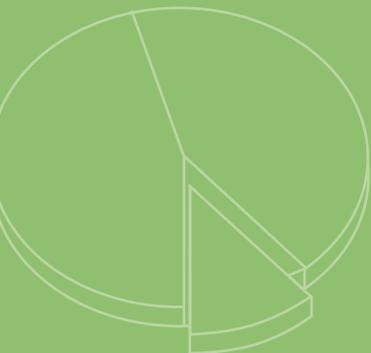
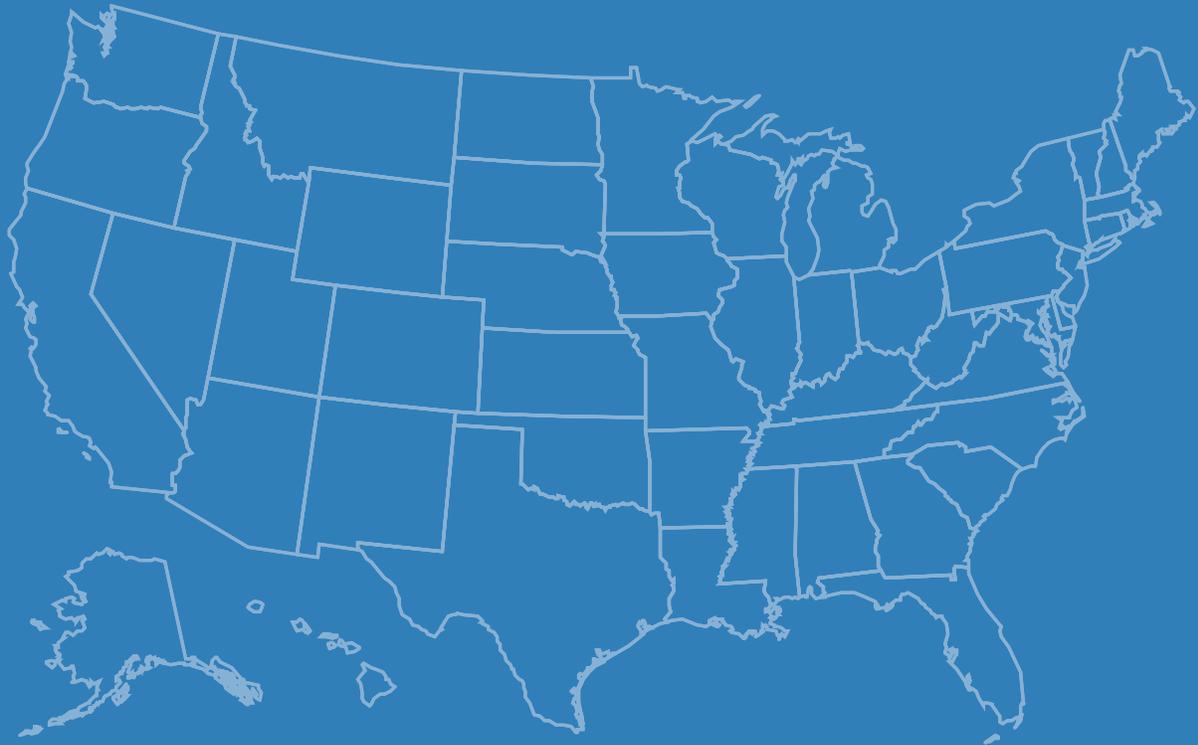




The Medicaid Analytic eXtract 2013 Chartbook





CMS, an agency within the Department of Health and Human Services, administers the largest federal health care program—Medicare—and, in partnership with states, administers Medicaid and the State Children’s Health Insurance Program.



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Medicaid Analytic eXtract 2013 Chartbook

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Mathematica

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1. Introduction

The Medicaid Analytic eXtract (MAX) is a set of annual, person-level data files of Medicaid eligibility, service utilization, and payments that has historically been derived from states' reporting in the Medicaid Statistical Information System (MSIS).¹ MAX was developed and is produced by the Centers for Medicare & Medicaid Services (CMS). This chartbook is based primarily on 2013 MAX data and presents an overview of beneficiary demographic and enrollment characteristics, service utilization, and expenditures at the national and state levels in 2013. This chartbook builds on its predecessors, which used MAX 2002, 2004, 2008, 2010, and 2012 data (Wenzlow et al. 2007; Perez et al. 2008; Borck et al. 2012, 2014; Lemos et al. 2019). Historically, MAX chartbooks have been produced for even-numbered calendar years. However, given that 2013 was the last year in which MAX data was produced for all 50 states and the District of Columbia (referred to as 51 states throughout this report), this 2013 chartbook deviates from the historical pattern to present data reflecting the last complete year of MAX data (see the “Resources for MAX” section for more information about the availability of these data). Readers should keep this fact in mind when viewing any figures in this chartbook that depict historical

¹ In 2013, CMS replaced MSIS with the Transformed Medicaid Information System (T-MSIS) and one state made the transition from MSIS to T-MSIS with its 2011 data. Additional states made the transition from MSIS to T-MSIS in subsequent years. For states whose T-MSIS data were used for MAX 2013, see Table 1.2.

trends because they present data for even-numbered calendar years along with 2013 data.

This introduction provides an overview of the Medicaid program and MAX data. The remaining chapters present figures and tables that characterize the Medicaid population in 2013: Chapters 2 and 3 provide a national profile of Medicaid beneficiaries and total Medicaid expenditures; Chapters 4 through 7 supply detailed information on key Medicaid topics, including service use and expenditure information for services provided on a fee-for-service basis (FFS) by detailed service type (Chapter 4), managed care (Chapter 5), beneficiaries enrolled in both Medicare and Medicaid (dual eligibles) (Chapter 6), and waiver enrollment and utilization (Chapter 7). A separate appendix contains tables that provide more detailed, state-level information for the statistics presented in Chapters 2 through 7.

The Medicaid Program in 2013

Medicaid is a means-tested entitlement program that provides health care coverage to many of the most vulnerable populations in the United States. In 2013, these populations included low-income children and their parents, and low-income individuals age 65 and older or who qualify based on a disability. The program was enacted in 1965 by Title XIX of the Social Security Act. Medicaid has grown to become the third-largest source of health care spending in the United States, after Medicare and employer-provided

health insurance. In MAX, states reported expenditures of about \$375 billion on Medicaid services for all beneficiaries in 2013 (data not shown). Since the 1990s, Medicaid has served more people annually than Medicare. In 2013, Medicaid covered more than 75 million people at some point during the year—almost 25 percent of the U.S. population (United States Census Bureau 2020)—and accounted for about 15 percent of total U.S. health expenditures. Medicaid is also the largest insurer in the nation for nursing home care, covering almost one-third of nursing home costs in 2013 (Centers for Medicare and Medicaid Services 2019).

States administer Medicaid under guidelines established by the federal government; the program is financed jointly by federal and state funds. The federal government financed 57.7 percent of Medicaid expenditures in federal fiscal year (FFY) 2013 (Truffer et al. 2014). The federal match rate for Medicaid expenditures, called the Federal Medical Assistance Percentage (FMAP), differs in each state and is calculated based on the average per capita income in a given state in relation to the national average. In FFY 2013, the FMAP ranged from 50 to 73 percent (Table 1.1) and was even higher for children enrolled in the Children’s Health Insurance Program (CHIP).

In 2013, to receive federal matching funds, a state’s Medicaid program had to cover basic health services for all individuals in the following mandatory Medicaid eligibility groups:

- *Low-income children:* Children under age 6 with family income at or below 133 percent of the federal poverty level (FPL) who satisfied certain asset requirements were eligible for Medicaid. Children between ages 6 and 19 in families at or below 100 percent of the FPL (and satisfying similar asset requirements) were also eligible.
- *Low-income pregnant women:* Pregnant women with family income at or below 133 percent of

the FPL who satisfied certain asset requirements were eligible from the time they became pregnant through the month of the 60th day after delivery, regardless of any change in family income.

- *Infants born to Medicaid-eligible pregnant women:* All infants under age 1 were eligible if their mother was residing in the same household and eligible for Medicaid at the time of birth.
- *Limited-income families with dependent children:* As described in Section 1931 of the Social Security Act, individuals who met the state’s Aid to Families with Dependent Children requirements, effective on July 16, 1996, were eligible for Medicaid.²
- *Supplemental Security Income (SSI) recipients:* With the exception of some individuals living in 11 so-called Section 209(b) states, everyone receiving SSI was eligible for Medicaid.³
- *Low-income Medicare beneficiaries:* Most low-income Medicare beneficiaries were eligible for Medicaid. Those with income below 100 percent of the FPL and assets below 200 percent of SSI asset limits are known as Qualified Medicare Beneficiaries (QMBs) and received Medicare premiums and cost-sharing payments. Medicare beneficiaries with income between 100 percent

² Medicaid has historically been linked to welfare receipt. Although the tie between welfare and Medicaid for children and their parents was severed in 1996 by the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), some of the mandatory eligibility groups still reflect this history. Although PRWORA replaced Aid to Families with Dependent Children (AFDC) with Temporary Assistance to Needy Families (TANF) in 2012, 1996 AFDC rules were still used to determine eligibility for Medicaid. Section 1931 refers to the section of the Social Security Act that specifies AFDC-related eligibility after welfare reform. In 2013, states had some flexibility in changing income and asset limits for Section 1931 coverage.

³ Section 209(b) of the Social Security Amendments of 1972 permits states to use more restrictive eligibility requirements than those of the SSI program. These requirements cannot be more restrictive than those in place in the state’s Medicaid plan as of January 1, 1972. In 2013, there were 11 Section 209(b) states: Connecticut, Hawaii, Illinois, Indiana, Minnesota, Missouri, New Hampshire, North Dakota, Ohio, Oklahoma, and Virginia.

Table 1.1
State Medicaid Program Characteristics in 2013

| State | FY 2013 FMAP ^a | CHIP | | Medicaid Eligibility for SSI Recipients | | | Medically Needy Eligibility ^d | Full Benefit Poverty-Related Expansion for Aged and Disabled (FPL Percentage) ^e | Special Income Level for Institutionalized ^f |
|----------------------|---------------------------|--------------------------------------|----------------------------|---|---------------------------|-----------------------------|--|--|---|
| | | Medicaid Expansion CHIP ^b | Separate CHIP ^b | Automatic Eligibility ^c | SSI Criteria ^c | Section 209(b) ^c | | | |
| Alabama | 68.53 | - | ♦ | ♦ | - | - | - | - | ♦ |
| Alaska | 50.00 | ♦ | - | - | ♦ | - | - | - | ♦ |
| Arizona | 65.68 | - | ♦ | ♦ | - | - | - | 100 | ♦ |
| Arkansas | 70.17 | ♦ | ♦ | ♦ | - | - | ♦ | 80 | ♦ |
| California | 50.00 | ♦ | ♦ | ♦ | - | - | ♦ | 100 | - |
| Colorado | 50.00 | ♦ | ♦ | ♦ | - | - | - | - | ♦ |
| Connecticut | 50.00 | - | ♦ | - | - | ♦ | ♦ | - | ♦ |
| Delaware | 55.67 | ♦ | ♦ | ♦ | - | - | - | - | ♦ |
| District of Columbia | 70.00 | ♦ | - | ♦ | - | - | ♦ | 100 | - |
| Florida | 58.08 | ♦ | ♦ | ♦ | - | - | ♦ | 88 | ♦ |
| Georgia | 65.56 | - | ♦ | ♦ | - | - | ♦ | - | ♦ |
| Hawaii | 51.86 | ♦ | - | - | - | ♦ | ♦ | 100 | - |
| Idaho | 71.00 | ♦ | ♦ | - | ♦ | - | - | - | ♦ |
| Illinois | 50.00 | ♦ | ♦ | - | - | ♦ | ♦ | 100 | - |
| Indiana | 67.16 | ♦ | ♦ | - | - | ♦ | - | - | - |
| Iowa | 59.59 | ♦ | ♦ | ♦ | - | - | ♦ | - | ♦ |
| Kansas | 56.51 | - | ♦ | - | ♦ | - | ♦ | - | ♦ |
| Kentucky | 70.55 | ♦ | ♦ | ♦ | - | - | ♦ | - | ♦ |
| Louisiana | 61.24 | ♦ | ♦ | ♦ | - | - | ♦ | - | ♦ |
| Maine | 62.57 | ♦ | ♦ | ♦ | - | - | ♦ | 100 | ♦ |
| Maryland | 50.00 | ♦ | - | ♦ | - | - | ♦ | - | ♦ |
| Massachusetts | 50.00 | ♦ | ♦ | ♦ | - | - | ♦ | 100 | ♦ |
| Michigan | 66.39 | ♦ | ♦ | ♦ | - | - | ♦ | 100 | ♦ |
| Minnesota | 50.00 | ♦ | ♦ | - | - | ♦ | ♦ | 95 | - |
| Mississippi | 73.43 | - | ♦ | - | - | - | - | - | ♦ |
| Missouri | 61.37 | ♦ | ♦ | - | - | ♦ | - | 85 | - |
| Montana | 66.00 | ♦ | ♦ | ♦ | - | - | ♦ | - | ♦ |
| Nebraska | 55.76 | ♦ | ♦ | - | ♦ | - | ♦ | 100 | ♦ |
| Nevada | 59.74 | - | ♦ | - | ♦ | - | - | - | ♦ |
| New Hampshire | 50.00 | ♦ | - | - | - | ♦ | ♦ | - | ♦ |
| New Jersey | 50.00 | ♦ | ♦ | ♦ | - | - | ♦ | 100 | ♦ |
| New Mexico | 69.07 | ♦ | - | ♦ | - | - | - | - | ♦ |
| New York | 50.00 | ♦ | ♦ | ♦ | - | - | ♦ | - | - |
| North Carolina | 65.51 | ♦ | ♦ | ♦ | - | - | ♦ | 100 | - |
| North Dakota | 52.27 | ♦ | ♦ | - | - | ♦ | ♦ | - | - |
| Ohio | 63.58 | ♦ | - | - | - | ♦ | - | - | - |
| Oklahoma | 64.00 | ♦ | ♦ | - | - | ♦ | - | 100 | ♦ |
| Oregon | 62.44 | - | ♦ | - | ♦ | - | - | - | ♦ |
| Pennsylvania | 54.28 | - | ♦ | ♦ | - | - | ♦ | 100 | ♦ |
| Rhode Island | 51.26 | ♦ | ♦ | ♦ | - | - | ♦ | 100 | ♦ |
| South Carolina | 70.43 | ♦ | - | ♦ | - | - | - | 100 | ♦ |
| South Dakota | 56.19 | ♦ | ♦ | ♦ | - | - | - | - | ♦ |
| Tennessee | 66.13 | ♦ | ♦ | ♦ | - | - | ♦ | - | ♦ |
| Texas | 59.30 | - | ♦ | ♦ | - | - | ♦ | - | ♦ |
| Utah | 69.61 | - | ♦ | - | ♦ | - | ♦ | 100 | ♦ |
| Vermont | 56.04 | - | ♦ | ♦ | - | - | ♦ | - | ♦ |
| Virginia | 50.00 | ♦ | ♦ | - | - | ♦ | ♦ | 80 | ♦ |
| Washington | 50.00 | - | ♦ | ♦ | - | - | ♦ | - | ♦ |
| West Virginia | 72.62 | - | ♦ | ♦ | - | - | ♦ | - | ♦ |
| Wisconsin | 60.53 | ♦ | ♦ | ♦ | - | - | ♦ | 84 | - |
| Wyoming | 50.00 | - | ♦ | ♦ | - | - | - | - | ♦ |

Source: Medicaid Analytic Extract Eligibility Anomaly Tables 2013, unless otherwise noted.

FMAP = Federal Medical Assistance Percentage; SSI= Supplemental Security Income; CHIP= Children's Health Insurance Program; FPL = federal poverty level.

^a FY 2013 FMAP in *Federal Register*, vol. 76, No. 230, 2011, pp. 74062-74063.

^b In 2013, all states received enhanced federal matching funds to extend health care coverage to uninsured low-income children under CHIP. Some states also opted to cover adults under their CHIP programs. States may use CHIP funding to expand Medicaid coverage (M-CHIP), to set up separate CHIP (S-CHIP) programs, or to provide both. S-CHIP children and adults are not included in the MAX 2013 chartbook.

^c In 2013, states had three options with regard to Medicaid eligibility for SSI recipients. In most states, SSI recipients were automatically enrolled in Medicaid without a separate Medicaid application. In SSI criteria states, SSI recipients were eligible for Medicaid but had to apply separately for the program. Section 209(b) states required a separate Medicaid application for SSI recipients and used more restrictive Medicaid eligibility requirements for SSI recipients than those of the SSI program.

^d In 2013, states had the option to provide coverage to "medically needy" individuals—those who incurred sufficiently high medical costs to bring their net income below a state-determined level. This option allowed these individuals to "spend down" to Medicaid eligibility by incurring medical and/or remedial care expenses to offset their excess income.

^e In 2013, states had the option to extend full Medicaid benefits to aged and disabled persons whose income did not exceed the FPL. If a state had an expansion for the aged and disabled in 2013, the percentage of the FPL used for the expansion is noted. Individuals using this eligibility pathway are reported as poverty-related eligibles. Income limits are based on a single adult; limits may be higher for couples.

^f In 2013, states had the option to set a special income standard at up to 300 percent of the SSI level (\$2,130 per month in 2013) for individuals in nursing facilities and other institutions. Individuals using this eligibility pathway are reported as other beneficiaries in MAX.

and 120 percent of the FPL are known as Specified Low-Income Medicare Beneficiaries (SLMBs); those with income between 120 percent and 135 percent are known as Qualifying Individuals 1 (QI1s). SLMBs and QI1s qualified for assistance with Medicare premiums but not cost-sharing payments. (Many states also chose to extend full Medicaid benefits to QMBs and some SLMBs.)

- *Other:* Several other specified populations—generally small—were mandatorily eligible for Medicaid benefits, including certain working individuals with disabilities; recipients of adoption assistance and foster care; and special protected groups who could keep Medicaid for a period of time, including families who receive 6 to 12 months of Medicaid coverage following loss of eligibility under Section 1931 due to earnings, among others.⁴

In summary, state Medicaid programs in 2013 were mandated to cover those who had low incomes and few resources; they included people 65 and older, people with disabilities, children, pregnant women, or adults with dependent children. For these groups, Medicaid covered all “mandatory services,” which include but are not limited to inpatient and outpatient hospital services, physician services, laboratory and X-ray services, family planning services, early and periodic screening, diagnostic, and treatment (EPSDT) services for those under age 21, and nursing facility services for those 21 or older.

State Medicaid Program Characteristics in 2013

In 2013, states also had the option to cover certain people who did not meet the income and resource thresholds set by the federal government for mandatory coverage, as follows:

⁴For more detail, see “Medicaid: Eligibility: Mandatory Eligibility Groups” at <https://www.medicaid.gov/>.

- *Medically needy.* States had the option to provide coverage to “medically needy” individuals—those who incurred sufficiently high medical costs to bring their net income below a state-determined level.
- *Pregnant women.* States had the option to cover pregnant women at a higher income threshold than that set for mandatory coverage.
- *Children, including Medicaid expansion CHIP children.* States had the option to cover children at a higher income threshold than that set for mandatory coverage. The enactment of CHIP in 1997 provided enhanced funding for states to expand Medicaid coverage for children up to 250 percent of the FPL (or higher, in some circumstances).⁵
- *Institutionalized aged and disabled.* States had the option to cover the aged and people with disabilities in nursing homes and other institutions at a higher income threshold—up to 300 percent of the SSI standard.
- *Participants in 1115 waiver demonstrations.* States had the option to apply for demonstration waivers enabled under Section 1115 of the Social Security Act to extend Medicaid coverage to groups that otherwise would not be covered, such as low-income adults or higher-income adults who are parents.⁶

See Table 1.1 for key program characteristics of state Medicaid programs and Table 7.1 for additional detail about state 1115 waiver demonstration programs in 2013.

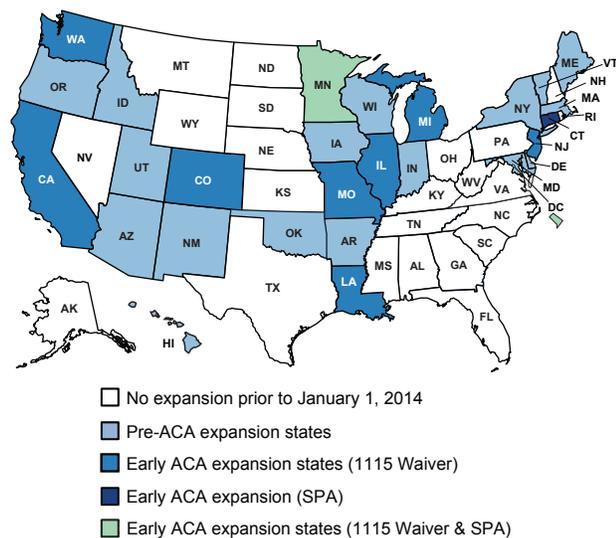
In addition, new options allowing early implementation of the Patient Protection and Affordable Care Act of 2010 (ACA) authorized states to extend Medicaid coverage to low-income adults as early as March 2010

⁵States also had the option to establish separate CHIP programs for children.

⁶Section 1115 waivers were also used to waive certain statutory and regulatory Medicaid provisions for research purposes and Medicaid demonstration projects.

through a state plan amendment (SPA), an 1115 waiver, or both. Eleven states expanded Medicaid coverage for adults between 2010 and 2013 through one or both of these options. Seventeen additional states had already expanded coverage to low-income adults before 2010 through 1115 waivers (see Figure 1.1).

Figure 1.1
States That Expanded Medicaid Coverage to Low-Income Adults before January 1, 2014



Source: Kaiser Family Foundation 2012a and MAX 2013 waiver crosswalk.
 Note: Pre-ACA expansion states are those that expanded Medicaid coverage to low-income adults prior to January 1, 2010. Early ACA expansion states are those that implemented such an expansion between January 1, 2010 and December 31, 2013.

States may also choose to cover certain services not required by federal mandate, such as dental care or prescription drugs. As a result, the services offered by Medicaid programs vary greatly between states. In 2013, all states elected to cover optional services, such as prescription drugs, home health, and intermediate care facilities for individuals with intellectual or development disabilities, but they varied in coverage of some optional services, such as personal care, private-duty nursing, and diagnostic screening (Kaiser Family Foundation 2020).

State variation in Medicaid coverage regarding both eligibility groups and the services covered can result in differences in enrollment rates and expenditures

among states. Other factors—including the age distribution, the rate of poverty, the use of managed care, and the rate of Medicaid reimbursement to providers within a state—also contribute to variation among states in enrollment, service use, and costs. These differences should be considered when interpreting the national- and state-level statistics presented in this chartbook.

Readers should note that this chartbook reflects the Medicaid program as it existed in 2013. Though some states adopted early implementation of the ACA, in most states the Medicaid program as constituted in 2013 still reflected the program as it existed before the full Medicaid expansions authorized by the ACA for 2014.

The Medicaid Analytic eXtract

The MAX data system contains extensive information on the characteristics of Medicaid beneficiaries and the services they use during a calendar year. MAX contains individual-level information on age, race, and ethnicity; monthly enrollment status; eligibility group; managed care and waiver enrollment; and use and costs of services during the year. MAX also includes claims-level records that can be used for detailed analysis of patterns of service utilization, diagnoses, and cost of care among Medicaid beneficiaries.

Annual MAX data include eligibility and claims data for all Medicaid beneficiaries in 50 states and the District of Columbia. The data do not include information about Medicaid beneficiaries in Puerto Rico or other U.S. territories. All Medicaid expansion CHIP beneficiaries—those whose coverage is financed through CHIP but are in a program operated through Medicaid—are included in MAX. However, MAX contains only limited eligibility information for beneficiaries in separate CHIP programs, which operate separately from Medicaid.⁷ Medicaid expansion CHIP beneficiaries, but not sepa-

⁷ Medicaid is funded under Title XIX of the Social Security Act, whereas states' CHIP programs are funded under Title XXI of the Social Security Act.

rate CHIP beneficiaries, are included (but not shown separately) in the figures and tables in this chartbook.

The MAX data system was developed to provide calendar-year utilization and expenditure information. MAX serves as a research tool for examining Medicaid enrollment, service utilization, and expenditures by subgroup and over time. Unlike Medicaid expenditure data reported in Form CMS-64, MAX enables the examination of Medicaid utilization and service expenditures at the beneficiary level. Historically, MAX data comprised research extracts of MSIS. MSIS data, which CMS collected from states starting in 1999, contain beneficiary eligibility information and Medicaid claims paid in each quarter of the FFY.⁸ In 2013, CMS replaced MSIS with the Transformed Medicaid Statistical Information System (T-MSIS) to expand on the data that state Medicaid agencies report to CMS while improving data quality and timeliness. T-MSIS differs from MSIS in the following ways: (1) its data are submitted by states and retained in a relational database format as opposed to a flat fixed-length format; (2) it requires monthly reporting instead of quarterly; (3) it has new and modified data elements; and (4) it includes additional information on managed care plans, Medicaid providers, and third-party liability. The first state (Colorado) made the transition from MSIS to T-MSIS starting with its 2011 data, followed by Rhode Island in 2012, and Kansas in January 2013. For these states, the MAX 2013 files were produced with T-MSIS data converted to MSIS format for incorporation into MAX. For 19 additional states that transitioned to T-MSIS between March 2013 and September 2014, the MAX 2013 files were produced with a combination of MSIS and T-MSIS data. For additional detail, including the reporting

⁸ MSIS replaced the required state Medicaid reporting in Form HCFA-2082. Before 1999, MSIS data submission by states was optional.

period (month and year) each state's data were first produced under T-MSIS, and for shifts in reporting that occurred as a result of the transition, see Table 1.2. In addition, readers may consult the 2013 MAX anomaly tables, which present detailed state-specific data anomalies, some of which were driven by the introduction of T-MSIS data and the differences in reporting requirements from MSIS, to gain additional insight into the data presented in this chartbook.

In the construction of MAX, claims from MSIS (or T-MSIS) are merged with person-level enrollment information from MSIS (or T-MSIS) to assemble services utilized by each beneficiary during a calendar year.

The MAX data system differs from MSIS and T-MSIS in a number of ways:

- Although MSIS and T-MSIS contain separate claims records for initial claims, voided claims, and positive or negative adjustments, such records are combined to reflect final service records in MAX.
- Changes in eligibility reported retroactively in MSIS and T-MSIS are incorporated into MAX.
- Type-of-service information from MSIS and T-MSIS is remapped in MAX to reflect further type-of-service detail that may be helpful to researchers.⁹
- Eligibility information from MSIS and T-MSIS is remapped in MAX to correct coding inconsistencies where possible.
- MAX data have been linked to the Medicare Enrollment Database (EDB) to help identify people dually enrolled in Medicare and Medicaid. Some additional Medicare enrollment information from the EDB is included in MAX.

⁹ Although T-MSIS contains many more detailed type-of-service categories than MSIS, these categories are aggregated back to the MSIS categories for the MAX input files derived from T-MSIS data.

Table 1.2
MAX 2013 Data Sources and Notes by State

| State | First Reporting Period Under T-MSIS | MAX 2013 Data Source(s)-Base Person Summary File ^a | MAX 2013 Data Source(s)-Claims Files (IP, OT, LT, RX) ^a | Retroactive and Correction Records Not Available for All of 2013 ^b | Selected Additional Notes |
|----------------------|-------------------------------------|---|--|---|--|
| Alabama | January 2014 | MSIS | MSIS and T-MSIS | NA | |
| Alaska | October 2013 | MSIS and T-MSIS | MSIS and T-MSIS | X | |
| Arizona | October 2014 | MSIS | MSIS | | |
| Arkansas | April 2015 | MSIS | MSIS | | |
| California | October 2015 | MSIS | MSIS | | |
| Colorado | October 2011 | T-MSIS | T-MSIS | | Colorado's transition to T-MSIS was accompanied by several large shifts in enrollment across uniform eligibility groups (UEG); as a result, Colorado's UEG assignments may be unreliable in MAX 2013. |
| Connecticut | April 2015 | MSIS | MSIS | | |
| Delaware | January 2014 | MSIS | MSIS and T-MSIS | X | |
| District of Columbia | January 2014 | MSIS | MSIS and T-MSIS | NA | |
| Florida | October 2013 | MSIS and T-MSIS | MSIS and T-MSIS | NA | |
| Georgia | October 2015 | MSIS | MSIS | | |
| Hawaii | October 2014 | MSIS | MSIS | | |
| Idaho | October 2015 | MSIS | MSIS | | |
| Illinois | January 2014 | MSIS | MSIS and T-MSIS | X | |
| Indiana | October 2014 | MSIS | MSIS | | |
| Iowa | October 2015 | MSIS | MSIS | | |
| Kansas | January 2013 | T-MSIS | T-MSIS | | Kansas did not report dates of service on any managed care capitation payments for 2013 in T-MSIS; as a result, no capitation payments were included in MAX 2013 for Kansas. |
| Kentucky | July 2014 | MSIS | MSIS and T-MSIS | NA | |
| Louisiana | October 2015 | MSIS | MSIS | | |
| Maine | January 2014 | MSIS | MSIS and T-MSIS | NA | |
| Maryland | January 2014 | MSIS | MSIS and T-MSIS | X | |
| Massachusetts | October 2014 | MSIS | MSIS | | |
| Michigan | October 2015 | MSIS | MSIS | | |
| Minnesota | October 2015 | MSIS | MSIS | | |
| Mississippi | October 2015 | MSIS | MSIS | | |
| Missouri | October 2015 | MSIS | MSIS | | |
| Montana | January 2014 | MSIS | MSIS and T-MSIS | NA | All Montana's IP and OT claims from T-MSIS are missing the beginning and ending dates of service and therefore could not be included in MAX, resulting in incomplete claims data for MAX 2013. |
| Nebraska | October 2014 | MSIS | MSIS | | |
| Nevada | January 2014 | MSIS | MSIS and T-MSIS | X | |
| New Hampshire | January 2014 | MSIS | MSIS and T-MSIS | NA | |
| New Jersey | October 2015 | MSIS | MSIS | | |
| New Mexico | January 2014 | MSIS | MSIS and T-MSIS | X | |
| New York | July 2015 | MSIS | MSIS | | |
| North Carolina | July 2013 | MSIS and T-MSIS | MSIS and T-MSIS | X | North Carolina's transition was accompanied by several large shifts in enrollment across eligibility groups and a decrease in the number of aged enrollees. |
| North Dakota | January 2014 | MSIS | MSIS and T-MSIS | X | |
| Ohio | October 2014 | MSIS | MSIS | | |
| Oklahoma | October 2014 | MSIS | MSIS | | |
| Oregon | July 2015 | MSIS | MSIS | | |
| Pennsylvania | October 2015 | MSIS | MSIS | | |
| Rhode Island | October 2012 | T-MSIS | T-MSIS | | None of Rhode Island's capitation payments were available from T-MSIS for inclusion in MAX 2013. |
| South Carolina | July 2014 | MSIS | MSIS and T-MSIS | X | |
| South Dakota | October 2015 | MSIS | MSIS | | |
| Tennessee | October 2015 | MSIS | MSIS | | |
| Texas | July 2014 | MSIS | MSIS and T-MSIS | X | |
| Utah | October 2015 | MSIS | MSIS | | |
| Vermont | October 2015 | MSIS | MSIS | | |
| Virginia | April 2014 | MSIS | MSIS and T-MSIS | X | |
| Washington | January 2015 | MSIS | MSIS | | |
| West Virginia | October 2015 | MSIS | MSIS | | |
| Wisconsin | January 2014 | MSIS | MSIS and T-MSIS | NA | Given Wisconsin's transition to T-MSIS in January 2014 and a one-year lag in reporting of waiver claims, the state does not have any Section 1915(c) waiver enrollees with reported waiver claims in MAX 2013. |
| Wyoming | October 2015 | MSIS | MSIS | | |

Source: MAX 2013 eligibility anomaly tables.

^a For the 16 states that transitioned their data to T-MSIS between January and September 2014, MAX 2013 source data include MSIS person-level enrollment and claims information from 2013, as well as claims information from T-MSIS for 2014. Because MSIS and the T-MSIS-based source files for MAX were constructed based on transaction date (date of payment on claims), not date of service, MAX (which is constructed based on date of service) uses up to seven quarters of MSIS and/or T-MSIS (that is, the four quarters corresponding to the calendar year plus the three subsequent quarters) to provide as near-complete reporting on eligibility and service use for the calendar year as is reasonable. MAX 2013 source data for the three states that transitioned to T-MSIS in February through December 2013 include both MSIS and T-MSIS person level enrollment and claims information. MAX 2013 source data for the three states that transitioned to T-MSIS in January 2013 or prior include only T-MSIS data, while source data for the 29 states that transitioned after September 2014 include only MSIS data.

^b The states marked with an "X" transitioned from MSIS to T-MSIS in 2013 or later and historically reported retroactive and/or corrective eligibility segments to MSIS. A feature of the way that the T-MSIS-based input files are constructed is that they do not contain any retroactive or correction records for periods of coverage that precede a state's cutover to T-MSIS. Therefore, the eligibility data for these states may be incomplete or unreliable in MAX 2013 as retroactive and correction records were not available for all of 2013. An "NA" in this column signifies that some of the source data for MAX 2013 included T-MSIS data, but the state historically did not report retroactive or correction records in MSIS and therefore the data are considered complete unless otherwise noted.

- MAX prescription drug claims have been linked to codes identifying drug therapeutic classes and groups. However, access to these data is limited to researchers covered under a CMS licensing agreement.

The 2013 MAX data system consists of a person summary (PS) file and four claims files for each state and the District of Columbia. The PS file contains summary demographic and enrollment characteristics and summary claim information for each person enrolled in Medicaid in the state during a given year. Four claims files—inpatient (IP), institutional long-term care (LT), prescription drug (RX), and other services (OT)—contain claim-level detail regarding date of service, expenditures for utilized services, associated diagnostic information, and provider and procedure type for all individual-level Medicaid paid services during the year.

Limitations of MAX

There are some limitations to the information contained in the MAX files. Because it includes only Medicaid paid services, MAX is not intended to capture service use or expenditures during periods of non-enrollment, services paid by other payers (including Medicare), or those provided at no charge. Also, because MAX consists of beneficiary-level information only, it does not include prescription drug rebates received by Medicaid, Medicaid payments made to disproportionate-share hospitals (hospitals that serve a disproportionate share of low-income patients with special needs), payments made through upper payment limit programs, Medicaid payments to CMS for prescription drug coverage for dual eligibles, and payments to states to cover administrative costs.

In addition, service utilization information in MAX may be missing or incomplete for certain groups,

specifically (1) dual eligibles and (2) beneficiaries enrolled in Medicaid prepaid or managed care plans (either comprehensive or partial plans).

Because Medicare is the first payer for services used by dual eligibles, MAX captures such service use only if additional Medicaid payments are made on behalf of the beneficiary for Medicare cost sharing or shared services, such as home health. (See Chapter 6 on dual eligibles for further detail.)

For beneficiaries enrolled in managed care plans, information in MAX is restricted to enrollment data, premium payments, and some service-specific utilization information. It does not include service-specific expenditure information. Records reflecting utilization of managed care services in MAX are called “encounter” data. For many years of MAX production, encounter data were incomplete in MAX. However, CMS and states have been working to improve this reporting, and evidence suggests that the usability and availability of encounter data have improved between 2010 and 2013 (see Chapter 5, Figure 5.14). However, given that they were still incomplete in some states in 2013, we present only limited information based on encounter records.

Beneficiaries enrolled in comprehensive managed care plans, such as health maintenance organizations (HMOs), health insuring organizations (HIOs), and Programs of All-Inclusive Care for the Elderly (PACE), typically have few FFS claims and are thus excluded from all tables and figures describing FFS use by type of service. For this reason, FFS statistics from states with extensive comprehensive managed care enrollment should be interpreted with caution.

Finally, as with all large data sets, MAX contains some anomalous and possibly incomplete or incorrect data elements. Users should consult MAX

anomaly tables, available on the MAX website (see Resources for MAX below), for information that may explain unusual patterns in each state's data.

Source Data Used in This Chartbook

The source data used for the chartbook are the MAX 2013 and earlier year PS, IP, OT, LT, and RX files. Most of the statistics presented can be found in the summary tables CMS creates to validate the MAX data system each year. The validation tables and variable construction documentation are available on the MAX website. Tables with more detailed enrollment, utilization, and expenditure information by state are in an appendix to this chartbook.

