not have 2011 data in MAX. Kansas and Maine are excluded because MAX did not include data for either year.

Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

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

Table 2 on the following pages presents state institutional LTSS beneficiary data. The most common type of institutional LTSS was nursing facilities in every state except Alaska, where more people received inpatient psychiatric facilities for children under age 21. Nursing facility residents were more than 95 percent of institutional LTSS beneficiaries in Colorado, Florida, Georgia, Missouri, and Rhode Island. In 24 states (49 percent), nursing facility residents were between 80 and 90 percent of all institutional LTSS beneficiaries.

**Table 2: Beneficiaries who Received Medicaid Institutional Long-Term Services and Supports: 2011**

State	Total Institutional <sup>1</sup>	Nursing Facilities	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Mental Hospital Services for Persons Age 65 and Older
Alabama	27,681	24,846	195	2,570	174
Alaska <sup>3</sup>	2,075	862	17	1,186	13
Arizona <sup>2, 3</sup>	19,254	17,478	0	1,697	108
Arkansas	27,278	19,147	1,615	6,648	0
California <sup>3</sup>	146,794	135,508	12,090	0	0
Colorado <sup>2</sup>	14,985	14,704	221	44	24
Connecticut	32,308	30,173	1,089	973	109
Delaware <sup>3</sup>	5,247	3,940	134	14	1,191
Dist. of Columbia <sup>2, 3</sup>	4,713	3,533	656	446	92
Florida	70,959	68,093	2,805	0	100
Georgia <sup>3</sup>	35,964	35,279	690	0	0
Hawaii <sup>2, 4</sup>	296	211	85	0	0
Idaho <sup>2, 3</sup>	4,596	3,569	686	398	0
Illinois	89,230	72,361	8,556	7,222	1,708
Indiana	43,835	37,428	4,155	2,238	179
Iowa	20,481	17,413	2,164	912	69
Kansas <sup>5</sup>	-	-	-	-	-
Kentucky <sup>3</sup>	31,590	27,019	548	3,882	379
Louisiana	44,530	27,678	5,190	4,509	8,907
Maine <sup>5</sup>	-	-	-	-	-
Maryland	26,227	23,411	148	2,642	29
Massachusetts <sup>2</sup>	49,565	46,856	835	318	1,713
Michigan <sup>3</sup>	52,313	46,736	1	5,384	288
Minnesota <sup>3</sup>	31,444	28,109	2,929	425	45
Mississippi	24,982	18,900	2,903	3,216	52
Missouri	36,069	35,226	676	165	6
Montana	5,235	4,741	64	399	48
Nebraska	11,390	9,990	383	1,022	0
Nevada	6,033	4,538	112	1,377	10
New Hampshire <sup>3</sup>	7,491	7,083	42	369	0
New Jersey <sup>3</sup>	44,554	39,898	2,648	1,814	322
New Mexico	8,723	6,582	278	1,838	78
New York	157,053	134,613	8,750	12,149	3,207
North Carolina	47,152	39,868	4,057	3,260	70
North Dakota	5,459	4,685	610	173	7
Ohio <sup>2</sup>	89,824	80,417	7,442	2,195	36
Oklahoma	25,582	19,667	1,740	4,256	149

State	Total Institutional <sup>1</sup>	Nursing Facilities	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Mental Hospital Services for Persons Age 65 and Older
Oregon	11,530	10,324	0	1,203	5
Pennsylvania	87,440	79,960	3,700	1,192	2,870
Rhode Island	9,307	8,998	40	159	160
South Carolina	18,659	15,881	1,433	1,219	166
South Dakota	6,280	5,274	222	771	95
Tennessee <sup>3</sup>	35,149	31,111	1,087	2,819	226
Texas <sup>2</sup>	116,462	93,344	11,176	12,127	122
Utah	6,319	5,381	853	119	8
Vermont	3,770	3,492	6	0	279
Virginia	30,045	26,905	1,623	963	1,031
Washington <sup>3</sup>	22,037	18,510	57	857	2,716
West Virginia	14,182	10,995	563	1,999	708
Wisconsin <sup>2,3</sup>	32,541	28,387	1,248	2,736	252
Wyoming	2,693	2,314	84	296	1
United States	1,647,326	1,431,438	96,606	100,201	27,752

Data Source: Medicaid Analytic eXtract (MAX) . Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

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

<sup>2</sup> This report uses 2010 data for Arizona, Colorado, the District of Columbia, Hawaii, Idaho, Massachusetts, Ohio, Texas, and Wisconsin because MAX does not include 2011 data for these states.

<sup>3</sup> The number of Intermediate Care Facilities for Individuals with Intellectual Disabilities beneficiaries in an available point-in-time benchmark differs from the number of beneficiaries in this MAX analysis by more than 20 percent. See Table A-2 for the benchmark.

<sup>4</sup> The number of beneficiaries using nursing facilities in this MAX analysis is lower than an available point-in-time benchmarks. See Table A-1 for the benchmark.

<sup>5</sup> MAX does not include 2010 or 2011 data for Kansas and Maine.

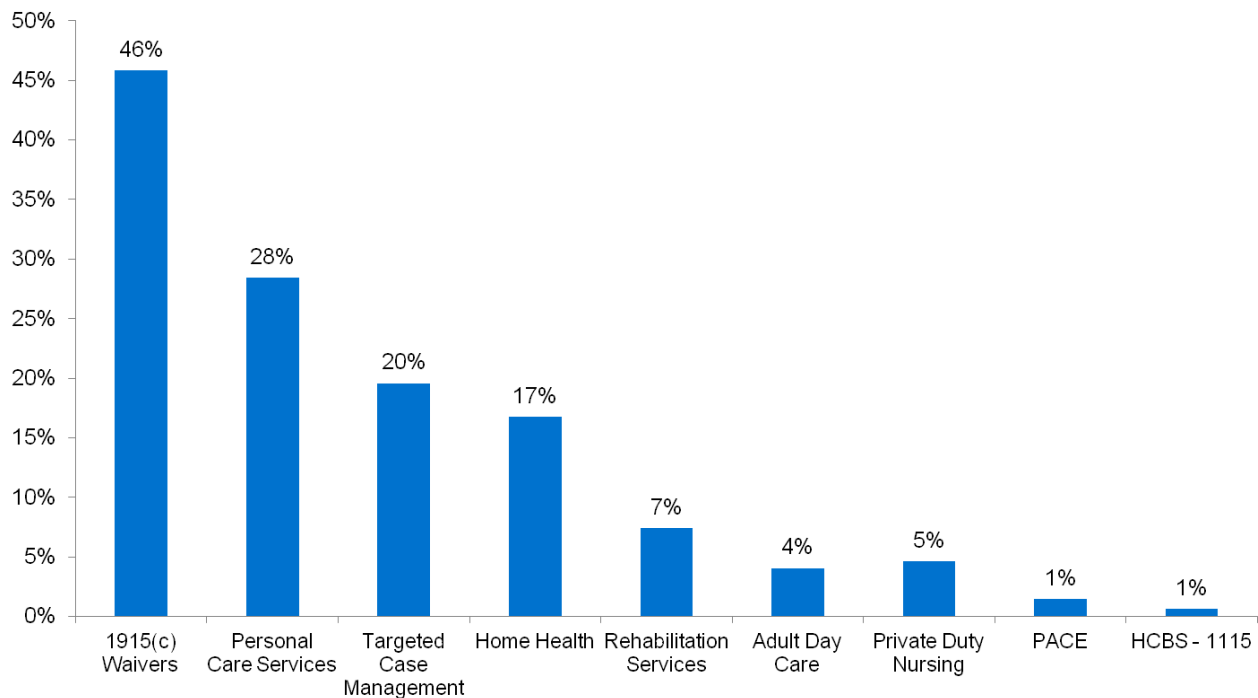


## Beneficiaries by Type of HCBS

Nine types of HCBS benefits were identified in this analysis, including Section 1915(c) waivers, Section 1115 demonstrations that provide similar HCBS, and seven state plan services: personal care, targeted case management, home health, rehabilitation services, adult day care, private duty nursing, and PACE. Two state plan HCBS options used by states during 2011—HCBS authorized under Sections 1915(i) and 1915(j)—were not identified in MAX data and were not included in this analysis.<sup>9</sup>

The most common type of HCBS was Section 1915(c) waivers, used by 46 percent of total HCBS beneficiaries (see Figure 4). Total HCBS beneficiaries include people who also received institutional services. State plan personal care (28 percent) and targeted case management (20 percent) were the next most common types of HCBS.

**Figure 4: Percentage of Medicaid HCBS Beneficiaries who Received Each Type of HCBS, 2011**



Source: Medicaid Analytic eXtract (MAX). Data for 2010 are used for Arizona, Colorado, the District of Columbia, Hawaii, Idaho, Massachusetts, Ohio, Texas, and Wisconsin because these states did not have 2011 data in MAX. Kansas and Maine are excluded because MAX did not include data for either year.

Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

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

<sup>9</sup> HCBS authorized in Sections 1915(i) and 1915(j) are included in data states submit in the Transformed Medicaid Statistical Information System (T-MSIS) and will be available for analyses based on T-MSIS.

The sum of people who received each type of HCBS was 29 percent more than the unduplicated total of HCBS participants. This means that many people received more than one type of HCBS. This could happen for several reasons, including states' design of their 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 then additional hours covered by a 1915(c) waiver as extended state plan services.

As shown in Table 3 on the following pages, section 1915(c) waivers were the most common type of HCBS in 35 states (71 percent). Other states served more individuals in personal care, targeted case management, home health, and 1115 demonstrations that provide HCBS.

**Table 3: Beneficiaries who Received Medicaid HCBS, 2011**

State	Total HCBS <sup>1</sup>	1915(c) Waivers	Personal Care Services	Targeted Case Management	Home Health	Rehabilitation Services	Adult Day Care	Private Duty Nursing	PACE	HCBS - 1115
Alabama <sup>2,3</sup>	167,172	14,563	0	19,010	16,670	3,420	0	133,037	0	0
Alaska <sup>4</sup>	8,962	6,010	4,854	193	294	12	0	16	0	0
Arizona <sup>3</sup>	255	0	0	0	255	0	0	0	0	255
Arkansas	30,011	15,213	14,869	10,828	6,164	60	0	96	98	0
California <sup>3</sup>	655,137	115,468	488,286	162,243	23,295	35,756	42,689	154	10,861	0
Colorado	44,834	38,412	0	0	11,736	1,090	0	239	2,213	0
Connecticut	42,052	24,049	373	14,536	26,320	0	21	0	0	0
Delaware <sup>3</sup>	4,368	3,164	0	0	953	696	0	50	0	0
Dist. of Columbia <sup>3,4,6</sup>	11,034	5,804	6,430	0	6,907	2,213	0	0	0	0
Florida <sup>3,4</sup>	112,107	82,069	0	18,663	17,698	1,265	0	0	739	0
Georgia <sup>3</sup>	56,953	48,646	0	4,800	6,458	0	0	747	0	0
Hawaii <sup>3,6</sup>	3,586	3,422	0	1,950	41	1	1	130	23	0
Idaho <sup>4</sup>	22,648	14,280	4,663	9,922	1,850	2,360	1,362	3,160	0	0
Illinois <sup>4,6</sup>	174,994	128,783	2,670	37,896	13,045	1,349	0	561	0	0
Indiana	31,687	24,310	0	1,587	11,551	426	0	0	0	0
Iowa <sup>3</sup>	48,835	29,882	0	12,031	26,297	262	1,499	0	139	0
Kansas <sup>7</sup>	-	-	-	-	-	-	-	-	-	-
Kentucky <sup>3</sup>	36,176	22,087	0	10,283	7,235	57	0	0	0	0
Louisiana <sup>6</sup>	65,580	38,805	18,586	11,770	10,439	0	4	0	317	0
Maine <sup>7</sup>	-	-	-	-	-	-	-	-	-	-
Maryland <sup>3</sup>	33,803	23,604	5,710	2,037	6,505	399	7,410	854	182	0
Massachusetts <sup>4</sup>	85,202	23,025	15,056	27,151	20,804	0	7,795	0	16,253	0
Michigan <sup>6</sup>	98,731	12,046	80,129	53,249	5,569	1,344	68	2,053	854	0
Minnesota <sup>3</sup>	126,513	61,474	26,722	21,534	61,476	131	0	862	0	0
Mississippi <sup>3</sup>	37,852	20,624	579	16,405	6,729	0	0	74	0	0
Missouri	84,432	29,555	53,516	18,602	6,828	8,539	2,047	616	228	0
Montana	13,049	7,274	3,683	4,142	347	116	291	0	0	0
Nebraska <sup>3</sup>	15,131	10,342	2,316	0	3,091	1	284	105	0	0
Nevada <sup>3,4</sup>	17,913	4,684	6,895	7,621	665	4,223	684	0	0	0
New Hampshire <sup>4</sup>	11,100	8,841	221	0	2,939	544	157	144	0	0
New Jersey <sup>3,4</sup>	83,163	26,281	31,426	1,200	6,482	17,355	14,899	414	530	0
New Mexico <sup>4,6</sup>	7,446	5,088	797	832	266	64	0	31	458	0
New York	286,804	119,096	84,445	7,369	115,883	54,300	28,103	2,263	4,293	0
North Carolina <sup>4</sup>	114,454	25,674	62,509	29,529	37,411	0	23	0	294	0
North Dakota <sup>3,4,6</sup>	8,794	6,584	711	363	462	2,531	0	0	79	0