Resources for MAX

The figures and tables in this chartbook illustrate a small set of analyses possible when using MAX data. More detailed information about Medicaid prescription drug use and expenditures, for example, is available on the CMS website at the following link to the Medicaid Pharmacy Benefit Use and Reimbursement Statistical Compendium: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/MedicaidPharmacy>. MAX data are available for calendar years 1999 through 2013 for all states. For 2014 and 2015, MAX data are

available for only a subset of states, whereas data for the remaining states are available in the form of a research-optimized version of the T-MSIS data called the T-MSIS Analytic Files (TAF). Specifically, 2014 MAX data are available for 32 states (those for which TAF data are not available); TAF data are available for the remaining 19 states. For 2015, MAX data are available for 21 states (those for which TAF data are not available), and TAF data are available for the remaining 30 states. Beginning in 2016, states' data are available in TAF format. MAX data are protected under the Privacy Act and require a data use agreement with CMS.

Documentation for MAX and information about accessing MAX data for research purposes are available at these websites:

- The MAX website is available at <https://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/MAXGeneralInformation>.
- The Research Data Assistance Center (ResDAC) (contains information about how to obtain CMS data) is available at <http://www.resdac.org/cms-data>.
- Information on CMS privacy-protected data is available at: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Files-for-Order/IdentifiableDataFiles/Downloads/CustomDisclaimer.pdf>.

2. Characteristics of Medicaid Beneficiaries



This chapter provides a national profile of Medicaid beneficiaries and their demographic and enrollment characteristics in 2013. The summary measures presented reflect eligibility and coverage rules established by states regarding individuals and services covered by the program. National averages can be disproportionately affected by large states and thus can be poor indicators of the characteristics of Medicaid beneficiaries in any individual state. State-to-state differences can be substantial, so some national measures should be interpreted with caution.

State-level variation is driven by multiple factors. The Social Security Act mandates that state Medicaid programs cover both a minimum set of services and a minimum defined population of eligible persons. However, beyond this mandate, states have a great deal of flexibility in determining their Medicaid programs' eligibility criteria and benefits (see Chapter 1 for details). Because each state has a distinct Medicaid program, there is significant variation in the composition of Medicaid beneficiaries across states. States also differ in their demographic characteristics and economic status. Those with particularly large populations of elderly, individuals with disabilities, and low-income individuals generally have more Medicaid-eligible residents as a share of their total population.

Despite the many factors that affect state Medicaid programs, common federal guidelines and data-reporting systems (MSIS and T-MSIS) make the examination of state-level summary statistics both useful and feasible. The MAX data system, derived from

MSIS- and T-MSIS-based source files, can be used to examine any state's Medicaid population in a national context. (See Chapter 1 for more details about the MSIS and T-MSIS data.)

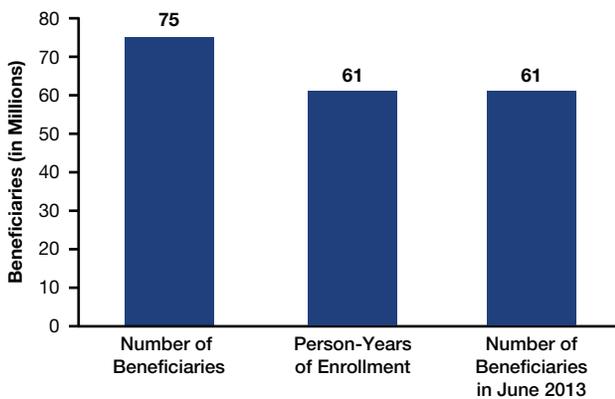
Although we discuss some of the characteristics that may explain observed differences between states, this examination is by no means comprehensive. The discussions in this chapter are intended only to suggest the complexity of factors that affect states' Medicaid enrollment. When interpreting the statistics presented here, we encourage readers to review the MAX 2013 anomaly tables available on the MAX website. In addition to identifying anomalous data, these tables document unusual aspects of state Medicaid programs that might have affected data in MAX that year.

More than 75 million people—almost 25 percent of the U.S. population—were enrolled in Medicaid at some point in 2013 (Figure 2.1 and Appendix Table A2.1).¹⁰ Because pathways to Medicaid eligibility, such as age, family status, and income, can change over time, Medicaid eligibility can be transitory. About 62 percent of Medicaid beneficiaries in 2013 were enrolled for the entire year, accounting for 61 million person-years of Medicaid enrollment (Table 2.1).¹¹

¹⁰ Unless otherwise noted, all national estimates presented in the chartbook are based on total national enrollment counts and expenditures for the United States rather than on averages of state-level estimates.

¹¹ Because beneficiaries can be in Medicaid for different numbers of months during a year, the person-year estimate provides a standardized estimate of coverage. This statistic sums the total months of enrollment for each person to create total person-years of enrollment.

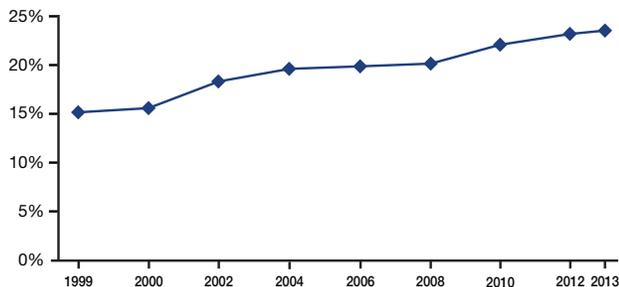
Figure 2.1
Total Medicaid Enrollment in 2013



Source: Medicaid Analytic Extract 2013.

From 2012 to 2013, the percentage of the total U.S. population enrolled in Medicaid remained relatively stable, with only a slight increase from 23.4 percent to 23.7 percent (Appendix Table A2.2). This one-year change continued the same upward trend line seen in earlier MAX years (Figure 2.2). In 2013, Medicaid children made up 11 percent of the total U.S. population, whereas adults comprised about 7 percent. Aged and disabled Medicaid populations comprised smaller segments of the total U.S. population (about 2 and 4 percent, respectively) (Appendix Table A2.8).

Figure 2.2
Percentage of the Population Enrolled in Medicaid 1999-2013



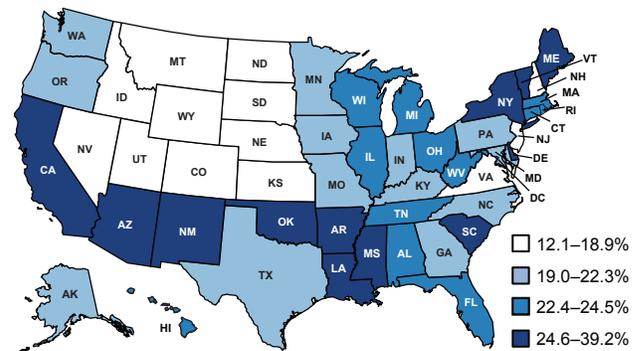
Sources: Medicaid Analytic Extract, 1999-2013; U.S. Census Bureau.

Looking at state-level enrollment counts, Medicaid enrollment in 2013 ranged from fewer than 100,000 beneficiaries in North Dakota and Wyoming to more

than 13 million in California (Table 2.1). Beneficiaries in the three most populated states in the United States—California, New York, and Texas—together comprised about one-third of all Medicaid beneficiaries in 2013.¹²

Medicaid enrollment ranged from 12 percent of the total state population in North Dakota to 39 percent in the District of Columbia (Table 2.1). In general, Medicaid enrollment rates were high in states with high poverty levels. For instance, Mississippi, Louisiana, New Mexico, and Arkansas had the highest poverty levels among all states in 2013 and were also in the top quartile of Medicaid enrollment rates (Figure 2.3).¹³ States with more generous state eligibility criteria and large optional programs also had a higher percentage of their population in Medicaid. For example, California, which had the second largest percentage of the state population enrolled in Medicaid, extended restricted benefit family planning coverage to 2.7 million people through its Family Planning, Access, Care, and Treatment Program.

Figure 2.3
Percentage of the Population (in quartiles) Enrolled in Medicaid in 2013



Sources: Medicaid Analytic Extract 2013; U.S. Census Bureau.

¹² State population estimates for 2013 were taken from U.S. Census Bureau reports at <https://www.census.gov/data/tables/time-series/demo/popest/2010s-state-total.html>.

¹³ Estimates of the percentage of the population below the FPL in 2013 were drawn from the U.S. Census Bureau, American Community Survey, Table S1701, available at <https://data.census.gov/cedsci/>.

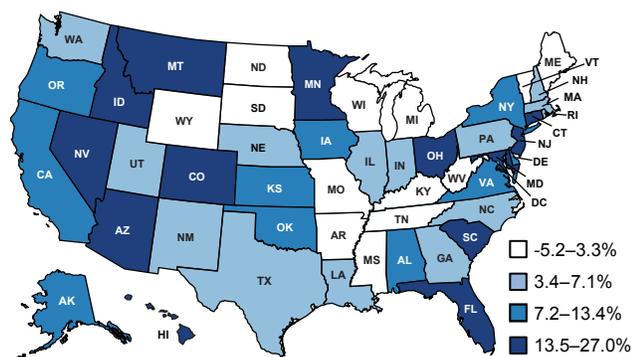
Table 2.1
Medicaid Enrollment in 2013

| States | Number of Beneficiaries | Percentage of State Population | Percentage of Beneficiaries Enrolled All Year | Total Person-Years of Enrollment | Number of Beneficiaries Enrolled in June 2013 |
|----------------------|-------------------------|--------------------------------|---|----------------------------------|---|
| United States | 75,099,062 | 23.7 | 61.5 | 61,439,988 | 61,405,113 |
| Alabama | 1,116,533 | 23.1 | 69.7 | 965,359 | 961,249 |
| Alaska | 156,069 | 21.2 | 53.2 | 121,353 | 122,018 |
| Arizona | 1,652,887 | 25.0 | 58.4 | 1,340,179 | 1,329,250 |
| Arkansas | 788,865 | 26.7 | 70.4 | 679,126 | 664,890 |
| California | 13,155,569 | 34.3 | 53.9 | 10,379,424 | 10,406,883 |
| Colorado | 911,062 | 17.3 | 56.4 | 714,037 | 722,564 |
| Connecticut | 866,583 | 24.1 | 68.0 | 737,930 | 736,910 |
| Delaware | 258,306 | 27.9 | 60.0 | 213,435 | 213,008 |
| District of Columbia | 255,035 | 39.2 | 72.1 | 222,609 | 222,484 |
| Florida | 4,405,958 | 22.5 | 55.3 | 3,390,489 | 3,389,019 |
| Georgia | 2,010,180 | 20.1 | 55.2 | 1,589,864 | 1,590,800 |
| Hawaii | 338,057 | 24.0 | 68.6 | 285,791 | 280,085 |
| Idaho | 303,780 | 18.9 | 60.9 | 243,062 | 241,656 |
| Illinois | 3,155,874 | 24.5 | 74.7 | 2,788,179 | 2,815,396 |
| Indiana | 1,308,613 | 19.9 | 63.2 | 1,090,630 | 1,090,911 |
| Iowa | 650,902 | 21.1 | 61.5 | 533,401 | 535,942 |
| Kansas | 428,740 | 14.8 | 60.0 | 340,862 | 338,041 |
| Kentucky | 980,554 | 22.3 | 61.8 | 811,581 | 810,541 |
| Louisiana | 1,412,434 | 30.5 | 76.6 | 1,249,587 | 1,246,714 |
| Maine | 367,223 | 27.7 | 73.4 | 320,424 | 321,082 |
| Maryland | 1,276,288 | 21.5 | 68.5 | 1,087,873 | 1,083,471 |
| Massachusetts | 1,623,866 | 24.2 | 67.0 | 1,368,059 | 1,365,814 |
| Michigan | 2,284,381 | 23.1 | 60.7 | 1,883,301 | 1,898,287 |
| Minnesota | 1,161,749 | 21.5 | 55.6 | 905,795 | 906,167 |
| Mississippi | 796,274 | 26.7 | 62.3 | 658,039 | 648,113 |
| Missouri | 1,172,209 | 19.4 | 61.4 | 958,763 | 961,400 |
| Montana | 155,091 | 15.3 | 55.6 | 123,386 | 119,646 |
| Nebraska | 304,267 | 16.3 | 59.6 | 246,729 | 249,172 |
| Nevada | 413,808 | 14.9 | 53.8 | 321,608 | 318,229 |
| New Hampshire | 181,374 | 13.7 | 63.0 | 148,951 | 149,712 |
| New Jersey | 1,476,824 | 16.6 | 65.9 | 1,231,519 | 1,235,086 |
| New Mexico | 684,100 | 32.8 | 66.1 | 576,341 | 573,910 |
| New York | 6,266,464 | 31.8 | 66.8 | 5,312,055 | 5,291,654 |
| North Carolina | 2,045,540 | 20.8 | 61.9 | 1,645,348 | 1,642,304 |
| North Dakota | 87,476 | 12.1 | 49.5 | 66,101 | 66,565 |
| Ohio | 2,795,832 | 24.2 | 67.9 | 2,377,495 | 2,378,599 |
| Oklahoma | 1,034,704 | 26.9 | 53.8 | 818,146 | 814,173 |
| Oregon | 751,417 | 19.2 | 65.0 | 624,572 | 626,055 |
| Pennsylvania | 2,580,146 | 20.2 | 66.1 | 2,163,689 | 2,157,982 |
| Rhode Island | 255,727 | 24.3 | 70.1 | 220,428 | 220,394 |
| South Carolina | 1,185,036 | 24.9 | 65.7 | 1,007,585 | 1,002,106 |
| South Dakota | 147,873 | 17.6 | 57.7 | 118,330 | 118,157 |
| Tennessee | 1,567,436 | 24.1 | 70.5 | 1,337,106 | 1,329,254 |
| Texas | 5,246,582 | 19.8 | 54.5 | 4,075,518 | 4,072,168 |
| Utah | 386,770 | 13.3 | 48.6 | 286,132 | 288,468 |
| Vermont | 203,624 | 32.5 | 60.3 | 169,968 | 170,133 |
| Virginia | 1,212,991 | 14.7 | 62.0 | 994,731 | 988,975 |
| Washington | 1,431,169 | 20.6 | 61.9 | 1,172,792 | 1,169,381 |
| West Virginia | 439,078 | 23.7 | 60.5 | 357,348 | 353,243 |
| Wisconsin | 1,319,717 | 23.0 | 63.4 | 1,097,225 | 1,100,674 |
| Wyoming | 88,025 | 15.1 | 51.6 | 67,729 | 66,378 |

Source: Medicaid Analytic Extract 2013.

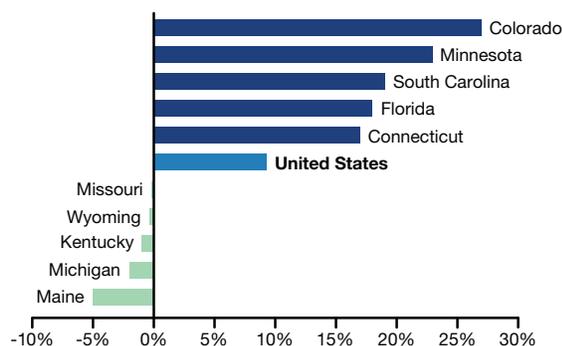
Most states (46) reported enrollment increases between 2010 and 2013, with two states reporting enrollment growth of more than 20 percent: Colorado (27 percent) and Minnesota (23 percent) (Figure 2.4). Minnesota implemented its 1115 Minnesota Reform 2020 waiver in 2013, which extended benefits to additional individuals. South Carolina and Florida were the next highest in growth (19 and 18 percent, respectively). On the other hand, Maine showed the largest decline (5 percent), possibly attributable to the end of its 1115 waiver during 2013. Other states with enrollment decreases included Michigan (2 percent); Kentucky (1 percent); and Wyoming and Missouri, with a less than 1 percent decrease each (Figure 2.5).

Figure 2.4
Growth in Medicaid Enrollment (in quartiles), 2010-2013



Source: Medicaid Analytic Extract, 2010-2013.

Figure 2.5
Growth in Medicaid Enrollment, 2010-2013: Top and Bottom Five States



Source: Medicaid Analytic Extract, 2010-2013.

Demographic Characteristics of All Medicaid Beneficiaries

In 2013, just over half (52 percent) of all Medicaid beneficiaries were under age 21, including 3 percent who were infants (under 1 year) (Table 2.2). In comparison, working-age adults (ages 21 to 64) accounted for 38 percent of Medicaid beneficiaries. Aged beneficiaries (those age 65 and over) made up about 9 percent of all Medicaid beneficiaries.

Table 2.2
Characteristics of Medicaid Beneficiaries in 2013

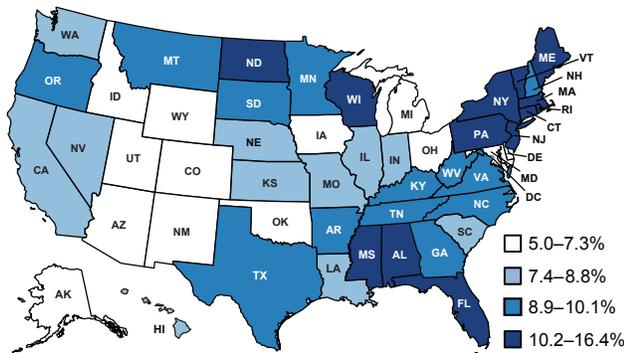
| | Number of Beneficiaries | Percentage of Beneficiaries |
|--------------------------|-------------------------|-----------------------------|
| All Beneficiaries | 75,015,988 | 100.0 |
| Age | | |
| 0 years | 2,271,933 | 3.0 |
| 1-20 years | 37,072,831 | 49.4 |
| 21-64 years | 28,679,832 | 38.2 |
| 65 years and older | 6,991,392 | 9.3 |
| Gender | | |
| Male | 31,613,741 | 42.1 |
| Female | 43,331,281 | 57.8 |
| Race | | |
| White | 32,393,205 | 43.2 |
| African American | 16,285,118 | 21.7 |
| Asian | 2,663,063 | 3.5 |
| Native American | 1,083,878 | 1.4 |
| Pacific Islander | 769,971 | 1.0 |
| Unknown | 22,306,519 | 29.7 |
| Ethnicity | | |
| Hispanic or Latino | 17,692,239 | 23.6 |

Source: Medicaid Analytic Extract 2013.

Figure 2.6 shows the percentage of the Medicaid population in each state that was age 65 or older in 2013—one indication of the density of higher-cost beneficiaries. States with more aged in their Medicaid populations tended to be those with more aged in their general populations. Maine had one of the highest percentages of people age 65 and over in the state population, and the highest percentage of Medicaid beneficiaries age 65 and older (about 16 percent, compared with about 9 percent nationally; see Figure 2.7).¹⁴

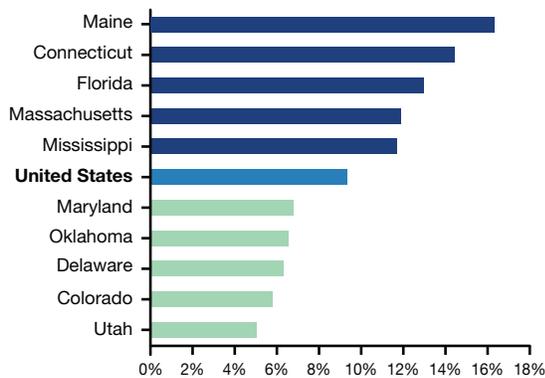
¹⁴ Estimates of the percentage of the state population 65 and older in 2013 were drawn from the U.S. Census Bureau, Table S0101, at <https://data.census.gov/cedsci/>.

Figure 2.6
Percentage of Medicaid Beneficiaries (in quartiles) Who Were 65 and Older in 2013



Source: Medicaid Analytic Extract 2013.

Figure 2.7
Percentage of Medicaid Beneficiaries Who Were 65 and Older in 2013: Top and Bottom Five States



Source: Medicaid Analytic Extract 2013.

Other factors that influenced the age distribution of Medicaid beneficiaries in a state were expansions to cover children and adults. For example, in 2013, three of the states with smaller proportions of aged among Medicaid beneficiaries than in their total populations (Arizona, Michigan, and New Mexico) had large waiver programs that expanded coverage to additional children and adults (Figure 2.6).

White beneficiaries comprised 43 percent of the Medicaid population and were the largest racial/ethnic group enrolled in Medicaid in 2013 (Table 2.2). An additional 22 percent of beneficiaries were African American. Smaller percentages were Asian (4 percent), Native American (1 percent), and Pacific Islander (1

percent). About 24 percent of beneficiaries were Hispanic or Latino. The trend for states to report a high percentage of beneficiaries as “unknown race” continued, with 30 percent of beneficiaries thus identified in 2013. The trend in reporting many beneficiaries as “unknown race” is the result of fewer states than in earlier years requiring applicants to self-report race in their Medicaid applications; also, in many states, individuals with Hispanic ethnicity are not asked to report their race separately.

About 58 percent of Medicaid beneficiaries in 2013 were female. The gender disparity was driven largely by the number of women who qualified for Medicaid when they were pregnant, and later, to some extent, because they were primary caretakers for children enrolled in Medicaid (Kaiser Family Foundation 2012b). Moreover, some states operated family planning programs that specifically targeted women of childbearing age.

Additional details about the demographic makeup of state Medicaid populations can be found in the appendix tables. Appendix Tables A2.3, A2.4, and A2.5 show the age distribution, racial and gender composition, and institutional status, respectively, of state Medicaid beneficiaries.

Pathways to Medicaid Eligibility

Each Medicaid beneficiary is classified by two eligibility groups—a Basis of Eligibility (BOE) group and a Maintenance Assistance Status (MAS) group. The four BOE groups are as follows:

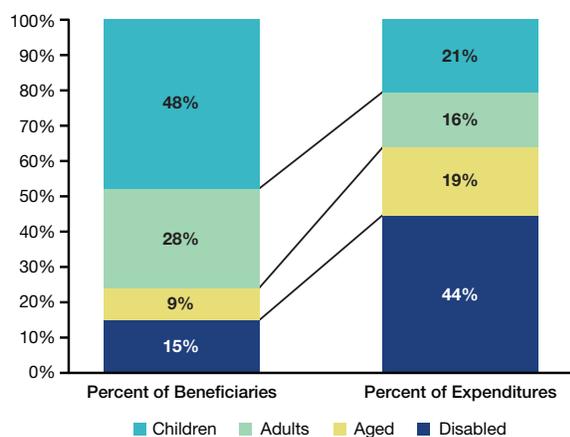
1. *Children*: People under age 18, or up to age 21 in states electing to cover older children
2. *Adults*: Pregnant women and caretaker relatives in families with dependent (minor) children,¹⁵ and working-age adults

¹⁵ Most caretaker relatives of dependent children are parents, but that group can also include other family members serving as caretakers, such as aunts or grandparents.

3. *Aged*: People age 65 or older
4. *Disabled*: People (including children) who are unable to engage in substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or has lasted or can be expected to last for a continuous period of not less than 12 months¹⁶

Figure 2.8 shows the composition of Medicaid beneficiaries by BOE in 2013. Children made up just under half of all beneficiaries, adults accounted for about 28 percent of Medicaid beneficiaries, and smaller shares were aged (9 percent) and individuals with disabilities (15 percent). Children and adults under 65 who were eligible for Medicaid because of disabilities were generally reported to the disabled eligibility group. People over 65 with disabilities were usually reported in the aged category, but some states reported them in the disabled group.

Figure 2.8
Medicaid Enrollment and Expenditures by Basis of Eligibility in 2013



Source: Medicaid Analytic Extract 2013.

¹⁶ This definition of disability is used in Medicare, Medicaid, and the income security programs with which they are associated, including the SSI and Social Security Disability Insurance (SSDI) programs.

Length of enrollment in Medicaid in 2013 varied substantially by eligibility group. Although Medicaid beneficiaries who were aged or eligible on the basis of disability were the smallest eligibility groups in 2013, more of these beneficiaries tended to be enrolled for the full year (74 and 80 percent, respectively) than children and adults (63 and 45 percent, respectively) (Table 2.3). One explanation for this pattern is that once aged and disabled beneficiaries are eligible, the factors related to Medicaid qualification are unlikely to change. Children and nondisabled adults, however, may be more likely to experience changes in family status and income. In addition, children may age out of eligibility.

Table 2.3
Number and Percentage of Medicaid Beneficiaries Enrolled All Year in 2013

| | Number of Beneficiaries Enrolled all Year | Percentage of Beneficiaries |
|----------|---|-----------------------------|
| Total | 46,113,227 | 61.5 |
| Aged | 55,479,362 | 74.0 |
| Disabled | 60,068,324 | 80.1 |
| Children | 47,476,484 | 63.3 |
| Adults | 33,444,357 | 44.6 |

Source: Medicaid Analytic Extract 2013.

There appears to be a strong relationship between service utilization and expenditures among Medicaid beneficiaries by basis of eligibility. Children and nondisabled adults often use only limited services, whereas beneficiaries who are aged or have disabilities tend to use a variety of high-cost acute care and long-term care services. Beneficiaries who were aged or had disabilities constituted less than a quarter of all Medicaid beneficiaries in 2013 but accounted for 63 percent of Medicaid expenditures (Figure 2.8), with 44 percent of expenditures paid on behalf of beneficiaries with disabilities and 19 percent on behalf of the aged. In comparison, children accounted for 21 percent and adults for 16 percent of all Medicaid expenditures in 2013. At the

state level, the makeup of beneficiaries by basis of eligibility depended on the state’s demographic composition, eligibility rules, and other factors. Table 2.4 shows the variation across states in the distribution of beneficiaries among eligibility groups. In most states, the largest proportion of beneficiaries comprised children and the smallest was aged, often by a wide margin. The percentage of beneficiaries who were children in 2013 ranged from 32 percent in Massachusetts to 65 percent in Wyoming. In six states (Kentucky, Maine, Massachusetts, Mississippi, Pennsylvania, and West Virginia), at least one-third of beneficiaries were aged or eligible on the basis of disability in 2013.

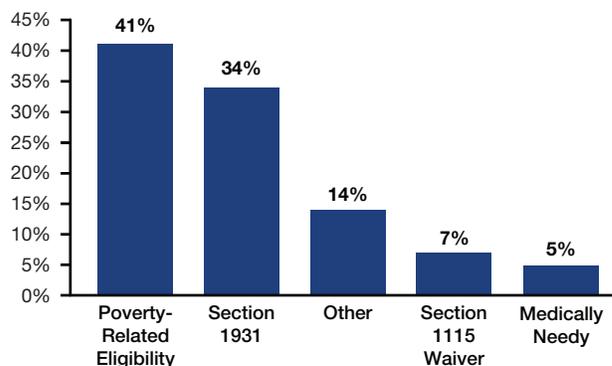
Although BOE represents the population subgroup through which a beneficiary became eligible for Medicaid, MAS reflects the primary financial eligibility criteria met by the beneficiary. The five MAS groups are as follows:

1. *Section 1931/cash assistance (Section 1931)*: People receiving SSI benefits and those covered under Section 1931 of the Social Security Act; Section 1931 requires that states cover children in households with income below the state’s 1996 cash assistance eligibility thresholds. In 2013, these income eligibility levels were below 100 percent of the FPL in all states and well below that level in many states.
2. *Medically needy*: People qualifying through the medically needy provision (a state option) that allows a higher income threshold than required by the cash assistance level; people with income above the threshold can deduct incurred medical expenses from their income and/or assets—or “spend down” their income/assets—to determine financial eligibility.

3. *Poverty-related*: People qualifying through any poverty-related Medicaid expansions that the state enacted from 1988 on; this category includes Medicare cost-sharing dual beneficiaries as well as children and adults covered at levels above the state’s Section 1931 and cash assistance levels.
4. *Section 1115 waiver*: People eligible only through a state 1115 waiver program that extends benefits to certain otherwise ineligible groups.
5. *Other*: A mixture of mandatory and optional coverage groups not reported under the MAS groupings listed above, including but not limited to many institutionalized aged and disabled, those qualifying through hospice and home- and community-based services (HCBS) care waivers, and immigrants who qualify for emergency Medicaid benefits only.

People who qualified under poverty-related and Section 1931 rules accounted for the largest portions of the Medicaid population (representing 41 and 34 percent of beneficiaries, respectively) in 2013 (Figure 2.9). Seven percent were eligible under a Section 1115 waiver; 5 percent were medically needy. Fourteen percent qualified under other eligibility criteria.

Figure 2.9
Medicaid Enrollment by Maintenance Assistance Status in 2013



Source: Medicaid Analytic Extract 2013.

Note: Section 1115 waiver category includes individuals who are covered under Section 1115 demonstration expansion programs.

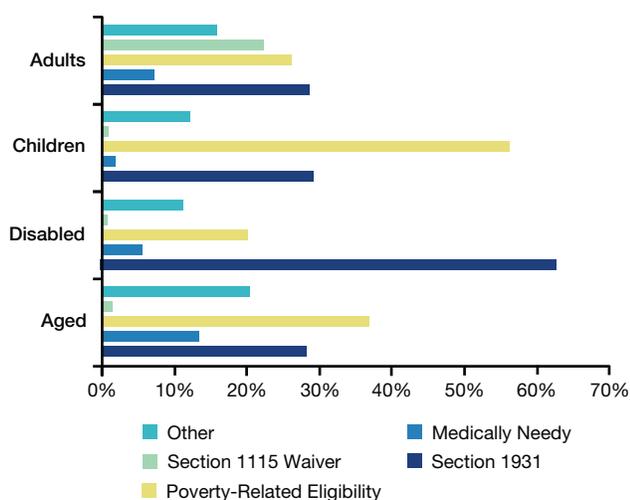
Table 2.4
Medicaid Enrollment by Basis of Eligibility (percentage of beneficiaries) in 2013

| State | Children | Adults | Aged | Disabled | Aged or Disabled |
|----------------------|-------------|-------------|------------|-------------|------------------|
| United States | 48.1 | 28.2 | 8.5 | 15.2 | 23.7 |
| Alabama | 51.0 | 17.4 | 8.9 | 22.7 | 31.6 |
| Alaska | 49.6 | 30.9 | 6.2 | 13.4 | 19.5 |
| Arizona | 48.1 | 34.1 | 6.2 | 11.6 | 17.8 |
| Arkansas | 56.6 | 13.6 | 9.2 | 20.5 | 29.7 |
| California | 40.8 | 41.9 | 7.3 | 10.0 | 17.2 |
| Colorado | 54.3 | 29.8 | 5.7 | 10.2 | 15.9 |
| Connecticut | 37.9 | 38.3 | 14.2 | 9.6 | 23.8 |
| Delaware | 39.0 | 44.0 | 6.2 | 10.9 | 17.0 |
| District of Columbia | 35.6 | 40.6 | 6.0 | 17.7 | 23.8 |
| Florida | 47.2 | 23.9 | 12.3 | 16.6 | 28.9 |
| Georgia | 56.4 | 16.9 | 8.1 | 18.6 | 26.7 |
| Hawaii | 45.6 | 37.0 | 8.2 | 9.3 | 17.5 |
| Idaho | 62.5 | 14.5 | 7.0 | 16.0 | 23.1 |
| Illinois | 53.9 | 28.1 | 5.4 | 12.5 | 17.9 |
| Indiana | 55.6 | 19.5 | 7.7 | 17.2 | 24.9 |
| Iowa | 47.8 | 31.2 | 7.0 | 13.9 | 20.9 |
| Kansas | 53.9 | 20.0 | 8.6 | 17.5 | 26.2 |
| Kentucky | 51.6 | 14.0 | 10.1 | 24.3 | 34.4 |
| Louisiana | 53.6 | 20.5 | 8.5 | 17.4 | 25.9 |
| Maine | 37.7 | 26.7 | 16.2 | 19.5 | 35.6 |
| Maryland | 50.8 | 30.8 | 6.7 | 11.7 | 18.4 |
| Massachusetts | 31.9 | 31.4 | 11.8 | 24.9 | 36.7 |
| Michigan | 50.6 | 25.3 | 6.8 | 17.3 | 24.1 |
| Minnesota | 40.6 | 37.9 | 9.0 | 12.5 | 21.5 |
| Mississippi | 50.2 | 15.2 | 11.8 | 22.7 | 34.5 |
| Missouri | 53.6 | 19.8 | 8.0 | 18.6 | 26.6 |
| Montana | 59.7 | 15.1 | 8.7 | 16.6 | 25.3 |
| Nebraska | 62.5 | 15.2 | 8.2 | 14.2 | 22.4 |
| Nevada | 59.1 | 19.2 | 7.6 | 14.0 | 21.7 |
| New Hampshire | 59.5 | 12.1 | 9.5 | 18.9 | 28.4 |
| New Jersey | 49.8 | 25.7 | 9.3 | 15.1 | 24.4 |
| New Mexico | 52.9 | 29.6 | 5.8 | 11.7 | 17.5 |
| New York | 37.1 | 40.3 | 9.1 | 13.5 | 22.6 |
| North Carolina | 54.5 | 18.5 | 8.9 | 18.0 | 26.9 |
| North Dakota | 55.1 | 19.9 | 10.7 | 14.3 | 25.0 |
| Ohio | 47.0 | 30.8 | 7.1 | 15.0 | 22.2 |
| Oklahoma | 56.5 | 24.3 | 6.5 | 12.7 | 19.2 |
| Oregon | 48.2 | 27.2 | 9.1 | 15.5 | 24.6 |
| Pennsylvania | 42.1 | 19.5 | 10.1 | 28.2 | 38.3 |
| Rhode Island | 42.8 | 29.4 | 8.9 | 18.9 | 27.8 |
| South Carolina | 54.9 | 23.0 | 6.6 | 15.5 | 22.2 |
| South Dakota | 61.5 | 15.4 | 7.5 | 15.6 | 23.2 |
| Tennessee | 51.7 | 20.3 | 8.1 | 19.9 | 28.0 |
| Texas | 62.5 | 13.9 | 9.4 | 14.2 | 23.6 |
| Utah | 58.3 | 24.0 | 4.3 | 13.5 | 17.8 |
| Vermont | 33.2 | 42.8 | 11.1 | 12.9 | 24.0 |
| Virginia | 54.5 | 20.0 | 8.5 | 17.0 | 25.5 |
| Washington | 56.9 | 19.2 | 7.6 | 16.3 | 24.0 |
| West Virginia | 46.9 | 15.0 | 10.0 | 28.1 | 38.1 |
| Wisconsin | 41.2 | 34.2 | 10.2 | 14.4 | 24.6 |
| Wyoming | 64.6 | 14.0 | 7.2 | 14.2 | 21.4 |

Source: Medicaid Analytic Extract 2013.

Rates of enrollment in MAS categories varied by eligibility group (Figure 2.10). Qualification under Section 1931 rules remained the primary route to Medicaid eligibility among beneficiaries eligible on the basis of disability (63 percent). By comparison, aged beneficiaries were more likely to qualify under poverty-related rules, followed by Section 1931 (37 percent and 28 percent, respectively). Section 1931, poverty-related rules, and state 1115 waiver programs were the most common routes to Medicaid eligibility for adults. More than half of all child beneficiaries (56 percent) qualified for Medicaid through poverty criteria.

Figure 2.10
Maintenance Assistance Status by Basis of Eligibility in 2013



Source: Medicaid Analytic Extract 2013.

These patterns in MAS assignment by eligibility group varied at the state level. Differences in how states used these pathways to eligibility for different BOE groups offer insight into the composition of the state’s program—and how states differed from national patterns. In 46 states, Section 1931 rules represented the most common pathway for beneficiaries with disabilities. There was greater diversity in pathways for the aged. In 30 states, the most com-

mon pathway for aged beneficiaries was poverty-related rules; in 6 states, Section 1931 was the most common pathway. For 11 states, however, other eligibility criteria were the most common pathway for aged beneficiaries, indicating that these states may have had more generous standards for long-term care, larger HCBS waiver programs, or populations of aged beneficiaries who otherwise differed from the national rates. (See Appendix Tables A2.6 to A2.8 for additional information about BOE and MAS categories by state.)

Overview of Key Medicaid Groups

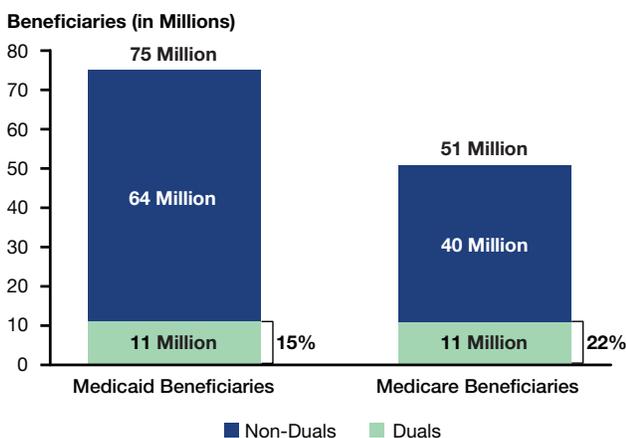
The following sections in this chapter introduce some key groups of Medicaid beneficiaries. Enrollment and service utilization among beneficiaries enrolled in managed care and beneficiaries dually eligible for Medicaid and Medicare are further explored in Chapters 5 and 6, respectively.

Dual Eligibles

Often Medicaid beneficiaries who are aged or eligible on the basis of disability are also enrolled in Medicare. These beneficiaries are commonly referred to as “dual eligibles” or “duals.” Medicare enrollment is identified in MAX by a match to the Medicare EDB. In this chartbook, duals are defined as those in the Medicaid data files with matching records in the EDB, indicating dual enrollment in Medicare and Medicaid for at least one month in 2013.

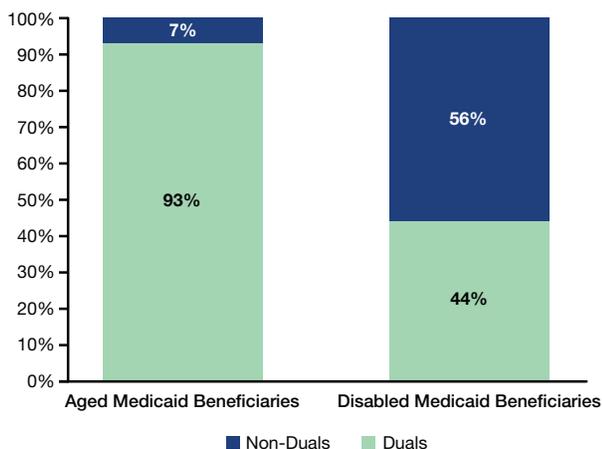
In total, there were more than 11 million duals in 2013. They represented about 15 percent of all Medicaid beneficiaries (Figure 2.11). Correspondingly, about 22 percent of all Medicare beneficiaries in 2013 were also enrolled in Medicaid. Nationally, almost 93 percent of aged Medicaid beneficiaries and 44 percent of Medicaid beneficiaries eligible on the basis of disability were duals in 2013 (Figure 2.12).

Figure 2.11
Ever Enrolled in Both Medicare and Medicaid in 2013



Source: Medicaid Analytic Extract 2013; CMS Program Statistics 2013.

Figure 2.12
Percentage Ever Dually Enrolled in Both Medicare and Medicaid in 2013



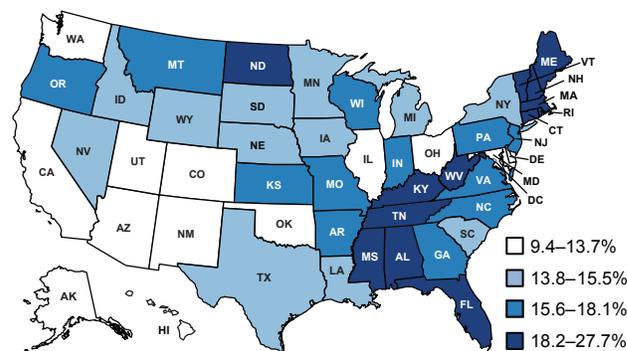
Source: Medicaid Analytic Extract 2013.

At the state level, the percentage of Medicaid beneficiaries who were duals ranged from about 9 percent in Colorado to almost 28 percent in Maine (Figure 2.13).

In contrast, the percentage of Medicare beneficiaries who were duals in a state partially reflects the portion of Medicare beneficiaries with low income and few assets (Figure 2.14).¹⁷ High dual enrollment among

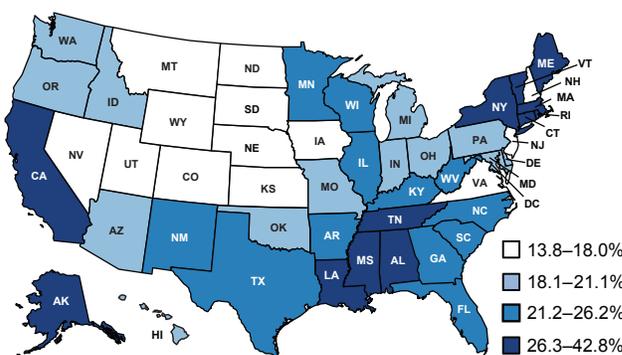
¹⁷ Estimates of the percentage of the population below the FPL for 2013 were drawn from the U.S. Census Bureau, American Community Survey, table S1701, at <https://data.census.gov/cedsci/>.

Figure 2.13
Percentage of Medicaid Beneficiaries Who Were Duals in 2013



Source: Medicaid Analytic Extract 2013.
 Dual = ever enrolled in both Medicaid and Medicare in 2013.

Figure 2.14
Percentage of Medicare Beneficiaries Who Were Duals in 2013



Sources: Medicaid Analytic Extract 2013; Medicare and Medicaid Statistical Supplement.
 Dual = ever enrolled in both Medicaid and Medicare in 2013.

Medicare beneficiaries can also reflect a relatively high Medicaid eligibility income threshold in a state. For example, in 2013, Vermont had a low poverty rate but a high rate of dual eligibility among Medicare beneficiaries, which can be attributed in part to its 1115 waiver that expanded Medicaid benefits to higher-income individuals who were aged or had disabilities.

Because duals are among the most vulnerable and costly Medicaid beneficiaries, Chapter 6 examines their enrollment characteristics, service use, and expenditures in more detail. In reviewing information

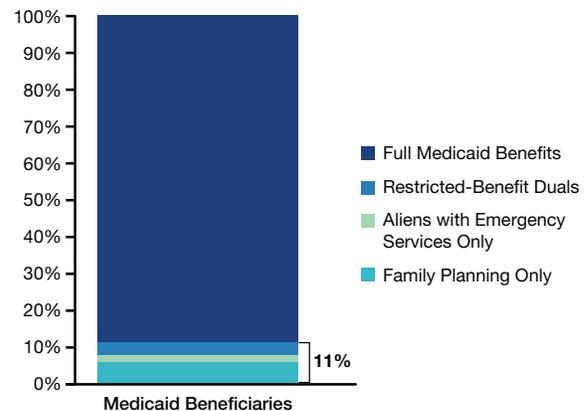
presented on duals in this and subsequent chapters, readers should bear in mind that Medicare covers most acute-care services for them. Medicaid utilization and expenditures thus understate their overall use and the cost of those services. Among duals, Medicaid utilization and expenditure statistics for Medicare-covered services represent payments for Medicare cost sharing only. For other services, such as long-term care, Medicare provides only limited coverage. Thus, Medicaid utilization and expenditure measures provide a fairly complete picture of overall use of these services by duals, with the exception of out-of-pocket spending for nursing facility services or long-term care insurance payments.

Restricted-Benefit Beneficiaries

Most Medicaid beneficiaries, including duals, qualify for the full range of Medicaid benefits provided in their state. However, a subset of beneficiaries receives only very limited health coverage; they are referred to as “restricted-benefit” beneficiaries. Most restricted-benefit beneficiaries fall into three categories (1) aliens eligible for emergency services only, (2) duals receiving coverage only for Medicare premiums and cost sharing, and (3) people receiving only family planning services. These three groups of restricted-benefit beneficiaries combined accounted for about 11 percent of Medicaid beneficiaries in 2013 (Figure 2.15).¹⁸

¹⁸ These three restricted-benefit categories represent most restricted-benefit beneficiaries, but the list is not exhaustive. In some states, there may be a small number of individuals receiving restricted benefits in the “other restricted benefits” category. In 2008, MAX data also started identifying an additional group of Medicaid beneficiaries with restricted benefits: individuals who receive assistance only for purchasing private insurance. These beneficiaries could not be systematically identified in all states in 2013, so they are not presented in this chartbook. However, researchers interested in identifying these beneficiaries can use MAX data to find them in some states, as indicated in the MAX 2013 eligibility anomaly tables.

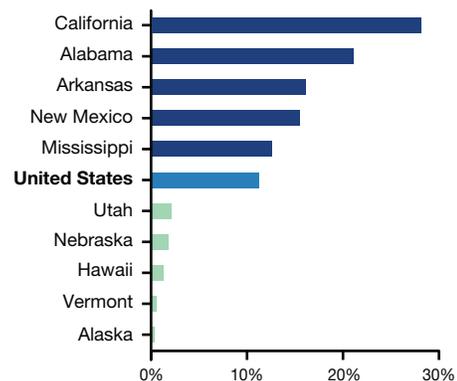
Figure 2.15
Medicaid Beneficiaries Receiving Only Restricted Medicaid Benefits in 2013



Source: Medicaid Analytic Extract 2013.
Dual = ever enrolled in both Medicare and Medicaid in 2013.

The proportion of beneficiaries who received only restricted Medicaid benefits in 2013 ranged from less than 1 percent in Alaska and Vermont to 28 percent in California (Figure 2.16). Four of the five states with the largest percentages of beneficiaries with restricted benefits in 2013 (California, Alabama, Arkansas, and New Mexico) had large family planning-only programs. About 21 percent of all beneficiaries in California, 10 percent in Alabama and New Mexico, respectively, and 8 percent in Arkansas received only family planning services.

Figure 2.16
Percentage of Beneficiaries Receiving Only Restricted Benefits in 2013: Top and Bottom Five States

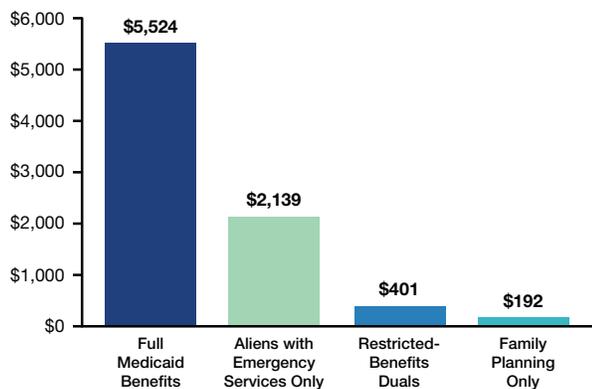


Source: Medicaid Analytic Extract 2013.

In addition, 7 percent of beneficiaries in California were aliens eligible only for emergency services, and 11 percent in Alabama were restricted-benefit duals, for whom Medicaid covers only Medicare cost-sharing expenses. By comparison, in 31 states, 5 percent or less of beneficiaries received only restricted benefits. (See Appendix Table A2.10 for additional state-level details.)

The estimates provided thus far in this chapter include all Medicaid beneficiaries in 2013. As Figure 2.17 shows, service utilization and expenditures for the beneficiaries with restricted benefits differed notably from full-benefit beneficiaries. Therefore, beneficiaries eligible only for restricted benefits are not included in many sections of the rest of this chartbook because they can distort average per capita expenditure estimates, particularly in states with relatively large restricted-benefit populations. Some states also offered somewhat reduced benefits to some Section 1115 waiver enrollees, but these benefits were generally more extensive than those offered to the restricted-benefit beneficiaries. Therefore, Section 1115 waiver enrollees are included in counts of full-benefit beneficiaries.

Figure 2.17
Average Medicaid Expenditures per Beneficiary by Type of Benefits in 2013



Source: Medicaid Analytic Extract 2013.

Note: Enrollment status is based on the last month of eligibility.

In addition to identifying individuals with benefit restrictions, MAX data also include information about individuals who received their benefits through several selected programs. In general, the benefits these Medicaid beneficiaries received were either equivalent to the full range of Medicaid benefits or substantial enough that these individuals were generally counted as full-benefit beneficiaries.

Table 2.5 shows the additional full-benefit groups that can be identified in MAX in each state. Some of the programs available to individuals, such as those in which they received pregnancy-related benefits, were reported with sizeable enrollment in 32 states. Money Follows the Person enrollment was also reported in 32 states, but enrollment in this program was generally low. Other benefit groups, such as the Alternative Benchmark Plan, Psychiatric Residential Treatment Facility (PRTF) grant (which ended September 30, 2012), and Health Opportunity Account program, were reported in few states.

Full-Benefit Beneficiaries Enrolled in Managed Care

Medicaid managed care plans provide a defined bundle of health services in return for a fixed monthly fee from the state Medicaid program. The MAX data system shows enrollment in three basic types of managed care: (1) comprehensive managed care, including HMOs, HIOs, and PACE; (2) prepaid health plans (PHPs); and (3) primary care case management (PCCM) plans.

For the most part, comprehensive managed care plans cover most health services for their enrollees. PHPs typically provide more limited services, and coverage varies greatly by plan. They may, for example, cover only dental care, behavioral health, or non-emergency transportation services. If a beneficiary is enrolled only in a PHP plan, then all other

Table 2.5
Number of Full-Benefit Medicaid Beneficiaries by Benefit Category in 2013

| State | Pregnancy Related Benefits | Alternative Benchmark Plan | Money Follows the Person | PRTF Grant | Health Opportunity Account | Other |
|--|----------------------------|----------------------------|--------------------------|------------|----------------------------|-----------|
| Alabama | 50,699 | 0 | 0 | 0 | 0 | 0 |
| Alaska | 78 | 0 | 0 | 0 | 0 | 12 |
| Arizona | 0 | 0 | 0 | 0 | 0 | 0 |
| Arkansas | 0 | 0 | 213 | 0 | 0 | 0 |
| California | 82,790 | 0 | 917 | 0 | 0 | 35,001 |
| Colorado | 0 | 180,297 | 11 | 19 | 0 | 7,427 |
| Connecticut | 0 | 0 | 964 | 0 | 0 | 0 |
| Delaware | 0 | 0 | 88 | 0 | 0 | 0 |
| District of Columbia | 680 | 0 | 31 | 0 | 0 | 0 |
| Florida | 30,705 | 0 | 0 | 0 | 0 | 353,867 |
| Georgia | 3,965 | 0 | 851 | 508 | 0 | 1,376 |
| Hawaii | 0 | 0 | 34 | 0 | 0 | 0 |
| Idaho | 11,495 | 282,011 | 85 | 0 | 0 | 0 |
| Illinois | 11,283 | 0 | 452 | 0 | 0 | 80,335 |
| Indiana | 42,697 | 0 | 542 | 0 | 49,402 | 21,994 |
| Iowa | 1,566 | 0 | 207 | 0 | 0 | 0 |
| Kansas | 0 | NR | NR | 0 | 0 | 15 |
| Kentucky | 8,920 | NR | 180 | 0 | 0 | 0 |
| Louisiana | 64,133 | 0 | 461 | 0 | 0 | 78,818 |
| Maine | 51 | 0 | NR | 0 | 0 | 0 |
| Maryland | 0 | 0 | 656 | 95 | 0 | 118,981 |
| Massachusetts | 2,052 | 0 | 480 | 0 | 0 | 199,849 |
| Michigan | 0 | 0 | 605 | 0 | 0 | 85,950 |
| Minnesota | 20 | 0 | 0 | 0 | 0 | 135,543 |
| Mississippi | 37,146 | 0 | 144 | 11 | 0 | 3,272 |
| Missouri | 5,364 | 0 | 171 | 0 | 0 | 0 |
| Montana | 0 | 0 | 0 | 48 | 0 | 14,384 |
| Nebraska | 339 | 0 | 158 | 0 | 0 | 0 |
| Nevada | 10,972 | 0 | NR | 0 | 0 | 11 |
| New Hampshire | 0 | 0 | 60 | 0 | 0 | 0 |
| New Jersey | 10,852 | 0 | 652 | 0 | 0 | 204,703 |
| New Mexico | 18,581 | 0 | 0 | 0 | 0 | 38,404 |
| New York | 22,866 | 0 | 632 | 0 | 0 | 942,741 |
| North Carolina | 81,804 | 0 | 195 | 0 | 0 | 57,224 |
| North Dakota | 0 | 0 | 89 | 0 | 0 | 0 |
| Ohio | 125 | 0 | 2,491 | 0 | 0 | 0 |
| Oklahoma | 39 | 0 | 249 | 0 | 0 | 0 |
| Oregon | 0 | 0 | 0 | 0 | 0 | 84,618 |
| Pennsylvania | 1,472 | 0 | 658 | 0 | 0 | 73,360 |
| Rhode Island | 4,127 | 0 | 0 | 0 | 0 | 4,163 |
| South Carolina | 0 | 0 | 0 | 69 | 0 | 0 |
| South Dakota | 5,409 | 0 | 0 | 0 | 0 | 0 |
| Tennessee | 16,590 | 0 | NR | 0 | 0 | 0 |
| Texas | 74 | 0 | 2,557 | 0 | 0 | 76,085 |
| Utah | 0 | 0 | 0 | 0 | 0 | 19,909 |
| Vermont | 0 | 0 | NR | 0 | 0 | 28,049 |
| Virginia | 0 | 0 | 388 | 16 | 0 | 11,941 |
| Washington | 0 | 0 | 1,420 | 0 | 0 | 22,961 |
| West Virginia | 0 | 190,149 | 0 | 0 | 0 | 0 |
| Wisconsin | 5,640 | 8,599 | 439 | 0 | 0 | 510 |
| Wyoming | 4,250 | 0 | 0 | 0 | 0 | 73 |
| States Reporting Program Enrollment | 32 | 4 | 32 | 7 | 1 | 30 |
| Total NR or 0 | 19 | 47 | 19 | 44 | 50 | 21 |

Source: Medicaid Analytic Extract 2013.

Notes: NR = not reported.

PRTF = Psychiatric Residential Treatment Facility.

To protect privacy, state counts representing fewer than 11 people were recoded to 11.

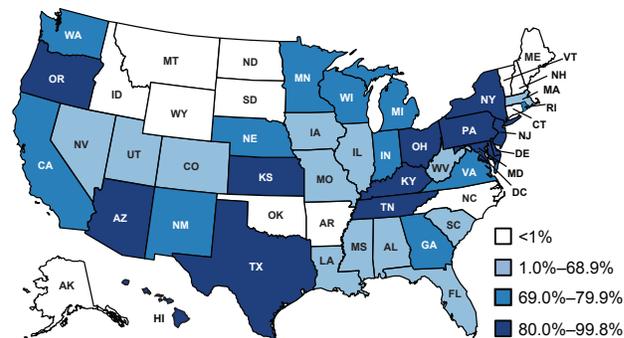
Most full-benefit beneficiaries in each state are assigned to the category of full Medicaid benefits. Table 2.2 shows enrollment in additional full-benefit equivalent categories in MAX 2013. See the MAX 2013 anomaly tables for more information about the benefits provided in the "other" category in each state and for more information about benefit package reporting in MAX.

services for the beneficiary are provided on an FFS basis. PCCMs are the least comprehensive managed care type identified in MAX. PCCMs are paid a small premium (often a few dollars per enrollee per month) for case management services only. Even though care provided by PCCMs is reported as managed care in MAX, most of the services provided to these beneficiaries are on an FFS basis unless they are enrolled in an additional managed care plan.

About 63 percent of all full-benefit Medicaid beneficiaries were in comprehensive managed care at some point in 2013 (see Appendix Table A5.1).¹⁹ At the state level, states varied considerably in the percentage of beneficiaries in comprehensive managed care; 13 states covered zero to less than 1 percent of full-benefit beneficiaries in comprehensive managed care plans, whereas 24 states covered 70 percent or more of full-benefit beneficiaries (Figure 2.18 and Appendix Table A5.1). This coverage represents a continued increase in the percentage of full-benefit beneficiaries in comprehensive managed care plans since 2010 (54 percent). Medicaid managed care enrollment trends are discussed in more detail in Chapter 5.

¹⁹ Because restricted-benefit beneficiaries receive such limited Medicaid services and are typically not eligible to join Medicaid managed care plans, they are not included in the analyses of managed care in this chartbook.

Figure 2.18
Percentage Ever Enrolled in Comprehensive Managed Care in 2013



Source: Medicaid Analytic Extract 2013.

Variation across states in enrollment in comprehensive managed care has implications for Medicaid utilization and expenditure analyses using MAX. Records of capitated services, called encounter data, have historically been incomplete in MAX. Because most care for people enrolled in comprehensive managed care is typically covered under a capitated payment, only limited information about service use may be available in MAX for these beneficiaries. Although the availability and usability of MAX encounter data have improved since 2010, given the inconsistency in encounter data reporting, most of the data in this chartbook focus on FFS claims. The next chapter provides an overview of Medicaid expenditures and service utilization for key populations of Medicaid beneficiaries nationally and at the state level.

3. Medicaid Expenditures Among Full-Benefit Beneficiaries

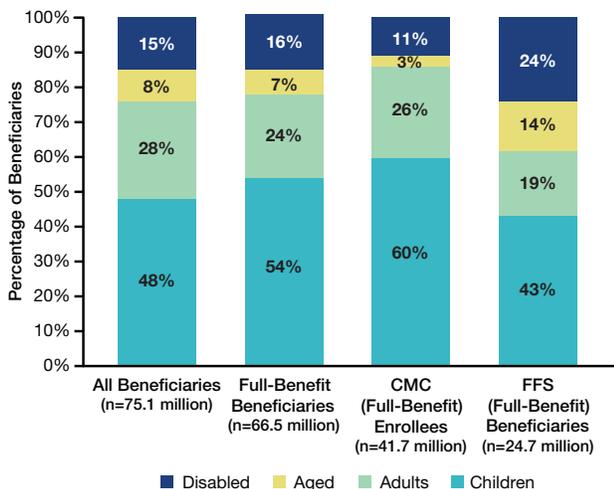
This chapter examines Medicaid expenditures nationally and for each state. As noted in Chapter 1, the MAX data set contains person-level information on Medicaid service utilization and expenditures. Such information differs by service delivery system. The two primary service delivery systems are FFS and managed care. For beneficiaries who received services on an FFS basis, the services and corresponding Medicaid payments can be found in FFS claims. For beneficiaries who received services through managed care, two types of records contain utilization and expenditure data. Capitation claims contain the monthly per-beneficiary payments made by Medicaid to the managed care plan; encounter records contain information about the services used by the individuals enrolled in the managed care plans. (Note that unlike FFS claims, the encounter records in the MAX data do not contain the amount paid by the managed care organization to the service providers.) It is also worth noting that some beneficiaries may receive certain services on an FFS basis and other services through managed care. Taken together, the three types of records offer a unique overview of Medicaid expenditures and utilization for beneficiaries in a given year.

The service utilization and expenditure data in this chapter focus on full-benefit beneficiaries because beneficiaries who receive only restricted benefits have considerably different service and expenditure patterns than those receiving full benefits. First, the chapter shows beneficiary composition and expenditures sepa-

rately by FFS and managed care. The remainder of the chapter focuses on utilization and expenditures among FFS beneficiaries. Throughout this chapter, individuals categorized as FFS beneficiaries were never enrolled in a comprehensive managed care plan in 2013. Conversely, individuals categorized as comprehensive managed care enrollees were enrolled in a comprehensive managed care plan for at least one month in 2013. Utilization and expenditure breakdowns for managed care enrollees can be found in Chapter 5.

The composition of full-benefit beneficiary and full-benefit FFS beneficiary populations in 2013 differed somewhat from the composition of all Medicaid beneficiaries presented in Chapter 2 because some groups were more likely to be enrolled in comprehensive managed care or receive restricted benefits only. For example, nondisabled adults were more likely to qualify only for restricted benefits than other populations, and adults and children were more likely to be enrolled in managed care plans than to receive services on an FFS basis. Figure 3.1 shows the composition in 2013 across all Medicaid beneficiaries (75.1 million), full-benefit beneficiaries (66.5 million), full-benefit comprehensive managed care enrollees (41.7 million), and full-benefit FFS beneficiaries (24.7 million). Each group is broken down by the four BOE groups described in Chapter 2: individuals with disabilities, the aged, adults, and children. Users of the data should be aware of these different compositions when assessing the utilization and expenditure information provided in this chartbook.

Figure 3.1
Percentage of Beneficiaries in 2013 by Basis of Eligibility and Service Delivery System



Source: Medicaid Analytic Extract 2013.

Full-benefit beneficiaries = beneficiaries who received full Medicaid benefits for at least one month in 2013.

FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

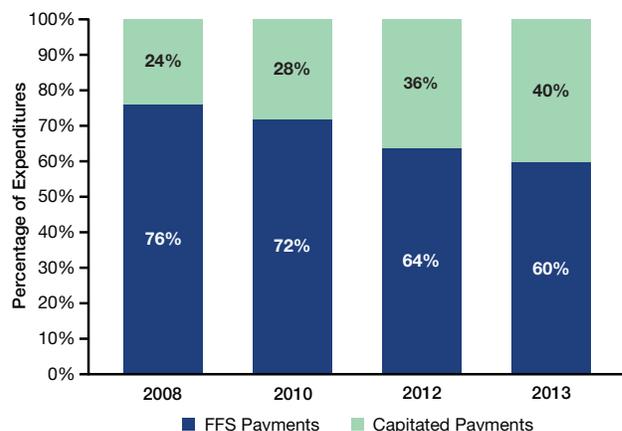
CMC enrollees = comprehensive managed care enrollees in 2013.

Note: Percentages may sum to over 100 percent because of rounding.

State-level summaries of Medicaid service utilization and expenditures highlight the variation in both Medicaid coverage and the composition of Medicaid beneficiaries across states. Chapter 2 pointed to the sources of some of these differences, including state demographics and Medicaid eligibility criteria. Another key component is the FMAP, in which lower per capita income states have higher matching rates. The FMAP can have downstream effects on state-level expenditures because it affects the net cost of Medicaid-covered services to states, which in turn affects the types of services and people states choose to cover in their optional programs. States also differ in their reimbursement rates to medical facilities, physicians, and other practitioners for Medicaid-covered services. Thus, the cost of care and incentives to use certain services varies. All of these factors interact together to produce a diverse picture of Medicaid expenditures across the United States.

In 2013, Medicaid expenditures for full-benefit beneficiaries totaled about \$367 billion, or about \$5,500 per beneficiary (Appendix Table A3.2),²⁰ which breaks down into about \$7,000 annually in FFS expenditures per FFS beneficiary, \$1,100 in FFS expenditures per comprehensive managed care enrollee, and \$2,500 in capitation payments per beneficiary in any type of managed care. As a whole, FFS payments accounted for 60 percent of all Medicaid expenditures for full-benefit beneficiaries, and capitation payments accounted for the remaining 40 percent in 2013 (Figure 3.2). Although FFS expenditures were substantially more than capitation payments, they represented a continued decline in the percentage of total expenditures over time, from 76 percent of Medicaid expenditures in 2008 to 60 percent in 2013. This trend is partly attributable to an increasing proportion of Medicaid beneficiaries enrolled in comprehensive managed care (Appendix Table A5.5), particularly the aged and individuals eligible on the basis of disability (Appendix Table A5.6), and, to a lesser degree, an increase in the average capitation payment per comprehensive managed care enrollee over time (Appendix Table A3.3).

Figure 3.2
Composition of FFS and Capitated Payments among Full-Benefit Medicaid Beneficiaries, 2008-2013



Source: Medicaid Analytic Extract 2008-2013.

²⁰ For reference, Medicaid spent approximately \$375 billion for all beneficiaries in 2013 (data not shown).

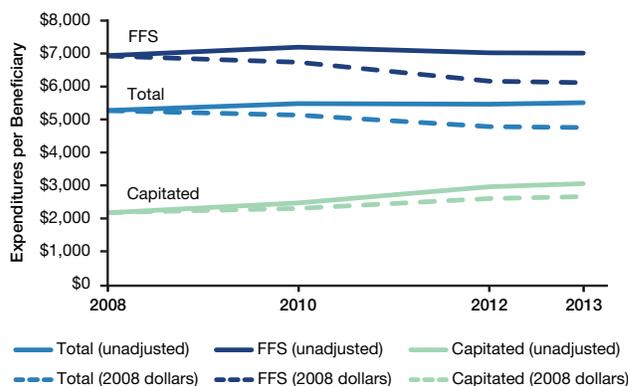
FFS expenditures represented a majority of expenditures in all but 11 states: Arizona, Delaware, Georgia, Hawaii, Kentucky, Michigan, New Mexico, Oregon, Pennsylvania, Tennessee, and Texas (Appendix Table A3.2). By far, the three states with the lowest proportion of spending on FFS payments were Hawaii (13 percent), Tennessee (14 percent), and Arizona (16 percent). As of 2013, all three states enrolled all, or nearly all, Medicaid beneficiaries in mandatory comprehensive managed care. Conversely, there were 10 states in which FFS spending made up 98.5 percent or more of all Medicaid spending for full-benefit beneficiaries.²¹ Alaska, Connecticut, Maine, and Wyoming had 100 percent FFS spending and no capitation payments. These states did not contract with any comprehensive managed care plans in 2013.

Average total expenditures per full-benefit beneficiary increased modestly—by about 4.6 percent—from 2008 to 2013 (Appendix Table A3.4 and Figure 3.3). However, when expenditures are adjusted to reflect 2008 dollars, Medicaid expenditures per beneficiary declined by more than 10 percent during this time (Figure 3.3 and Appendix Table A3.3).²²

Figure 3.3 also shows trends in capitated expenditures for comprehensive managed care enrollees and FFS expenditures for FFS beneficiaries. The trends for FFS expenditures per FFS beneficiary closely mirror those for total expenditures. Between 2008 and 2010, unadjusted FFS expenditures per benefi-

ciary increased by 4 percent, declined by 2 percent between 2010 and 2012, and remained stable from 2012 to 2013. In addition, in adjusted 2008 dollars, FFS Medicaid expenditures declined by 13 percent between 2008 and 2013. Conversely, the trends in average capitation payments per comprehensive managed care enrollee show an entirely different pattern. In both adjusted and unadjusted dollar amounts, expenditures continually increased from 2008 to 2013 (by a total of 44 percent in unadjusted dollars and 23 percent in adjusted 2008 dollars). These trend differences in average FFS and capitation payments may be explained, at least in part, by the trend toward enrolling increasing percentages of aged and disabled beneficiaries in comprehensive managed care plans (see Appendix Table A5.6 for details). Because these beneficiaries require more costly care, on average, than adults and children, enrolling greater shares of these populations in managed care plans raises the plans' cost of care and generally raises capitation payments to these plans as well.

Figure 3.3
Trends in Expenditures per Beneficiary Among Full-Benefit Beneficiaries (in Unadjusted and 2008 Dollars), 2008-2013



Source: Medicaid Analytic Extract 2008-2013.

Note: Capitated dollars are per comprehensive managed care enrollee; FFS dollars are per FFS beneficiary. A FFS beneficiary is a full-benefit beneficiary not enrolled in comprehensive managed care (HMO, HIO, or PACE) in the year of analysis.

²¹ Kansas and Rhode Island are excluded from this count. Capitation payments are excluded from MAX 2013 for Kansas and Rhode Island; therefore, all expenditures are classified as FFS expenditures.

²² The following Current Price Index was used to adjust expenditures: U.S. City Average, All Urban Consumer, Medical Care Series Total (CUUR0000SAM) (U.S. Department of Labor, Bureau of Labor Statistics).

Note that because children and adults were still more likely to enroll in managed care than the aged and individuals with disabilities, and typically had lower medical expenditures and shorter periods of enrollment, average expenditures for FFS beneficiaries are not directly comparable to those in comprehensive managed care. In addition, many comprehensive managed care enrollees incurred FFS expenditures for certain services not covered by their managed care plan; these expenditures are not shown in Figure 3.3. Likewise, capitation payments for PHPs and PCCMs are excluded from Figure 3.3 for all beneficiaries.

Not surprisingly, the states with the most Medicaid beneficiaries also had the highest total Medicaid expenditures—together, New York, California, and Texas accounted for almost one-third of Medicaid expenditures in 2013 for all full-benefit beneficiaries. New York’s total Medicaid expenditures exceeded those of all other states (\$46.5 billion, Appendix Table A3.2), but the District of Columbia had the highest Medicaid expenditures per full-benefit beneficiary, at \$9,832. The states with the next highest average expenditures were clustered together: North Dakota (\$9,564), Tennessee (\$8,900), and Alaska (\$8,414). The high expenditures of Alaska and the District of Columbia are attributed at least partly to higher expenditures for institutional long-term care (ILTC) services, described in more detail later in this chapter. In contrast, the five states with the lowest average expenditures in 2013 spent \$3,900 or less per beneficiary: New Mexico (\$3,882), Florida (\$3,837), Nevada (\$3,811), Colorado (\$3,750), and Illinois (\$3,690).²³ These low costs may be partially explained by the demographics of the Medicaid full-benefit population in these states. With the exception of Florida, these states had higher

proportions of children than the national average, and children tend to cost less than other BOE groups. Second, all but Florida had lower proportions of the aged and disabled populations than the national average; these two groups typically have high costs.

Medicaid Expenditures for Comprehensive Managed Care Enrollees

Because a person can be enrolled in Medicaid managed care and FFS at different points in a year, Medicaid may make both capitation and FFS payments for managed care enrollees during that year. FFS expenditures for comprehensive managed care enrollees may include services that beneficiaries received during a month when they were not enrolled in comprehensive managed care, as well as coverage for services not commonly covered by managed care. For example, in 2013, behavioral health services and long-term care typically were not covered by comprehensive managed care plans and instead were paid on an FFS basis.

Across all states with at least 50 percent of expenditures made for capitation payments in 2013, average capitation payments per enrollee in comprehensive managed care ranged between \$2,900 and \$7,900, whereas average FFS payments per enrollee in comprehensive managed care ranged from \$100 to \$1,500 (Appendix Table A3.2). For more information on utilization and expenditures for managed care enrollees, see Chapter 5.

Medicaid FFS Expenditures and Service Utilization Among FFS Beneficiaries

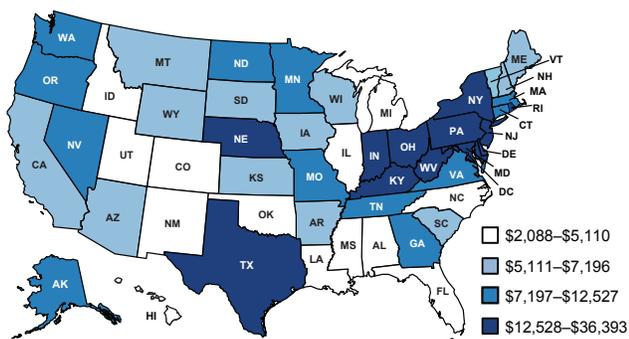
The expenditures and service utilization data in this section cover all FFS claims with a date of service in 2013 for FFS beneficiaries. Readers should keep in mind the relevant contextual factors when comparing

²³ Kansas had the lowest per beneficiary Medicaid expenditures, at \$870; however, its expenditures are underreported in MAX 2013.

FFS expenditures and utilization across beneficiary populations or states. Specifically, the utilization of various services and the composition of populations using the services included in these FFS claims may depend on the share of beneficiaries in FFS versus managed care in each state, as well as other state-specific program characteristics and data anomalies.

Nationally, state Medicaid programs spent \$7,012 per FFS beneficiary in 2013. Per-beneficiary expenditures varied substantially across states (Figure 3.4), particularly in those with a low percentage of full-benefit beneficiaries who are FFS (Appendix Table A3.2). Among the states in the highest quartile of per FFS beneficiary expenditures, shown in dark blue in Figure 3.4, no state had less than 58 percent of full-benefit beneficiaries enrolled in comprehensive managed care (Appendix Tables A3.1a–b and A5.3). This finding suggests that the beneficiaries left in FFS in these states may not be typical of the FFS population in other states. Among states with at least 50 percent of FFS beneficiaries among all full-benefit beneficiaries, average FFS spending per beneficiary was \$5,866 and ranged from \$3,413 in Illinois to \$9,508 in North Dakota (Appendix Tables A3.2 and A5.3).