State	Total HCBS <sup>1</sup>	1915(c) Waivers	Personal Care Services	Targeted Case Management	Home Health	Rehabilitation Services	Adult Day Care	Private Duty Nursing	PACE	HCBS - 1115
Ohio	130,293	81,828	0	0	36,911	57,083	0	9,798	0	0
Oklahoma <sup>3</sup>	35,819	27,075	3,978	6,123	7,026	0	0	0	103	0
Oregon <sup>3</sup>	50,549	44,237	2,892	606	409	3,265	0	358	1,081	0
Pennsylvania <sup>3, 6</sup>	135,136	99,447	0	28,771	13,175	6,571	6	102	3,637	0
Rhode Island <sup>3, 4, 8</sup>	15,579	3,673	473	5,475	1,959	3,928	2,679	0	247	9,373
South Carolina <sup>3, 4</sup>	38,347	25,430	2,406	17,052	4,105	3,067	4,491	174	499	0
South Dakota <sup>3, 4</sup>	6,081	4,918	2,665	0	439	370	0	58	0	0
Tennessee <sup>3</sup>	10,755	8,416	0	0	151	1,897	104	0	361	0
Texas <sup>3, 4, 6</sup>	238,689	129,070	9,119	88,717	31,653	16,658	21,799	19	1,128	0
Utah <sup>3, 4</sup>	8,196	6,513	491	9	1,965	140	2	32	0	0
Vermont <sup>8</sup>	11,952	6,341	2,724	1,945	3,675	14	0	0	143	11,024
Virginia <sup>3, 4, 6</sup>	49,655	44,901	50	1,731	3,306	1,638	13	198	872	0
Washington	82,013	49,356	26,104	1,392	2,796	11,333	2,475	103	506	0
West Virginia	24,595	13,294	5,772	730	2,752	3,892	0	633	0	0
Wisconsin <sup>3, 4, 6</sup>	35,652	19,052	765	10,675	479	2,952	0	104	4,630	0
Wyoming	6,105	4,488	0	960	557	1,878	0	0	0	0
United States	3,420,194	1,567,198	972,885	669,932	574,023	253,200	138,906	157,185	50,768	20,652

Data Source: Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

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

<sup>2</sup> Alabama data include more than 100,000 more private duty nursing beneficiaries than the next highest state. The reason for this data anomaly is not known.

<sup>3</sup> The number of home health beneficiaries in an available benchmark differed from the number of beneficiaries in this MAX analysis by more than 20 percent. See Table A-3 for the benchmark.

<sup>4</sup> The number of personal care beneficiaries in an available benchmark differed from the number of beneficiaries in this MAX analysis by more than 20 percent. See Table A-4 for the benchmark.

<sup>5</sup> This report uses 2010 data for Arizona, Colorado, the District of Columbia, Hawaii, Idaho, Massachusetts, Ohio, Texas, and Wisconsin because MAX does not include 2011 data for these states.

<sup>6</sup> The number of 1915(c) waiver beneficiaries in two available benchmarks differed from the number of beneficiaries in this MAX analysis by more than 20 percent. See Table A-5 for the benchmarks.

<sup>7</sup> MAX does not include 2010 data for Kansas and Maine.

<sup>8</sup> Rhode Island and Vermont provide services similar to 1915(c) waivers in 1115 demonstrations. These states categorized these services as 1915(c) waiver services in the Medicaid Statistical Information System (MSIS), the source data for MAX.

## Beneficiary Data by Age Group

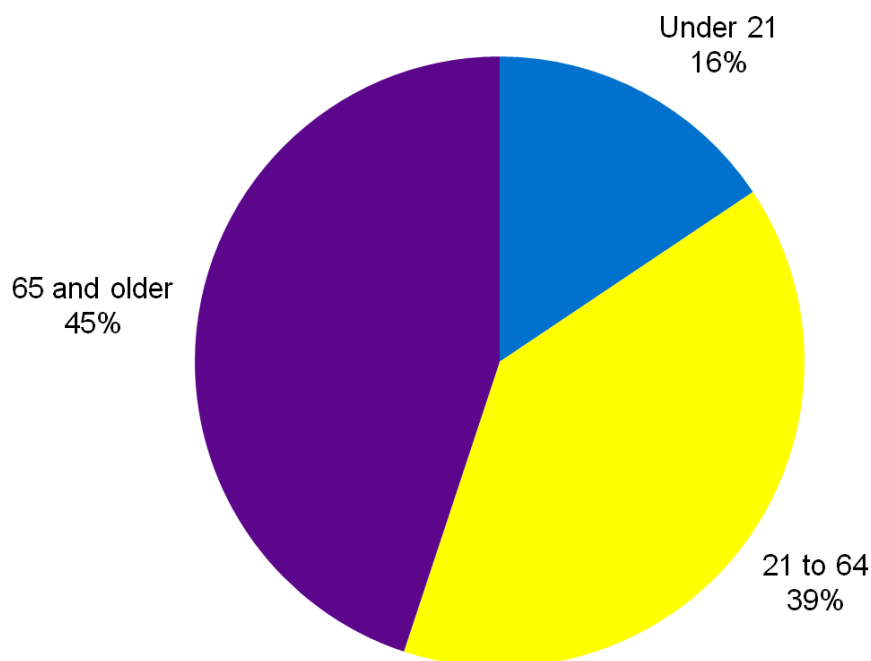
For the 40 states with 2011 MAX data, we categorized beneficiaries based on three age groups:

- Children under age 21
- Adults age 21 through 64
- Older adults age 65 or older

Age was defined based on the beneficiary's age as of January 1, 2011.

The 40 states with 2011 data included almost four million beneficiaries. Figure 5 displays the distribution of LTSS beneficiaries by age. The largest age group was older adults (45 percent). A majority of beneficiaries were under age 65, however. Working-age adults were 39 percent of beneficiaries and children comprised 16 percent of beneficiaries.

**Figure 5. Distribution of Medicaid LTSS Beneficiaries by Age Group, 2011**



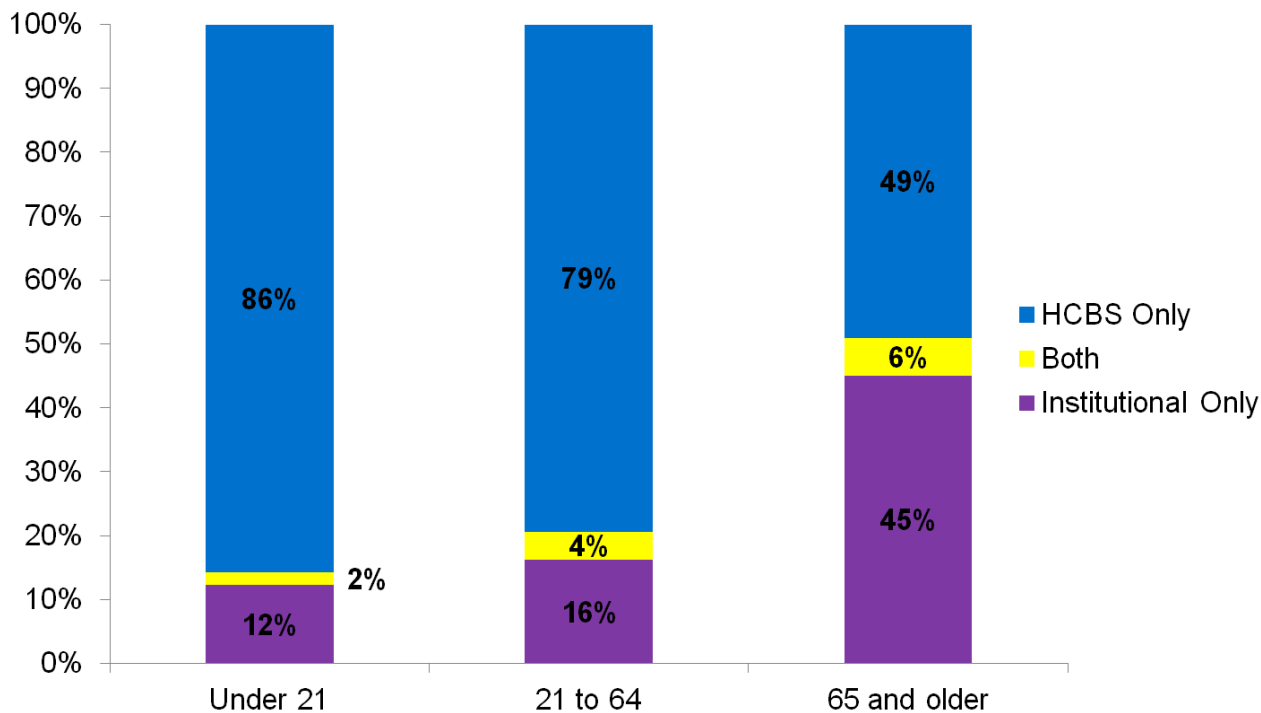
Source: Medicaid Analytic eXtract (MAX). Data were not included for Arizona, Colorado, the District of Columbia, Hawaii, Idaho, Kansas, Maine, Massachusetts, Ohio, Texas, and Wisconsin because these states did not have 2011 data in MAX.

Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Age data were not available for 48,322 beneficiaries, one percent of total beneficiaries.

For each age group, more people used HCBS than received institutional services. Older adults were more likely to have institutional supports. When including people who received both institutional services and HCBS, 55 percent of older adults received HCBS while more than 80 percent of people under age 65 used HCBS.

**Figure 6: Percentage of Medicaid LTSS Beneficiaries who Received HCBS by Age Group, 2011**



Source: Medicaid Analytic eXtract (MAX). Data were not included for Arizona, Colorado, the District of Columbia, Hawaii, Idaho, Kansas, Maine, Massachusetts, Ohio, Texas, and Wisconsin because these states did not have 2011 data in MAX.

Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Age data were not available for 48,322 beneficiaries, one percent of total beneficiaries.

A series of tables show state-level data by age group, starting with children under age 21. Table 4 on the following pages presents summary data for institutional services and HCBS for children. More than 80 percent of beneficiaries received HCBS in a majority of states (25 of 40; 63 percent). The four states with the lowest percentage of beneficiaries receiving HCBS were Tennessee, Oklahoma, Arkansas, and New Mexico. Tennessee and New Mexico may appear on this list because data for community-based services are missing. These states provided most services through comprehensive managed care programs. This report does not include managed care data as explained in Appendix A.