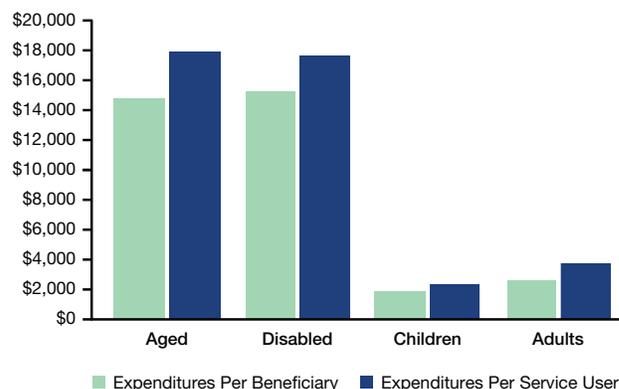
Figure 3.4
FFS Expenditures per Beneficiary (in quartiles) among FFS Beneficiaries in 2013



Source: Medicaid Analytic Extract 2013.
FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

As mentioned previously, on average, expenditures for the aged and those eligible on the basis of a disability were much higher than those for children and adults. Average FFS expenditures per beneficiary were about \$14,800 for the aged and more than \$15,200 for those eligible on the basis of a disability, whereas average expenditures for children and adults were about \$1,900 and \$2,600, respectively (Figure 3.5 and Appendix Table A3.6). This differential is also evident when comparing annualized FFS expenditures—\$17,300 for the aged, \$17,100 for those eligible on the basis of a disability, \$2,400 for children, and \$4,000 for adults (Appendix Table A3.6). As noted previously, these differences can be attributed to differences in the frequency and types of services these populations use.

Figure 3.5
Average FFS Expenditures among FFS Beneficiaries in 2013, by Basis of Eligibility



Source: Medicaid Analytic Extract 2013.
FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

Most FFS beneficiaries (80 percent) used at least one service in 2013 (Appendix Table A3.7). Mirroring expenditure patterns, the highest rates of service use were among beneficiaries who were aged or eligible on the basis of a disability, with 82 percent and 86 percent, respectively, using at least one Medicaid

service in 2013. The percentage of children using services was almost as high (80 percent), even though average expenditures for this group were much lower (almost \$18,000 for the aged or those eligible on the basis of a disability compared to about \$2,300 per child FFS user [Figure 3.5]). FFS adults utilized services at the lowest rate—69 percent—with expenditures averaging about \$3,800 (Appendix Table A3.6).

Most states followed this general pattern of utilization rates. A few exceptions were Arizona, Minnesota, and New Mexico, where the aged population had 30 percent utilization or less among FFS beneficiaries. Also, in Arizona and New Mexico, less than 30 percent of FFS beneficiaries who were eligible on the basis of disability used a service in 2013. All three states had Managed Long-Term Services and Supports (MLTSS) programs, which provide long-term HCBS through managed care organizations (Centers for Medicare & Medicaid Services 2015). Thus, long-term care services were used less on an FFS basis in these states. This finding highlights the importance of considering state-specific program characteristics affecting the population of interest when comparing statistics across states.

Medicaid FFS Expenditures and Service Utilization Among FFS Beneficiaries, by Type of Service

Medicaid services are categorized into 30 types of services in MAX. They can be grouped into four general categories that correspond to the four types of claim files available in MAX: inpatient (IP), institutional long-term care (LT), prescription drug (RX), and Other (OT). Although IP and RX files each contain a single type of service, the LT claims are

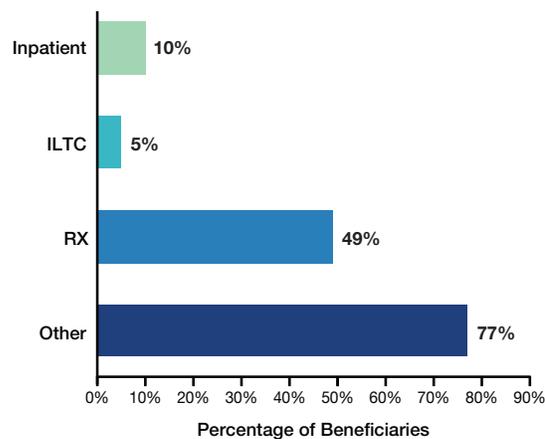
composed of several types of ILTC services, including the following:

- Mental hospital services for the aged
- Inpatient psychiatric facility services for individuals under age 21
- Intermediate care facilities for individuals with intellectual disabilities (ICF/IID)
- Nursing facility services

Other service claims consist of all claims, primarily those for ambulatory care, not included in the other three groups. They include HCBS, such as private duty nursing, residential care, and home health; physician and other ambulatory services; and lab, X-ray, supplies, and other wraparound services.

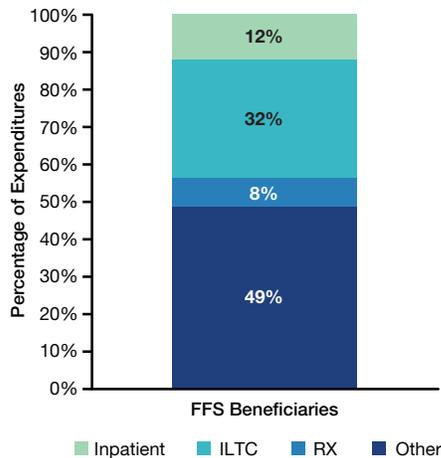
More than three-quarters of full-benefit FFS beneficiaries used a service classified as Other in 2013—the most of any service type (Figure 3.6 and Appendix Table A3.9). Other services also made up the largest share of FFS expenditures, at 49 percent (Figure 3.7 and Appendix Table A3.10).

Figure 3.6
Percentage of FFS Beneficiaries Using Services in 2013, by Type of Service



Source: Medicaid Analytic Extract 2013.
FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

Figure 3.7
Composition of Medicaid FFS Expenditures among FFS Beneficiaries in 2013, by Type of Service



Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

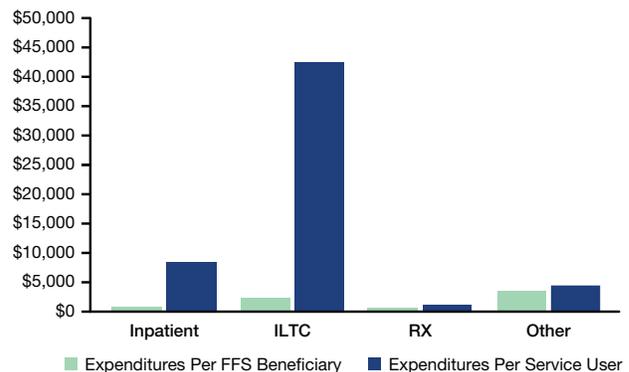
The second most used type of service was prescription drug services, used by just under half of the FFS beneficiaries in 2013. However, despite this relatively high utilization, prescription drug services represented the smallest share of FFS expenditures, at only 8 percent. This relatively low level of expenditures for prescription drugs was partly caused by Medicare Part D, which shifted most prescription drug costs for dual eligibles to Medicare.

In 2013, 10 percent of FFS beneficiaries used inpatient hospital services. Correspondingly, inpatient services comprised 12 percent of all FFS expenditures. Of note, Medicare also covers most inpatient services for dual eligibles, so Medicaid expenditures for inpatient services do not represent total expenditures for these services.

Institutional long-term care services were used by the smallest portion of full-benefit FFS beneficiaries (5 percent). However, these services accounted for 32 percent of all FFS expenditures—the second-largest share of such expenditures.

Because of the varied utilization rates by type of service, examining average expenditures per service user can yield a better understanding of how much Medicaid is spending among those beneficiaries actually using a particular type of service compared to average expenditures per beneficiary. By far, ILTC services cost the most per FFS service user on average, at around \$42,400 (Figure 3.8 and Appendix Table 3.10), followed by inpatient hospital services, which cost about \$8,500 per user, and other services, which cost about \$4,400 per user. Finally, Medicaid spent about \$1,100 on prescription drugs, on average, per FFS beneficiary who obtained at least one prescription drug.

Figure 3.8
Average FFS Expenditures among FFS Beneficiaries in 2013, by Type of Service

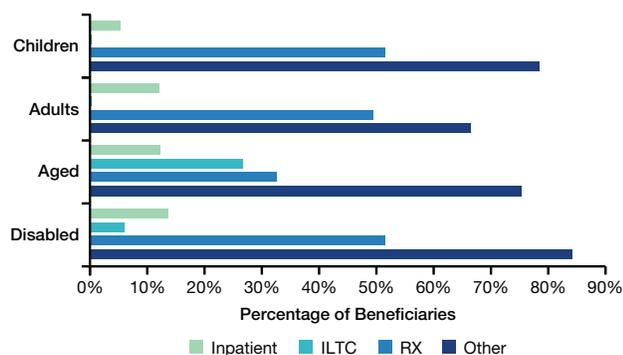


Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

Service utilization by type of service varied to some extent by BOE group among FFS beneficiaries (Figure 3.9). All four groups used Other services at the highest rate, ranging between 66 percent of adults to 84 percent of those eligible on the basis of a disability. The aged population had fewer beneficiaries with FFS claims for prescription drugs than the other groups, possibly because most of these beneficiaries also were eligible for Medicare, which covers prescription drugs. Another difference among groups is that children used

inpatient hospital services less often than the other beneficiary groups; 5 percent of children used inpatient hospital services in 2013 compared to 12 percent of adults and aged beneficiaries, and 14 percent of disabled beneficiaries. The most variation occurred within institutional long-term services. Twenty-seven percent of aged beneficiaries used these services, compared to just 6 percent of those eligible on the basis of a disability and less than 1 percent of adults and children.

Figure 3.9
Percentage of FFS Beneficiaries Using Services in 2013, by Basis of Eligibility and Type of Service

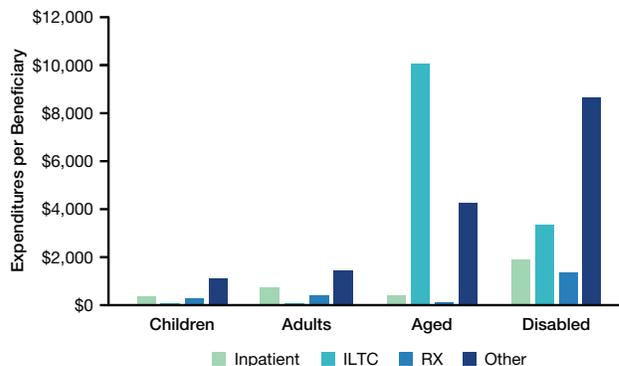


Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

FFS expenditures among FFS beneficiaries show some notable differences across the BOE groups and file types (Figure 3.10). Although each of the four groups had high utilization of Other services, much more was spent on these services on average per beneficiary for the aged (\$4,250) and those eligible on the basis of a disability (\$8,600) than for children and adults (\$1,150 and \$1,450, respectively). The highest average expenditure by type of service and BOE was for ILTC services for the aged group, at around \$10,000 per beneficiary.

Expenditures per beneficiary do not take into account whether a given beneficiary actually used a given service. When looking at FFS expenditures by service user, ILTC services had the highest average costs

Figure 3.10
FFS Expenditures per Beneficiary among FFS Beneficiaries in 2013, by Basis of Eligibility and Type of Service

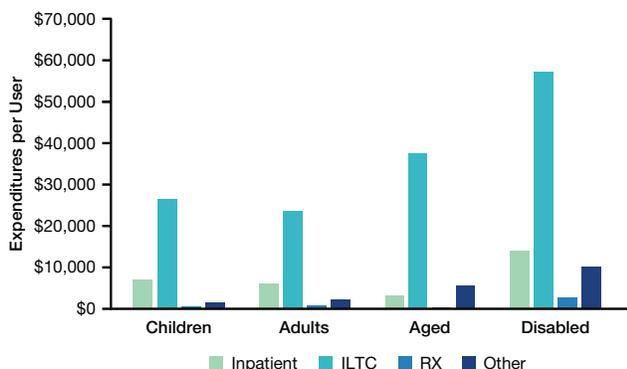


Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

across all of the BOE groups (Figure 3.11). Average expenditure per user for ILTC services was higher for individuals eligible on the basis of a disability than the aged group—approximately \$57,200 compared to \$37,600; however, fewer individuals eligible on the basis of a disability used ILTC services compared to the aged group. This trend resulted in lower total expenditures for ILTC services for individuals eligible on the basis of a disability compared to the aged group (Appendix Tables A3.16 and A3.18). Average expenditures per user for inpatient and prescription drug services were also more than double for those eligible on the basis of a disability than among those in other BOE groups.

This chapter highlighted national utilization rates and expenditures, primarily among full-benefit FFS beneficiaries. Tables with national and state-level data limited to full-benefit FFS beneficiaries can be found in Appendix Tables A3.6–A3.18. In particular, separate tables by BOE that contain the utilization and expenditure data by type of service are presented in Appendix Tables A3.11–A3.18. In appendix tables for this chapter, we flag states in which under 50 or 50 to 75 percent of the Medicaid

Figure 3.11
FFS Expenditures per User among FFS
Beneficiaries in 2013, by Basis of Eligibility



Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

population was covered under FFS. As stated previously, when analyzing state-level data, users should consider the proportion of the population who were FFS beneficiaries versus those enrolled in managed care. Data for states with a small percentage of FFS beneficiaries may not be representative of utilization and expenditures in those states. State-level data also are dependent on a number of other factors, including demographics, Medicaid eligibility criteria, and services offered, as well as state data anomalies. The data in this chapter are primarily broken down by BOE and the four major types of services. MAX data offer many other possibilities for researchers to explore. An analysis of FFS utilization and expenditure data focused on more detailed types of services is presented in Chapter 4.

4. Utilization and Expenditures by Detailed Type of Service Among FFS Beneficiaries

States cover a range of medical services in Medicaid. As discussed in Chapter 1, in 2013 they included both mandatory services that state Medicaid programs must cover under federal law and optional services that varied across states. Detailed analysis of Medicaid service use and expenditures by type of service among FFS beneficiaries is possible with the MAX data system.²⁴ In this chapter, we summarize Medicaid service utilization and costs in 2013 for all full-benefit FFS beneficiaries and the subgroup of FFS duals by the type of service used.

Chapter 3 categorized Medicaid services into inpatient care, institutional long-term care, prescription drugs, and other services, following the four types of claim files in MAX (IP, LT, RX, and OT). However, MAX claims data can be used to identify services in more detail using provider codes, service codes, and other fields available in claims records. In addition, MAX claims contain a uniform type-of-service code for the 30 service categories shown in Table 4.1. In this chapter, we provide an overview of utilization and expenditures by these detailed type-of-service categories.²⁵

²⁴ MAX contains extensive Medicaid FFS utilization and payment information and monthly capitation payments, but limited utilization information (encounter data) from Medicaid managed care plans. See Chapter 5 for more detail about the availability of managed care information in MAX.

²⁵ Three types of service (TOS) are excluded from the expenditure and utilization categories for the analysis in this chapter. In 2013, there were about \$103 million in expenditures for sterilizations (TOS 24); about \$34 million in nurse/midwife services (TOS 36); and about \$12 million in abortions (TOS 25). In addition, there were about \$109 million in claims for unknown TOS. There were no claims for religious nonmedical health care institutions (TOS 39) in MAX 2013.

Table 4.1
Type-of-Service (TOS) Codes in MAX 2013, by File Type

| Type of Service | TOS Code |
|--|----------|
| Inpatient (IP) File | |
| Inpatient hospital | 01 |
| Institutional Long-Term Care (LT) Field | |
| Mental hospital services for the aged | 02 |
| Inpatient psychiatric facility services for individuals under age 21 | 04 |
| Intermediate care facility services for individuals with intellectual disabilities (ICF/IID) | 05 |
| Nursing facility services | 07 |
| Prescription Drug (RX) File | |
| Prescription drugs | 16 |
| Other (OT) File | |
| Physician services | 08 |
| Dental care | 09 |
| Other practitioner services | 10 |
| Outpatient hospital | 11 |
| Clinic | 12 |
| Home health | 13 |
| Laboratory and X-ray | 15 |
| Other services* | 19 |
| Sterilizations* | 24 |
| Abortions* | 25 |
| Transportation | 26 |
| Personal care services | 30 |
| Targeted case management | 31 |
| Rehabilitation services | 33 |
| Physical therapy, occupational therapy, speech, or hearing services | 34 |
| Hospice benefits | 35 |
| Nurse midwife services | 36 |
| Nurse practitioner services | 37 |
| Private-duty nursing | 38 |
| Religious nonmedical health care institutions* | 39 |
| Durable medical equipment* | 51 |
| Residential care | 52 |
| Psychiatric services | 53 |
| Adult day care | 54 |

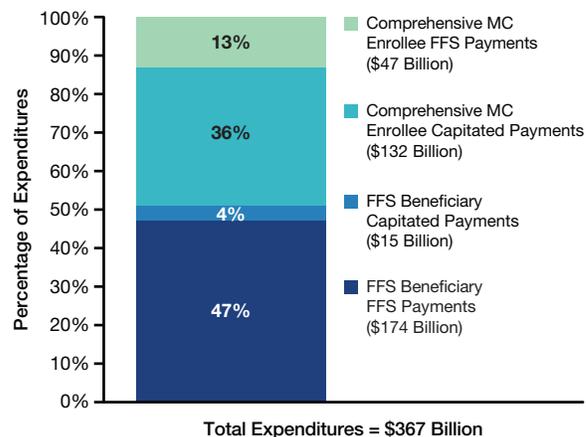
* Claims of this service type may also appear in file types other than OT.

Note that type-of-service information presented in this chartbook reflects full-benefit FFS beneficiaries and their FFS utilization only. As discussed previously, these FFS beneficiaries exclude two important groups: (1) beneficiaries who received only restricted Medicaid benefits in 2013 (for example, restricted-benefit duals, family planning-only recipients, and aliens receiving emergency services only) and (2) people ever enrolled in comprehensive managed care (HMOs, HIOs, or PACE) in 2013. For the purposes of this report, FFS beneficiaries do include people who received targeted services through PHP or PCCM plans that were not part of a comprehensive plan; however, FFS expenditures for these FFS beneficiaries do not reflect complete Medicaid expenditures because capitated payments made to these plans are not shown.

The proportion of FFS expenditures for FFS beneficiaries within all expenditures for all full-benefit beneficiaries consistently dropped between 2004 and 2012, from 76 percent in 2004 and 65 percent in 2008 to 60 percent in 2010 and 51 percent in 2012 (Perez et al. 2008; Borck et al. 2012, 2014; Lemos et al. 2019). This proportion dropped further in 2013, to 47 percent, with FFS expenditures for FFS beneficiaries totaling \$173.5 billion (Figure 4.1). This decline can be attributed to the continual growth of managed care enrollment in Medicaid.

Because there was significant variation across states in managed care enrollment levels, the statistics presented in this chapter represent a different share of total expenditures in each state. In appendix tables for this chapter (A4.1 through A4.16), we flag states in which under 50 and 75 percent of the Medicaid population were covered under FFS. For these states, FFS expenditures presented in this chapter were associated with less than half or less than three-quarters, respectively, of all full-benefit beneficiaries. Chapter 5 has additional managed care enrollment detail by type of plan by state.

Figure 4.1
FFS Expenditures among FFS Beneficiaries as a Percentage of All Full-Benefit Beneficiary Expenditures in 2013



Source: Medicaid Analytic Extract 2013.

FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

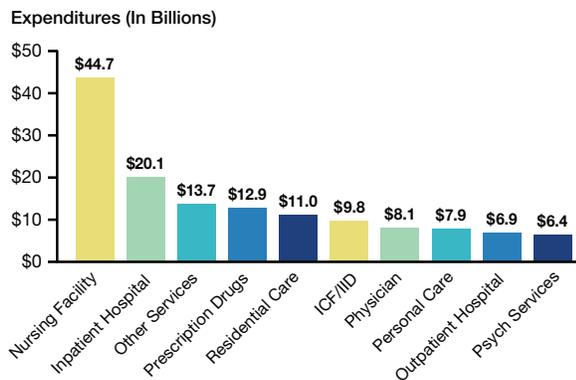
Comprehensive MC enrollees = full-benefit enrollees with any comprehensive managed care enrollment (HMO, HIO, or PACE) in 2013.

As discussed in previous chapters, observed differences in utilization and expenditures between states may also be due to differences in the structure of states' Medicaid programs, demographic composition, enrollment in PHPs and PCCM plans, or other utilization factors. Such differences must be considered when interpreting the national- and state-level utilization and expenditure measures presented throughout this report.

Services with Highest Expenditures and Utilization Among Medicaid FFS Beneficiaries

The 10 services with the highest expenditures (of the 26 service categories analyzed) accounted for 82 percent of the \$173.5 billion in FFS expenditures for FFS beneficiaries in 2013. As in previous years, nursing facility services contributed most (\$44.7 billion) to this population's FFS costs in 2013 (Figure 4.2). Inpatient hospital services, the next highest-cost service in 2013, were about \$20.1 billion, or just under half the

Figure 4.2
Medicaid Service Types with the Top 10 Highest Expenditures among All FFS Beneficiaries in 2013



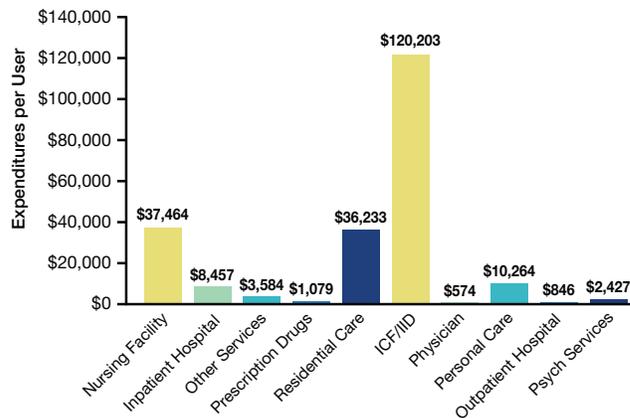
Source: Medicaid Analytic Extract 2013.
 ICF/IID = intermediate care facility for individuals with intellectual disabilities.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

cost of nursing home services. These services were followed by other types of services (\$13.7 billion), prescription drugs (\$12.9 billion), and residential care (\$11.0 billion).

High-cost service categories can be driven by frequently used services, services with high costs per user, or both. For example, the average expenditures for prescription drugs per user were only \$1,079, but it ranked as the fourth most costly service type (\$12.9 billion) because these services were used by nearly half of FFS beneficiaries (Figures 4.2–4.4). Conversely, nursing facilities and ICF/ IIDs were used by only small percentages (5 percent and less than 1 percent, respectively—data not shown) but had such a high cost per user that they also ranked as some of the most costly service types for Medicaid FFS beneficiaries. In fact, ICF/IIDs had the highest cost per user, at about \$120,000 (Figure 4.3).

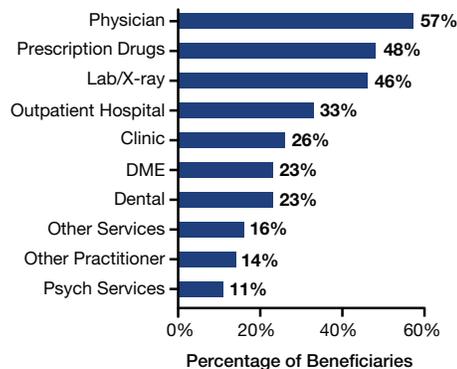
The subset of FFS beneficiaries who were dually enrolled in Medicare and Medicaid incurred a total of \$89.6 billion in FFS Medicaid expenditures, accounting for just over half (52 percent) of FFS

Figure 4.3
Cost per User for the Medicaid Service Types with the Top 10 Highest Expenditures among All FFS Beneficiaries in 2013



Source: Medicaid Analytic Extract 2013.
 ICF/IID = intermediate care facility for individuals with intellectual disabilities.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

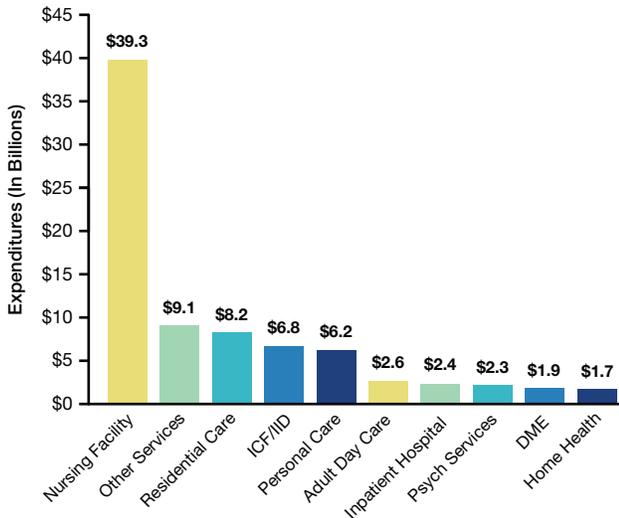
Figure 4.4
Top 10 Most Utilized Services by All FFS Beneficiaries in 2013



Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.
 DME = durable medical equipment.

expenditures for all FFS beneficiaries (Appendix Table A6.5). Duals accounted for the majority of FFS expenditures on several high-cost services in 2013. Notably, about \$39.3 billion was spent on nursing facility services for duals (Figure 4.5), accounting for 88 percent of all FFS Medicaid nursing facility expenditures in 2013. Duals also accounted for the bulk of residential care services

Figure 4.5
Medicaid Service Types with the Top 10 Highest Expenditures among FFS Duals in 2013



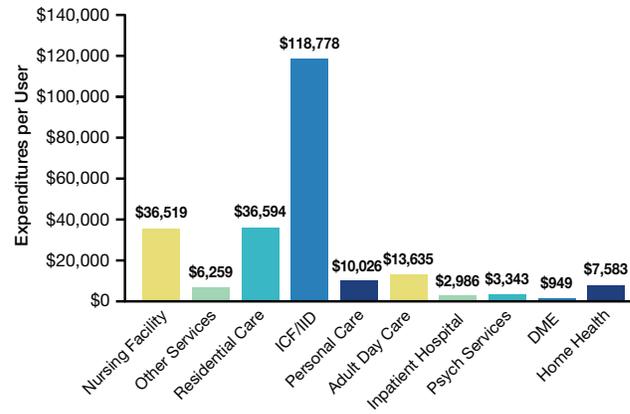
Source: Medicaid Analytic Extract 2013.
 FFS duals = full-benefit dual beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.
 ICF/IID = intermediate care facility for individuals with intellectual disabilities; DME = durable medical equipment.
 Some services are covered by Medicare for duals. Expenditures in Figure 4.5 show only Medicaid expenditures.

(\$8.2 of \$11.0 billion), ICF/IID expenditures (\$6.8 of \$9.8 billion), and personal care services (\$6.2 of \$7.9 billion).

Conversely, duals accounted for much smaller percentages of Medicaid expenditures for inpatient hospital care (\$2.4 of \$20.1 billion), prescription drugs (\$0.6 of \$12.9 billion), physician services (\$1.2 of \$8.1 billion), and outpatient hospital services (\$1.1 of \$6.9 billion) (Figures 4.2 and 4.5 and Appendix Tables A3.10, A4.6, A4.14, and A6.7). Because Medicare is the primary payer for these services for duals, Medicaid expenditures for such services reflect only the cost of deductibles, coinsurance, and copayments for this coverage, not their full cost.

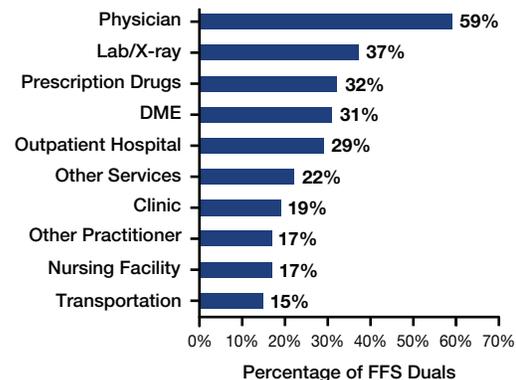
With the exception of nursing facility and transportation services, the top 10 most utilized services for FFS duals were also in the top 10 most used services among all FFS beneficiaries (Figures 4.4 and 4.7).

Figure 4.6
Cost per User for Medicaid Service Types with the Top 10 Highest Expenditures among FFS Duals in 2013



Source: Medicaid Analytic Extract 2013.
 FFS duals = full-benefit dual beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.
 ICF/IID = intermediate care facility for individuals with intellectual disabilities; DME = durable medical equipment.
 Some services are covered by Medicare for duals. Expenditures in Figure 4.6 show only Medicaid expenditures.

Figure 4.7
Top 10 Most Utilized Services by FFS Duals in 2013



Source: Medicaid Analytic Extract 2013.
 FFS duals = full-benefit dual beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.
 DME = durable medical equipment.
 Some services are covered by Medicare for duals. Utilization in Figure 4.7 shows only Medicaid utilization.

Physician services was the most commonly utilized service among all FFS beneficiaries (57 percent) and FFS duals (59 percent). Because duals are aged or have disabilities, they were more likely than other FFS beneficiaries to use certain Medicaid services.

For instance, 17 percent of FFS duals used nursing facility services in 2013, compared with only 5 percent of all FFS beneficiaries (see Figure 4.12).

FFS Expenditures by Service Class

To examine the composition of FFS expenditures, we aggregated the 30 service types into six larger service classes. Three of the service classes generally correspond to types of claims files:

1. *ILTC*: All institutional long-term care services in the claims files, including inpatient psychiatric services for people under 21 and services provided in nursing facilities, ICF/IID, and mental hospitals for the aged. ILTC claims can include an array of bundled services, such as physical therapy and oxygen.
2. *Inpatient*: Inpatient hospital services, which may include some bundled services, such as lab tests or prescription drugs filled during an inpatient stay.
3. *Prescription drugs*: All Medicaid prescriptions filled, except those bundled with inpatient, nursing home, or other services.

We divide Other claims into three service classes:

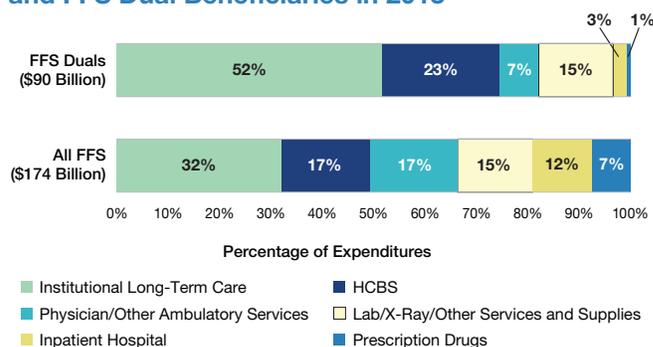
1. *HCBS*: Residential care, home health, personal care services, adult day care, private duty nursing, and hospice care.²⁶ This class includes HCBS provided under a Section 1915(c) (HCBS) waiver or through the State Plan.
2. *Physician and other ambulatory services (ambulatory)*: Physician, outpatient hospital, clinic, dental, nurse practitioners, other practitioners, physical therapy or occupational therapy, rehabilitation, and psychiatric services.

²⁶ Some HCBS may not be included in the HCBS class: psychiatric residential care may be classified with psychiatric services under physician and other professional services; some HCBS provided under HCBS waivers may be unclassified and grouped with Other services; and transportation, targeted case management, and DME—sometimes used for long-term care—are not included.

3. *Lab, x-ray, supplies, and other wraparound services (wraparound)*: Lab and x-ray, durable medical equipment (DME), transportation, targeted case management, and other services.

Of these six service classes, ILTC contributed the most to Medicaid FFS expenditures among all FFS beneficiaries (32 percent) and FFS duals (52 percent) (Figure 4.8). For FFS duals and all FFS beneficiaries, the breakdown of expenditures by service class was relatively consistent with previous years.

Figure 4.8
Composition of FFS Expenditures among All FFS and FFS Dual Beneficiaries in 2013



Source: Medicaid Analytic Extract 2013.

FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

FFS duals = FFS beneficiaries with dual eligible status during the year.

Some services are covered by Medicare for duals. Expenditures in Figure 4.8 show only Medicaid expenditures.

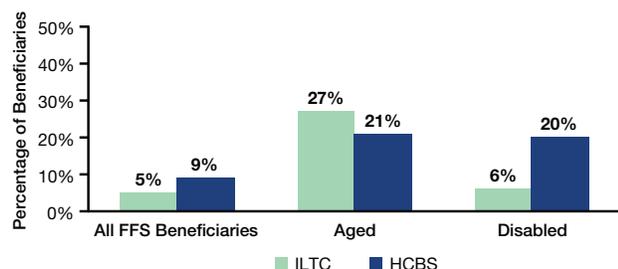
Long-Term Care Utilization and Expenditures

In 2013, ILTC services and HCBS, which together make up long-term care services, accounted for almost half (49 percent) of all FFS beneficiary costs and three-quarters (75 percent) of all FFS dual costs (Figure 4.8). Because long-term care services represented such a substantial portion of Medicaid FFS expenditures, they are explored in more detail below.

Although long-term care services accounted for almost half of FFS expenditures, they were used by only a small percentage of all FFS beneficiaries: about 9 percent of FFS beneficiaries used HCBS and

about 5 percent used ILTC services in 2013 (Figure 4.9). Aged beneficiaries and those eligible on the basis of a disability were the primary users of long-term care services, with 27 percent of aged FFS beneficiaries and 6 percent of FFS beneficiaries eligible on the basis of a disability using ILTC in 2013. Both aged FFS beneficiaries and FFS beneficiaries eligible on the basis of a disability used HCBS at a high rate in 2013 (21 percent and 20 percent, respectively) (Figure 4.9).

Figure 4.9
Percentage of FFS Beneficiaries Using HCBS and ILTC Services in 2013



Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

Long-term care service costs for duals were large in both percentage and absolute value. Because Medicare typically pays providers a larger percentage of their acute care service costs for dual beneficiaries, it is expected that long-term care and other non-acute care costs would account for a larger portion of FFS Medicaid expenditures than inpatient care or physician services among duals. Expenditures associated with FFS duals' use of ILTC and HCBS accounted for 79 percent of the FFS long-term care costs incurred by all FFS beneficiaries (Appendix Tables A4.2, A4.4, A4.10, and A4.12). Because FFS duals made up a majority of long-term care users, the composition of their long-term care costs and per-user expenditures was similar to those of all FFS beneficiaries, unless otherwise noted below.

Within long-term care, institutional care expenditures were about twice as large as HCBS expenditures in 2013. Among all FFS beneficiaries, ILTC services accounted for 32 percent (\$55.9 billion) of FFS costs, compared with 17 percent (\$29.1 billion) for HCBS (Figure 4.8). Most ILTC services are mandatorily covered Medicaid services, but HCBS are generally covered at a state's option, and there is greater variation across states in the type and extent of this coverage.²⁷

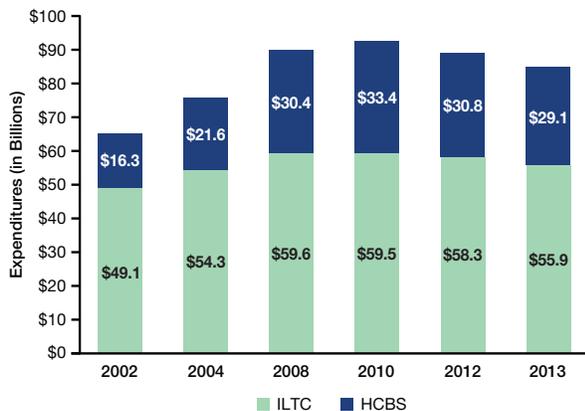
Between 2012 and 2013, FFS expenditures for ILTC and HCBS dropped by 4 percent and 6 percent, respectively—a trend continuing since 2010. FFS expenditures for HCBS and ILTC grew from 2002 (the first year of the MAX chartbook) to 2008. FFS ILTC expenditures were 49.1 billion in 2002 and peaked in 2008 at \$59.6 billion before declining to \$55.9 billion in 2013 (Figure 4.10). FFS HCBS expenditures were \$16.3 billion in 2002 and peaked in 2010 at \$33.4 billion before declining to \$29.1 billion in 2013.²⁸

As in previous years, nursing facility services were the biggest driver of long-term care costs in 2013, accounting for more than half (53 percent) of all FFS long-term care expenditures for FFS beneficiaries, with \$44.7 billion in expenditures (Figure 4.11), and for more than one-fourth (26 percent) of all FFS expenditures for FFS beneficiaries (Appendix Tables A3.10 and A4.2). The next largest contributors to long-term care costs for FFS beneficiaries were residential care (\$11.0 billion, or 13 percent), ICF/IID (\$9.8 billion, or 12 percent), and personal care services (\$7.9 billion, or 9 percent).

²⁷ Because some HCBS are excluded from the HCBS category, the estimated expenditures measure may understate total Medicaid HCBS costs.

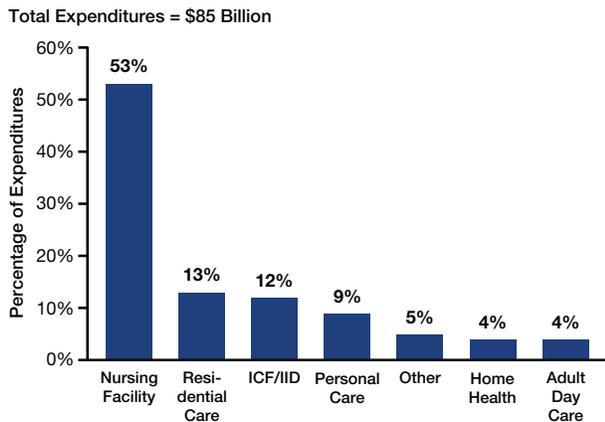
²⁸ Expenditures for private duty nursing were not included in HCBS expenditures in 2002.

Figure 4.10
Total FFS Long-Term Care Expenditures among FFS Beneficiaries, 2002-2013



Source: Medicaid Analytic Extract 2002-2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in the year of analysis.

Figure 4.11
Composition of FFS HCBS and ILTC Expenditures among FFS Beneficiaries in 2013



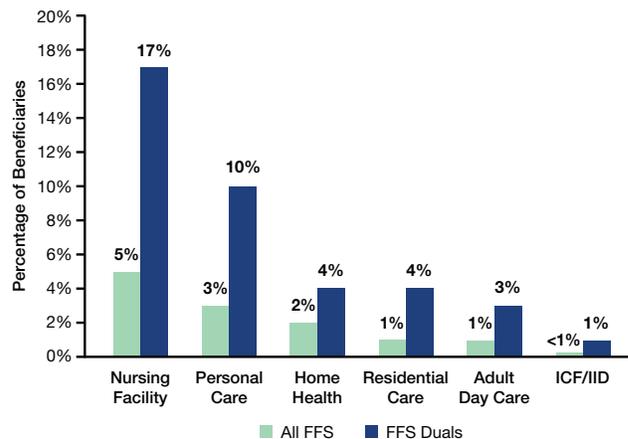
Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.
 ICF/IID = intermediate care facility for individuals with intellectual disabilities.
 Other = (mental health) aged, inpatient psychiatric facility for individuals under age 21, hospice, and private-duty nursing. Each of these represented 2 percent or less of total long-term care expenditures.

In addition to constituting the largest portion of all expenditures, nursing facility services also was the most utilized long-term care service, used by about 53 percent of FFS beneficiaries in 2013. The next most utilized long-term care services included personal care (3 percent), home health (2 percent), residential care

(1 percent), and adult day care (1 percent) (Figure 4.12). As expected, FFS duals utilized these services at higher rates: 17 percent used nursing facilities, 9 percent used personal care, 4 percent used home health, and 3 percent used residential care services and adult day care services respectively.

ICF/IID services was by far the costliest long-term care service on a per-user basis; average expenditures

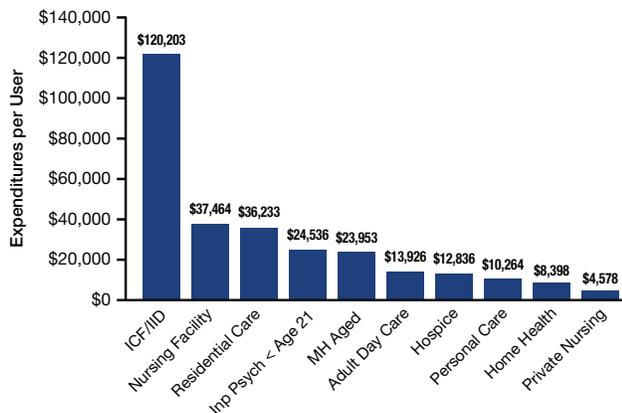
Figure 4.12
Percentage of all FFS and FFS Duals Beneficiaries Who Used Selected Long-Term Care Services in 2013



Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.
 ICF/IID = intermediate care facility for individuals with intellectual disabilities. Some services are covered by Medicare for duals. Utilization in Figure 4.7 shows only Medicaid utilization.

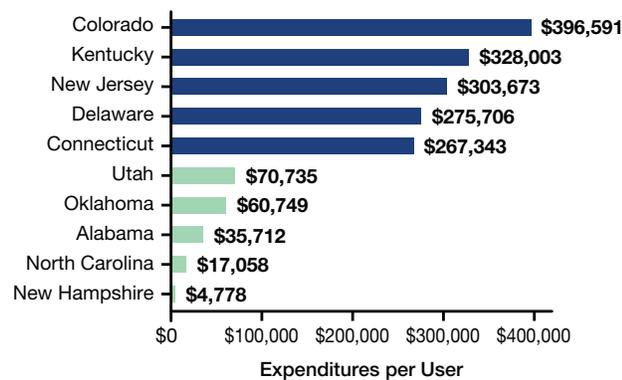
were \$120,203 per beneficiary served in an ICF/IID in 2013 (Figure 4.13). Average expenditures per user of these services were high in all states but varied greatly, ranging from \$4,778 in New Hampshire to \$396,591 in Colorado (Figure 4.14). Other long-term care services with high annual per-user costs included nursing facility (\$37,464), residential care (\$36,233), inpatient psychiatric care for those under 21 (\$24,536), and mental hospitals for the aged (\$23,953) (Figure 4.13).

Figure 4.13
Expenditures per User on Long-Term Care Services among FFS Beneficiaries in 2013



Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.
 ICF/IID= intermediate care facility for individuals with intellectual disabilities.

Figure 4.14
ICF/IID Expenditures per User in 2013: Top and Bottom Five States



Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.
 ICF/IID = intermediate care facility for individual with intellectual disabilities.
 Arizona, Hawaii, Michigan, and Oregon did not report any ICF/IID utilization in 2013.

Additional information about FFS long-term care service use and expenditures in 2013 can be found in Appendix Tables A4.1–A4.4 for all FFS beneficiaries, and in Tables A4.9–A4.12 for FFS duals.

Physician and Other Ambulatory Services

Physician and other ambulatory services²⁹ accounted for 17 percent of FFS expenditures among FFS beneficiaries and were the category of service with the second-largest total expenditures among such beneficiaries.³⁰

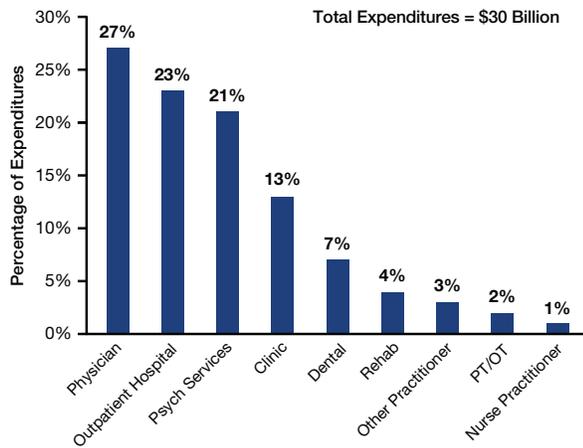
Physician services were both the largest contributor to physician and other ambulatory services expenditures (\$8.1 billion, or 27 percent of \$30.2 billion) and by far the service most utilized in this category by Medicaid FFS beneficiaries (57 percent) (Figures 4.15 and 4.16). The next three services with the highest overall costs were outpatient hospital (\$6.9 billion, or 23 percent), psychiatric (\$6.4 billion, or 21 percent), and clinic (\$3.9 billion, or 13 percent) (Figure 4.15). The costs for outpatient hospital and clinic services were both driven by high utilization rates, whereas the costs for psychiatric services were driven by a high average cost per user. Outpatient hospital services were the second-most utilized service type among FFS beneficiaries, at 33 percent, followed by clinic services, at 26 percent (Figure 4.16). Although dental services were used nearly as much as clinic services (23 percent and 26 percent used services, respectively), a lower average cost per user (\$388 and \$595, respectively) translated to lower overall expenditures (\$2.2 billion and \$3.9 billion, respectively) (Figure 4.16 and Appendix Table A4.6).

Among physician and other ambulatory services, costs per user were highest for rehabilitation services, which were used by about 1 percent of Medicaid FFS beneficiaries but represented 4 percent of physician and other

²⁹ Other ambulatory services included psychiatric services, outpatient hospital, clinic, dental, rehabilitation, other practitioner, physical therapy/occupational therapy, and nurse practitioner.

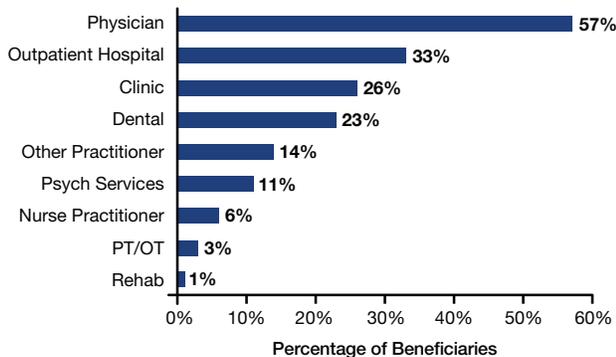
³⁰ Claims for physician services included separately billed physician services provided in inpatient settings.

Figure 4.15
Composition of FFS Physician and Other Ambulatory Service Expenditures among FFS Beneficiaries in 2013



Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.
 PT/OT = physical therapy/occupational therapy.

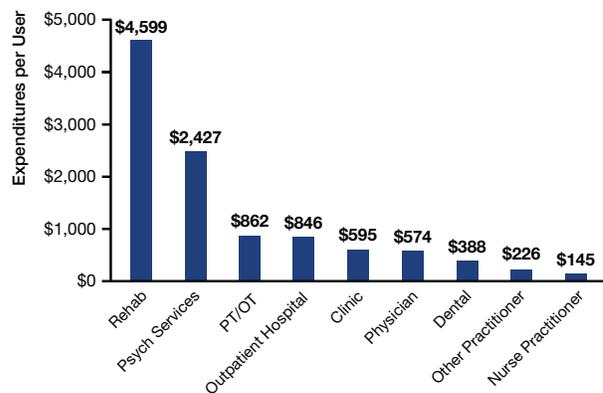
Figure 4.16
Percent of FFS Beneficiaries Who Used Physician or Other Ambulatory Services in 2013



Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.
 PT/OT = physical therapy/occupational therapy.

ambulatory services expenditures. Figure 4.17 shows that the average per-user expenditure for this service (\$4,599 per user) far exceeded the average per-user expenditure of other services in the group. Psychiatric services had the next highest average expenditure per user (\$2,427 per user), followed by physical therapy/occupational therapy services (\$862 per user). Additional summary information about FFS ambulatory services use and expenditures in 2013 can be found in Appendix Tables A4.5 and A4.6 for all FFS beneficiaries, and in Tables A4.13 and A4.14 for FFS duals.

Figure 4.17
Expenditures per User for Physician and Other Ambulatory Services among FFS Beneficiaries in 2013



Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.
 PT/OT = physical therapy/occupational therapy.

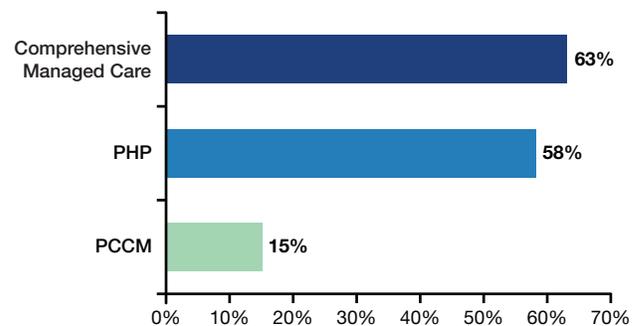
The results presented in this chapter and associated appendix tables represent only a small sample of the types of possible analyses that could be conducted with the MAX type-of-service data. MAX data can be used to investigate program cost drivers in greater depth and also to examine how changing patterns of utilization and expenditures are influenced by changing population demographics, state policies, and Medicaid coverage rules.

5. Managed Care Enrollment Among Full-Benefit Beneficiaries

This chapter presents detailed information about managed care plan enrollment among full-benefit Medicaid beneficiaries. (See Chapter 1 for a more detailed definition of these beneficiaries.) This information includes combinations of plans and enrollment by subpopulation, summaries of the availability of capitated payments and encounter data, and capitated payments by type of plan. The discussion of expenditures for managed care enrollees also includes a summary of FFS expenditures for people ever enrolled in comprehensive managed care in 2013 to capture all Medicaid expenditures for these enrollees.

Managed care is an integral part of the Medicaid service delivery system, with 87 percent of full-benefit beneficiaries in some form of managed care in 2013 and many beneficiaries in multiple types of managed care plans (Appendix Table A5.1). Managed care plans differ greatly in the breadth of services they cover. HMOs, HIOs, and PACE plans provide comprehensive coverage for their enrollees. PHPs usually cover a limited set of services, such as behavioral health, dental care, or long-term care. PCCMs are paid a small premium (often a few dollars per enrollee per month) for case management services only; all other services for these beneficiaries are provided on an FFS basis. About 63 percent of all full-benefit Medicaid beneficiaries were in comprehensive managed care at some point in 2013 (Figure 5.1). A slightly lower percentage (58 percent) were enrolled in PHPs; 15 percent were in PCCMs. Note that ben-

Figure 5.1
Percentage of Full-Benefit Beneficiaries Enrolled in Managed Care in 2013



Source: Medicaid Analytic Extract 2013.
Comprehensive managed care enrollment = HMO, HIO, or PACE.
PHP = prepaid health plan.
PCCM = primary care case management.
Individuals may be enrolled in more than one type of managed care at a time.

eficiaries can be enrolled in multiple types of managed care in a given month. For example, beneficiaries in comprehensive managed care can also be enrolled in a PHP that provides specialty services, such as behavioral health care, dental care, or transportation. Beneficiaries may also switch to different types of managed care enrollment during the year.

The extent and nature of managed care coverage varied across states in 2013. In 23 states, at least 95 percent of full-benefit beneficiaries were enrolled in some type of managed care in 2013; three states (Alaska, Connecticut, and New Hampshire) reported no managed care enrollment of any kind during the year (Appendix Table A5.1), though New Hampshire implemented a new comprehensive managed care program in December 2013 that was not reported in MAX.

In the states that reported almost 100 percent enrollment in managed care, the type varied among comprehensive, PHP, and PCCM plans. Table 5.1 shows the top 10 states separately regarding the percentage ever enrolled in comprehensive managed care, PHP, and PCCM plans in 2013. Hawaii and Kansas reported virtually all of their beneficiaries in comprehensive managed care plans in 2013. In total, 34 states had at least one-quarter of their beneficiaries in comprehensive managed care; in most of these states, it was in combination with other types of managed care enrollment. Thirteen states had less than 1 percent in comprehensive managed care enrollment; of those, 7 had more than 70 percent of their population enrolled in PCCM plans (see Appendix Table A5.1 for state-level detail). In two states (Maine and South Dakota), managed care enrollment was limited to PCCM plans.

Because of the diversity of Medicaid managed care plans, assessing the role of managed care in any state Medicaid program requires an understanding of the composition of plans in that state in addition to information about total managed care enrollment. For example, although similar percentages of full-

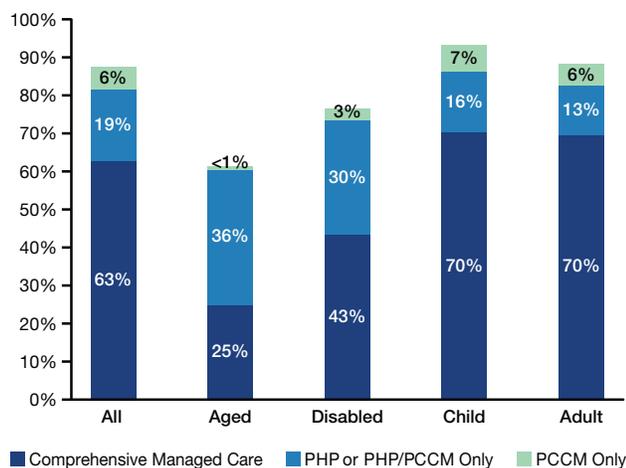
benefit beneficiaries in both Tennessee and North Carolina were enrolled in managed care in 2013 (100 and 99 percent, respectively), the nature of Medicaid managed care was quite different in the two states. In Tennessee, 97 percent of managed care enrollees were covered by a comprehensive managed care plan, either alone or in combination with other types of managed care plans. North Carolina did not operate a comprehensive managed care program and thus had zero beneficiaries enrolled in this type of plan; instead, it covered most beneficiaries by a combination of PHP and PCCM plans (Appendix Tables A5.1). Also, states generally vary a great deal in how they roll out managed care across populations. Figure 5.2 shows how managed care eligibility patterns differed by eligibility group in 2013, with children and nondisabled adults more likely to be enrolled in comprehensive managed care compared to the aged and disabled populations. Conversely, individuals who are aged or have disabilities are more likely to be enrolled in PHPs, with or without PCCM coverage, compared to child and nondisabled adult populations. However, the share of aged and disabled populations enrolled in comprehensive managed care increased substan-

Table 5.1
Percentage of Full-Benefit Beneficiaries Ever Enrolled in Managed Care in 2013: Top 10 States, by Plan Type

| Ever Enrolled in Comprehensive Managed Care | | Ever Enrolled in PHP | | Ever Enrolled in PCCM | |
|---|-------------|----------------------|-------------|-----------------------|-------------|
| Hawaii | 99.8 | Delaware | 100.0 | Idaho | 90.4 |
| Kansas | 99.2 | Mississippi | 100.0 | North Carolina | 89.6 |
| Delaware | 97.2 | South Carolina | 100.0 | Montana | 81.9 |
| Tennessee | 96.8 | Washington | 99.9 | South Dakota | 81.5 |
| Kentucky | 94.0 | Arizona | 99.7 | Oklahoma | 79.3 |
| Arizona | 89.1 | Michigan | 99.4 | Vermont | 76.9 |
| Oregon | 88.8 | Kentucky | 99.1 | Arkansas | 71.0 |
| Maryland | 88.6 | Idaho | 98.9 | Iowa | 65.1 |
| New Jersey | 88.1 | Nevada | 97.9 | Illinois | 64.3 |
| Texas | 86.4 | North Carolina | 97.0 | Maine | 62.2 |
| United States | 62.8 | United States | 57.5 | United States | 14.7 |

Source: Medicaid Analytic Extract 2013.
 Comprehensive managed care = HMO, HIO, or PACE.
 Individuals may be enrolled in multiple managed care plan types.

Figure 5.2
Type of Managed Care Enrollment Among Full-Benefit Beneficiaries in 2013



Source: Medicaid Analytic Extract 2013.

Comprehensive managed care = HMO, HIO, or PACE.

PHP or PHP/PCCM Only = prepaid health plan.

PCCM Only = primary care case management.

In this figure, managed care enrollees are assigned to only one type of managed care.

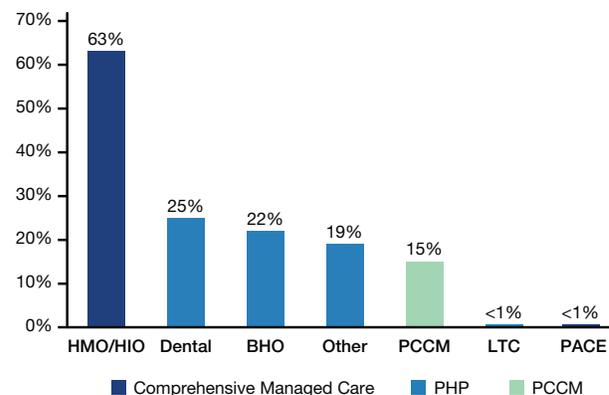
tially between 2006 and 2013, highlighting that states are increasingly using this plan type to cover these two populations (see Figure 5.8).

A range of PHPs was available across states, and substantial variation existed within PHP coverage. For example, Michigan and Washington enrolled almost all beneficiaries in a behavioral health organization (BHO), a type of PHP (Appendix Table A5.2). The types of PHPs with the highest enrollment in 2013 were dental plans (25 percent) and BHOs (22 percent) (Figure 5.3). About 19 percent of full-benefit beneficiaries participated in a PHP designated as “other” by the state, such as transportation or disease management plans.

Managed Care Enrollment Combinations

Even states that use similar types of managed care plans may differ in how they combine them to provide Medicaid services to enrollees. For example, when behavioral health services are “carved out” of traditional HMOs, a person can be enrolled in both an HMO and a BHO. BHOs can also be stand-alone prepaid plans for

Figure 5.3
Percentage of Full-Benefit Beneficiaries Enrolled in Managed Care in 2013, by Type of Plan



Source: Medicaid Analytic Extract 2013.

BHO = behavioral health organization.

LTC = long-term care.

PCCM = primary care case management.

PACE = Program of All-Inclusive Care for the Elderly.

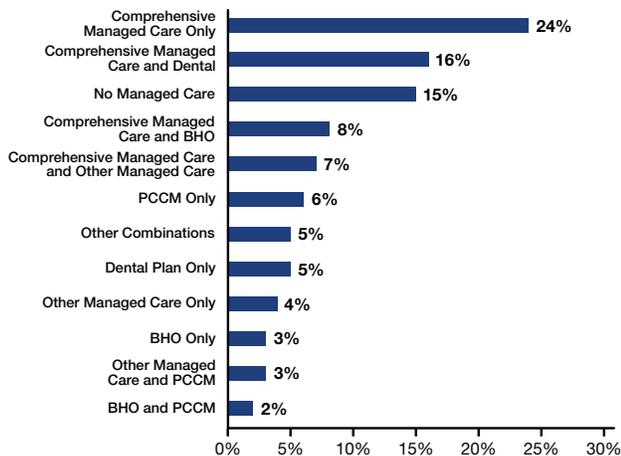
Other = prepaid health plans such as disease management and transportation plans identified as “other” managed care by the state in MSIS or T-MSIS.

Individuals may be enrolled in more than one plan type at a time.

people receiving primarily FFS care. Similarly, dental plans and other PHPs can be used alone or in combination with other types of managed care plans. Therefore, it is useful to examine how plans are combined across states at a specific point in time.

Figure 5.4 shows 12 of the most common combinations of managed care enrollment out of the 16 measured in Medicaid in June 2013. The percentage of full-benefit beneficiaries enrolled in comprehensive managed care only (24 percent) was highest, followed by the percentage enrolled in a comprehensive managed care plan and a dental plan (16 percent), and then the percentage not enrolled in any managed care plan (15 percent). Other common managed care combinations in 2013 were comprehensive managed care and BHO (8 percent), and comprehensive managed care and other managed care (7 percent). The complexity of managed care arrangements continued to grow in 2013, with 22 states enrolling more than 50 percent of beneficiaries in a combination of two or more plan types, compared to 21 in 2012 and 16 in 2010. For more detail about managed care plan combinations by state, see Appendix Table A5.4.

Figure 5.4
Managed Care Enrollment: Top 12 Combinations in June 2013 Among Full-Benefit Beneficiaries



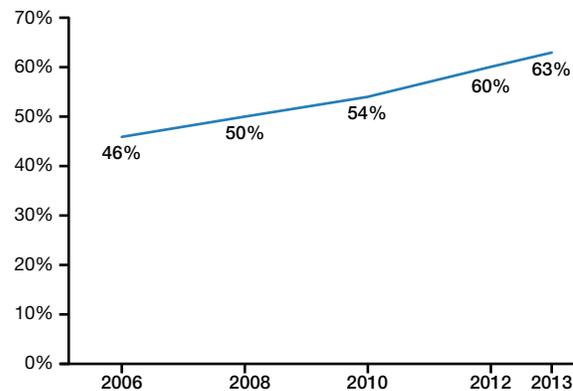
Source: Medicaid Analytic Extract 2013.
 Comprehensive managed care = HMO, HIO, or PACE.
 BHO = behavioral health organization.
 PCCM = primary care case management;
 Other managed care = health plans other than dental, BHO, or institutional long-term care plans, including non-emergency transportation and disease management plans designated as "other" by the state in MSIS or T-MSIS.
 Other combinations = a combination of institutional long-term care plans and other managed care.
 In this figure, managed care enrollees are assigned to only one managed care combination.

Managed Care Enrollment Trends

Comprehensive managed care enrollment grew steadily from 2006 to 2013, from 46 percent of beneficiaries in 2006 to about 63 percent in 2013 (Figure 5.5). The national expansion of comprehensive managed care between 2012 and 2013 was dramatic in several states but relatively stable in a majority of them (Figure 5.6). Several states reported notable increases in comprehensive managed care coverage in this period. Kansas, Utah, and Pennsylvania had the largest expansions from 2012 to 2013, reporting percentage-point increases of 37 percent, 29 percent, and 11 percent, respectively.

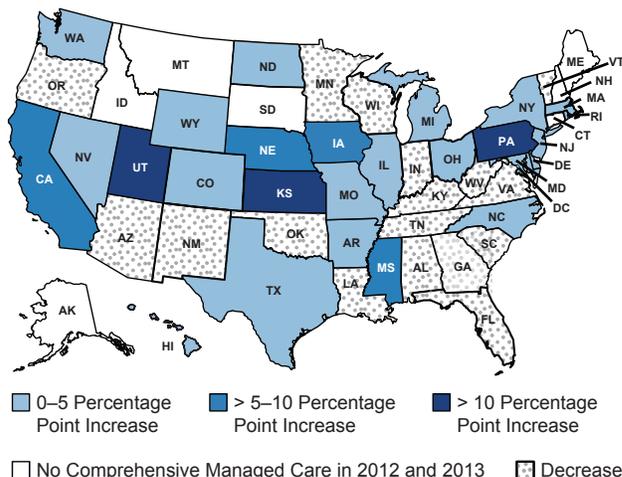
As noted above, children and adults are more likely than the aged or individuals with disabilities to be enrolled in comprehensive managed care: in 2013, 70 percent of adults and 70 percent of children were enrolled in such care at some point during the year (Figure 5.7), compared to 43 percent of beneficiaries

Figure 5.5
Percentage of Full-Benefit Medicaid Beneficiaries Enrolled in Comprehensive Managed Care, 2006-2013



Source: Medicaid Analytic Extract 2006-2013.
 Comprehensive managed care = HMO, HIO, or PACE.

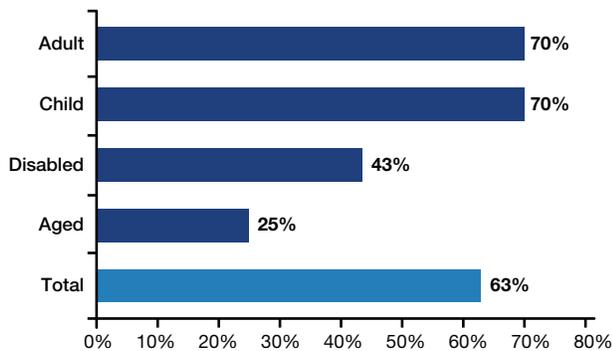
Figure 5.6
Change in Comprehensive Managed Care Enrollment, 2012-2013



Source: Medicaid Analytic Extract 2013.
 Comprehensive managed care = HMO, HIO, or PACE.
 New Hampshire began a new comprehensive managed care program in December 2013, but enrollment was not reported in MAX.

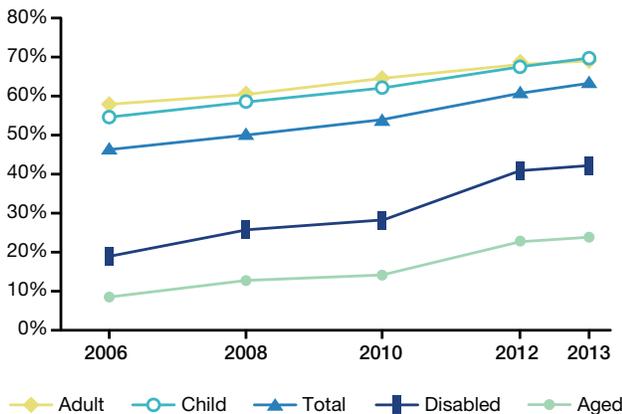
with disabilities and 25 percent of aged beneficiaries. However, although rates of comprehensive managed care enrollment remained relatively low among enrollees eligible on the basis of disability and age in 2013, they increased over 2012, and markedly so since 2006, when such rates among these populations were 19 and 9 percent, respectively (Figure 5.8). The large change masks variation across states, however,

Figure 5.7
Percentage of Full-Benefit Beneficiaries Ever Enrolled in Comprehensive Managed Care in 2013, by Basis of Eligibility



Source: Medicaid Analytic Extract 2013.
 Comprehensive managed care = HMO, HIO, or PACE.

Figure 5.8
Percentage of Full-Benefit Beneficiaries Enrolled in Comprehensive Managed Care from 2006 to 2013, by Basis of Eligibility



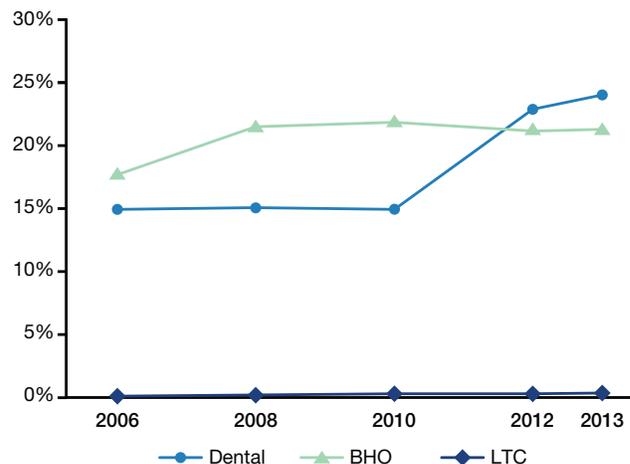
Source: Medicaid Analytic Extract, 2006-2013.
 Comprehensive managed care = HMO, HIO, or PACE.

and the drivers of the increase are clustered among a few states that expanded comprehensive managed care to large percentages of their disabled and aged beneficiaries. For example, many states with high managed care penetration overall, such as Arizona, Delaware, Hawaii, Kansas, Kentucky, New Jersey, Oregon, Tennessee, and Texas, enrolled more than 50 percent of aged and disabled beneficiaries in comprehensive managed care, whereas most other states maintained

relatively low penetration of such care for these populations (see Appendix Table A5.7). Comprehensive managed care enrollment among adult beneficiaries increased between 2012 and 2013, but to a slightly lesser extent compared to children or those eligible on the basis of age or disability (Figure 5.8).

Figure 5.9 shows enrollment trends among PHPs. Enrollment in dental PHPs was constant, at around 15 percent, between 2006 and 2010, and then increased to 23 percent in 2012 and 25 percent in 2013. Although this increase was driven mostly by growth in enrollment in Florida, Michigan, Rhode Island, Tennessee, Texas, and Utah, it highlights that some states substantially changed their approach to financing and delivering dental care during this period (Appendix Table A5.8). BHO enrollment increased until 2008 and then remained fairly level through 2013. Long-term managed care continued to grow slightly during this period, but in 2013 it still covered less than 1 percent of beneficiaries nationally. Growth in this program has been limited to the few states (Arizona, New Mexico, New York, and Wisconsin) that opted to use this type of coverage.

Figure 5.9
Percentage of Full-Benefit Beneficiaries Enrolled in PHPs from 2006 to 2013



Source: Medicaid Analytic Extract 2006-2013.
 PHP = prepaid health plan.
 BHO = behavioral health organization.
 LTC = institutional long-term care.

Expenditures and Service Utilization for Managed Care Enrollees

As noted earlier, capitated payments reflect the set fee a state pays to a managed care organization to cover an enrollee, regardless of service use. Because PCCMs provide case management only, with all other services covered on an FFS basis, service use for PCCM enrollees is captured through FFS claims data. For comprehensive managed care and PHP enrollees, use of services covered under these plans is captured through encounter data—records that contain utilization but not expenditure information. Conversely, use of other services not covered under these plans is captured through FFS claims data. The availability of capitation payment and encounter data in MAX varies by state and type of managed care. MAX data users should consider the availability of these data when assessing expenditures and utilization patterns for managed care enrollees across states.

Table 5.2 shows the availability of capitation payment data in MAX 2013. For most states, if the state

reported capitation payments in MSIS or T-MSIS, the records are available for nearly all enrollees in those programs. In 2013, of the 44 states with comprehensive managed care, 37 submitted capitation payment records for more than 90 percent of comprehensive managed care enrollees, although just four states (Kansas, Rhode Island, Vermont, and Wyoming) did not submit any capitation data for these enrollees. Although states may report less complete capitation data for beneficiaries in PHP and PCCM plans, at least half of states with such plans submitted capitation data for more than 90 percent of these enrollees. For state-level detail on the availability of capitation payments and encounter data, see Appendix Table A5.9.

States reported encounter data for fewer managed care enrollees than they did capitation data (Table 5.3). Encounter data are a potential source of information about service utilization among comprehensive managed care and PHP enrollees. More than two-thirds of states with comprehensive managed care (31 of 44) submitted encounter data for more

Table 5.2
Status of Capitation Payment Reporting in 2013, by Plan Type

| | Comprehensive Managed Care | PHP | PCCM |
|--|----------------------------|-----|------|
| Number of states with managed care plan type ^a | 44 | 35 | 24 |
| Number of states with capitation payments for more than 90% of enrollees | 37 | 21 | 12 |
| Number of states with capitation payments for 0% of enrollees | 4 | 6 | 4 |

Source: Medicaid Analytic Extract 2013.

Comprehensive managed care = HMO, HIO, or PACE.

PHP = prepaid health plan.

PCCM = primary care case management.

^a State was considered to have a managed care plan if at least one person was reported as enrolled. New Hampshire began a new comprehensive managed care program in December 2013, but enrollment was not reported in MAX. Nevada implemented a new PCCM program in July 2013, but enrollment was not reported in MAX.

Table 5.3
Availability of Encounter Data in 2013, by Plan Type

| | Comprehensive Managed Care | PHP Only or PHP and PCCM Only ^a |
|---|----------------------------|--|
| Number of states with managed care plan type ^b | 44 | 34 |
| Number of states with encounter data for more than 75% of enrollees | 31 | 3 |
| Number of states with encounter data for 0% of enrollees | 6 | 4 |

Source: Medicaid Analytic Extract 2013.

Comprehensive managed care = HMO, HIO, or PACE.

PHP = prepaid health plan.

PCCM = primary care case management.

^a Includes only those states, and beneficiaries, enrolled in PHP plans only or in a combination of PHP and PCCM plans. It excludes beneficiaries enrolled in a combination of comprehensive managed care and PHP or PCCM plans.

^b State was considered to have a managed care plan if at least one person was reported as enrolled. New Hampshire began a new comprehensive managed care program in December 2013, but enrollment was not reported in MAX. Nevada implemented a new PCCM program in July 2013, but enrollment was not reported in MAX.

than 75 percent of their managed care enrollees in 2013. Only 6 of the 44 states with comprehensive managed care submitted no encounter data. Far fewer states submitted encounter data for beneficiaries enrolled in a PHP plan only or in both PHP and PCCM plans. Only three states (New Mexico, New York, and Tennessee) submitted encounter data for more than 75 percent of beneficiaries enrolled either in a PHP only or in both PHP and PCCM plans.

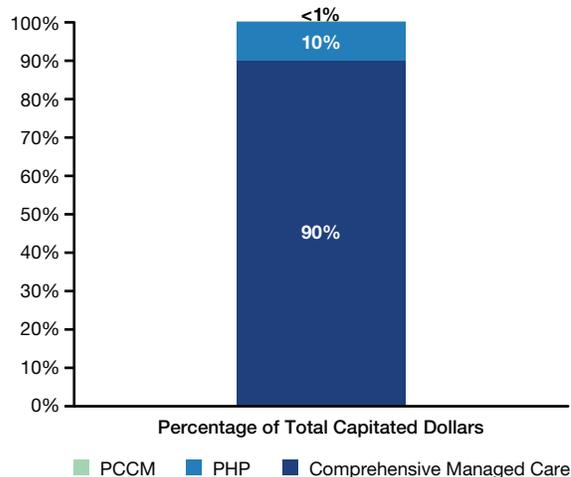
Capitation Payments for Managed Care

Medicaid paid \$146.2 billion in capitated payments to managed care organizations in 2013 (Appendix Table A5.10), an increase of more than 13.7 percent from \$128.6 billion in 2012 (Lemos et al. 2019). This increase may be related to the continued increase in the number and percentage of Medicaid beneficiaries enrolled in comprehensive managed care between 2012 and 2013—in particular, the increased number and percentage of traditionally higher-cost beneficiaries (those eligible on the basis of age or disability) covered by such care (Figure 5.8).

In addition, the distribution of capitation payments across plan types was similar in 2012 and 2013; 91 and 90 percent, respectively, of total capitation payments were paid to comprehensive managed care plans; 9 percent and 10 percent, respectively, to PHP plans; and less than 1 percent to PCCM plans in both years (Figure 5.10 and Lemos et al. 2019). Average monthly payments per plan enrollee in 2013 were \$340 for comprehensive managed care, \$41 for PHPs, and \$5 for PCCM plans (Table 5.4). (See Appendix Table A5.10 for state-level details.)