**Table 4: Children under Age 21 who Received Any Type of Medicaid Long-Term Services and Supports, 2011**

State	Total Unduplicated	Total Institutional Only	Percent Institutional Only	Total HCBS Only	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
Alabama	97,628	1,658	1.7	94,931	97.2	1,039	1.1
Alaska	2,738	1,126	41.1	1,546	56.5	66	2.4
Arkansas	10,522	5,826	55.4	4,327	41.1	369	3.5
California	90,575	1,998	2.2	87,846	97.0	731	0.8
Connecticut	2,677	664	24.8	1,954	73.0	59	2.2
Delaware	266	92	34.6	169	63.5	5	1.9
Florida	18,124	324	1.8	17,724	97.8	76	0.4
Georgia	6,543	46	0.7	6,481	99.1	16	0.2
Illinois	27,838	6,569	23.6	20,266	72.8	1,003	3.6
Indiana	8,161	2,490	30.5	5,489	67.3	182	2.2
Iowa	17,976	1,107	6.2	16,660	92.7	209	1.2
Kentucky	13,084	3,550	27.1	9,074	69.4	460	3.5
Louisiana	29,546	3,121	10.6	24,621	83.3	1,804	6.1
Maryland	7,918	2,575	32.5	5,267	66.5	76	1.0
Michigan	16,200	4,853	30.0	11,173	69.0	174	1.1
Minnesota	23,725	246	1.0	23,169	97.7	310	1.3
Mississippi	9,543	3,071	32.2	5,976	62.6	496	5.2
Missouri	6,104	166	2.7	5,909	96.8	29	0.5
Montana	3,011	301	10.0	2,599	86.3	111	3.7
Nebraska	2,842	766	27.0	2,056	72.3	20	0.7
Nevada	6,473	1,177	18.2	5,041	77.9	255	3.9
New Hampshire	2,609	344	13.2	2,203	84.4	62	2.4
New Jersey	20,759	1,482	7.1	18,717	90.2	560	2.7
New Mexico	3,467	1,783	51.4	1,659	47.9	25	0.7
New York	63,253	10,731	17.0	50,051	79.1	2,471	3.9
North Carolina	19,374	3,496	18.0	15,674	80.9	204	1.1
North Dakota	2,743	243	8.9	2,454	89.5	46	1.7
Oklahoma	7,168	4,261	59.4	2,784	38.8	123	1.7
Oregon	5,445	1,020	18.7	4,217	77.4	208	3.8
Pennsylvania	37,087	1,182	3.2	35,753	96.4	152	0.4
Rhode Island	3,737	147	3.9	3,541	94.8	49	1.3
South Carolina	8,945	943	10.5	7,708	86.2	294	3.3
South Dakota	1,964	797	40.6	1,144	58.2	23	1.2
Tennessee	3,351	2,811	83.9	494	14.7	46	1.4
Utah	1,905	216	11.3	1,659	87.1	30	1.6
Vermont	3,917	4	0.1	3,908	99.8	5	0.1
Virginia	11,527	1,034	9.0	10,184	88.3	309	2.7
Washington	7,452	771	10.3	6,598	88.5	83	1.1

State	Total Unduplicated	Total Institutional Only	Percent Institutional Only	Total HCBS Only	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
West Virginia	5,373	1,769	32.9	3,406	63.4	198	3.7
Wyoming	1,495	267	17.9	1,197	80.1	31	2.1
States with 2011 Data	613,065	75,027	12.2	525,629	85.7	12,409	2.0

Data Source: Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Data do not include Arizona, Colorado, the District of Columbia, Hawaii, Kansas, Idaho, Maine, Massachusetts, Ohio, Texas, and Wisconsin because MAX does not include 2011 data for these states.

As shown in Table 5, the most common institutional service for children was inpatient psychiatric facilities for persons under age 21 (about 77,000 beneficiaries). These facilities were the most common type of institutional service in 36 of the 40 states with data (90 percent). Three states did not provide psychiatric facility services to any children (California, Florida, and Georgia). A fourth state, Delaware, reported a greater number of children who received services in institutions for mental disease for persons age 65 and older, a benefit unavailable to children. The reason for this error is not known.

**Table 5: Children under Age 21 who Received Medicaid Institutional LTSS, 2011**

State	Total Institutional Only	Nursing Facilities	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Institutions for Mental Disease for Persons Age 65 and Older
Alabama	2,697	127	5	2,565	0
Alaska	1,192	0	9	1,185	0
Arkansas	6,195	11	308	5,904	0
California	2,729	759	1,994	0	0
Connecticut	723	94	6	622	1
Delaware	97	30	2	14	52
Florida	400	283	119	0	0
Georgia	62	22	40	0	0
Illinois	7,572	106	453	7,036	16
Indiana	2,672	171	291	2,227	0
Iowa	1,316	110	335	889	0
Kentucky	4,010	178	21	3,814	0
Louisiana	4,925	38	515	4,425	0
Maryland	2,651	32	2	2,617	0
Michigan	5,027	248	0	4,771	14
Minnesota	556	21	130	407	0
Mississippi	3,567	8	359	3,212	0
Missouri	195	29	2	165	0
Montana	412	7	6	399	0



State	Total Institutional Only	Nursing Facilities	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Institutions for Mental Disease for Persons Age 65 and Older
Nebraska	786	50	22	715	0
Nevada	1,432	37	28	1,368	0
New Hampshire	406	23	42	341	0
New Jersey	2,042	245	8	1,790	0
New Mexico	1,808	2	17	1,805	0
New York	13,202	825	857	11,590	0
North Carolina	3,700	16	440	3,259	0
North Dakota	289	6	111	172	0
Oklahoma	4,384	180	119	4,166	0
Oregon	1,228	79	0	1,149	0
Pennsylvania	1,334	39	172	1,124	0
Rhode Island	196	3	16	151	42
South Carolina	1,237	1	49	1,187	0
South Dakota	820	3	99	771	0
Tennessee	2,857	14	36	2,810	0
Utah	246	58	77	114	0
Vermont	9	6	0	0	3
Virginia	1,343	269	132	962	0
Washington	854	29	2	823	0
West Virginia	1,967	5	90	1,856	39
Wyoming	298	1	1	296	0
States with 2011 Data	87,436	4,165	6,915	76,701	167

Data Source: Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Data do not include Arizona, Colorado, the District of Columbia, Hawaii, Kansas, Idaho, Maine, Massachusetts, Ohio, Texas, and Wisconsin because MAX does not include 2011 data for these states.

The most common type of HCBS for children under age 21 was 1915(c) waiver services (199,000 individuals), followed closely by case management (183,000 individuals; see Table 6 on the following pages). For half of the 40 states with data, 1915(c) waiver services were the most common type of HCBS. Case management beneficiaries were concentrated in fewer states: this service was the most common type of HCBS for only ten states.

**Table 6: Children under age 21 who Received Medicaid HCBS, 2011**

State	Total HCBS Only	1915(c) Waivers	Personal Care	Case Management	Home Health	Rehabilitation Services	Adult Day Care	Private Duty Nursing	PACE	HCBS - 1115
Alabama	95,970	826	0	3,753	4,876	3,371	0	88,002	0	0
Alaska	1,612	1,472	130	120	17	12	0	14	0	0
Arkansas	4,696	1,049	488	2,812	674	48	0	74	0	0
California	88,577	40,343	31,628	67,000	6,388	16,814	460	150	0	0
Connecticut	2,013	898	0	723	895	0	0	0	0	0
Delaware	174	39	0	0	69	51	0	25	0	0
Florida	17,800	7,990	0	7,667	3,979	1,195	0	0	0	0
Georgia	6,497	2,961	0	3,728	202	0	0	706	0	0
Illinois	21,269	4,885	2,670	12,113	2,989	1,229	0	544	0	0
Indiana	5,671	4,600	0	725	1,474	164	0	0	0	0
Iowa	16,869	6,676	0	3,762	10,945	22	112	0	0	0
Kentucky	9,534	5,078	0	4,549	629	0	0	0	0	0
Louisiana	26,425	20,538	2,161	4,449	3,191	0	1	0	0	0
Maryland	5,343	1,859	238	154	3,403	9	973	660	0	0
Michigan	11,347	559	8,747	1,347	1,066	413	0	1,743	0	0
Minnesota	23,479	6,149	10,527	5,927	8,691	0	0	468	0	0
Mississippi	6,472	408	157	5,698	438	0	0	70	0	0
Missouri	5,938	1,473	869	3,688	904	312	100	591	2	0
Montana	2,710	1,794	280	833	27	7	23	0	0	0
Nebraska	2,076	1,293	568	0	345	1	2	32	0	0
Nevada	5,296	202	176	3,196	208	3,208	9	0	0	0
New Hampshire	2,265	1,764	7	0	588	287	2	116	0	0
New Jersey	19,277	818	1,012	895	965	17,237	19	405	0	0
New Mexico	1,684	893	28	734	56	3	0	31	0	0
New York	52,522	30,555	3,541	6,716	9,719	23,349	506	1,538	0	0
North Carolina	15,878	5,938	1,346	11,482	4,040	0	2	0	0	0
North Dakota	2,500	2,277	9	16	41	266	0	0	0	0
Oklahoma	2,907	901	126	1,671	1,291	0	0	0	0	0
Oregon	4,425	3,110	1,044	509	19	240	0	169	0	0
Pennsylvania	35,905	21,946	0	17,128	2,946	6,348	0	89	0	0
Rhode Island	3,590	10	3	3,108	191	1,855	3	0	0	432
South Carolina	8,002	2,078	1,059	6,404	412	2,759	112	164	0	0
South Dakota	1,167	928	715	0	150	215	0	56	0	0
Tennessee	540	535	0	0	0	5	8	0	0	0
Utah	1,689	1,403	52	8	431	2	0	25	0	0

State	Total HCBS Only	1915(c) Waivers	Personal Care	Case Management	Home Health	Rehabilitation Services	Adult Day Care	Private Duty Nursing	PACE	HCBS - 1115
Vermont	3,913	573	2,465	1,016	931	0	0	0	0	3,407
Virginia	10,493	9,655	20	174	355	1,017	0	179	0	0
Washington	6,681	1,686	3,640	50	170	1,689	64	28	0	0
West Virginia	3,604	1,623	103	574	121	799	0	629	0	0
Wyoming	1,228	985	0	136	89	369	0	0	0	0
States with 2011 Data	538,038	198,770	73,809	182,865	73,925	83,296	2,396	96,508	2	3,839

Data Source: Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Data do not include Arizona, Colorado, the District of Columbia, Hawaii, Kansas, Idaho, Maine, Massachusetts, Ohio, Texas, and Wisconsin because MAX does not include 2011 data for these states.

Table 7 presents summary data for institutional services and HCBS for adults age 21 through 64. In most states (29 of 40; 73 percent), between 70 and 90 percent of beneficiaries received HCBS. Six states provided HCBS to more than 90 percent of LTSS beneficiaries in this age group: Minnesota, Alaska, Alabama, Oregon, Wyoming, and Montana.

Five states provided HCBS to less than 70 percent of beneficiaries in this age group: Tennessee, Delaware, Louisiana, Indiana, and Utah. Three of these states may serve a higher percentage of beneficiaries using HCBS than the data indicate. Tennessee may on this list because data for community-based services are missing; Tennessee provides most services through a comprehensive managed care program. This report does not include managed care data as explained in Appendix A. Data in Delaware and Louisiana likely reflect an error in categorizing services: the data indicate a majority of institutional beneficiaries received services in institutions for mental disease for persons age 65 and older, a benefit unavailable to people age 21 through 64.