There was substantial variation in average premium payments across states, which is to be expected because individual contracts between states and plans vary in the level of services the plans cover and the populations they serve. Capitation payment amounts

Figure 5.10
Composition of Medicaid Capitated Payments in 2013 among Full-Benefit Beneficiaries



Source: Medicaid Analytic Extract 2013.
Comprehensive = HMO, HIO, or PACE.
PHP = prepaid health plan.
PCCM = primary care case management.

vary by the characteristics of covered services and the characteristics of managed care enrollees. Of all plan types, payments to comprehensive managed care plans showed the greatest variation in 2013. Capitation payments for such enrollees ranged from less than \$58 per person per month in Alabama to \$4,529 in North Dakota. Three other states also had average payments above \$2,000 per person per month (Arkansas, North Carolina, and Oklahoma) for comprehensive managed care plans, whereas all other states' averages were below \$1,000. This difference stems from the fact that those four states operated PACE plans as their only type of comprehensive managed care; because PACE plans target the aged, their capitation payments are not representative of most comprehensive managed care plans. Vermont and Wyoming also operated PACE plans as their only type of comprehensive managed care in 2013 but did not report capitation payments in MAX 2013.

Compared to capitation payments for comprehensive managed care enrollees, these payments for PHP enrollees were much lower in 2013, averaging \$41 per enrollee per month nationally and ranging from only \$1

Table 5.4**Capitated Payments Per Person Per Month in Managed Care in 2013, by Type of Plan: Top and Bottom Five States**

| Comprehensive Managed Care | | PHP | | PCCM | |
|-----------------------------|--------------|-------------------------|-------------|-----------------------|------------|
| State | Dollars | State | Dollars | State | Dollars |
| North Dakota ^a | \$4,529 | New York ^c | \$1,043 | Oregon ^b | \$1,454 |
| Arkansas ^a | \$3,863 | Hawaii | \$767 | Indiana | \$103 |
| North Carolina ^a | \$2,955 | Illinois | \$389 | Louisiana | \$10 |
| Oklahoma ^a | \$2,825 | North Dakota | \$144 | South Carolina | \$10 |
| Tennessee | \$779 | North Carolina | \$140 | North Carolina | \$10 |
| United States | \$340 | United States | \$41 | United States | \$5 |
| Wisconsin | \$195 | Oklahoma | \$4 | North Dakota | \$2 |
| Utah | \$159 | Nevada | \$3 | Colorado ^b | \$2 |
| Nevada | \$149 | Texas ^d | \$2 | Alabama ^b | \$2 |
| Indiana | \$133 | California ^d | \$1 | Iowa ^b | \$1 |
| Alabama | \$58 | Washington ^d | \$1 | Florida ^b | \$1 |

Source: Medicaid Analytic Extract 2013.

^a The only comprehensive managed care in the state is PACE, and these plans typically have higher capitation payments than HMO and HIO plans.

^b Capitation payments were reported for only 50 to 75 percent of beneficiaries enrolled in this plan type in 2013.

^c Capitation payments were reported for only 25 to 50 percent of beneficiaries enrolled in this plan type in 2013.

^d Capitation payments were reported for less than 25 percent of beneficiaries enrolled in this plan type in 2013.

This table excludes states that reported no capitation payments for a particular plan type.

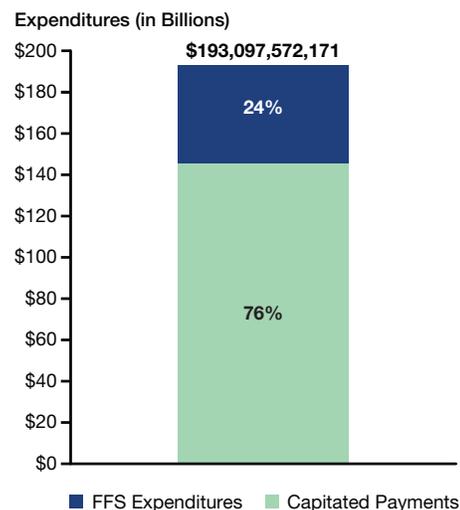
in California and Washington to \$1,043 in New York.³¹ Because PCCM plans typically cover case management services only, capitation payments for these plans tend to be much lower; in 2013, they ranged from under \$1 to \$10 per enrollee per month, with the notable exceptions of Indiana and Oregon. These two states have enhanced PCCM programs that cover a wider range of services extending beyond basic case management services, as reflected in their average PCCM payments of \$103 and \$1,454, respectively.

FFS Expenditures Among People Enrolled in Comprehensive Managed Care

Comprehensive managed care enrollees in 2013 incurred \$193.1 billion in Medicaid expenditures compared to \$173.8 billion in 2012—an increase of 11 percent. The vast majority (76 percent) of their expenditures were for managed care capitated pay-

ments, whereas 24 percent were FFS expenditures (Figure 5.11). Because comprehensive managed care enrollees are excluded from most FFS expenditure summary statistics in this chartbook, we provide

Figure 5.11
Composition of Expenditures for Comprehensive Managed Care Enrollees in 2013



Source: Medicaid Analytic Extract 2013.
Comprehensive managed care = HMO, HIO, or PACE.

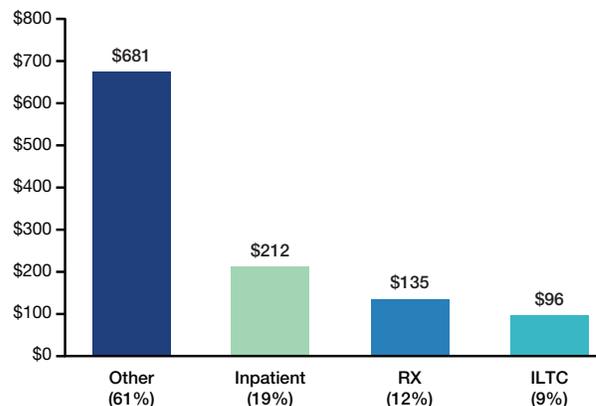
³¹ In MAX 2013, capitation claims were reported for only 9 and 11 percent of PHP enrollees in California and Washington, respectively. Average PHP capitation payments are likely undercounted in these states.

some information about FFS costs for these enrollees here. There are two key reasons why people enrolled in comprehensive managed care might incur FFS expenditures. First, for the purposes of this chartbook, such enrollees are considered to be those enrolled in comprehensive managed care at any point in 2013, so some Medicaid beneficiaries may be in managed care for a limited number of months during the year but use health care services covered by FFS during other months. Second, comprehensive managed care plans typically do not cover all Medicaid services. For example, dental care, behavioral health care, long-term care, and other services may not be included in the comprehensive plan's capitated rate and may instead be covered on an FFS basis.

On average, \$1,123 was spent in FFS payments for each comprehensive managed care enrollee in 2013 (Appendix Table A5.11). The services with the highest FFS expenditures among comprehensive managed care enrollees included those submitted in the Other services claims file in MAX, which include HCBS, ambulatory services, and wraparound services. These services accounted for 61 percent (\$681) of all FFS expenditures among comprehensive managed care enrollees (Figure 5.12). Another 19 percent (\$212) of their FFS costs were for inpatient care, 12 percent (\$135) for prescription drugs, and 9 percent (\$96) for ILTC. The variation in FFS expenditures per comprehensive managed care enrollee was very wide across states; users wishing to understand these patterns should perform more granular, state-specific analyses because covered services vary greatly across states and subpopulations.

Average FFS expenditures per comprehensive managed care enrollee varied by eligibility group, which is in line with the expectations noted earlier. Although fewer full-benefit aged and people

Figure 5.12
FFS Expenditures Per Enrollee Among Comprehensive Managed Care Enrollees in 2013, by Type of Service

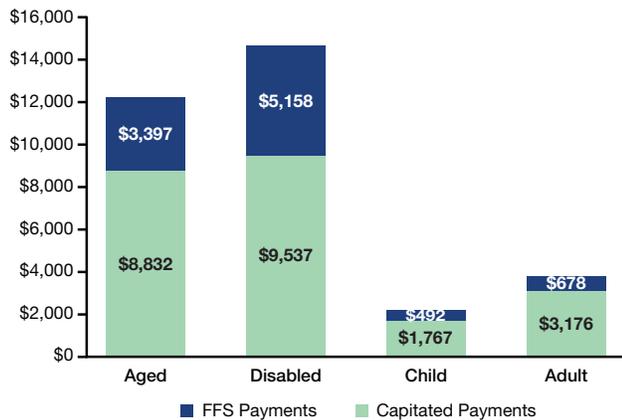


Source: Medicaid Analytic Extract 2013.
 FFS = Fee-for-Service.
 Comprehensive managed care = HMO, HIO, or PACE.
 ILTC = institutional long-term care.
 RX = prescription drugs.

with disabilities were enrolled in comprehensive managed care than children or adults, their costs per enrollee were substantially higher for both capitated payments and FFS expenditures. In 2013, average capitated payments per enrollee were highest for enrollees with disabilities, followed by aged enrollees, adult enrollees, and children. This pattern represents a shift from 2012, when average capitated payments per enrollee were highest for aged enrollees. Similarly, the average FFS expenditures per comprehensive managed care enrollee were highest for enrollees with disabilities, followed by aged enrollees, adult enrollees, and children (Figure 5.13).

The substantially greater FFS costs among aged enrollees and enrollees with disabilities are likely because most states did not include long-term care and other high-cost services in the set of services covered by capitated plans, preferring instead to use other arrangements for payment.

Figure 5.13
Average FFS Expenditures and Capitated Payments Among Full-Benefit Comprehensive Managed Care Enrollees in 2013, by Basis of Eligibility

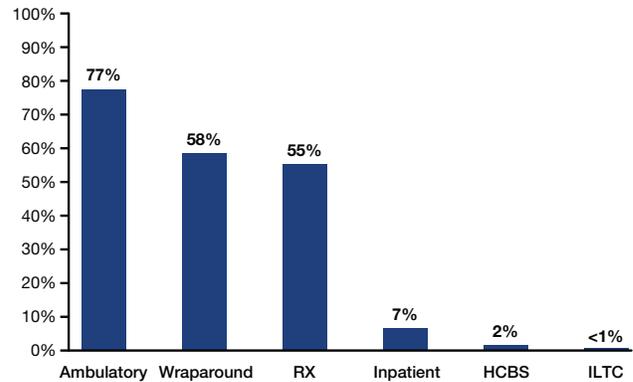


Source: Medicaid Analytic Extract 2013.
Comprehensive managed care = HMO, HIO, or PACE.

Service Utilization for Comprehensive Managed Care Enrollees

Encounter data provide insights into the services that Medicaid beneficiaries receive in exchange for capitation payments. In 2013, the services most commonly reported in encounter data for comprehensive managed care enrollees (the percentage of enrollees with a reported service) were those in the physician and other ambulatory service class (ambulatory), followed by the wraparound and other services class (wrap-around), and prescription drugs (RX) (Figure 5.14). All states with encounter records reported particularly low rates of encounters for ILTC. Most also reported low rates for HCBS use, with the notable exception of Kansas and Minnesota, which have incorporated MLTSS into their comprehensive managed care contracts. Because of the relatively low rate of individuals in comprehensive managed care who are aged or have disabilities, and because ILTC and HCBS typically are not covered under comprehensive managed care contracts, low rates of encounters for these services are generally expected.

Figure 5.14
Percentage of Comprehensive Managed Care Enrollees with Encounter Data in 2013, by Service Class

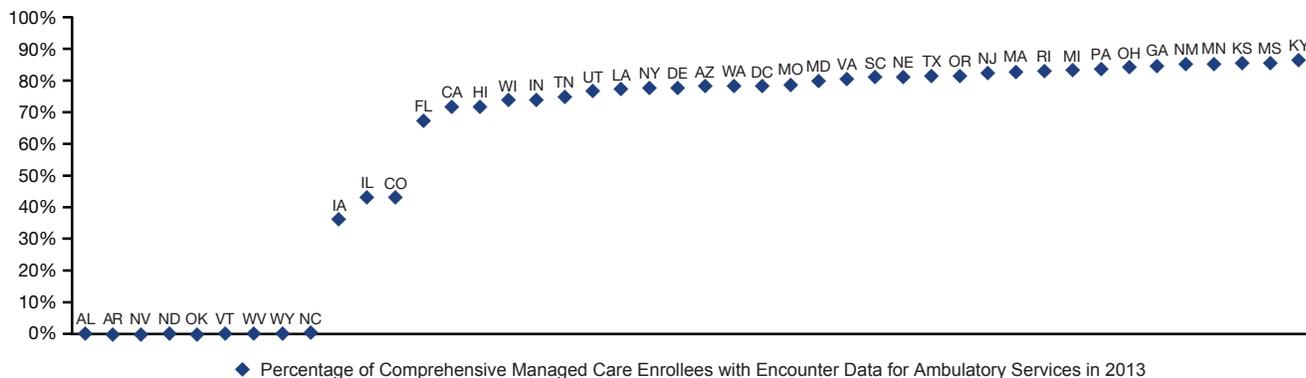


Source: Medicaid Analytic Extract 2013.
Note: Includes 44 states with any comprehensive managed care enrollment reported in 2013.
Comprehensive managed care = HMO, HIO, or PACE.
ILTC = institutional long-term care.
HCBS = home- and community-based services.

There was a small increase in the percentage of managed care enrollees with reported encounters for ambulatory services, wraparound services, and RX in 2013 (Figure 5.14) compared to 2012 (see Lemos et al. 2019). Appendix Tables A5.13 and A5.14 through A5.17 provide state-level encounter data reporting by service class, and both eligibility group and service class, respectively. MAX data users interested in studying encounter data for a subpopulation of enrollees may want to replicate this analysis for the specific subpopulations of interest.

Ambulatory services were the most commonly reported services in encounter data in 2013, with 77 percent of comprehensive managed care enrollees reported as having such an encounter (Figure 5.14). The percentage varied from a low of zero in nine states to about 87 percent in Kentucky (Figure 5.15). One possible explanation for this variance is that the encounter data some states submit to MSIS or T-MSIS are incomplete and do not accurately reflect utilization under managed care arrangements. Though a few states reported very low rates

Figure 5.15
Percentage of Comprehensive Managed Care Enrollees with Encounter Data for Ambulatory Services in 2013



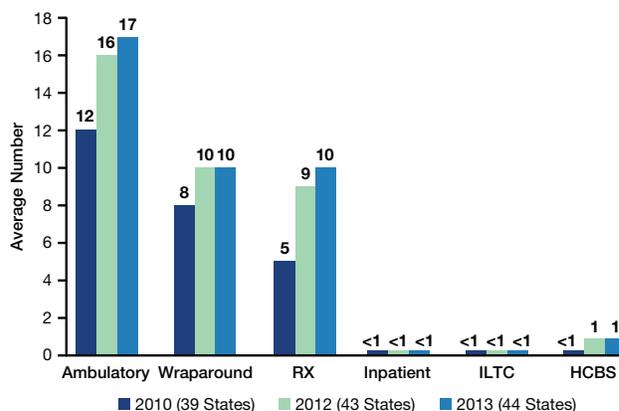
Source: Medicaid Analytic Extract 2013.
 Note: Includes 44 states with any comprehensive managed care enrollment reported in 2013. Comprehensive managed care = HMO, HIO, or PACE.
 New Hampshire began a new comprehensive managed care program in December 2013, but enrollment was not reported in MAX.

of ambulatory encounters, most (32 of 44) reported encounters for at least 65 percent of comprehensive managed care enrollees, which is in line with reported utilization of many ambulatory services provided on an FFS basis (Appendix Tables A5.13 and A4.5).

Figure 5.16 highlights the reporting of average encounters per person-year of comprehensive managed care enrollment from 2010 to 2013 for commonly reported services in encounter data. Between 2010 and 2013, the average number of encounters per person-year of comprehensive managed care enrollment increased from 12 to 17 for ambulatory services, 8 to 10 for wraparound services, and 5 to 10 for prescription drugs, whereas inpatient, ILTC, and HCBS stayed fairly constant at or below 1 in all three years. (See Appendix Tables A5.20 through A5.22 for average numbers of encounters by state in 2013, and Appendix Tables A5.23 and A5.24 for state-level changes in comprehen-

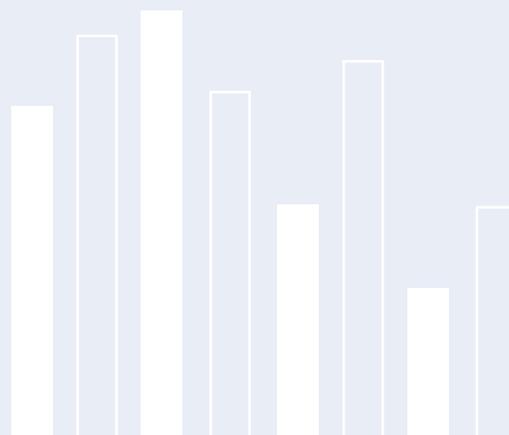
sive managed care enrollment and the percentage of such enrollees for which states reported any encounter data, respectively, from 2006 to 2013.)

Figure 5.16
Average Number of Encounters Per Person-Year of Comprehensive Managed Care Enrollment in 2010, 2012, and 2013, by Service Class



Source: Medicaid Analytic Extract 2013.
 Note: Includes states with any comprehensive managed care enrollment in each respective year. Comprehensive managed care = HMO, HIO, or PACE.
 ILTC = institutional long-term care.
 HCBS = home- and community-based services.

6. Dual Eligibles



As described in previous chapters, dual eligibles, or duals, include the aged and individuals with disabilities who qualify for both Medicare and Medicaid coverage. Duals are among the most vulnerable people served by Medicare and Medicaid, and among the costliest users of health care in the United States (Hayes et al. 2016). In 2013, average health care costs to Medicaid and Medicare for duals were more than double those of other Medicare beneficiaries (MedPAC and MACPAC 2018), and annualized Medicaid costs for FFS duals were more than six times higher than those for low-income children covered by FFS Medicaid (Appendix Tables A3.6 and A6.5). The availability of monthly Medicare enrollment information in the MAX data system enables researchers to conduct in-depth analyses of Medicaid enrollment rates and service use among this subgroup of beneficiaries.

Duals must meet the eligibility requirements of both Medicare and Medicaid. Generally, Medicare provides basic health insurance coverage for most aged and people with disabilities under age 65 who have received Social Security or Railroad Retirement disability benefits for at least two years. Medicare benefits are provided to these groups regardless of their income or assets. There are substantial out-of-pocket costs for Medicare beneficiaries, however, including premiums and cost-sharing payments, as well as some uncovered services—most notably for long-term care. As a result, many low-income Medicare beneficiaries

who are aged or have disabilities get help with these expenses when they enroll in the Medicaid program. In contrast to Medicare, Medicaid is a means-tested program. The aged and people with disabilities can qualify for Medicaid benefits only if they meet federal and state income and resource criteria.

In 2013, most duals qualified for full Medicaid benefits. For these beneficiaries, Medicare was the primary payer for services covered by both programs. Services covered by Medicare Part A include inpatient hospital stays, hospice care, skilled nursing facilities, and some care by home health agencies. Medicare Part B enrollment is voluntary and requires a premium, which Medicaid covers for duals. Among other things, Part B covers physician services, inpatient and outpatient medical services, laboratory services, and some medical equipment. Since 2006, Medicare Part D has covered prescription drugs for duals.³² Medicaid, on the other hand, provides wraparound coverage for services not covered by Medicare, such as long-term care, home health services, and HCBS.

For services covered only by Medicaid, Medicaid claim records in MAX should reflect all services delivered, and Medicaid payment amounts can be

³² Medicare Part D is optional for most Medicare beneficiaries, but full-benefit dual beneficiaries must either enroll in a Part D plan or be enrolled into one automatically. Medicare covers Part D premiums and deductibles for duals. One exception is that Medicaid may pay for a prescription if the drug is not covered by Medicare Part D but is covered by the state Medicaid program.

interpreted like those for other beneficiaries. For services covered by both Medicaid and Medicare, Medicaid payment amounts in MAX claim records reflect only the coinsurance and deductible amounts that Medicaid paid after Medicare made payments up to its coverage limits.³³ For this reason, expenditures in MAX for Medicare-covered services provided to duals will substantially understate the total (Medicare plus Medicaid) cost of care for those services.

A smaller population of restricted-benefit duals includes Medicare beneficiaries who do not receive the full range of Medicaid benefits. Generally, duals who qualify only for restricted Medicaid benefits have higher incomes and/or assets than duals who qualify for full Medicaid benefits. Services such as long-term care, which are covered only by Medicaid, are not covered for restricted-benefit duals. For some, such as QMB-only duals, Medicaid pays Medicare premiums as well as any coinsurance and deductibles for Medicare services. For certain other restricted-benefit duals, Medicaid covers only Medicare premiums, including Part A premiums for Qualified Disabled and Working Individuals (QDWI) and Part B premiums for SLMB-only and QI duals. Table 6.1 lists the categories of full- and restricted-benefit duals, eligibility requirements, and the types of Medicaid benefits received.

The unique characteristics of dual beneficiaries and their MAX records should be considered when interpreting the summary enrollment, Medicaid service utilization, and expenditure statistics presented in this chapter. The MAX 2013 anomaly tables provide additional detail regarding the completeness and

³³ If Medicare has already paid more than the coverage limit specified in Medicaid fee schedules, then Medicaid's contribution is zero.

limitations of MAX data for duals (see Chapter 1 for the web link).

Enrollment Characteristics of Duals

There were more than 11 million duals in 2013—nearly 15 percent of all Medicaid beneficiaries. Significant variability existed across states in the percentage of beneficiaries who were duals in 2013, ranging from 9 percent in Colorado to 28 percent in Maine (Table 6.2). The proportion of duals who were female (61 percent) was similar to that in the overall Medicaid population (58 percent) (Appendix Tables A6.1 and A2.4).

Medicaid beneficiaries who were aged were more likely than those with disabilities to be duals in 2013 (Table 6.2).³⁴ Nationally, about 93 percent of aged and 44 percent of Medicaid beneficiaries eligible on the basis of disability were dually enrolled in Medicare during the year. There was more variation in dual enrollment among beneficiaries with disabilities than among aged beneficiaries. In all but five states, at least 90 percent of aged beneficiaries were dually enrolled in Medicare and Medicaid in 2013. The percentage of aged beneficiaries who were duals was lowest in Massachusetts (84 percent) (Figure 6.1). Overall, Medicare eligibility was very high among aged individuals, which is to be expected, given that aged people who worked (or had a spouse who worked) and paid Medicare taxes for at least 10 years are generally eligible for Medicare.

The percentage of beneficiaries eligible on the basis of disability who were dually enrolled in Medicare and Medicaid varied more—from 22 percent

³⁴ Nationally, around 213,000 dual eligibles (less than 2 percent of all duals) were eligible for Medicaid on the basis of being a child or an adult rather than being aged or having a disability.

Table 6.1
Categories of Dual Eligibles and Benefits Received

| Category | Eligibility Provisions | Medicaid Benefits |
|--|--|---|
| Full-Benefit Duals | | |
| Qualified Medicare Beneficiaries with full Medicaid (QMB Plus) | Medicare beneficiaries with income below 100 percent of the federal poverty level (FPL) and assets below 200 percent of the asset limit for Social Security Insurance (SSI) eligibility; eligible for full Medicaid benefits | Medicare Part A and B premiums and cost-sharing payments (deductibles and/or coinsurance) plus full Medicaid benefits |
| Specified Low-Income Medicare Beneficiaries with full Medicaid (SLMB Plus) | Medicare beneficiaries with income between 100 and 120 percent of the FPL and assets below 200 percent of the asset limit for SSI eligibility; eligible for full Medicaid benefits | Medicare Part B premiums plus full Medicaid benefits |
| Restricted-Benefit Duals | | |
| Qualified Medicare Beneficiaries without other Medicaid (QMB Only) | Medicare beneficiaries with income below 100 percent of the FPL and assets below 200 percent of the asset limit for SSI eligibility; not otherwise eligible for full Medicaid benefits | Medicare Part A and B premiums and cost-sharing payments (deductibles and/or coinsurance) |
| Specified Low-Income Medicare Beneficiaries without other Medicaid (SLMB Only) | Medicare beneficiaries with income between 100 and 120 percent of the FPL and assets below 200 percent of the asset limit for SSI eligibility; not otherwise eligible for full Medicaid benefits | Medicare Part B premiums only |
| Qualifying Individuals 1 (QI1s) | Medicare beneficiaries with income between 120 and 135 percent of the FPL; not otherwise eligible for full Medicaid benefits | Medicare Part B premiums only |
| Qualifying Individuals 2 (QI-2s) | Medicare beneficiaries with income between 135 and 175 percent of the FPL; not otherwise eligible for full Medicaid benefits | A portion of Medicare Part B premiums only |
| Qualified Disabled and Working Individuals (QDWI) ^a | Medicare beneficiaries with income of 200 percent or less of the FPL; not otherwise eligible for full Medicaid benefits | Medicare Part A premiums only |

^a These individuals lost their Medicare Part A benefits because of their return to work but are eligible to purchase Medicare Part A benefits.

in Colorado³⁵ to 63 percent in Connecticut (Figure 6.2). Variation in rates of dual enrollment can be attributed to differences in state eligibility criteria. For example, Vermont's high rate can be attributed partially to a 1115 waiver program that extended

³⁵ Colorado's percentage of beneficiaries with disabilities who are duals decreased markedly from 2010 to 2012 and then remained steady in 2013 (from 37 percent in 2010 to 22 percent in 2012 and 2013). This may be related to the state's transition from MSIS to T-MSIS. See the 2012 and 2013 MAX anomaly tables for more details.

Medicaid coverage to Medicare beneficiaries with household income up to 225 percent of the FPL. In other states, these Medicare beneficiaries were not eligible for Medicaid benefits.

Of all duals, about 53 percent were classified as aged, whereas 45 percent were eligible for Medicaid based on a disability. At first, this composition of duals may seem unexpected because 93 percent of aged Medicaid beneficiaries were duals, com-

Table 6.2
Dual Enrollment in Medicare and Medicaid in 2013, by Basis of Eligibility

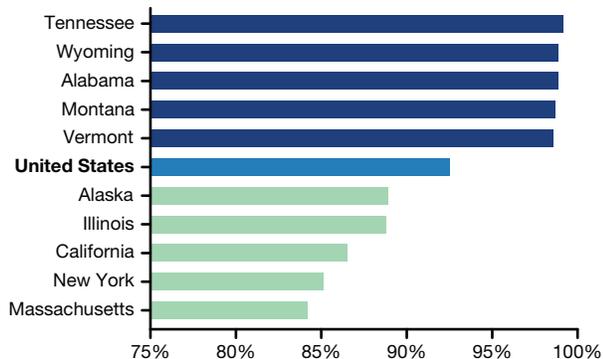
| | Percentage of All Medicaid Beneficiaries Who Were Duals | | | Number of Dual Eligibles | | | Percentage of Dual Eligibles | |
|----------------------|---|-------------|-------------|--------------------------|------------------|------------------|------------------------------|-------------|
| | Total | Aged | Disabled | Total | Aged | Disabled | Aged | Disabled |
| United States | 14.8 | 92.5 | 43.6 | 11,086,226 | 5,154,254 | 5,868,998 | 53.0 | 45.0 |
| Alabama | 19.9 | 98.9 | 48.5 | 222,117 | 85,248 | 135,758 | 44.3 | 55.3 |
| Alaska | 11.7 | 88.9 | 46.2 | 18,319 | 7,854 | 10,387 | 46.8 | 52.5 |
| Arizona | 11.6 | 92.4 | 46.0 | 192,293 | 91,068 | 99,925 | 49.6 | 45.7 |
| Arkansas | 17.7 | 97.4 | 42.0 | 139,535 | 49,687 | 89,295 | 50.7 | 48.7 |
| California | 11.0 | 86.5 | 44.7 | 1,444,768 | 869,229 | 565,894 | 57.2 | 40.6 |
| Colorado | 9.4 | 90.1 | 22.3 | 86,003 | 37,360 | 48,193 | 54.4 | 24.1 |
| Connecticut | 20.2 | 94.7 | 62.5 | 174,886 | 96,899 | 77,438 | 66.4 | 29.8 |
| Delaware | 11.6 | 95.3 | 48.2 | 29,966 | 11,904 | 17,900 | 50.5 | 45.1 |
| District of Columbia | 13.1 | 91.3 | 40.0 | 33,451 | 16,240 | 16,861 | 42.0 | 54.1 |
| Florida | 18.5 | 90.9 | 43.2 | 814,575 | 443,238 | 367,289 | 60.6 | 38.8 |
| Georgia | 16.1 | 96.6 | 44.3 | 323,576 | 139,223 | 181,444 | 48.6 | 51.1 |
| Hawaii | 11.8 | 93.3 | 42.2 | 39,824 | 23,009 | 16,424 | 64.6 | 33.3 |
| Idaho | 14.2 | 95.9 | 46.5 | 43,239 | 15,434 | 27,594 | 47.3 | 52.4 |
| Illinois | 12.4 | 88.8 | 55.5 | 392,489 | 172,109 | 217,935 | 38.7 | 55.9 |
| Indiana | 15.9 | 95.7 | 49.2 | 208,253 | 71,774 | 135,385 | 46.3 | 53.1 |
| Iowa | 14.3 | 97.3 | 52.6 | 92,973 | 33,496 | 59,144 | 47.5 | 51.3 |
| Kansas | 16.7 | 94.6 | 48.5 | 71,779 | 25,665 | 45,756 | 48.8 | 50.8 |
| Kentucky | 19.8 | 97.8 | 40.3 | 193,787 | 68,517 | 124,648 | 50.0 | 49.6 |
| Louisiana | 15.3 | 97.6 | 39.2 | 215,803 | 90,043 | 124,090 | 54.4 | 44.7 |
| Maine | 27.7 | 98.4 | 54.6 | 101,706 | 45,379 | 56,160 | 57.4 | 38.4 |
| Maryland | 11.3 | 93.5 | 37.4 | 144,086 | 65,830 | 77,132 | 55.6 | 38.7 |
| Massachusetts | 18.9 | 84.2 | 35.4 | 307,391 | 127,031 | 179,610 | 52.6 | 46.5 |
| Michigan | 14.2 | 95.3 | 42.8 | 324,060 | 113,066 | 209,149 | 45.7 | 52.1 |
| Minnesota | 15.3 | 95.3 | 50.6 | 178,069 | 83,714 | 93,733 | 55.8 | 41.3 |
| Mississippi | 21.4 | 97.6 | 43.4 | 170,553 | 64,019 | 105,368 | 53.9 | 45.9 |
| Missouri | 16.1 | 94.1 | 45.7 | 189,034 | 62,569 | 125,438 | 46.7 | 52.8 |
| Montana | 17.4 | 98.7 | 48.0 | 26,971 | 10,066 | 16,779 | 49.5 | 45.7 |
| Nebraska | 15.3 | 93.6 | 53.6 | 46,566 | 17,291 | 29,075 | 49.9 | 49.7 |
| Nevada | 13.9 | 97.5 | 44.9 | 57,323 | 27,543 | 29,407 | 53.7 | 45.5 |
| New Hampshire | 20.4 | 92.1 | 58.8 | 36,989 | 11,804 | 25,124 | 43.0 | 54.4 |
| New Jersey | 15.6 | 90.1 | 46.0 | 229,721 | 121,625 | 106,831 | 54.0 | 44.7 |
| New Mexico | 11.6 | 98.4 | 46.4 | 79,675 | 36,249 | 42,862 | 49.1 | 46.6 |
| New York | 14.4 | 85.1 | 46.7 | 899,971 | 509,811 | 386,182 | 54.0 | 43.8 |
| North Carolina | 16.6 | 96.3 | 44.1 | 340,281 | 128,568 | 209,629 | 51.8 | 47.7 |
| North Dakota | 18.7 | 97.7 | 57.2 | 16,373 | 7,068 | 9,245 | 56.0 | 43.7 |
| Ohio | 13.6 | 92.3 | 43.1 | 380,831 | 138,350 | 240,379 | 48.4 | 47.5 |
| Oklahoma | 12.3 | 96.3 | 46.3 | 127,398 | 47,824 | 78,842 | 50.8 | 47.8 |
| Oregon | 16.5 | 97.5 | 48.2 | 123,903 | 52,791 | 70,576 | 53.9 | 45.2 |
| Pennsylvania | 18.1 | 94.4 | 30.2 | 467,717 | 195,001 | 270,963 | 52.7 | 47.0 |
| Rhode Island | 19.3 | 94.9 | 45.3 | 49,264 | 20,463 | 28,703 | 43.8 | 44.4 |
| South Carolina | 13.9 | 98.3 | 46.0 | 165,100 | 61,640 | 102,138 | 46.8 | 51.2 |
| South Dakota | 15.5 | 98.4 | 50.9 | 22,874 | 9,899 | 12,836 | 48.0 | 51.4 |
| Tennessee | 18.7 | 99.2 | 52.4 | 293,718 | 107,273 | 185,111 | 42.9 | 55.5 |
| Texas | 14.4 | 97.2 | 36.7 | 754,988 | 389,971 | 357,449 | 63.6 | 36.1 |
| Utah | 10.7 | 95.9 | 48.2 | 41,377 | 14,472 | 26,617 | 38.2 | 60.8 |
| Vermont | 18.7 | 98.6 | 58.4 | 38,137 | 16,950 | 21,122 | 58.5 | 40.3 |
| Virginia | 16.7 | 95.2 | 49.0 | 202,846 | 82,394 | 119,258 | 48.5 | 49.9 |
| Washington | 13.7 | 97.2 | 38.3 | 196,637 | 85,307 | 110,366 | 53.9 | 45.5 |
| West Virginia | 20.3 | 98.5 | 36.9 | 88,998 | 31,000 | 57,689 | 48.5 | 51.1 |
| Wisconsin | 17.7 | 98.6 | 48.4 | 233,600 | 116,537 | 116,220 | 56.6 | 39.5 |
| Wyoming | 14.1 | 98.9 | 49.1 | 12,433 | 4,752 | 7,645 | 50.1 | 49.5 |

Source: Medicaid Analytic Extract 2013.

Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.

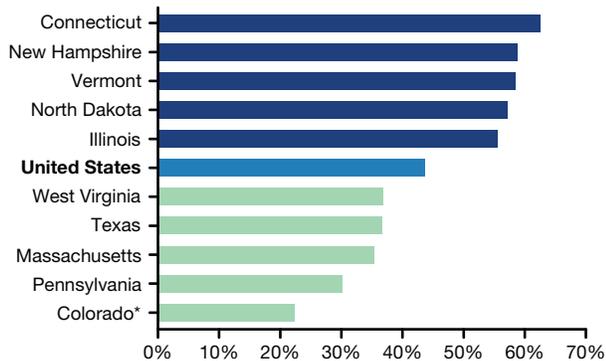
Note: Nationally, about 211,000 children and adults are reported as dual eligibles. This enrollment was very low across states and is not presented at the state level.

Figure 6.1
Percentage of Aged Medicaid Beneficiaries Who Were Duals in 2013: Top and Bottom Five States



Source: Medicaid Analytic Extract 2013.
 Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.

Figure 6.2
Percentage of Disabled Medicaid Beneficiaries Who Were Duals in 2013: Top and Bottom Five States



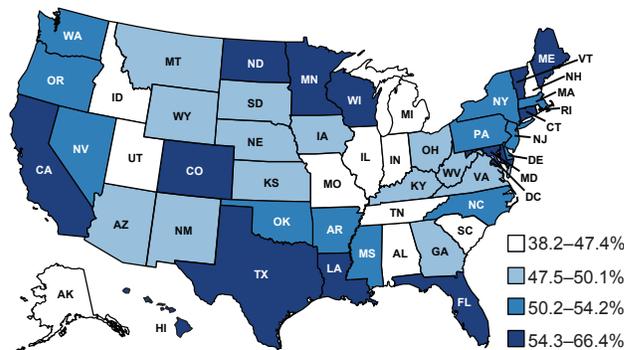
Source: Medicaid Analytic Extract 2013.
 Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.
 *Colorado's percentage of beneficiaries with disabilities who are duals decreased markedly from 2010 to 2012 and then remained steady in 2013 (from 37 percent in 2010 to 22 percent in 2012 and 2013). This may be related to the state's transition from MSIS to T-MSIS. See the 2012 and 2013 MAX anomaly tables for more details.

pared to about 44 percent with disabilities. However, beneficiaries eligible on the basis of disability represented a larger share of Medicaid beneficiaries in 2013 (15 percent, compared with 9 percent for the aged), so the composition of duals was weighted only slightly toward the aged (Appendix Table 2.6).