**Table 7: Adults Age 21 through 64 who Received Any Type of Medicaid Long-Term Services and Supports, 2011**

State	Total Unduplicated	Total Institutional Only	Percent Institutional Only	Total HCBS Only	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
Alabama	54,872	3,311	6.0	49,669	90.5	1,892	3.4
Alaska	4,014	186	4.6	3,742	93.2	86	2.1
Arkansas	16,903	4,554	26.9	11,738	69.4	611	3.6
California	290,330	29,486	10.2	249,500	85.9	11,344	3.9
Connecticut	29,311	5,171	17.6	21,879	74.6	2,261	7.7
Delaware	4,800	1,907	39.7	2,756	57.4	137	2.9

State	Total Unduplicated	Total Institutional Only	Percent Institutional Only	Total HCBS Only	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
Florida	62,135	14,258	22.9	46,899	75.5	978	1.6
Georgia	38,533	6,651	17.3	30,746	79.8	1,136	2.9
Illinois	107,781	21,660	20.1	75,973	70.5	10,148	9.4
Indiana	28,867	9,349	32.4	18,158	62.9	1,360	4.7
Iowa	20,630	3,719	18.0	16,172	78.4	739	3.6
Kentucky	26,439	6,231	23.6	18,753	70.9	1,455	5.5
Louisiana	42,929	16,285	37.9	24,718	57.6	1,926	4.5
Maryland	23,774	5,492	23.1	17,531	73.7	751	3.2
Michigan	66,573	9,336	14.0	54,752	82.2	2,485	3.7
Minnesota	73,400	1,942	2.6	66,136	90.1	5,322	7.3
Mississippi	25,225	5,455	21.6	19,255	76.3	515	2.0
Missouri	61,286	8,101	13.2	51,394	83.9	1,791	2.9
Montana	8,371	641	7.7	7,409	88.5	321	3.8
Nebraska	9,046	2,120	23.4	6,570	72.6	356	3.9
Nevada	8,747	1,098	12.6	7,295	83.4	354	4.0
New Hampshire	6,372	658	10.3	5,400	84.7	314	4.9
New Jersey	35,045	8,479	24.2	25,437	72.6	1,129	3.2
New Mexico	6,280	1,589	25.3	4,599	73.2	92	1.5
New York	148,590	27,327	18.4	115,004	77.4	6,259	4.2
North Carolina	65,356	8,759	13.4	54,724	83.7	1,873	2.9
North Dakota	5,020	824	16.4	3,920	78.1	276	5.5
Oklahoma	22,478	5,117	22.8	16,678	74.2	683	3.0
Oregon	26,732	1,672	6.3	23,896	89.4	1,164	4.4
Pennsylvania	77,171	14,194	18.4	59,611	77.2	3,366	4.4
Rhode Island	7,926	1,009	12.7	6,422	81.0	495	6.2
South Carolina	22,370	3,077	13.8	18,893	84.5	400	1.8
South Dakota	4,027	751	18.6	3,126	77.6	150	3.7
Tennessee	14,677	6,085	41.5	8,412	57.3	180	1.2
Utah	6,929	2,160	31.2	4,411	63.7	358	5.2
Vermont	5,353	563	10.5	4,523	84.5	267	5.0
Virginia	26,156	4,821	18.4	18,703	71.5	2,632	10.1
Washington	47,001	5,105	10.9	39,695	84.5	2,201	4.7
West Virginia	16,815	2,550	15.2	13,516	80.4	749	4.5
Wyoming	3,814	261	6.8	3,424	89.8	129	3.4
States with 2011 Data	1,552,078	251,954	16.2	1,231,439	79.3	68,685	4.4

Data Source: Medicaid Analytic eXtract (MAX) Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Data do not include Arizona, Colorado, the District of Columbia, Hawaii, Kansas, Idaho, Maine, Massachusetts, Ohio, Texas, and Wisconsin because MAX does not include 2011 data for these states.

Nursing facility services were the most common institutional service for people age 21 through 64 (244,000 people; see Table 8). This type of service was the most common institutional service in 38 of the 40 states with data (95 percent). Two states, Delaware and Louisiana, reported more individuals received services in institutions for mental disease for persons age 65 and older, which likely reflects an error in categorizing services.

**Table 8: Adults Age 21 through 64 who Received Medicaid Institutional LTSS, 2011**

State	Total Institutional Only	Nursing Facilities	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Institutions for Mental Disease for Persons Age 65 and Older
Alabama	5,203	5,046	158	1	6
Alaska	272	263	8	1	0
Arkansas	5,165	3,329	1,252	626	0
California	40,830	32,638	8,589	0	0
Connecticut	7,432	6,211	878	313	53
Delaware	2,044	852	107	0	1,097
Florida	15,236	12,766	2,478	0	12
Georgia	7,787	7,219	572	0	0
Illinois	31,808	23,544	7,212	15	1,503
Indiana	10,709	7,313	3,445	0	10
Iowa	4,458	2,751	1,711	23	1
Kentucky	7,686	7,172	488	29	15
Louisiana	18,211	7,035	4,318	84	7,733
Maryland	6,243	6,090	130	21	2
Michigan	11,821	11,417	1	361	49
Minnesota	7,264	4,765	2,517	17	4
Mississippi	5,970	3,726	2,268	2	2
Missouri	9,892	9,278	616	0	0
Montana	962	904	57	0	1
Nebraska	2,476	1,855	318	307	0
Nevada	1,452	1,368	83	1	0
New Hampshire	972	958	0	14	0
New Jersey	9,608	7,307	2,282	6	18
New Mexico	1,681	1,422	233	31	4
New York	33,586	26,060	6,936	504	481
North Carolina	10,632	7,387	3,297	0	2
North Dakota	1,100	680	428	1	0
Oklahoma	5,800	4,370	1,447	7	9
Oregon	2,836	2,783	0	53	0
Pennsylvania	17,560	12,254	3,063	52	2,356

State	Total Institutional Only	Nursing Facilities	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Institutions for Mental Disease for Persons Age 65 and Older
Rhode Island	1,504	1,433	23	1	48
South Carolina	3,477	2,280	1,206	3	8
South Dakota	901	733	120	0	56
Tennessee	6,265	5,343	921	0	7
Utah	2,518	1,838	701	3	5
Vermont	830	566	6	0	261
Virginia	7,453	5,759	1,244	0	706
Washington	7,306	4,734	44	30	2,560
West Virginia	3,299	2,147	416	131	636
Wyoming	390	326	65	0	1
States with 2011 Data	320,639	243,922	59,638	2,637	17,646

Data Source: Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Data do not include Arizona, Colorado, the District of Columbia, Hawaii, Kansas, Idaho, Maine, Massachusetts, Ohio, Texas, and Wisconsin because MAX does not include 2011 data for these states.

Section 1915(c) waiver services were the most common type of HCBS among people age 21 through 64 (597,000; see Table 9). These waivers were the most common type of HCBS for 29 of the 40 states with data (78%).

**Table 9: Adults Age 21 through 64 who Received Medicaid HCBS, 2011**

State	Total HCBS Only	1915(c) Waivers	Personal Care	Case Management	Home Health	Rehabilitation Services	Adult Day Care	Private Duty Nursing	PACE	HCBS - 1115
Alabama	51,561	8,479	0	14,142	7,526	0	0	33,371	0	0
Alaska	3,828	2,549	2,202	39	252	0	0	0	0	0
Arkansas	12,349	5,686	5,558	350	3,416	12	0	21	11	0
California	260,844	58,501	178,248	89,519	13,584	9,337	8,020	0	442	0
Connecticut	24,140	9,595	22	12,924	13,843	0	7	0	0	0
Delaware	2,893	2,034	0	0	499	636	0	22	0	0
Florida	47,877	33,288	0	7,389	10,216	0	0	0	151	0
Georgia	31,882	27,498	0	886	5,724	0	0	0	0	0
Illinois	86,121	58,619	0	24,238	8,309	117	0	0	0	0
Indiana	19,518	14,399	0	731	7,149	238	0	0	0	0
Iowa	16,911	11,087	0	7,818	6,949	239	1,346	0	72	0

State	Total HCBS Only	1915(c) Waivers	Personal Care	Case Management	Home Health	Rehabilitation Services	Adult Day Care	Private Duty Nursing	PACE	HCBS - 1115
Kentucky	20,208	11,589	0	5,426	5,030	38	0	0	0	0
Louisiana	26,644	13,704	9,430	6,882	5,813	0	3	0	52	0
Maryland	18,282	15,007	2,338	1,540	1,623	386	2,496	181	25	0
Michigan	57,237	4,018	50,003	36,319	3,106	768	9	83	129	0
Minnesota	71,458	29,246	15,228	14,952	45,171	130	0	338	0	0
Mississippi	19,770	9,306	413	9,874	3,514	0	0	0	0	0
Missouri	53,185	10,080	31,069	14,210	5,098	7,668	1,435	1	47	0
Montana	7,730	3,438	2,339	3,152	306	106	256	0	0	0
Nebraska	6,926	5,225	1,066	0	849	0	244	24	0	0
Nevada	7,649	2,110	3,027	4,247	403	936	188	0	0	0
New Hampshire	5,714	4,575	182	0	1,511	243	74	27	0	0
New Jersey	26,566	12,933	10,220	300	3,888	5	3,702	0	123	0
New Mexico	4,691	3,758	739	4	119	41	0	0	45	0
New York	121,263	62,161	21,870	310	37,438	20,125	16,331	591	393	0
North Carolina	56,597	10,956	30,875	15,346	18,762	0	11	0	49	0
North Dakota	4,196	2,545	431	338	332	1,933	0	0	7	0
Oklahoma	17,361	13,497	2,147	4,269	3,974	0	0	0	25	0
Oregon	25,060	21,464	1,185	67	367	2,832	0	118	128	0
Pennsylvania	62,977	45,964	0	10,397	8,873	11	6	0	467	0
Rhode Island	6,917	1,444	178	523	588	1,804	2,049	0	44	4,958
South Carolina	19,293	14,174	519	9,856	3,068	169	3,991	1	64	0
South Dakota	3,276	2,847	837	0	150	140	0	0	0	0
Tennessee	8,592	7,263	0	0	62	1,283	90	0	42	0
Utah	4,769	3,627	256	1	1,115	137	1	6	0	0
Vermont	4,790	3,069	154	793	1,809	11	0	0	20	4,506
Virginia	21,335	18,501	10	621	2,605	521	4	0	133	0
Washington	41,896	23,832	11,614	1,318	2,467	8,654	1,660	72	59	0
West Virginia	14,265	6,578	3,677	98	2,599	3,017	0	0	0	0
Wyoming	3,553	2,429	0	676	327	1,281	0	0	0	0
States with 2011 Data	1,300,124	597,075	385,837	299,555	238,434	62,818	41,923	34,856	2,528	9,464

Data Source: Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Data do not include Arizona, Colorado, the District of Columbia, Hawaii, Kansas, Idaho, Maine, Massachusetts, Ohio, Texas, and Wisconsin because MAX does not include 2011 data for these states.

Table 10 presents data for adults age 65 or older. Just over half of states (21 of 40; 53 percent) provided HCBS to between 30 and 50 percent of LTSS beneficiaries in this age group. Four states served more than 70 percent of older adults in the community: Alaska, Oregon, California, and Washington. In six states, less than 30 percent of beneficiaries received HCBS: Tennessee, New Mexico, Indiana, Kentucky, South Dakota, and Delaware. New Mexico and Tennessee likely appear on this list because they have large managed care programs and this report does not include managed care data.

**Table 10: Older Adults who Received Any Type of Medicaid Long-Term Services and Supports, 2011**

State	Total Unduplicated	Total Institutional Only	Percent Institutional Only	Total HCBS Only	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
Alabama	29,470	16,359	55.5	9,995	33.9	3,116	10.6
Alaska	3,940	473	12.0	3,335	84.6	132	3.4
Arkansas	25,975	13,692	52.7	10,688	41.1	1,595	6.1
California	384,670	81,501	21.2	282,032	73.3	21,137	5.5
Connecticut	35,952	20,540	57.1	11,804	32.8	3,608	10.0
Delaware	4,095	2,895	70.7	996	24.3	204	5.0
Florida	97,536	52,325	53.6	42,240	43.3	2,971	3.0
Georgia	44,862	26,581	59.3	16,877	37.6	1,404	3.1
Illinois	104,142	37,632	36.1	54,561	52.4	11,949	11.5
Indiana	35,656	29,289	82.1	5,329	14.9	1,038	2.9
Iowa	25,485	12,984	50.9	10,821	42.5	1,680	6.6
Kentucky	25,086	18,794	74.9	5,444	21.7	848	3.4
Louisiana	31,606	20,687	65.5	10,250	32.4	669	2.1
Maryland	25,776	16,670	64.7	8,453	32.8	653	2.5
Michigan	60,682	31,974	52.7	25,598	42.2	3,110	5.1
Minnesota	46,799	17,342	37.1	23,184	49.5	6,273	13.4
Mississippi	25,941	14,581	56.2	10,555	40.7	805	3.1
Missouri	48,004	23,247	48.4	22,035	45.9	2,722	5.7
Montana	5,595	3,473	62.1	1,734	31.0	388	6.9
Nebraska	11,789	7,120	60.4	3,672	31.1	997	8.5
Nevada	7,713	2,801	36.3	4,623	59.9	289	3.7
New Hampshire	8,195	5,569	68.0	2,083	25.4	543	6.6
New Jersey	66,195	29,467	44.5	33,428	50.5	3,300	5.0
New Mexico	5,995	5,096	85.0	828	13.8	71	1.2
New York	204,039	95,125	46.6	96,168	47.1	12,746	6.2
North Carolina	69,499	29,114	41.9	36,688	52.8	3,697	5.3
North Dakota	5,571	3,668	65.8	1,501	26.9	402	7.2
Oklahoma	28,089	13,891	49.5	12,793	45.5	1,405	5.0
Oregon	26,017	4,991	19.2	18,561	71.3	2,465	9.5



State	Total Unduplicated	Total Institutional Only	Percent Institutional Only	Total HCBS Only	Percent HCBS Only	Total Both Institutional and HCBS	Percent Both
Pennsylvania	95,517	63,572	66.6	28,063	29.4	3,882	4.1
Rhode Island	10,519	5,935	56.4	3,743	35.6	841	8.0
South Carolina	23,775	13,056	54.9	9,830	41.3	889	3.7
South Dakota	5,780	4,278	74.0	1,221	21.1	281	4.9
Tennessee	26,569	24,946	93.9	1,468	5.5	155	0.6
Utah	4,768	3,121	65.5	1,281	26.9	366	7.7
Vermont	5,387	2,389	44.3	2,464	45.7	534	9.9
Virginia	36,178	18,670	51.6	14,999	41.5	2,509	6.9
Washington	44,729	11,410	25.5	30,883	69.0	2,436	5.4
West Virginia	14,864	8,202	55.2	6,006	40.4	656	4.4
Wyoming	2,985	1,741	58.3	1,024	34.3	220	7.4
States with 2011 Data	1,765,445	795,201	45.0	867,258	49.1	102,986	5.8

Data Source: Medicaid Analytic eExtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Data do not include Arizona, Colorado, the District of Columbia, Hawaii, Kansas, Idaho, Maine, Massachusetts, Ohio, Texas, and Wisconsin because MAX does not include 2011 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 (887,000 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, 2011**

State	Total Institutional Only	Nursing Facilities	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Institutions for Mental Disease for Persons Age 65 and Older
Alabama	19,475	19,376	32	0	163
Alaska	605	594	0	0	12
Arkansas	15,287	15,223	51	75	0
California	102,638	101,630	1,390	0	0
Connecticut	24,148	23,863	205	38	55
Delaware	3,099	3,052	25	0	41
Florida	55,296	55,017	208	0	88
Georgia	27,985	27,908	78	0	0
Illinois	49,581	48,618	886	0	189
Indiana	30,327	29,832	415	0	169
Iowa	14,664	14,509	118	0	68
Kentucky	19,642	19,463	32	0	364

State	Total Unduplicated	Total Institutional Only	Percent Institutional Only	Total HCBS Only	Percent HCBS Only
Louisiana	21,356	20,578	356	0	1,164
Maryland	17,323	17,284	15	0	27
Michigan	35,084	34,958	0	4	205
Minnesota	23,615	23,320	277	0	41
Mississippi	15,386	15,112	273	0	50
Missouri	25,969	25,906	58	0	6
Montana	3,861	3,830	1	0	47
Nebraska	8,117	8,074	43	0	0
Nevada	3,090	3,082	1	0	10
New Hampshire	6,112	6,101	0	14	0
New Jersey	32,767	32,249	337	0	303
New Mexico	5,167	5,092	28	0	74
New York	107,871	105,415	941	0	2,712
North Carolina	32,811	32,462	315	0	68
North Dakota	4,070	3,999	71	0	7
Oklahoma	15,296	15,100	172	0	140
Oregon	7,456	7,452	0	1	5
Pennsylvania	67,454	66,784	464	0	322
Rhode Island	6,776	6,739	1	0	65
South Carolina	13,945	13,600	178	29	158
South Dakota	4,559	4,538	3	0	39
Tennessee	25,101	24,838	129	0	218
Utah	3,487	3,422	72	0	3
Vermont	2,923	2,912	0	0	15
Virginia	21,179	20,809	247	0	324
Washington	13,846	13,747	11	0	129
West Virginia	8,858	8,791	56	8	32
Wyoming	1,961	1,943	18	0	0
States with 2011 Data	898,187	887,222	7,507	169	7,313

Data Source: Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Data do not include Arizona, Colorado, the District of Columbia, Hawaii, Kansas, Idaho, Maine, Massachusetts, Ohio, Texas, and Wisconsin because MAX does not include 2011 data for these states.

Personal care was the most common type of HCBS for older adults (477,000 individuals; see Table 12), followed by Section 1915(c) waiver services (452,000 individuals). For 27 of the 40 states with data (68 percent), 1915(c) waiver services were the most common type of HCBS. Personal care beneficiaries were concentrated in a smaller number of states: this service was the most common type of HCBS for only nine states. More than half of the personal care beneficiaries (278,000 people) were in California.

**Table 12: Older Adults who Received Medicaid HCBS, 2011**

State	Total HCBS Only	1915(c) Waivers	Personal Care	Case Management	Home Health	Rehabilitation Services	Adult Day Care	Private Duty Nursing	PACE	HCBS - 1115
Alabama	13,111	5,258	0	1,043	4,085	0	0	5,341	0	0
Alaska	3,467	1,951	2,506	18	23	0	0	0	0	0
Arkansas	12,283	8,475	8,822	7,648	1,404	0	0	0	87	0
California	303,169	16,600	278,369	5,413	1,148	9,501	34,203	0	10,419	0
Connecticut	15,412	13,556	351	889	11,095	0	14	0	0	0
Delaware	1,200	1,091	0	0	284	9	0	2	0	0
Florida	45,211	40,778	0	2,524	3,337	0	0	0	588	0
Georgia	18,281	18,050	0	75	465	0	0	0	0	0
Illinois	66,510	65,259	0	1,507	700	3	0	0	0	0
Indiana	6,367	5,310	0	91	2,832	24	0	0	0	0
Iowa	12,501	12,115	0	450	5,851	1	41	0	67	0
Kentucky	6,292	5,383	0	298	1,468	19	0	0	0	0
Louisiana	10,919	4,341	6,991	264	162	0	0	0	265	0
Maryland	9,106	6,737	3,134	343	411	4	3,940	0	157	0
Michigan	28,708	7,469	21,378	15,583	78	0	59	209	725	0
Minnesota	29,457	26,074	957	650	5,507	1	0	49	0	0
Mississippi	11,360	10,910	9	677	2,667	0	0	0	0	0
Missouri	24,757	18,001	21,576	703	298	559	512	0	179	0
Montana	2,122	1,555	1,064	157	14	3	12	0	0	0
Nebraska	4,669	3,801	682	0	460	0	38	48	0	0
Nevada	4,912	2,372	3,692	142	26	79	487	0	0	0
New Hampshire	2,626	2,501	32	0	346	14	81	0	0	0
New Jersey	36,728	12,524	20,133	5	1,210	1	11,160	0	407	0
New Mexico	899	436	30	0	5	20	0	0	413	0
New York	108,914	26,357	59,032	11	64,885	10,401	11,264	114	3,900	0
North Carolina	40,385	8,773	30,282	2,174	13,422	0	10	0	245	0
North Dakota	1,903	1,579	271	9	67	331	0	0	72	0
Oklahoma	14,198	12,670	1,704	151	440	0	0	0	78	0
Oregon	21,026	19,657	662	3	16	193	0	65	953	0

State	Total HCBS Only	1915(c) Waivers	Personal Care	Case Management	Home Health	Rehabilitation Services	Adult Day Care	Private Duty Nursing	PACE	HCBS - 1115
Pennsylvania	31,945	28,081	0	914	255	0	0	5	3,170	0
Rhode Island	4,584	2,204	292	1,844	722	251	622	0	203	3,512
South Carolina	10,719	9,173	826	607	464	1	388	0	435	0
South Dakota	1,502	1,143	1,113	0	4	15	0	0	0	0
Tennessee	1,623	618	0	0	89	609	6	0	319	0
Utah	1,647	1,481	181	0	333	1	1	0	0	0
Vermont	2,998	2,699	25	134	756	3	0	0	123	2,861
Virginia	17,508	16,698	20	936	132	35	9	0	739	0
Washington	33,319	23,835	10,850	24	62	972	751	3	447	0
West Virginia	6,662	5,092	1,992	0	26	76	0	0	0	0
Wyoming	1,244	1,073	0	148	62	228	0	0	0	0
States with 2011 Data	970,244	451,680	476,976	45,435	125,611	23,354	63,598	5,836	23,991	6,373

Data Source: Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Data do not include Arizona, Colorado, the District of Columbia, Hawaii, Kansas, Idaho, Maine, Massachusetts, Ohio, Texas, and Wisconsin because MAX does not include 2011 data for these states.

## LTSS Beneficiary Trends

For the 40 states with 2011 claims data in MAX, we compared 2011 and 2010 data to identify trends in the number and distribution of LTSS beneficiaries. The total number of beneficiaries in these states decreased 48,000, one percent, in 2011. This decrease is explained by an 110,000-person decline in case management beneficiaries in Georgia. This decrease may be related to a November 2010 amendment to Georgia's Medicaid state plan to remove a disease management program.<sup>10</sup>

Tables 13 through 15 on the following pages display state-level beneficiary trends from 2010 to 2011. Table 13 provides summary data for unduplicated beneficiaries and the number of people who received institutional services, HCBS, or both. Table 14 shows the percentage trend for each particular institutional service since 2010. Table 15 displays the percentage trend for each type of HCBS. In addition to Georgia, Tennessee data also indicate a significant decrease in HCBS. This decrease is explained by implementation of a managed care program for LTSS. The data in this report do not include data from comprehensive managed care programs as explained in Appendix A.

**Table 13: Percent Change in Persons who Received Any Type of Medicaid Long-Term Services and Supports, 2010 - 2011**

State	Total Unduplicated 2011	Percent Change 2010 - 2011	Total Institutional Only	Percent Change 2010 - 2011	Total HCBS Only	Percent Change 2010 - 2011	Total Both Institutional and HCBS	Percent Change 2010 - 2011
Alabama	188,803	8.8	21,631	-3.5	161,122	10.7	6,050	9.4
Alaska	10,748	8.4	1,786	-2.1	8,673	11.1	289	2.1
Arkansas	54,713	3.1	24,702	1.5	27,435	4.3	2,576	5.3
California	768,709	-0.1	113,572	2.0	621,915	-0.8	33,222	5.5
Connecticut	68,432	2.4	26,380	1.7	36,124	3.0	5,928	2.6
Delaware	9,269	5.8	4,901	8.5	4,022	3.4	346	-3.6
Florida	179,036	-2.6	66,929	-0.7	108,077	-4.2	4,030	12.6
Georgia	90,361	-49.5	33,408	-4.1	54,397	-61.5	2,556	-12.0
Illinois	241,123	3.4	66,129	-1.6	151,893	5.8	23,101	3.4
Indiana	72,941	1.4	41,254	0.7	29,106	2.8	2,581	-0.8
Iowa	66,684	-6.2	17,849	20.6	46,203	-8.4	2,632	-55.1
Kentucky	64,997	1.4	28,821	-0.2	33,407	2.7	2,769	1.6
Louisiana	105,711	7.0	40,131	-0.9	61,181	12.9	4,399	7.1
Maryland	58,550	1.9	24,747	-0.3	32,323	3.5	1,480	7.7
Michigan	145,275	-0.4	46,544	-5.5	92,962	2.1	5,769	4.0

<sup>10</sup> Glaze, Jackie. Approval letter RE: Georgia State Plan Amendment, Transmittal # 10-015 CMS, November 23, 2010. Available on-line at <http://www.medicaid.gov/State-Resource-Center/Downloads/GA/GA-10-015-Ltr.pdf>.