The percentage of duals who were aged or had disabilities varied significantly across states (Figure 6.3,

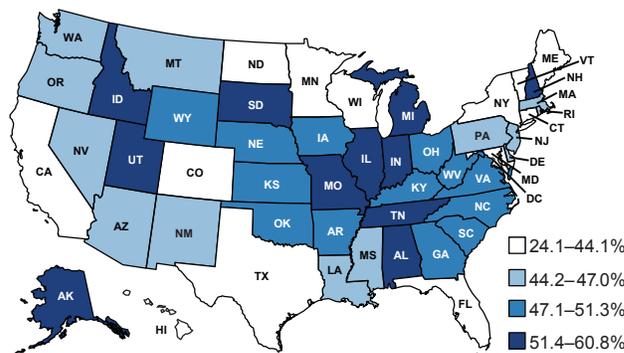
Figure 6.4, and Table 6.2). In Connecticut, Hawaii, and Texas, about two-thirds of duals were aged in 2013. In Illinois and Utah, however, less than 40 percent were aged. Utah had the highest percentage of duals with disabilities in 2013, at about 61 percent, whereas in Colorado, just 24 percent of duals had disabilities. Because the criteria for Medicare enrollment are the same in all states, these differences in the makeup of the dual population by state can be attributed to differences in the composition of state populations and state Medicaid eligibility policy.

Figure 6.3
Percentage of Duals (in Quartiles) Who Were Aged in 2013



Source: Medicaid Analytic Extract 2013.
 Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.

Figure 6.4
Percentage of Duals (in Quartiles) Who Were Disabled in 2013



Source: Medicaid Analytic Extract 2013.
 Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.

Restricted-Benefit Duals

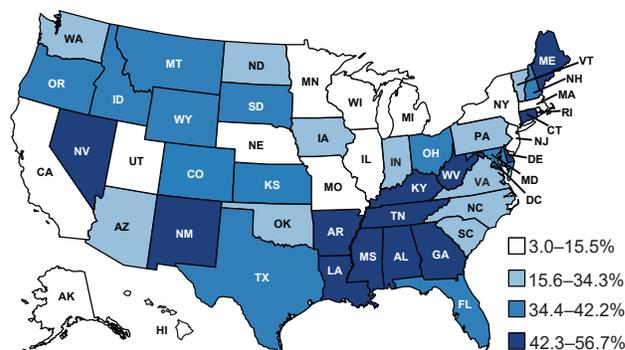
As discussed in Chapter 2, duals may be eligible for full or restricted Medicaid benefits. A person’s dual eligibility status can change, primarily as a result of changes in income. In MAX 2013, duals were assigned an annual code based on their status during their last month of eligibility in 2013, so that each dual was assigned to only one dual eligibility group. About 26 percent of all duals qualified for only restricted Medicaid benefits during their last month of dual eligibility in 2013. Some of these beneficiaries may have been eligible for full benefits at some point during the year. When this group of duals—those who qualified for only restricted benefits in their last month of dual eligibility in 2013—was limited to those who qualified for only restricted benefits in 2013, their Medicaid expenditures were generally quite low because they received only premium and cost-sharing assistance. In 2013, average Medicaid expenditures for restricted-benefit duals were \$764 per person—much lower than the average Medicaid expenditures of \$14,434 per dual who received full benefits for at least one month during the year (Appendix Table A6.2).

The percentage of duals that had restricted benefits in 2013 ranged from 3 percent in Alaska and California to 57 percent in Alabama (Figure 6.5 and Appendix Table A6.2).³⁶ In 29 states, more than one-quarter of duals had restricted benefits (Appendix Table A6.2). Several factors could account for this variability across states. A low percentage of restricted-benefit duals may reflect a state’s ability and willingness to provide full benefits to a greater percentage of low-income aged beneficiaries and those with disabilities. For example, states with poverty-related coverage expansions for people who were aged or had disabilities and had incomes up to 100 percent of the FPL generally had fewer restricted-benefit duals in 2013.³⁷

³⁶ Restricted-benefit duals were identified based on the annual dual code in MAX 2013.

³⁷ A list of states with poverty-related expansions for the aged and people with disabilities is in Chapter 1, Table 1.1.

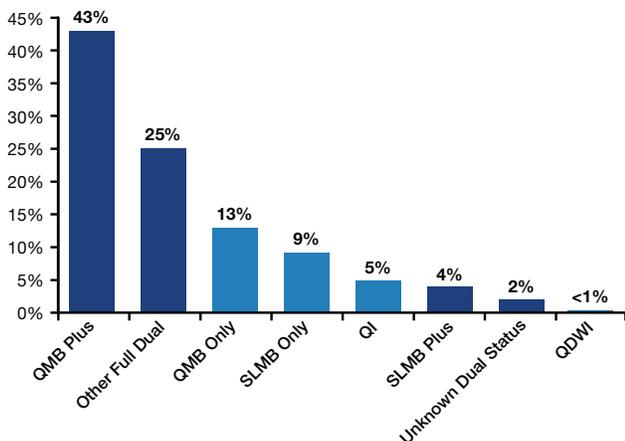
Figure 6.5
Percentage of Dual Eligibles (in Quartiles) with Restricted Medicaid Benefits in 2013



Source: Medicaid Analytic Extract 2013.
Dual status based on last month of dual eligibility.
Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.
Restricted benefit = duals with benefits limited to Medicare cost sharing.

There are four primary categories of duals: QMB, SLMB, QI, and QDWI. In general, these categories are distinguished by income, with QMBs having the lowest incomes and QIs and QDWIs the highest. Because state income eligibility criteria for aged beneficiaries and those eligible on the basis of disability vary, a dual in the QMB or SLMB categories could qualify for cost-sharing only (restricted-benefits dual) or cost-sharing plus full Medicaid eligibility (full-benefit dual), depending on state of residence. Nationally, 43 percent of all duals were QMB duals eligible for full Medicaid benefits (Figure 6.6). The next largest group, about 25 percent of duals, was “other” full-benefit duals, a designation indicating that a dual received full benefits but the state could not identify the dual category (QMB or SLMB). A smaller percentage were QMB duals eligible only for restricted Medicaid benefits (13 percent); SLMB duals eligible only for restricted Medicaid benefits (9 percent); QIs (5 percent), all of whom received only restricted benefits; and SLMB duals eligible for full Medicaid benefits (4 percent). Nationally, states reported a combined total of fewer than 120 QDWIs in 2013. The relatively large percentage of those with “other” or “unknown” dual status calls for caution

Figure 6.6
Dual Eligible Enrollment by Type of Dual Status in 2013



Source: Medicaid Analytic Extract 2013.
 Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.
 Note: Dual Status based on last month of dual eligibility.
 QI = Qualified Individual.
 QMB = Qualified Medicare Beneficiary.
 SLMB = Specified Low-Income Medicare Beneficiary.
 QDWI = Qualified Disabled Working Individual.
 Lighter blue bars indicate restricted-benefit dual eligibles while darker blue bars indicate full-benefit dual eligibles.

when disaggregating duals into specific categories for analysis, because the exact status of many of them (more than one-quarter) is unknown. However, this situation does not pose an issue for MAX data users who want to examine all full- or all restricted-benefit duals. (See Appendix Table A6.3 for state-level enrollment by dual type.)

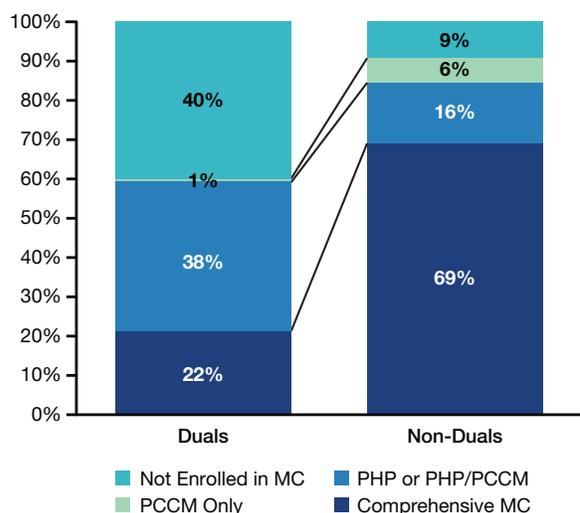
Because restricted-benefit duals are only eligible for Medicaid reimbursement of Medicare premiums and/or coinsurance and deductibles for Medicare services, the rest of this chapter focuses on Medicaid managed care enrollment and FFS expenditures and service utilization among full-benefit duals only.

Managed Care Enrollment Among Full-Benefit Duals

Nationally, duals were less likely than non-duals to be enrolled in Medicaid managed care in 2013. About 60 percent of full-benefit duals were enrolled in managed

care of some kind in 2013, compared to about 91 percent of full-benefit non-duals (Figure 6.7 and Appendix Table A6.4).³⁸ Lower rates of managed care participation among duals relative to non-duals could reflect the difficulty of either establishing risk-adjusted capitation rates for duals or coordinating care with Medicare coverage.

Figure 6.7
A Comparison of Managed Care (MC) Enrollment between Full-Benefit Dual and Non-Dual Medicaid Beneficiaries in 2013



Source: Medicaid Analytic Extract 2013.
 Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.
 PCCM = primary care case management.
 PHP = prepaid health plan.
 Comprehensive = HMO, HIO, or PACE.

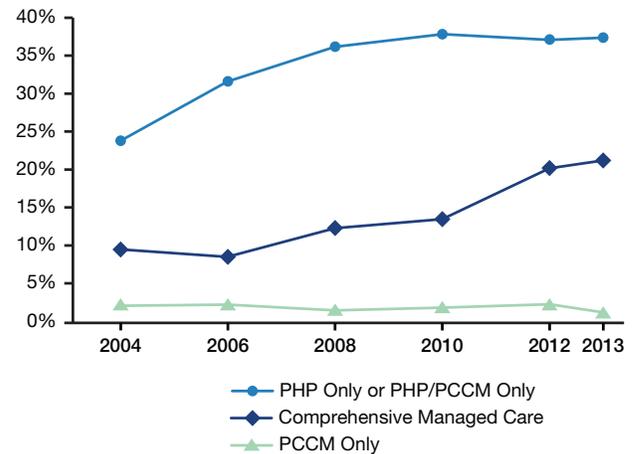
Nationally, comprehensive managed care enrollment (HMO, HIO, or PACE) was relatively low among duals, with only 22 percent of full-benefit duals enrolled in these plans compared to 69 percent of full-benefit non-duals. In 27 states, less than 5 percent of full-benefit duals were enrolled in comprehensive managed care in 2013 (Appendix Table A6.4). However, relatively high rates of comprehensive managed care enrollment among full-benefit duals in a small number of states drove the national comprehensive

³⁸ Restricted-benefit duals are not included in this analysis of managed care enrollment because they receive such limited benefits that they are generally ineligible for managed care coverage.

managed care enrollment rate up to 22 percent (only 12 states had comprehensive managed care enrollment rates above the national rate) (Figure 6.7). In particular, Hawaii and Tennessee had more than 98 percent of full-benefit duals enrolled in a comprehensive managed care plan in 2013. Both states operated statewide comprehensive managed care programs with mandatory enrollment for all population groups, including duals. In both states, these programs incorporated MLTSS.

Although comprehensive managed care enrollment remained relatively low among duals compared to non-duals in 2013, the rate more than doubled from 2004 (10 percent) to 2013 (22 percent) (Figure 6.8). Between 2010 and 2013 alone, rates of full-benefit duals enrolled in comprehensive managed care increased markedly, from 14 percent to 22 percent. This rate may continue to grow in subsequent years as CMS initiatives, such as the Financial Alignment Initiative, which supports states in integrating Medicare and Medicaid care for duals (including through a capitated model option), pave the way for states to serve more duals through comprehensive managed care plans (Kaiser Family Foundation 2017).

Figure 6.8
Percentage of Full-Benefit Dual Eligibles Ever-Enrolled in Managed Care, by Type of Plan: 2004–2013



Source: Medicaid Analytic Extract 2004-2013.

Dual = enrolled in both Medicare and Medicaid in at least one month in 2013. Duals with managed care enrollment are assigned to only one of the three groups.

Comprehensive managed care = HMO, HIO, or PACE.

Although rates of comprehensive managed care enrollment among duals generally were relatively low, 38 states enrolled at least some full-benefit duals in other forms of managed care in 2013—PHPs and PCCMs (Appendix Table 6.4). In several states, nearly all duals were enrolled in PHPs (Table 6.3).

Table 6.3
Percentage of Full-Benefit Duals Enrolled in Medicaid Managed Care in 2013, by Type of Plan, Top 10 States

| Ever Enrolled in Comprehensive Managed Care | | Enrolled in PHP Only or PHP/PCCM Only | | Enrolled in PCCM Only | |
|---|-------------|---------------------------------------|-------------|-----------------------|------------|
| State | Percentage | State | Percentage | State | Percentage |
| Hawaii | 99.5 | North Carolina | 98.3 | South Dakota | 16.5 |
| Tennessee | 98.7 | Iowa | 97.9 | Vermont | 7.3 |
| Kansas | 97.8 | South Carolina | 97.6 | Alabama | 4.8 |
| Delaware | 93.0 | Nevada | 97.0 | Montana | 4.5 |
| New Jersey | 79.1 | Mississippi | 96.9 | Illinois | 3.3 |
| Arizona | 71.8 | Louisiana | 95.6 | Florida | 2.5 |
| Kentucky | 68.8 | Oklahoma | 94.5 | Maine | 2.4 |
| Oregon | 63.1 | Washington | 94.3 | Iowa | 1.5 |
| Minnesota | 54.2 | Georgia | 94.3 | Indiana | 1.1 |
| Texas | 52.5 | Idaho | 91.3 | North Carolina | 0.8 |
| United States | 22.3 | United States | 37.6 | United States | 0.5 |

Source: Medicaid Analytic Extract 2013.

Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.

Duals with managed care enrollment are assigned to only one of the three managed care groups.

Comprehensive managed care = HMO, HIO, or PACE.

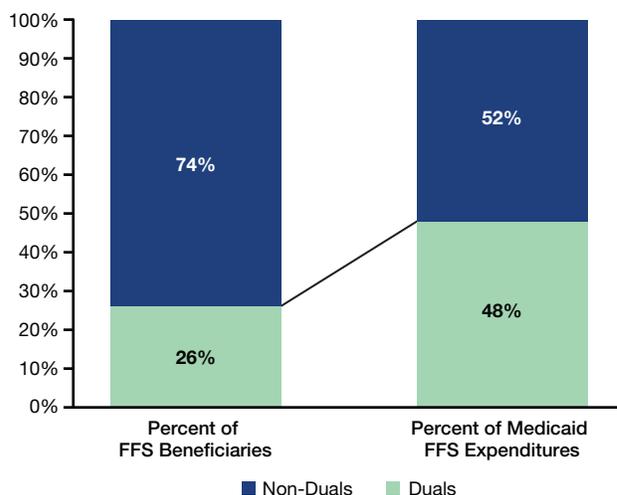
Because most PHP plans cover only a limited set of services, most dual beneficiaries in these states typically received targeted managed care benefits concurrently with FFS benefits for most services, and thus are included in the subset of “FFS duals” (defined as those not enrolled in a comprehensive managed care plan during the year) examined in more detail below. (Appendix Table A6.4 shows state-level managed care enrollment by plan type.) Between 2010 and 2013, the rates of duals enrolled in PHPs or concurrently in PHPs and PCCMs remained relatively unchanged (Figure 6.8).

Medicaid FFS Utilization and Expenditures Among FFS Duals

The following analysis presents information about FFS utilization and expenditures among FFS duals only—that is, full-benefit duals never enrolled in comprehensive managed care during 2013. For states with high rates of comprehensive managed care among full-benefit duals—particularly Arizona, Delaware, Hawaii, Kansas, Kentucky, Minnesota, New Jersey, Oregon, Tennessee, and Texas—FFS expenditures by type of service should be interpreted with particular caution. Cost information is available in MAX only for services paid for on an FFS basis. Because high-cost users may be enrolled in either FFS or managed care due to state policies, average FFS expenditures in states with high rates of enrollment in comprehensive managed care plans may greatly understate or overstate the true average cost for duals. More important, total FFS expenditures in these states understate the total cost of Medicaid care for duals.

Total FFS expenditures for FFS duals in 2013 were just under \$90 billion (Appendix Table 6.5). Duals represented about one-fourth (26 percent) of all FFS Medicaid beneficiaries but accounted for almost half (48 percent) of Medicaid FFS expenditures in 2013 (Figure 6.9). This finding is consistent with research suggesting that many duals require extensive and costly medical care.

Figure 6.9
Medicaid Enrollment and FFS Expenditures among Dual and Non-Dual FFS Beneficiaries in 2013



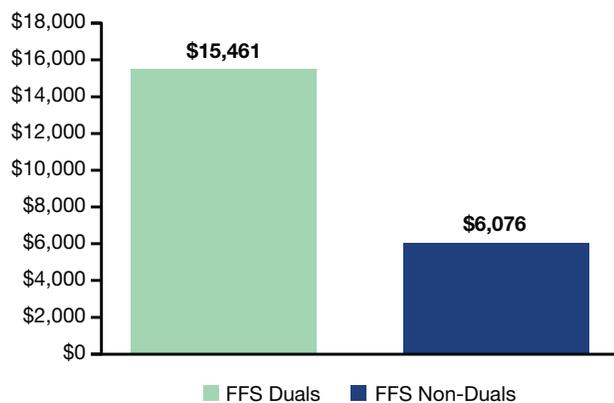
Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.
 Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.

A comparison of annualized per-beneficiary expenditures between dual and non-dual FFS beneficiaries—that is, average expenditures for the year based on person-years enrolled—indicates that the annualized FFS costs per dual (\$15,461) were about two and a half times higher than the costs per non-dual (\$6,076) (Figure 6.10). This differential is also evident when comparing average (non-annualized) costs per service user (\$16,251 for duals and \$5,893 for non-duals) (Figure 6.11).

Medicaid FFS expenditures per dual varied significantly across states (Figure 6.12). Several factors may account for these differences. High-expenditure states may have more generous Medicaid benefits. Low-expenditure states may have less stringent enrollment criteria, resulting in a higher number of less-expensive beneficiaries; may not extend Medicaid coverage to costly services that some Medicaid programs cover for duals, such as personal care through the State Plan; or may cover managed long-term services and supports through their comprehensive managed care contracts.

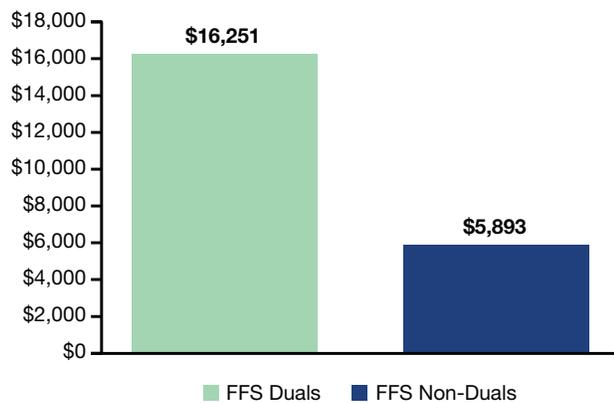
Notably, 4 of the 10 states included in Figure 6.12 with high or low costs per FFS dual have relatively low percentages of duals who are FFS. In Delaware, 7 percent of duals are FFS, whereas in 3 other states (Kansas, Hawaii, and Tennessee) this number is 2 percent or lower.

Figure 6.10
Comparison of Annualized Medicaid Fee-for-Service (FFS) Expenditures per Beneficiary between FFS Duals and Non-Duals in 2013



Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.
 Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.

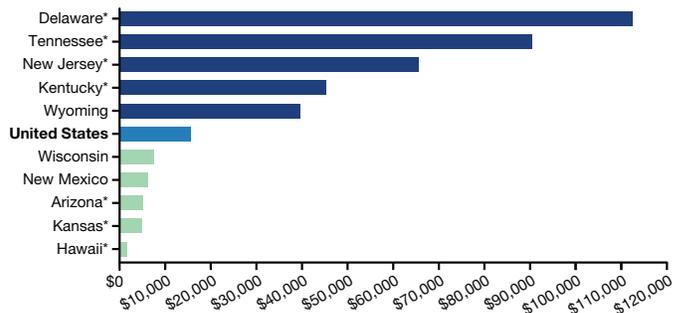
Figure 6.11
Comparison of Average Medicaid Fee-for-Service (FFS) Expenditures per Service User between FFS Duals and Non-Duals in 2013



Source: Medicaid Analytic Extract 2013.
 FFS beneficiaries = full-benefit beneficiaries not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.
 Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.

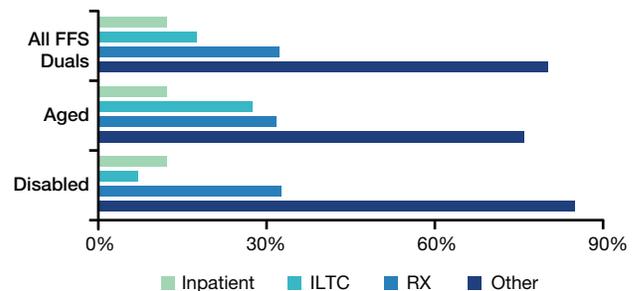
Annualized expenditures per FFS aged dual were about 23 percent higher than for those eligible on the basis of disability (\$17,258, compared to \$13,997) in 2013 (Appendix Table A6.5). This difference can be attributed to higher rates of ILTC use among aged duals (Figure 6.13). ILTC was the costliest service among FFS dual beneficiaries, accounting for about half of their expenditures (52 percent) in 2013 (Figure 6.14). As might be expected, total ILTC expenditures were much

Figure 6.12
Annualized FFS Expenditures per FFS Dual in 2013: Top and Bottom Five States



Source: Medicaid Analytic Extract 2013.
 FFS duals = full-benefit duals not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.
 Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.
 *FFS duals represented fewer than 50 percent of duals in Arizona, Delaware, Hawaii, Kansas, Kentucky, New Jersey, and Tennessee.

Figure 6.13
Percentage of FFS Duals Using Four Major Types of Service in 2013

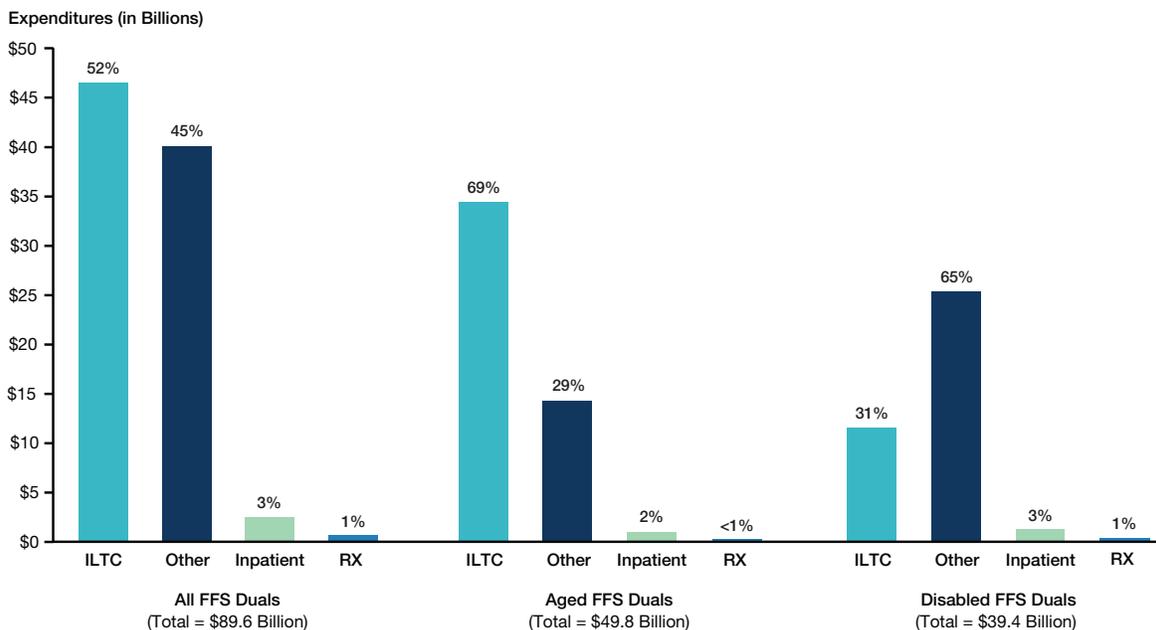


Source: Medicaid Analytic Extract 2013.
 Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.
 FFS duals = full-benefit duals not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

higher among aged duals (\$34.4 billion), who tended to use such services more than their counterparts with disabilities (\$12.1 billion) (Figure 6.14, Appendix Table 6.9, and Appendix Table

6.11). (Appendix Tables A6.5 through A6.11 and A4.9 through A4.16 present state-level detail on dual service utilization and expenditures by basis of eligibility and type of service.)

Figure 6.14
Medicaid Fee-for-Service (FFS) Expenditures among FFS Duals in 2013, by Type of Service



Source: Medicaid Analytic Extract 2013.

Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.

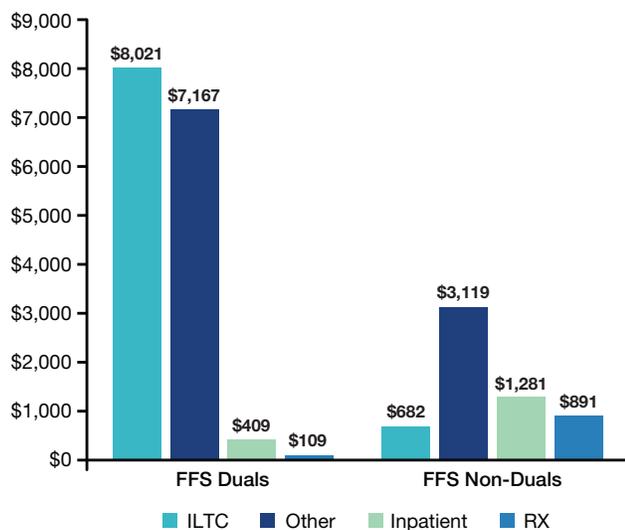
FFS duals = full-benefit duals not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

As in the overall Medicaid FFS population, duals used other services (non-inpatient medical services, those included in the OT file) at a higher rate than any other service (Figure 6.13 and Appendix Table A3.9).³⁹ The highest shares of other FFS expenditures among duals were for HCBS, including personal care services, residential care, home health, and adult day care (Appendix Tables A4.12 and A6.7). FFS duals used inpatient services at a lower rate than “other” services in 2013 (12 percent of FFS duals used inpatient services) (Figure 6.13)—similar to

the rate among FFS non-duals (9 percent) (data not shown). However, because Medicare Part A covers inpatient care for duals, annualized per-beneficiary FFS expenditures for these services (\$409) (Figure 6.15) were low compared to annualized per-beneficiary inpatient expenditures for non-dual Medicaid beneficiaries (\$1,281). Medicaid FFS expenditures on prescription drugs (included in the RX file) for duals have dropped substantially since the implementation of Medicare Part D in 2006. Prescription drug expenditures for FFS duals were \$0.6 billion in 2013 (a decrease from \$1.1 billion in 2010) and accounted for only 1 percent of FFS expenditures among FFS duals (Borck 2014) (Appendix Table

³⁹Other services include HCBS; physician and other ambulatory services; and lab, x-ray, supplies, and other wraparound services. See Chapter 4 for details on type-of-service categories.

Figure 6.15
Annualized Fee-for-Service (FFS) Expenditures
among Dual and Non Dual FFS Beneficiaries in
2013, by Type of Service



Source: Medicaid Analytic Extract 2013.
 Dual = enrolled in both Medicare and Medicaid in at least one month in 2013.
 FFS duals = full-benefit duals not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2013.

A6.7, Figure 6.14). In 2004, before Medicare Part D implementation, FFS expenditures for prescription drugs were about \$21 billion, accounting for about 22 percent of FFS expenditures for duals (Perez et al. 2008). Although Medicare is now the primary payer for prescription drugs, state Medicaid programs continue to finance a significant share of prescription expenses for duals; they continue to cover prescription drugs not covered by Medicare plans if the drugs are covered in the state for other Medicaid populations. Also, states pay Medicare a portion of the prescription drug costs for duals in the state through a “clawback” provision (Kaiser Family Foundation 2005); state clawback payments totaled \$8.4 billion in fiscal year 2013 (NASBO 2014). These payments are not included in MAX data.

7. Waiver Enrollment and Utilization

State Medicaid programs must adhere to the provisions of Title XIX of the Social Security Act to receive federal matching funds. As discussed in Chapter 1, these provisions require that states cover certain populations and services. The Act includes additional stipulations related to service delivery and benefit packages, including the following:

- *Freedom of choice.* Beneficiaries must be allowed to choose any authorized provider of services.
- *Statewideness.* Eligibility rules, benefit packages, and reimbursement rates must be the same throughout the state.
- *Comparability.* Benefits offered to one categorically eligible group must be comparable in amount, duration, and scope to those offered to other categorical eligibility groups.

If states want to expand eligibility or services beyond what Title XIX allows or provide them in a way that differs from what its provisions allow, they must obtain a waiver from CMS. Under the Social Security Act, states can apply for four different types of Medicaid waivers:

1. *Section 1115 waivers.* These waivers allow states to implement demonstration projects that test policy innovations likely to further the objectives of the Medicaid program. States use these waivers for a variety of purposes—most commonly to expand Medicaid coverage to otherwise ineligible

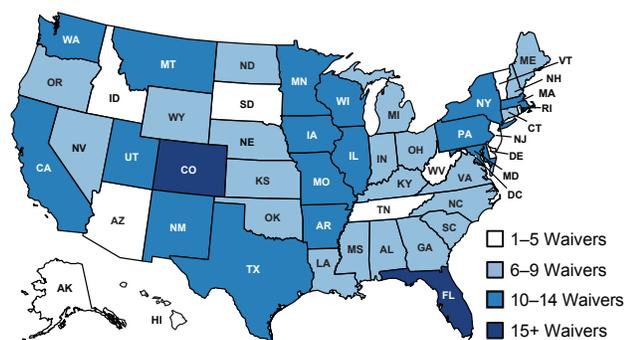
groups or implement a delivery system change, such as managed care.

2. *Section 1915(b).* States can use these waivers to implement mandatory managed care delivery systems or otherwise limit individuals' choice of providers under Medicaid.
3. *Section 1915(c) HCBS.* These waivers allow states to extend their benefit plans to offer long-term care services beyond the scope of the allowed Medicaid benefit package and serve individuals in community settings. These services offer an alternative for people who would otherwise need institutional care. States can target these waivers to geographic areas within the state and subpopulations of beneficiaries.
4. *Section 1915(b)(c).* These waivers incorporate both 1915(b) and 1915(c) program authorities to provide long-term care services, including HCBS, through managed care or other provider choice restrictions. These waivers must meet all federal requirements for both waiver types.

In 2013, every state had at least one Medicaid waiver. Most states maintained multiple waivers of different types, with 39 states operating six or more waivers in 2013 (Figure 7.1). Florida had the most waivers in 2013, including 14 HCBS waivers, four 1915(b) waivers, three 1915(b)(c) waivers, and three 1115 waivers (see the MAX 2013 waiver crosswalk for more detail). The states with the fewest waivers in 2013 were

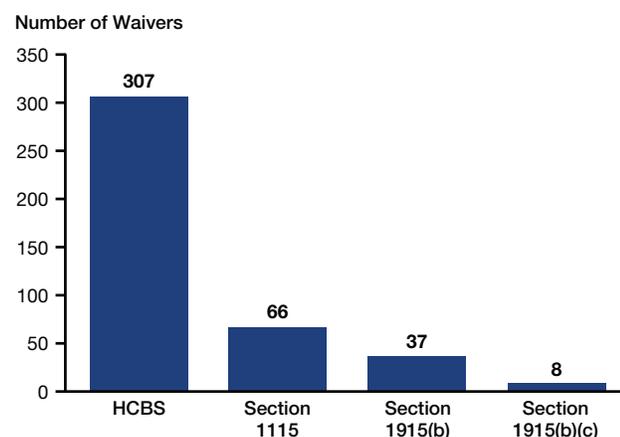
Arizona, with one 1115 waiver; Delaware, Hawaii, and New Jersey (each with one 1115 waiver and one HCBS waiver); and Rhode Island and Vermont (each with two 1115 waivers). Nationally, HCBS waivers were the most utilized type, with 307 active waivers of this type identified in MAX in 2013 (Figure 7.2).

Figure 7.1
Number of Medicaid Waivers per State in 2013



Source: MAX 2013 waiver crosswalk.
Note: Waiver count includes all CMS-approved Medicaid waivers that were active at any time during 2013.
Many states have several populations under a single global 1115 waiver; in some cases each population is counted individually for the purposes of this figure. See the MAX 2013 waiver crosswalk for more detail.

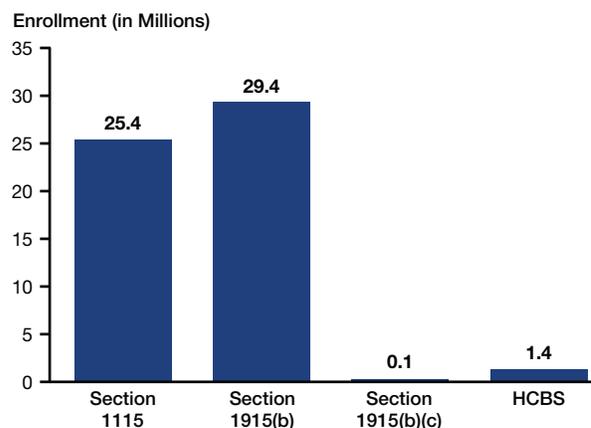
Figure 7.2
Number of Waivers by Type in 2013



Source: MAX 2013 waiver crosswalk.
Note: Waiver count includes all CMS-approved Medicaid waivers that were active at any time during 2013.

Despite their large number, HCBS waivers covered disproportionately fewer Medicaid beneficiaries than Section 1915(b) or 1115 waivers in 2013 (Figure 7.3).

Figure 7.3
Medicaid Enrollment by Type of Waiver in 2013



Source: Medicaid Analytic Extract 2013.
Note: Includes enrollment reported in all CMS-approved Medicaid waivers that were active at any time during 2013.

HCBS waivers typically target specific, relatively small populations, whereas 1915(b) and 1115 waivers in many states enrolled large majorities of the state Medicaid population. For example, California’s Specialty Mental Health 1915(b) waiver—the Medicaid waiver with the most enrollees in 2013—had between 8 and 9 million enrollees a month (data not shown). The smallest HCBS waiver enrolled fewer than 20 people a month (data not shown). In 2013, about 1.4 million Medicaid beneficiaries were enrolled in HCBS waivers (Figure 7.3). By comparison, about 29 million were covered by 1915(b) waivers. About 25 million Medicaid beneficiaries were enrolled in Section 1115 waivers in 2013; of these, 5.2 million were expansion beneficiaries who would otherwise have been ineligible for Medicaid. (For more detail, see Appendix Tables A7.1 to A7.3a.)⁴⁰ Individuals can be enrolled in more than one waiver at a time. For example, a Medicaid beneficiary who received managed behavioral health services through a 1915(b) waiver could also receive HCBS through a 1915(c) waiver.

⁴⁰ Appendix Table A7.2 shows combined enrollment in 1915(b) and 1915(b)(c) waivers, both nationally and by state. Figure 7.3 separates these numbers into enrollment in 1915(b) and 1915(b)(c) waivers.

States reported limited information about waiver enrollment and expenditures in MSIS until FFY 2005. At that time, Medicaid waiver data in MSIS improved notably when states began reporting HCBS waiver enrollment. States also continually work to improve reporting for Section 1115 and 1915(b) waivers; researchers should consult the MAX 2013 eligibility anomaly tables for more information about waiver-reporting anomalies. The MAX 2013 waiver crosswalk also includes detailed information about each state's Medicaid waivers.⁴¹ The rest of this chapter provides an overview of some of the analyses of waiver enrollment and expenditure data possible with MAX data, focusing on each type of Medicaid waiver: Section 1115, Section 1915(b) and Section 1915(b)(c), and HCBS.⁴²

Section 1115 Research and Demonstration Project Waivers

Section 1115 waivers enable states to test new and innovative approaches for providing Medicaid services. Section 1115 of the Social Security Act includes broad authority for the Secretary of the U.S. Department of Health and Human Services (HHS) to authorize experimental, pilot, or demonstration projects likely to assist in promoting the objectives of the Medicaid statute. To receive approval, states must demonstrate that a 1115 waiver program will be budget neutral for the federal government; in addition, the waiver must include an evaluation component.