State	Total Unduplicated 2011	Percent Change 2010 - 2011	Total Institutional Only	Percent Change 2010 - 2011	Total HCBS Only	Percent Change 2010 - 2011	Total Both Institutional and HCBS	Percent Change 2010 - 2011
Minnesota	146,051	4.3	19,538	-5.1	114,607	5.1	11,906	14.4
Mississippi	61,018	3.6	23,166	-0.3	36,036	6.1	1,816	6.6
Missouri	115,959	1.1	31,527	-0.5	79,890	2.4	4,542	-9.1
Montana	17,464	4.6	4,415	-1.6	12,229	7.0	820	4.9
Nebraska	25,147	-4.4	10,016	-3.5	13,757	-4.4	1,374	-10.8
Nevada	23,048	4.6	5,135	0.8	17,015	6.1	898	0.6
New Hampshire	17,672	0.1	6,572	1.7	10,181	-0.4	919	-5.9
New Jersey	122,722	-1.5	39,559	-1.8	78,168	-1.7	4,995	3.9
New Mexico	15,981	-0.3	8,535	3.3	7,258	-4.4	188	9.9
New York	422,358	0.5	135,554	0.3	265,305	0.8	21,499	-2.4
North Carolina	155,830	-5.7	41,376	0.5	108,678	-7.8	5,776	-6.1
North Dakota	13,529	1.6	4,735	-0.9	8,070	2.7	724	6.3
Oklahoma	59,188	-2.2	23,369	-0.3	33,606	-3.5	2,213	-2.1
Oregon	58,242	2.3	7,693	-0.9	46,712	3.2	3,837	-1.3
Pennsylvania	215,171	9.4	80,035	-0.1	127,731	16.7	7,405	5.3
Rhode Island	23,483	3.6	7,904	-1.3	14,176	9.3	1,403	-17.5
South Carolina	55,423	-5.1	17,076	-2.6	36,764	-6.3	1,583	-2.6
South Dakota	11,907	-1.3	5,826	-2.3	5,627	0.5	454	-8.7
Tennessee	45,523	-10.9	34,768	3.6	10,374	-37.6	381	-57.0
Utah	13,758	-4.6	5,562	-2.5	7,439	-14.7	757	n/a
Vermont	14,916	2.2	2,964	0.3	11,146	3.1	806	-2.5
Virginia	74,246	-0.4	24,591	32.1	44,201	-1.5	5,454	-50.8
Washington	99,330	2.1	17,317	1.2	77,293	3.0	4,720	-8.0
West Virginia	37,174	3.0	12,579	0.7	22,992	4.5	1,603	1.0
Wyoming	8,418	-3.4	2,313	-6.2	5,725	-2.4	380	-1.3
States with 2011 Data	3,978,910	-1.2	1,130,909	0.4	2,663,820	-1.8	184,181	-2.5

Data Source: Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Data do not include Arizona, Colorado, the District of Columbia, Hawaii, Kansas, Idaho, Maine, Massachusetts, Ohio, Texas, and Wisconsin because MAX does not include 2011 data for these states.

**Table 14: Percent Change in Persons who Received Medicaid Institutional LTSS, 2010 - 2011**

State	Total Institutional Only	Nursing Facilities	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Institutions for Mental Disease for Persons Age 65 and Older
Alabama	-1.0	-1.7	-9.7	8.2	-3.3
Alaska	-1.5	-5.7	41.7	1.0	44.4
Arkansas	1.9	0.4	-3.8	8.7	n/a
California	2.8	1.5	23.4	-100.0	n/a
Connecticut	1.9	3.7	-1.3	-36.5	26.7
Delaware	7.6	-0.1	1.5	-26.3	46.3
Florida	0.0	0.0	-0.9	n/a	17.6
Georgia	-4.7	-2.8	-51.9	n/a	n/a
Illinois	-0.3	0.3	-2.0	-4.4	-1.6
Indiana	0.6	0.9	-1.2	-3.5	65.7
Iowa	-0.9	-0.8	-1.5	-2.4	19.0
Kentucky	0.0	0.2	-9.4	-0.3	3.3
Louisiana	-0.1	1.2	-2.4	3.3	-3.8
Maryland	0.1	-0.3	-3.9	4.6	-6.5
Michigan	-4.6	-4.3	-91.7	-6.4	5.5
Minnesota	1.4	1.7	6.1	-30.4	-22.4
Mississippi	0.2	-0.4	0.8	3.4	-44.7
Missouri	-1.6	-1.5	-8.5	-8.8	0.0
Montana	-0.7	-0.5	-9.9	0.8	-12.7
Nebraska	-4.4	-3.9	49.0	-19.4	n/a
Nevada	0.8	-1.9	0.9	10.5	-9.1
New Hampshire	0.7	0.9	-2.3	-1.9	n/a
New Jersey	-1.2	-1.3	-2.5	1.9	11.4
New Mexico	3.5	5.7	1.1	-4.5	44.4
New York	0.0	0.3	0.6	-3.3	5.5
North Carolina	-0.4	-0.9	-1.4	7.8	-9.1
North Dakota	0.0	-1.6	1.0	74.7	-41.7
Oklahoma	-0.5	0.0	0.5	-3.5	-16.3
Oregon	-1.0	0.7	n/a	-12.8	-72.2
Pennsylvania	0.3	0.9	-1.1	-20.7	-2.3
Rhode Island	-4.1	-4.8	-2.4	25.2	28.0
South Carolina	-2.6	-2.2	-3.4	-6.0	-11.2
South Dakota	-2.8	-2.0	29.1	-8.2	-8.7
Tennessee	2.0	2.2	-2.1	1.4	13.6
Utah	10.8	12.8	4.7	12.3	-27.3
Vermont	-0.3	-1.9	-14.3	n/a	29.2
Virginia	1.1	1.0	-4.0	5.1	5.7

State	Total Institutional Only	Nursing Facilities	Intermediate Care Facilities for Individuals with Intellectual Disabilities	Inpatient Psychiatric Facilities for Persons Under Age 21	Institutions for Mental Disease for Persons Age 65 and Older
Washington	-0.9	-1.6	-5.0	-0.1	4.2
West Virginia	0.7	-0.7	2.6	6.4	7.1
Wyoming	-5.6	0.1	-5.6	-34.4	0.0
States with 2011 Data	0.0	0.0	-6.5	6.2	2.0

Data Source: Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

“n/a” - not applicable because 2010 data indicated zero beneficiaries.

Data do not include Arizona, Colorado, the District of Columbia, Hawaii, Kansas, Idaho, Maine, Massachusetts, Ohio, Texas, and Wisconsin because MAX does not include 2011 data for these states.

**Table 15: Percent Change in Persons who Received Medicaid HCBS, 2010 - 2011**

State	Total HCBS Only	1915(c) Waivers	Personal Care	Case Management	Home Health	Rehabilitation Services	Adult Day Care	Private Duty Nursing	PACE	HCBS - 1115
Alabama	10.6	-4.0	n/a	-0.6	-6.6	-2.1	n/a	15.3	n/a	n/a
Alaska	10.8	6.9	15.3	23.7	5.8	-20.0	n/a	23.1	n/a	n/a
Arkansas	4.4	2.2	4.0	0.0	2.5	87.5	n/a	0.0	88.5	n/a
California	-0.5	5.4	0.4	-5.3	-9.2	-22.3	-6.6	9.2	283.0	n/a
Connecticut	2.9	1.9	30.9	-5.6	5.5	n/a	2,000.0	n/a	n/a	n/a
Delaware	2.8	5.4	n/a	n/a	-2.2	2.2	n/a	8.7	n/a	n/a
Florida	-3.7	-1.0	n/a	-17.2	-1.6	1.4	n/a	n/a	36.6	n/a
Georgia	-60.5	8.6	n/a	-95.9	-1.1	n/a	-100.0	-33.0	n/a	n/a
Illinois	5.5	7.4	23.6	0.6	-5.6	-0.9	n/a	-2.6	n/a	n/a
Indiana	2.5	1.4	n/a	-16.1	11.0	-12.7	n/a	n/a	n/a	n/a
Iowa	-13.3	-0.2	n/a	1.9	-26.5	-82.6	10.9	n/a	31.1	n/a
Kentucky	2.7	9.2	n/a	-0.5	-12.5	3.6	n/a	n/a	n/a	n/a
Louisiana	12.5	17.8	-6.6	8.5	-7.2	n/a	33.3	n/a	14.9	n/a
Maryland	3.6	4.8	3.3	-5.7	2.4	13.7	3.7	0.2	-1.6	n/a
Michigan	2.2	1.6	2.6	-13.2	-6.3	-4.8	-8.1	-18.5	8.4	n/a
Minnesota	5.9	2.3	5.1	-1.9	11.3	-16.0	n/a	3.1	n/a	n/a
Mississippi	6.1	20.4	-3.3	0.5	-13.3	n/a	n/a	45.1	n/a	n/a
Missouri	1.7	-0.4	-0.4	-2.9	5.2	15.6	-1.5	16.9	5.1	n/a
Montana	6.9	1.7	8.2	19.0	-9.4	46.8	28.8	n/a	-100.0	n/a
Nebraska	-5.0	2.1	-3.1	n/a	-25.9	n/a	5.2	-26.6	n/a	n/a
Nevada	5.8	1.6	3.4	1.9	5.7	25.2	16.7	n/a	n/a	n/a



State	Total HCBS Only	1915(c) Waivers	Personal Care	Case Management	Home Health	Rehabilitation Services	Adult Day Care	Private Duty Nursing	PACE	HCBS - 1115
New Hampshire	-0.9	3.4	3.8	n/a	-6.3	0.6	10.6	-16.8	n/a	n/a
New Jersey	-1.4	4.1	-4.9	-11.4	-18.8	3.3	-6.4	-3.5	64.6	n/a
New Mexico	-4.1	-0.9	-20.3	-9.0	9.9	-5.9	n/a	-11.4	-0.2	n/a
New York	0.6	5.0	-3.7	1.1	-5.1	19.4	-14.4	1.2	11.8	n/a
North Carolina	-7.7	-1.0	-13.7	-2.9	-6.1	n/a	1,050.0	n/a	96.0	n/a
North Dakota	3.0	3.5	n/a	1.1	0.9	2.1	n/a	n/a	31.7	n/a
Oklahoma	-3.4	-4.3	6.1	-2.6	-3.7	n/a	n/a	n/a	28.8	n/a
Oregon	2.8	3.7	-10.4	19.1	-4.7	-0.4	-100.0	35.6	16.1	n/a
Pennsylvania	16.0	26.4	n/a	-2.0	1.3	-1.2	n/a	45.7	24.9	n/a
Rhode Island	6.2	2.0	10.8	-4.4	-2.8	1.9	3.3	n/a	2.1	15.8
South Carolina	-6.1	1.3	8.0	-11.4	-5.1	-30.8	-8.4	27.0	-0.6	n/a
South Dakota	-0.2	6.5	-11.0	n/a	-6.8	-10.4	-100.0	-4.9	n/a	n/a
Tennessee	-38.6	-40.2	n/a	n/a	-84.4	-18.2	n/a	n/a	-1.9	n/a
Utah	-6.0	1,787.8	-71.7	-99.8	488.3	-92.2	n/a	n/a	-100.0	n/a
Vermont	2.7	1.3	5.0	6.1	0.4	-72.5	n/a	n/a	26.5	2.2
Virginia	-11.2	-14.1	194.1	7.8	12.8	103.0	8.3	55.9	15.6	n/a
Washington	2.3	-4.3	-5.6	-1.4	-8.3	27.5	-2.7	5.1	7.0	n/a
West Virginia	4.3	12.1	-2.4	-6.3	3.8	-6.0	n/a	1.9	n/a	n/a
Wyoming	-2.3	-0.7	n/a	-20.4	-7.2	-2.4	n/a	n/a	n/a	n/a
States with 2011 Data	-1.8	4.5	-1.2	-21.0	-3.9	-0.4	-8.8	13.6	62.9	8.0

Data Source: Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

"n/a" - not applicable because 2010 data indicated zero beneficiaries.

Data do not include Arizona, Colorado, the District of Columbia, Hawaii, Kansas, Idaho, Maine, Massachusetts, Ohio, Texas, and Wisconsin because MAX does not include 2011 data for these states.

## Conclusion

This report presents the number of Medicaid beneficiaries who received LTSS by type of service and by state. Over 4.8 million individuals received Medicaid-funded LTSS during calendar year 2011. This number should be considered an underestimate because data do not include people who enrolled in a comprehensive managed care plan. In addition, this estimate includes 2010 data from eight states and the District of Columbia, for which 2011 data were not available. Two states, Kansas and Maine, did not have data for either year. About two-thirds of beneficiaries only received HCBS. In most states, a majority of LTSS beneficiaries received only HCBS.

Nursing facility residents were 87 percent of all institutional beneficiaries and a majority of institutional beneficiaries in all states except Alaska. States varied in the types of HCBS used. Section 1915(c) waivers were the most common type of HCBS in 71 percent states (35). These waivers accounted for 46 percent of all HCBS beneficiaries. In a smaller number of states, personal care, targeted case management, home health, or HCBS in an 1115 demonstration were the most common type of HCBS.

For the 40 states with data available for 2011, older adults were the largest group of LTSS beneficiaries, comprising 45 percent of the total. A majority of LTSS beneficiaries were under age 65, including adults age 21 through 64 (39 percent) and children 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 the number of LTSS beneficiaries, including comparison to state sources, to identify the cause of discrepancies.

## Appendix A: Data Source, Methods and Limitations

### Source

The counts of LTSS users rely on information from the 2011 and 2010 Medicaid Analytical eXtract (MAX) eligibility and claims files. For each year and each state, MAX includes a single eligibility data file and four claims files for institutional care services, inpatient admissions, prescription drugs, and all other services including physician services and HCBS. The MAX eligibility file for each state includes a single record for each person ever 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 1915(c) waiver services or state plan services.

### Methods

To identify people who received institutional LTSS, 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 1915(c) waivers and the HCBS expenditure information in the MAX eligibility records. MAX includes three 1915(c) waiver indicators for each month to capture enrollment in multiple 1915(c) waivers. Mathematica used all three monthly waiver indicators to identify everyone who was reported to be enrolled in at least one 1915(c) waiver during the year. Some states underreport enrollment in 1915(c) waivers. Therefore, Mathematica also identified everyone who had positive expenditures for all types of 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 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.

It was not possible to directly identify enrollees who received HCBS through 1115 demonstration waivers. Mathematica assumed that all HCBS users in the three states with global 1115 waivers during 2010 (Arizona, Rhode Island, and Vermont) received HCBS through an 1115 waiver.

For the 40 states with MAX 2011 data, Mathematica identified the age of a beneficiary as of January 1, 2011, based on the person's date of birth in the MAX eligibility file. Age data was not available for one percent of these beneficiaries.

### Limitations

Because our approach relies heavily on expenditure information, Mathematica restricted the counts to enrollees who were not in a comprehensive managed care plan during the calendar year. As a result, the counts should be considered underestimates, particularly in those states that provided LTSS through a managed care program in 2011. These states were Arizona, California, Florida, Hawaii, Massachusetts, Michigan, Minnesota, New Mexico, New York, North Carolina, Pennsylvania, Tennessee, Texas, Wisconsin, and Washington.<sup>11</sup>

No MAX claims files exist for Kansas or Maine because of data quality issues with the states' Medicaid Statistical Informational System (MSIS) data files, the source data for MAX. As a result, LTSS beneficiaries could not be identified in these states.

### Comparison to Other Sources

We benchmarked 2011 MAX data to four sources that have previously published data for particular services

- A report based on the Online Survey, Certification, and Reporting (OSCAR) system data for nursing facilities from the Kaiser Family Foundation<sup>12</sup>

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<sup>11</sup> 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 <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Delivery-Systems/Medicaid-Managed-Long-Term-Services-and-Supports-MLTSS.html>.

<sup>12</sup> Harrington C, Carrillo H, Garfield, R. *Nursing Facilities, Staffing, Residents, and Facility Deficiencies, 2009 Through 2014* Kaiser Family Foundation, August 2015. Available on-line at <http://files.kff.org/attachment/report-nursing-facilities-staffing-residents-and-facility-deficiencies-2009-through-2014>.

- ICF/IID data based on a survey of states from the National Residential Information Systems Project at the University of Minnesota<sup>13</sup>
- An annual data update on home health, personal care, and 1915(c) waiver services based on a survey of states from the Kaiser Family Foundation and the University of California-San Francisco<sup>14</sup>
- A report on 1915(c) waivers based on CMS 372 data by Truven Health Analytics<sup>15</sup>

National comparison data for other types of Medicaid LTSS were unavailable. For the eight states and the District of Columbia that did not have 2011 MAX data, but had 2010 data, we compared 2010 MAX data to 2010 data from these sources.

Tables A-1 through A-5 in Appendix A show the data for these sources. 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 1915(c) waiver services.

For most services, we defined a notable difference as one of at least 20 percent. For nursing facilities, the comparison was imperfect because OSCAR 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,<sup>16</sup> 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 OSCAR data was greater than the number of people identified in MAX data for a full year.

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

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<sup>13</sup> Larson S, Ryan A, Salmi P, Smith D, and Wourio A. *Residential Services for Persons with Intellectual and Developmental Disabilities: Status and Trends Through Fiscal Year 2011* University of Minnesota Research and Training Center on Community Living, 2012. Available on-line at <https://risp.umn.edu/>.

<sup>14</sup> Ng T, Harrington C, Musumeci M, and Reeves E. *Medicaid Home and Community-Based Services Programs: 2011 Data Update* Kaiser Family Foundation, December 2014. Available on-line at <http://kff.org/medicaid/report/medicaid-home-and-community-based-service-programs/>.

<sup>15</sup> Eiken S. *Medicaid 1915(c) Waiver Data Based on the CMS 372 Report, 2011-2012* CMS, September 2015. Available on-line at <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Long-Term-Services-and-Supports/Long-Term-Services-and-Supports.html>.

<sup>16</sup> Reinhard S, Kassner E, Houser A, Ujvari K, Mollica R, and Hendrickson L. *Raising Expectations: A State Scorecard on Long-Term Services and Supports for Older Adults, People with Physical Disabilities, and Family Caregivers* Second Edition. AARP Public Policy Institute, 2014. Available on-line at <http://www.longtermscorecard.org>.

## Exclusion of States from State-Level Analysis

Ten states were excluded from the state-level analysis presented in Figure 2 of the report and accompanying text:

- 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 any other state. This data anomaly at least doubles the number of total reported HCBS beneficiaries in the state.
- Kansas and Maine were excluded because MAX claims data were unavailable for both 2010 and 2011.
- Hawaii was excluded because the sum of the number of nursing facility and ICF/IID beneficiaries in available benchmarks was more than 50 percent greater than the sum of the number of beneficiaries for these services reported in MAX.
- Arizona, New Mexico, Tennessee, Texas, Utah, and Wisconsin were excluded because the sum of the number of beneficiaries in benchmarks for three types of HCBS with benchmarks—Section 1915(c) waivers, personal care, and home health—was more than 50 percent greater than the sum of beneficiaries for these services identified in MAX.

Tables A-1 through A-5 on the following pages display the benchmark data for 2011. Data for 2010 were included in a similar report released last year.<sup>17</sup>

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<sup>17</sup> Eiken S, Sredl K, Saucier P, and Burwell B. *How Many Medicaid Beneficiaries Receive Long-Term Services and Supports?* CMS, October 17, 2014. Available on-line at <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Long-Term-Services-and-Support/Long-Term-Services-and-Supports.html>.

**Table A-1: Comparison of Data Sources for Beneficiaries who Received Medicaid Nursing Facility Services: 2011**

State	OSCAR: beneficiaries on a single day	MAX: beneficiaries during a calendar year	OSCAR as a Percentage of MAX
Alabama	15,755	24,846	63%
Alaska	441	862	51%
Arizona <sup>1</sup>	6,933	0	n/a
Arkansas	12,648	19,147	66%
California	63,259	135,508	47%
Colorado <sup>1</sup>	8,116	0	n/a
Connecticut	16,942	30,173	56%
Delaware	2,669	3,940	68%
Dist. of Columbia <sup>1</sup>	2,070	0	n/a
Florida	43,021	68,093	63%
Georgia	19,308	35,279	55%
Hawaii <sup>1</sup>	1,863	0	n/a
Idaho <sup>1</sup>	2,609	0	n/a
Illinois	46,889	72,361	65%
Indiana	24,381	37,428	65%
Iowa	12,391	17,413	71%
Kansas <sup>1</sup>	9,594	0	n/a
Kentucky	14,738	27,019	55%
Louisiana	18,876	27,678	68%
Maine <sup>1</sup>	4,184	0	n/a
Maryland	15,390	23,411	66%
Massachusetts <sup>1</sup>	26,859	0	n/a
Michigan	25,504	46,736	55%
Minnesota	16,236	28,109	58%
Mississippi	12,758	18,900	68%
Missouri	23,371	35,226	66%
Montana	2,732	4,741	58%
Nebraska	6,592	9,990	66%
Nevada	2,839	4,538	63%
New Hampshire	4,416	7,083	62%
New Jersey	29,374	39,898	74%
New Mexico	3,493	6,582	53%
New York	78,574	134,613	58%
North Carolina	25,493	39,868	64%
North Dakota	3,176	4,685	68%
Ohio <sup>1</sup>	49,277	0	n/a
Oklahoma	12,704	19,667	65%
Oregon	4,274	10,324	41%
Pennsylvania	51,324	79,960	64%
Rhode Island	5,285	8,998	59%

State	OSCAR: beneficiaries on a single day	MAX: beneficiaries during a calendar year	OSCAR as a Percentage of MAX
South Carolina	11,197	15,881	71%
South Dakota	3,592	5,274	68%
Tennessee	18,682	31,111	60%
Texas <sup>1</sup>	59,120	0	n/a
Utah	1,891	5,381	35%
Vermont	1,839	3,492	53%
Virginia	17,120	26,905	64%
Washington	10,778	18,510	58%
West Virginia	5,208	10,995	47%
Wisconsin <sup>1</sup>	18,219	0	n/a
Wyoming	1,416	2,314	61%
United States	877,235	1,142,939	77%
States with 2011 MAX data	688,392	1,142,939	60%

Data Sources:

Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Harrington C, Carrillo H, Garfield, R. *Nursing Facilities, Staffing, Residents, and Facility Deficiencies, 2009 Through 2014* Kaiser Family Foundation, August 2015. Available on-line at <http://files.kff.org/attachment/report-nursing-facilities-staffing-residents-and-facility-deficiencies-2009-through-2014>.

"n/a" - not applicable because MAX data indicated zero beneficiaries.

<sup>1</sup> MAX does not include 2011 data for Arizona, Colorado, the District of Columbia, Hawaii, Idaho, Kansas, Maine, Massachusetts, Ohio, Texas, and Wisconsin.



**Table A-2: Comparison of Data Sources for Beneficiaries who Received Medicaid Intermediate Care Facilities for Individuals with Intellectual Disabilities (ICF/IID) Services: 2011**

State	RISP: beneficiaries on a single day	MAX: beneficiaries during a calendar year	RISP as a Percentage of MAX
Alabama	164	195	84%
Alaska	0	17	0%
Arizona <sup>1</sup>	178	0	n/a
Arkansas	1,468	1,615	91%
California	8,907	12,090	74%
Colorado <sup>1</sup>	177	0	n/a
Connecticut	1,019	1,089	94%
Delaware	66	134	49%
Dist. of Columbia <sup>1</sup>	373	0	n/a
Florida	2,926	2,805	104%
Georgia	549	690	80%
Hawaii <sup>1</sup>	87	0	n/a
Idaho <sup>1</sup>	528	0	n/a
Illinois	8,460	8,556	99%
Indiana	3,886	4,155	94%
Iowa	2,047	2,164	95%
Kansas <sup>1</sup>	490	0	n/a
Kentucky	353	548	64%
Louisiana	4,812	5,190	93%
Maine <sup>1</sup>	145	0	n/a
Maryland	152	148	103%
Massachusetts <sup>1</sup>	594	0	n/a
Michigan	0	1	0%
Minnesota	1,775	2,929	61%
Mississippi	2,661	2,903	92%
Missouri	660	676	98%
Montana	53	64	83%
Nebraska	438	383	114%
Nevada	103	112	92%
New Hampshire	25	42	60%
New Jersey	3,255	2,648	123%
New Mexico	234	278	84%
New York	7,432	8,750	85%
North Carolina	3,613	4,057	89%
North Dakota	576	610	94%
Ohio <sup>1</sup>	7,125	0	n/a
Oklahoma	1,549	1,740	89%
Oregon	0	0	n/a
Pennsylvania	3,567	3,700	96%

State	RISP: beneficiaries on a single day	MAX: beneficiaries during a calendar year	RISP as a Percentage of MAX
Rhode Island	41	40	103%
South Carolina	1,359	1,433	95%
South Dakota	204	222	92%
Tennessee	1,640	1,087	151%
Texas <sup>1</sup>	9,626	0	n/a
Utah	784	853	92%
Vermont	6	6	100%
Virginia	1,431	1,623	88%
Washington	690	57	1211%
West Virginia	562	563	100%
Wisconsin <sup>1</sup>	769	0	n/a
Wyoming	82	84	98%
United States	87,641	74,257	118%
States with 2011 MAX data	67,549	74,257	91%

Data Sources:

Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

National Residential Information Systems Project (RISP) data from Larson S, Ryan A, Salmi P, Smith D, and Wourio A. *Residential Services for Persons with Intellectual and Developmental Disabilities: Status and Trends Through Fiscal Year 2011 2012*. Available on-line at <https://risp.umn.edu/>.

“n/a” - not applicable because MAX data indicated zero beneficiaries.

<sup>1</sup> MAX does not include 2011 data for Arizona, Colorado, the District of Columbia, Hawaii, Idaho, Kansas, Maine, Massachusetts, Ohio, Texas, and Wisconsin.

**Table A-3: Comparison of Data Sources for Beneficiaries who Received Medicaid Home Health Services: 2011**

State	Kaiser Family Foundation (KFF)	MAX <sup>1</sup>	KFF as a Percentage of MAX
Alabama	6,622	16,670	40%
Alaska	302	294	103%
Arizona <sup>2</sup>	38,199	0	n/a
Arkansas	6,363	6,164	103%
California	29,669	23,295	127%
Colorado <sup>2</sup>	11,998	0	n/a
Connecticut	30,070	26,320	114%
Delaware	1,150	953	121%
Dist. of Columbia <sup>2</sup>	5,178	0	n/a
Florida	12,226	17,698	69%
Georgia	4,899	6,458	76%
Hawaii <sup>2</sup>	1,903	0	n/a
Idaho <sup>2</sup>	1,871	0	n/a
Illinois	13,795	13,045	106%
Indiana	13,134	11,551	114%
Iowa	13,766	26,297	52%
Kansas <sup>2</sup>	3,730	0	n/a
Kentucky	15,864	7,235	219%
Louisiana	11,042	10,439	106%
Maine <sup>2</sup>	7,831	0	n/a
Maryland	4,244	6,505	65%
Massachusetts <sup>2</sup>	20,899	0	n/a
Michigan	6,044	5,569	109%
Minnesota	2,317	61,476	4%
Mississippi	9,257	6,729	138%
Missouri	6,938	6,828	102%
Montana	367	347	106%
Nebraska	4,307	3,091	139%
Nevada	183	665	28%
New Hampshire	3,314	2,939	113%
New Jersey	17,481	6,482	270%
New Mexico	249	266	94%
New York	106,323	115,883	92%
North Carolina	39,970	37,411	107%
North Dakota	749	462	162%
Ohio <sup>2</sup>	39,138	0	n/a
Oklahoma	5,298	7,026	75%
Oregon	3,062	409	749%
Pennsylvania	30,251	13,175	230%
Rhode Island	1,413	1,959	72%

State	Kaiser Family Foundation (KFF)	MAX <sup>1</sup>	KFF as a Percentage of MAX
South Carolina	7,374	4,105	180%
South Dakota	1,812	439	413%
Tennessee	12,130	151	8033%
Texas <sup>2</sup>	235,475	0	n/a
Utah	5,649	1,965	287%
Vermont	3,440	3,675	94%
Virginia	4,772	3,306	144%
Washington	3,129	2,796	112%
West Virginia	2,845	2,752	103%
Wisconsin <sup>2</sup>	5,317	0	n/a
Wyoming	597	557	107%
United States	813,956	463,387	176%
States with 2011 MAX data	442,417	463,387	95%

Data Sources:

Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Ng T, Harrington C, Musumeci M, and Reeves E. *Medicaid Home and Community-Based Services Programs: 2011 Data Update* Kaiser Family Foundation, December 2014. Available on-line at <http://kff.org/medicaid/report/medicaid-home-and-community-based-service-programs/>.

“n/a” - not applicable because MAX data indicated zero beneficiaries.

<sup>1</sup> People were included in this analysis only if they had positive expenditures for three or more consecutive months.

<sup>2</sup> MAX does not include 2011 data for Arizona, Colorado, the District of Columbia, Hawaii, Idaho, Kansas, Maine, Massachusetts, Ohio, Texas, and Wisconsin.

**Table A-4: Comparison of Data Sources for Beneficiaries who Received Medicaid Personal Care Services: 2011**

State	Kaiser Family Foundation (KFF)	MAX	KFF as a Percentage of MAX
Alabama	0	0	n/a
Alaska	3,574	4,854	74%
Arizona <sup>1</sup>	0	0	n/a
Arkansas	14,559	14,869	98%
California	456,512	488,286	93%
Colorado <sup>1</sup>	0	0	n/a
Connecticut	0	373	0%
Delaware	0	0	n/a
Dist. of Columbia <sup>1</sup>	2,097	0	n/a
Florida	1,744	0	n/a
Georgia	0	0	n/a
Hawaii <sup>1</sup>	0	0	n/a
Idaho <sup>1</sup>	2,163	0	n/a
Illinois	0	2,670	0%
Indiana	0	0	n/a
Iowa	0	0	n/a
Kansas <sup>1</sup>	273	0	n/a
Kentucky	0	0	n/a
Louisiana	18,535	18,586	100%
Maine <sup>1</sup>	4,474	0	n/a
Maryland	5,221	5,710	91%
Massachusetts <sup>1</sup>	21,566	0	n/a
Michigan	66,930	80,129	84%
Minnesota	22,664	26,722	85%
Mississippi	0	579	0%
Missouri	55,473	53,516	104%
Montana	3,323	3,683	90%
Nebraska	2,266	2,316	98%
Nevada	5,377	6,895	78%
New Hampshire	28	221	13%
New Jersey	20,413	31,426	65%
New Mexico	15,598	797	1957%
New York	68,228	84,445	81%
North Carolina	38,713	62,509	62%
North Dakota	1,145	711	161%
Ohio <sup>1</sup>	0	0	n/a
Oklahoma	3,836	3,978	96%
Oregon	3,130	2,892	108%
Pennsylvania	0	0	n/a
Rhode Island	0	473	0%

State	Kaiser Family Foundation (KFF)	MAX	KFF as a Percentage of MAX
South Carolina	0	2,406	0%
South Dakota	763	2,665	29%
Tennessee	0	0	n/a
Texas <sup>1</sup>	69,409	0	n/a
Utah	241	491	49%
Vermont	2,503	2,724	92%
Virginia	0	50	0%
Washington	27,989	26,104	107%
West Virginia	6,836	5,772	118%
Wisconsin <sup>1</sup>	15,169	0	n/a
Wyoming	0	0	n/a
United States	960,752	936,852	103%
States with 2011 MAX data	843,857	936,852	90%

Data Sources:

Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Ng T, Harrington C, Musumeci M, and Reeves E. *Medicaid Home and Community-Based Services Programs: 2011 Data Update* Kaiser Family Foundation, December 2014. Available on-line at <http://kff.org/medicaid/report/medicaid-home-and-community-based-service-programs/>.

“n/a” - not applicable because MAX data indicated zero beneficiaries.

<sup>1</sup> MAX does not include 2011 data for Arizona, Colorado, the District of Columbia, Hawaii, Idaho, Kansas, Maine, Massachusetts, Ohio, Texas, and Wisconsin.

**Table A-5: Comparison of Data Sources for Beneficiaries who Received Medicaid 1915(c) Waiver Services: 2011**

State	Kaiser Family Foundation (KFF)	CMS 372	MAX	KFF as a Percentage of MAX	CMS 372 as a Percentage of MAX
Alabama	14,698	14,698	14,563	101%	101%
Alaska	4,986	4,986	6,010	83%	83%
Arizona <sup>1</sup>	0	0	0	n/a	n/a
Arkansas	14,841	14,841	15,213	98%	98%
California	108,244	108,674	115,468	94%	94%
Colorado <sup>1</sup>	34,214	34,080	0	n/a	n/a
Connecticut	22,809	22,895	24,049	95%	95%
Delaware	3,112	3,356	3,164	98%	106%
Dist. of Columbia <sup>1</sup>	4,129	4,305	0	n/a	n/a
Florida	82,156	82,156	82,069	100%	100%
Georgia	46,991	40,191	48,646	97%	83%
Hawaii <sup>1</sup>	2,551	2,551	0	n/a	n/a
Idaho <sup>1</sup>	12,794	12,794	0	n/a	n/a
Illinois	98,057	98,057	128,783	76%	76%
Indiana	24,305	22,195	24,310	100%	91%
Iowa	28,798	28,798	29,882	96%	96%
Kansas <sup>1</sup>	29,588	29,036	0	n/a	n/a
Kentucky	19,968	19,968	22,087	90%	90%
Louisiana	16,438	11,301	38,805	42%	29%
Maine <sup>1</sup>	5,652	5,716	0	n/a	n/a
Maryland	21,691	22,268	23,604	92%	94%
Massachusetts <sup>1</sup>	23,526	23,526	0	n/a	n/a
Michigan	19,482	19,662	12,046	162%	163%
Minnesota	64,939	64,939	61,474	106%	106%
Mississippi	17,788	18,950	20,624	86%	92%
Missouri	28,843	28,843	29,555	98%	98%
Montana	5,130	5,065	7,274	71%	70%
Nebraska	10,623	10,623	10,342	103%	103%
Nevada	4,539	4,539	4,684	97%	97%
New Hampshire	7,894	7,865	8,841	89%	89%
New Jersey	24,103	25,302	26,281	92%	96%
New Mexico	7,399	7,399	5,088	145%	145%
New York	102,239	91,904	119,096	86%	77%
North Carolina	25,887	26,553	25,674	101%	103%
North Dakota	4,188	4,317	6,584	64%	66%
Ohio <sup>1</sup>	84,210	84,210	0	n/a	n/a
Oklahoma	27,823	26,677	27,075	103%	99%
Oregon	45,064	44,749	44,237	102%	101%

State	Kaiser Family Foundation (KFF)	CMS 372	MAX	KFF as a Percentage of MAX	CMS 372 as a Percentage of MAX
Pennsylvania	72,766	72,816	99,447	73%	73%
Rhode Island <sup>2</sup>	0	0	3,673	0%	0%
South Carolina	22,289	25,026	25,430	88%	98%
South Dakota	4,838	4,752	4,918	98%	97%
Tennessee	7,904	7,904	8,416	94%	94%
Texas <sup>1</sup>	76,251	88,264	0	n/a	n/a
Utah	6,405	6,405	6,513	98%	98%
Vermont <sup>2</sup>	0	0	6,341	0%	0%
Virginia	34,184	34,556	44,901	76%	77%
Washington	49,007	49,007	49,356	99%	99%
West Virginia	10,237	12,145	13,294	77%	91%
Wisconsin <sup>1</sup>	63,166	55,991	0	n/a	n/a
Wyoming	4,599	4,395	4,488	102%	98%
United States	1,451,345	1,439,250	1,252,305	116%	115%
States with 2011 MAX data	1,115,264	1,098,777	1,252,305	89%	88%

Data Sources:

Medicaid Analytic eXtract (MAX). Data do not include LTSS beneficiaries enrolled in comprehensive managed care plans.

Ng T, Harrington C, Musumeci M, and Reeves E. *Medicaid Home and Community-Based Services Programs: 2011 Data Update* Kaiser Family Foundation, December 2014. Available on-line at <http://kff.org/medicaid/report/medicaid-home-and-community-based-service-programs/>.

Eiken S. *Medicaid 1915(c) Waiver Data Based on the CMS 372 Report, 2011-2012 CMS*, September 2015. Available on-line at <http://www.medicare.gov/Medicare-CHIP-Program-Information/By-Topics/Long-Term-Services-and-Supports/Long-Term-Services-and-Supports.html>.

"n/a" - not applicable because MAX data indicated zero beneficiaries.

<sup>1</sup> MAX does not include 2011 data for Arizona, Colorado, the District of Columbia, Hawaii, Idaho, Kansas, Maine, Massachusetts, Ohio, Texas, and Wisconsin.

<sup>2</sup> Rhode Island and Vermont provide services similar to 1915(c) waivers in 1115 demonstrations, but categorized these services as 1915(c) waiver services in the Medicaid Statistical Information System (MSIS), the source data for MAX.