In 2013, 41 states maintained 1115 waivers, which they used for diverse purposes. Table 7.1 shows the populations covered under 1115 waivers in each

state in 2013. (See Appendix Table A7.1 for state-level enrollment in 1115 waivers.) State demonstrations operated under 1115 waivers in 2013 included the following:

- *Delivery system changes*, such as mandatory enrollment in managed care. Such changes can apply to specific eligibility groups (such as all children in the state) or geographic regions (such as major cities or statewide). For example, New York's Partnership Plan Section 1115 waiver implemented mandatory comprehensive managed care enrollment for most Medicaid beneficiaries in select counties.
- *Coverage expansions with targeted benefits for specific populations*, such as a Medicaid expansion program with benefits tailored to uninsured individuals with HIV/AIDS in Delaware, Maine, and Massachusetts, and a prescription drug coverage program for aged beneficiaries in Wisconsin.
- *Coverage expansions with basic benefit packages for broader uninsured populations*, such as Utah's Primary Care Network 1115 waiver program. This waiver extended preventive and primary health care services to beneficiaries who otherwise would not have been covered in Medicaid.
- *Combinations of coverage expansions and delivery system changes*, such as Arizona's Health Care Cost Containment System 1115 waiver. Through this waiver, Arizona provided medical, behavioral, and long-term care services through a prepaid, capitated managed care delivery model for Medicaid state plan groups, including the elderly and persons with disabilities who receive long-term care services; as well as expansion groups, including parents and caretakers. In addition, the demonstration provided payments to Indian Health Service and tribal facilities to address the fiscal burden for certain uncovered services. Like Arizona, many states combined the implementation of managed care or other cost-saving approaches with expansion programs to ensure that the waiver remained budget neutral.

⁴¹ The MAX 2013 anomaly tables and waiver crosswalk are available at <https://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSources-GenInfo/MAXGeneralInformation>. To access the crosswalk, download the "MAX Data 2013 General Information" file, and open Waiver_Crosswalk_MAX_2013.xlsx.

⁴² Section 1915(b)(c) waivers are presented with Section 1915(b) waivers because they offer more extensive services than those offered in HCBS waivers.

Table 7.1
Section 1115 Waivers in MAX 2013

| State | 1115 Waiver Expands Medicaid Eligibility and/or Extends Targeted Coverage to a Special Population | | | | | | | | | | |
|-------------------------------|---|---|----------------|--------------------|--------------------|--------------------------|-------------------------------|---------------------------|-----------------------------------|--------------------------|-------------------------------------|
| | No Section 1115 Waiver | Section 1115 Waiver with Non-Expansion Components | Aged Expansion | Disabled Expansion | Children Expansion | Pregnant Women Expansion | Parents/ Caretakers Expansion | Childless Adult Expansion | Family Planning Only ^a | HIV-Positive Individuals | Prescription Drug Only ^a |
| Total Number of States | 10 | 25 | 5 | 10 | 11 | 10 | 19 | 27 | 21 | 3 | 2 |
| Alabama | | | | | | | | | ♦ | | |
| Alaska | ♦ | | | | | | | | | | |
| Arizona | | ♦ | | | | | NR | ♦ | ♦ | | |
| Arkansas | | ♦ | | ♦ | ♦ | | NR | NR | ♦ | | |
| California | | ♦ | | | | | | NR | | | |
| Colorado | | | | | | NR | | NR | | | |
| Connecticut | ♦ | | | | | | | | | | |
| Delaware | | ♦ | | | | | ♦ | ♦ | ♦ | ♦ | |
| District of Columbia | | | | | | | | ♦ | | | |
| Florida | | ♦ | ♦ | ♦ | | | | | ♦ | | |
| Georgia | | | | | | | | | ♦ | | |
| Hawaii | | ♦ | | ♦ | ♦ | ♦ | ♦ | ♦ | | | |
| Idaho | | ♦ | | | | | | ♦ | | | |
| Illinois | | | | | | | | ♦ | ♦ | | |
| Indiana | | ♦ | | | | | ♦ | ♦ | | | |
| Iowa | | ♦ | | | ♦ | ♦ | ♦ | ♦ | ♦ | | |
| Kansas | | ♦ | | | | | | | | | |
| Kentucky | ♦ | | | | | | | | | | |
| Louisiana | | | | | | | ♦ | ♦ | ♦ | | |
| Maine | | | | | | | | ♦ | | ♦ | |
| Maryland | | ♦ | | | | | ♦ | ♦ | ♦ | | |
| Massachusetts | | ♦ | | ♦ | ♦ | ♦ | ♦ | ♦ | | ♦ | |
| Michigan | | | | | | | | ♦ | ♦ | | |
| Minnesota | | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | | |
| Mississippi | | - | ♦ | ♦ | | | | | ♦ | | |
| Missouri | | | | | | | | NR | ♦ | | |
| Montana | | ♦ | | ♦ | | | | | ♦ | | |
| Nebraska | ♦ | | | | | | | | | | |
| Nevada | | ♦ | | | | | | | | | |
| New Hampshire | ♦ | | | | | | | | | | |
| New Jersey | | ♦ | | | | ♦ | ♦ | ♦ | | | |
| New Mexico | | ♦ | | | ♦ | | ♦ | ♦ | | | |
| New York | | ♦ | | | | | ♦ | ♦ | | | |
| North Carolina | | | | | | | | | ♦ | | |
| North Dakota | ♦ | | | | | | | | | | |
| Ohio | ♦ | | | | | | | | | | |
| Oklahoma | | ♦ | | ♦ | | | ♦ | ♦ | | | |
| Oregon | | ♦ | | | ♦ | ♦ | ♦ | ♦ | NR | | |
| Pennsylvania | | | | | | | | | ♦ | | |
| Rhode Island | | ♦ | | | ♦ | ♦ | ♦ | | ♦ | | |
| South Carolina | ♦ | | | | | | | | | | |
| South Dakota | ♦ | | | | | | | | | | |
| Tennessee | | ♦ | ♦ | ♦ | ♦ | | | | | | |
| Texas | | NR | | | | | | | | | |
| Utah | | | | | | ♦ | ♦ | ♦ | | | |
| Vermont | | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | | | ♦ |
| Virginia | | ♦ | | | | | | | | | |
| Washington | | | | | | | | NR | ♦ | | |
| West Virginia | ♦ | | | | | | | | | | |
| Wisconsin | | | | | ♦ | | ♦ | ♦ | | | ♦ |
| Wyoming | | | | | | | | | ♦ | | |

Source: Medicaid Analytic Extract 2013.

Notes: Some states have several Section 1115 waivers. These waivers have been combined to show total Section 1115 waiver coverage in a single row per state. See the MAX 2013 waiver crosswalk for additional details of state waiver reporting in MAX and information about individual Section 1115 waivers. Many Section 1115 waivers include coverage expansions as well as other components that do not expand Medicaid coverage.

NR = not reported in MAX 2013 data.

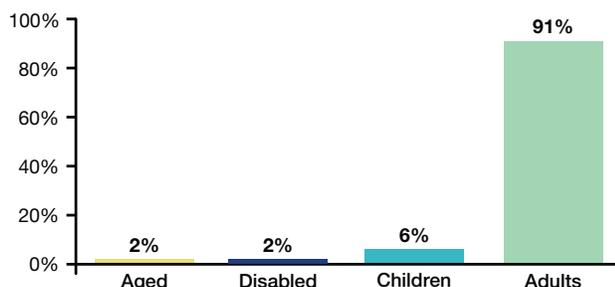
^aPrescription drug-only and family planning-only waivers extend coverage for these services only to individuals who are otherwise not eligible for Medicaid.

In 2013, almost all states with Section 1115 waivers used this authority to extend coverage to people who otherwise were ineligible for Medicaid. Adults made up the largest group receiving Medicaid coverage through a 1115 expansion in 2013, accounting for 91 percent of all 1115 expansion enrollees (Figure 7.4). Overall, about 22 percent of all Medicaid-covered adults in 2013 were covered through 1115 waiver expansions, compared to about 1 percent of all aged beneficiaries and less than 1 percent of all child beneficiaries and beneficiaries eligible on the basis of a disability (Figure 7.5 and Appendix Table 7.1).

States had limited options outside of 1115 waivers for covering low-income adults in 2013. With one exception, all 27 states that covered low-income adults in 2013 did so through 1115 waivers, either through a 1115 waiver alone or a combination of a 1115 waiver and a state plan amendment. The one exception was Connecticut, which covered low-income adults through a state plan amendment alone. A subset of states used these authorities to adopt early expansion of the ACA (see Figure 1.1).

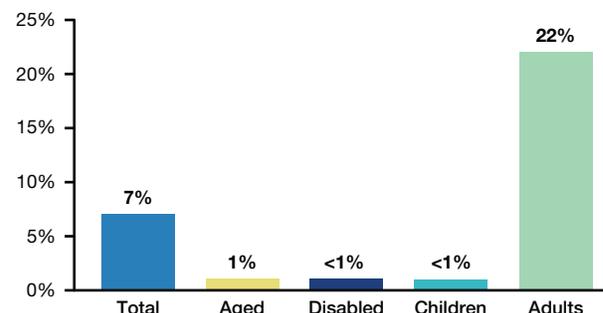
Other common 1115 expansions for adults in 2013 included those to higher-income pregnant women, parents or caretaker relatives of children enrolled in

Figure 7.4
Percentage of Section 1115 Expansion Enrollees by Basis of Eligibility in 2013



Source: Medicaid Analytic Extract 2013.

Figure 7.5
Percentage of Medicaid Beneficiaries Eligible Through Section 1115 Waiver Expansions



Source: Medicaid Analytic Extract 2013.

Medicaid or CHIP, and more targeted expansions that included family planning services only. Some states also used 1115 waivers to expand coverage to children, the aged, and people with disabilities, but these programs were generally smaller and more targeted, and occurred in combination with expansions for adults. This concentration on adult populations for 1115 expansions is expected to shift over time because states have expanded Medicaid eligibility to adults under the ACA beginning in 2014.

Due to differences in eligibility requirements and waiver operating systems, among other factors, the rates at which adults were enrolled in Medicaid through 1115 waivers varied greatly at the state level (Figure 7.6 and Appendix Table 7.1). For example, in Vermont, more than 79 percent of adults entered Medicaid through the state's 1115 waiver, which operates under a publicly sponsored managed care organization with mandatory enrollment for many adult Medicaid beneficiaries. Conversely, in Idaho, just 1 percent of adults entered Medicaid through the state's 1115 waiver—a more targeted waiver that offers assistance to low-income adults who are employees or the spouse of an employee of a small business.

States that expand Medicaid coverage through 1115 waivers can provide more limited benefit packages

Table A7.4). Furthermore, just 4 percent of adults received only family planning waiver services during the year, compared to 21 percent in 2010. As more states adopt this approach in subsequent years, the number of beneficiaries receiving family planning services through state plans can be expected to increase.

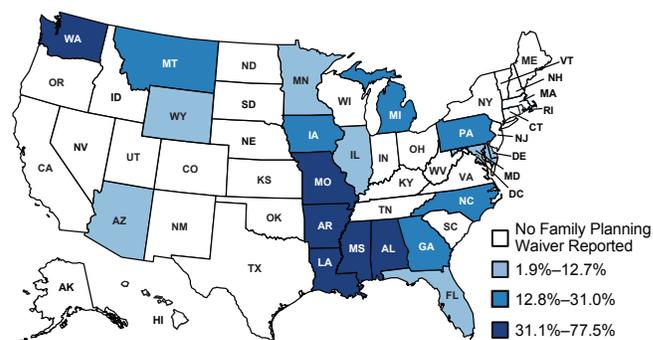
Among states with family planning waivers, the percentage of adult Medicaid beneficiaries who were family planning enrollees ranged from a low of 2 percent of adult beneficiaries in Arizona to 78 percent in Alabama (Figure 7.7 and Appendix Table A7.4). In addition to differences in program size, the percentage of family planning waiver enrollees is affected by the size of the full-benefit adult population in the state, which varies with the state's income eligibility standards and the percentage of eligible adults who enroll in Medicaid. States in which a large percentage of the adult population received only family planning services tended to be those otherwise more restrictive in coverage for adults; for example, with lower income eligibility limits for that population. Because family planning enrollees receive very limited benefits, expenditure and service utilization analyses that include them may cause such states to differ considerably from those that do not have family planning programs.⁴⁷

A small percentage of adult Medicaid beneficiaries (3 percent) transitioned between family planning waivers and other Medicaid benefits during 2013 (Figure 7.8). They represent about 39 percent of all family planning enrollees. This pattern varied considerably across states that maintained such programs. Less than 10 percent of the family planning enrollees in Montana received any other Medicaid coverage during the year. In other states, family planning enrollees moved more

⁴⁷ As discussed in Chapter 2, people who received only family planning benefits in 2012 were identified as restricted-benefit beneficiaries in this analysis and excluded from the population of full-benefit beneficiaries in this chartbook.

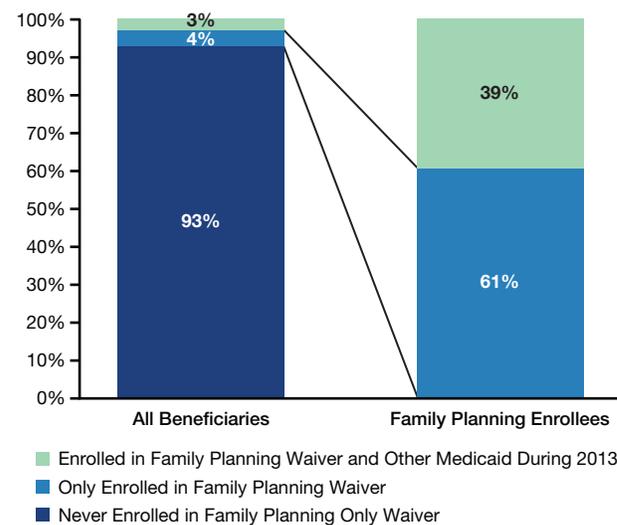
regularly between this coverage and full Medicaid benefits. In Florida, a vast majority of family planning enrollees received other Medicaid benefits at some point during 2013 (data not shown). Florida's 1115

Figure 7.7
Percentage of All Adult Medicaid Beneficiaries (in thirds) Enrolled In Family Planning Waivers during 2013



Source: Medicaid Analytic Extract 2013.
Oregon had a family planning waiver in 2013 but did not report enrollment in MAX.
Rhode Island had a family planning waiver in 2013 but reported it as a regular Section 1115 demonstration waiver in MAX.
Note: States are grouped according to each state's percentage of all Medicaid beneficiaries enrolled in a family planning waiver in 2013.

Figure 7.8
Percentage of All Adult Medicaid Beneficiaries Enrolled in Family Planning Waivers and Other Medicaid in 2013



Source: Medicaid Analytic Extract 2013.
Note: Family planning enrollees receive only the benefits specified in the waiver while enrolled in the waiver.

demonstration waiver targeted women with family income at or below 191 percent of the FPL; they lose Medicaid eligibility after 24 months postpartum, whereas other states generally targeted all eligible women otherwise ineligible for Medicaid.

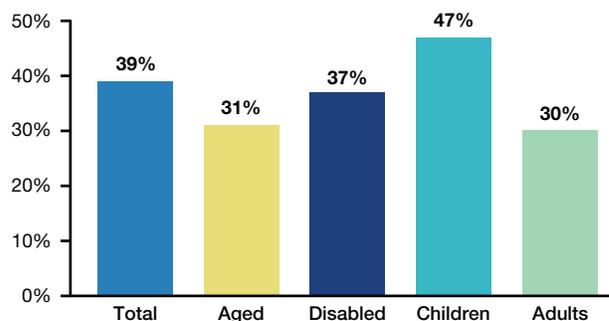
Section 1915(b) Managed Care/Freedom of Choice Waivers

The Omnibus Budget Reconciliation Act of 1981 established Section 1915(b) waivers, which allow states to waive statewideness, comparability of services, and/or freedom of choice, and require individuals to enroll in managed care plans for some or all of their Medicaid benefits. Mandatory managed care plan benefit packages must provide, at a minimum, the benefit package covered under the regular Medicaid state plan, but states can use cost savings from the use of managed care to add to the services covered under managed care contracts.

In 2013, 23 states used Section 1915(b) or 1915(b)(c) waivers to place some or all of their Medicaid population into managed care of some kind. (State-level enrollment in Section 1915(b) and 1915(b)(c) waivers reported in MAX is shown in Appendix Table A7.2.) Managed care programs operated via 1915(b) waivers include the full range of Medicaid managed care types, from PHPs to comprehensive managed care plans. In 2013, states frequently used 1915(b) waivers to implement managed care programs providing specialty services, most commonly including mental health services, non-emergency transportation, and dental services. In California and Washington State, 1915(b) waiver use was limited to placing beneficiaries into behavioral health plans. States may also use 1915(b) waivers to place different populations into different kinds of managed care. For example, Kentucky's managed care waivers placed beneficiaries into non-emergency transportation and comprehensive managed care plans.

Nationally, about 29.5 million beneficiaries, or 39 percent of all Medicaid beneficiaries, were placed into some form of managed care by Section 1915(b) or 1915(b)(c) waivers (Figure 7.9 and Appendix Table A7.2). Large programs in some states accounted for much of this enrollment. California used 1915(b) waivers to place about 10.4 million beneficiaries, or about 79 percent of the state's total Medicaid population, into PHPs that provided them with mental health services. Florida placed about 3.8 million beneficiaries in comprehensive managed care as well as non-emergency transportation, mental health, long-term care, and disease management PHPs.

Figure 7.9
Percentage of All Medicaid Beneficiaries in Section 1915(b) or 1915(b)(c) Waivers in 2013



Source: Medicaid Analytic Extract 2013.

Florida, Maine, Nebraska, and Texas had active Section 1915(b) waivers in 2013 that were not fully reported in MAX.

Florida had an active Section 1915(b)(c) waiver in 2013 that was not fully reported and an HCBS waiver that was reported as a Section 1915(b) waiver in MAX 2013.

Maine reported one HCBS waiver as a Section 1915(b) waiver in MAX 2013.

Seven states (Florida, Louisiana, Michigan, Minnesota, New Mexico, North Carolina, and Pennsylvania) used combination Section 1915(b)(c) waivers to implement mandatory managed care programs that included HCBS.⁴⁸ Managed care programs implemented under these waivers included comprehensive managed care as well as plans that provided coverage for behavioral or other specialty managed care. These programs

⁴⁸ With the exception of Louisiana, each of these states also operated a separate Section 1915(b) waiver in 2013.

ranged from coordinated systems of care for severely emotionally disturbed children in Louisiana to comprehensive managed care for eligible adults age 65 or older, including those dually eligible for Medicare, in Minnesota. Because these programs included HCBS, they generally targeted beneficiaries who were aged or had disabilities. For example, in Minnesota, aged beneficiaries could elect to enroll in the state's integrated Medicare managed care program or be enrolled in the state's 1915(b) Senior Care managed care and HCBS combination program.

In 2013, states had multiple options for placing Medicaid beneficiaries in managed care beyond 1915(b) waivers, including 1115 waivers and state plan options. For this reason, managed care programs offered under 1915(b) waivers represented only a fraction of Medicaid managed care in 2013. See Chapter 5 for more detail on all Medicaid managed care in 2013.

Section 1915(c) Home- and Community-Based Services Waivers

Since 1982, Section 1915(c) of the Social Security Act has authorized the Secretary of HHS to waive Medicaid provisions, thus allowing long-term care services to be delivered in home and community settings to people who otherwise would require care in an institution. Section 1915(c) waivers (also called HCBS waivers) give the aged and beneficiaries eligible on the basis of a disability more options for long-term care services through Medicaid. HCBS waivers also help states respond to the requirement that people with disabilities be served in the most integrated setting possible.⁴⁹ To serve an individual in an HCBS waiver, the state must use a standard evaluation process to determine whether the individual requires an institutional level of care.

⁴⁹ This requirement was established in 1999 in the U.S. Supreme Court's *Olmstead v. L.C.* decision.

Medicaid services covered under HCBS waivers can include medical services, such as skilled nursing and dental services, as well as nonmedical services, such as case management, personal care, homemaker services, adult day care, respite care, and transportation. These waivers are also used for environmental adaptations, habilitation, pre-vocational training, and supported employment. The services offered in an HCBS waiver cannot duplicate those provided under a Medicaid state plan, but states can use these waivers to augment services in their state plan by raising the amount, duration, or frequency of covered services for waiver participants. States can also use these waivers to waive certain income and resource rules, and cover services in the community that otherwise would be available only in an institutional setting.

With the exception of Arizona, Rhode Island, and Vermont, every state maintained at least one HCBS waiver in 2013 (data not shown).⁵⁰ These three states had programs similar to HCBS waiver programs but operated them through 1115 waivers instead. Since 1999, states have reported services provided through HCBS waivers in their MSIS data. In FFY 2005, the information in MSIS about HCBS waivers became more complete when states started reporting monthly HCBS waiver enrollment. At that time, CMS also began reporting more detailed information in MAX about the population that each HCBS waiver targets.

Because of the eligibility requirements for HCBS waivers, they almost exclusively target beneficiaries who are aged or have disabilities; also, in 2013, nearly 70 percent of HCBS waiver enrollees were duals. Although dual HCBS waiver enrollees were evenly split between those who were aged or had disabilities, nearly all non-dual HCBS waiver enrollees had disabilities (Appen-

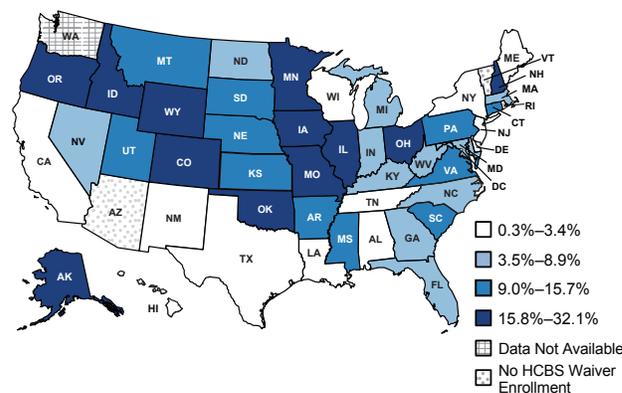
⁵⁰ Massachusetts and Washington State maintained HCBS waivers, but because of data system limitations, this enrollment was not reported in MAX 2013. For more information about these and other waiver reporting anomalies, see the MAX 2013 anomaly tables and the MAX 2013 waiver crosswalk.

dix Table A7.6). Nationally, between 7 and 8 percent of all Medicaid beneficiaries who were aged or had disabilities were enrolled in HCBS waivers in 2013 (Appendix Table A7.3a). Among states reporting HCBS waiver enrollment, enrollment rates among beneficiaries who were aged or had disabilities varied considerably in 2013, from less than 1 percent of aged beneficiaries in Tennessee, Hawaii, Delaware, the District of Columbia, New Jersey, and New Mexico to 32 percent in Illinois (Figure 7.10), and from less than 1 percent of beneficiaries with disabilities in Massachusetts to 26 percent in Wyoming (Figure 7.11). With the exception of the District of Columbia, states with HCBS waiver enrollment rates of less than 1 percent provided HCBS to these populations through long-term support services (LTSS) incorporated into comprehensive managed care plans (Centers for Medicare & Medicaid Services 2015). States in the Midwest and West generally had high rates of HCBS waiver enrollment.

Most states maintained multiple HCBS waivers and targeted specific services to defined populations, such as elderly people or those under 65 with physical disabilities. States may also target services on the basis of disease or condition, such as brain injuries or autism. In 2013, states targeted HCBS waivers to a variety of populations, including the following:

- Aged and disabled people
- Aged people
- Physically disabled people
- People with brain injuries
- People with HIV/AIDS
- People with intellectual or developmental disabilities (ID/DD)
- People with mental illness/severe emotional disturbance (MI/SED)
- Technology-dependent/medically fragile people
- People with autism

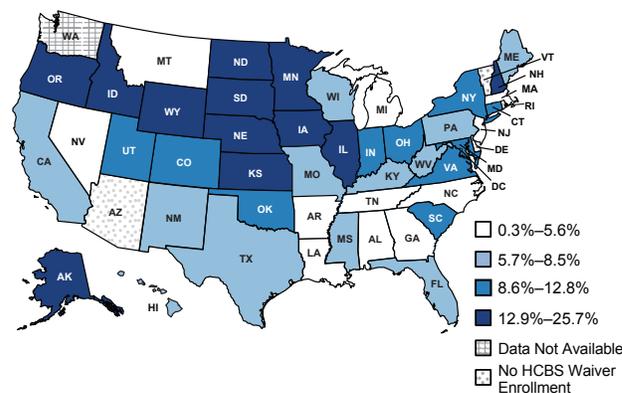
Figure 7.10
Percentage of Aged Medicaid Beneficiaries in HCBS Waivers in 2013



Source: Medicaid Analytic Extract 2013.

Note: Arizona, Rhode Island, and Vermont did not have active HCBS waivers in 2013. Washington had HCBS waivers in 2013 but did not report this enrollment in MAX. HCBS waiver enrollment was not fully reported in MAX 2013 in California, Florida, Kansas, Maine, Massachusetts, Missouri, Montana, Nebraska, North Dakota, Ohio, Oregon, Texas, Virginia, and Wisconsin.

Figure 7.11
Percentage of Disabled Medicaid Beneficiaries in HCBS Waivers in 2013



Source: Medicaid Analytic Extract 2013.

Note: Arizona, Rhode Island, and Vermont did not have active HCBS waivers in 2013. Washington had HCBS waivers in 2013 but did not report this enrollment in MAX. HCBS waiver enrollment was not fully reported in MAX 2013 in California, Florida, Kansas, Maine, Massachusetts, Missouri, Montana, Nebraska, North Dakota, Ohio, Oregon, Texas, Virginia, and Wisconsin.

Waivers for people with ID/DD were the most common type of HCBS waiver in 2013; 109 of these waivers were reported in MAX 2013, operated across 45 states, with an enrollment nationwide of more than 603,000 (Table 7.2). In comparison, only 8 states maintained HCBS waivers for people with HIV/AIDS, with a combined enrollment of nearly

Table 7.2
Enrollment and Expenditures by HCBS Waiver Type in 2013

| HCBS Waiver Type | Number of States with HCBS Waiver Type reported in MAX | Number of Waivers by HCBS Waiver Type | National Enrollment | Average HCBS Waiver Expenditures (\$) |
|---|--|---------------------------------------|---------------------|---------------------------------------|
| Aged | 12 | 17 | 167,734 | 5,584 |
| Aged and Disabled | 36 | 54 | 423,440 | 10,160 |
| Autism | 11 | 12 | 6,857 | 6,942 |
| Brain Injuries | 18 | 22 | 15,175 | 36,861 |
| HIV/AIDS | 8 | 8 | 11,975 | 3,781 |
| ID/DD | 45 | 109 | 603,133 | 39,676 |
| Mentally Ill/Severely Emotionally Disturbed | 10 | 12 | 9,407 | 17,081 |
| Physically Disabled | 22 | 28 | 90,438 | 19,793 |
| Technology-Dependent/Medically Fragile | 16 | 19 | 11,589 | 18,201 |
| Unspecified or Unknown Populations | 6 | 18 | 66,710 | 15,478 |

Source: Medicaid Analytic Extract 2013; MAX 2013 waiver crosswalk.

Washington had HCBS waivers in 2013 but did not report this enrollment in MAX. Massachusetts had HCBS waivers but did report waiver enrollment in MAX from January to June 2013.

Maine, Montana, Oregon, and Wisconsin were unable to report HCBS claims accurately in MAX 2013.

Enrollment in individual HCBS waiver types is undercounted in Alaska, Colorado, Florida, Kansas, and North Carolina as many of the states' HCBS waivers were reported as waivers with unspecified or unknown populations in 2013.

Enrollment in individual HCBS waiver types is undercounted in California, Maine, Massachusetts, Missouri, Montana, Nebraska, North Dakota, Ohio, Oregon, Texas, Virginia, Washington, and Wisconsin because of reporting limitations.

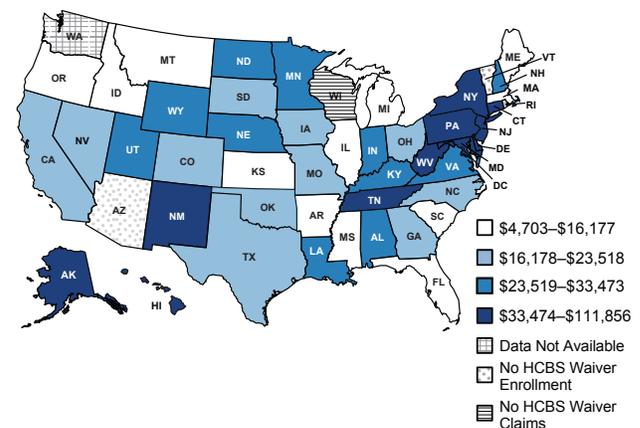
Waivers are included in these counts if they are reported with counts in MAX 2013.

ID/DD = intellectual or developmental disability.

12,000; 10 states maintained waivers for people with MI/SED, with a combined enrollment of 9,400. State-level expenditure and enrollment data for HCBS waiver types are reported in Appendix Tables A7.7a and A7.7b; annualized person-years of enrollment and expenditure data are reported in Appendix Tables A7.7c and A7.7d.

Nationally, expenditures for HCBS provided through waivers were about \$23,500 per waiver enrollee (Appendix Table A7.3a). Average expenditures for HCBS ranged from a low of \$4,703 per enrollee (or \$5,235 annualized) in Maine to a high of \$111,856 (or \$115,190 annualized) in Delaware (Figure 7.12 and Appendix Tables A7.3a–A7.3b). Low average waiver expenditures for HCBS enrollees could be driven by lower service costs in these states or limited service offerings in these waivers. It is important to note that in some states, including Maine, Montana, and Oregon (some of the states with the

Figure 7.12
Average Waiver Expenditures for HCBS Waiver Enrollees (in quartiles) in 2013



Source: Medicaid Analytic Extract 2013.

Note: Arizona, Rhode Island, and Vermont did not have active HCBS waivers in 2013. Washington had HCBS waivers in 2013 but did not report enrollment in MAX and is therefore excluded from national averages and other estimates that include claims. In Wisconsin, no individuals enrolled in an HCBS waiver had a waiver claim in 2013. HCBS waiver claims were not fully reported in MAX 2013 for Maine, Montana, and Oregon. HCBS waiver enrollment was not fully reported in MAX 2013 in California, Florida, Kansas, Maine, Massachusetts, Missouri, Montana, Nebraska, North Dakota, Ohio, Oregon, Texas, Virginia, and Wisconsin.

lowest average HCBS expenditures), HCBS waiver claims were not fully reported in MAX, which likely impacted average expenditure data. (See the MAX 2013 anomaly tables for additional details concerning waiver reporting issues.)

Average HCBS expenditures could also be driven by the composition of HCBS waiver types. The states with the highest average costs, for instance, enrolled all or most beneficiaries in ID/DD waivers, whereas the lowest-cost states (aside from those where HCBS claims were not fully reported) enrolled a disproportionately higher number of beneficiaries in relatively lower-cost aged and disabled waivers (see Appendix Tables 7.3a and A7.7a–A7.7d). HCBS waiver expenditures varied considerably by waiver type at the national level, from a low of \$3,781 nationally per enrollee in HIV/AIDS waivers to a high of about \$39,676 for those in ID/DD waivers (Table 7.2).

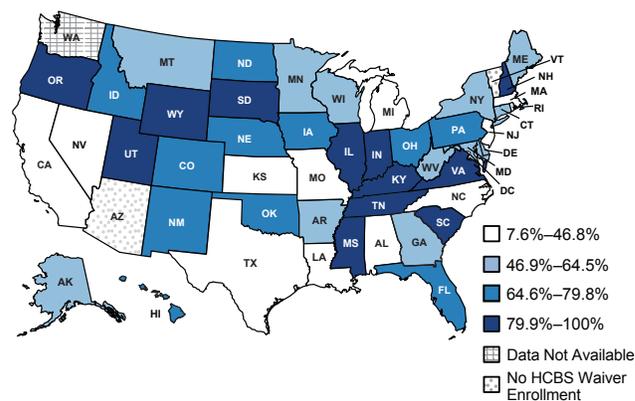
These variations stem from the range of service offerings in such waivers, the diverse needs of the populations covered, and the characteristics of states that opted to implement less common types of waivers.

Expenditures through HCBS waivers comprised a considerable portion of total Medicaid spending for the average HCBS waiver enrollee. Nationally, expenditures for all Medicaid services were about \$36,800 per HCBS waiver enrollee (Appendix Table A7.3a). In total, expenditures for HCBS waiver services accounted for 64 percent of all Medicaid expenditures for HCBS enrollees. Percentages varied across states, from 29 percent of total expenditures in South Carolina to 95 percent in Delaware (data not shown). The wide range can be attributed to differences in the services offered through HCBS waivers across states, as well as how states divide long-term care service provision across HCBS waivers, HCBS offered in the state plan, and reliance on ILTC services. (Chapter 4 fur-

ther discusses utilization and expenditure rates for long-term care services offered in the community as compared to institutional settings.)

In addition to or instead of providing HCBS through waivers, states may provide personal care services, adult day care services, private duty nursing, home health, and hospice care as part of the Medicaid state plan for all eligible beneficiaries. In 2013, more than 3 million beneficiaries received Medicaid HCBS, and 46 percent of all HCBS users were enrolled in HCBS waivers (Appendix Table A7.8). In other words, in some states, HCBS waiver enrollment may represent only a fraction of the population that received HCBS. For example, in Alabama, only 8 percent of HCBS users were enrolled in an HCBS waiver in 2013. By comparison, some states, like Tennessee, where all HCBS users were enrolled in HCBS waivers, appear to have used such waivers as the primary vehicle for providing HCBS to Medicaid beneficiaries. Figure 7.13 highlights state variations in approaches for providing HCBS to Medicaid beneficiaries. In the top quartile of states, more than 80 percent of HCBS

Figure 7.13
Percentage of HCBS Users Enrolled in HCBS Waivers (in quartiles) in 2013



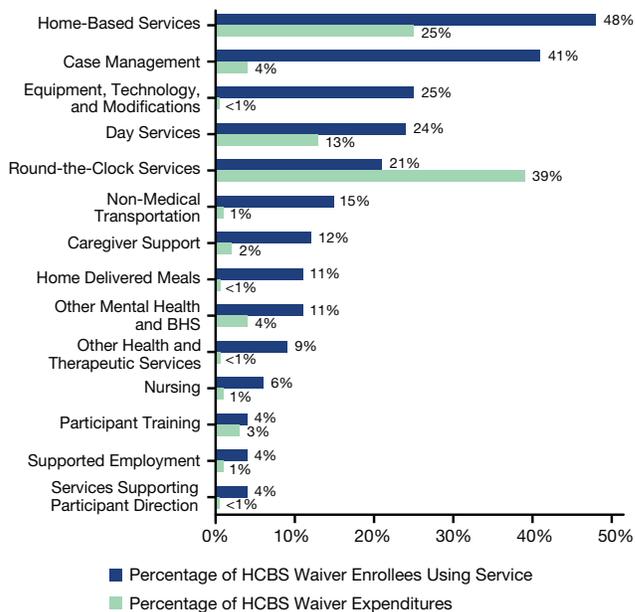
Source: Medicaid Analytic Extract 2013.
Note: Arizona, Rhode Island, and Vermont did not have active HCBS waivers in 2013. Washington had HCBS waivers in 2013 but did not report enrollment in MAX. HCBS waiver enrollment was not fully reported in MAX 2013 in California, Florida, Kansas, Maine, Massachusetts, Missouri, Montana, Nebraska, North Dakota, Ohio, Oregon, Texas, Virginia, and Wisconsin.

users received these services through waivers. In the bottom quartile, fewer than half of HCBS users were provided with these services through waivers.

States offered a variety of HCBS through waivers in 2013. Data fields introduced in MAX 2010 group these services into standard categories across states so researchers can learn more about the services provided via HCBS waivers. The most common types of HCBS received by HCBS waiver enrollees were home-based services; case management; and equipment, technology, and modifications (Figure 7.14 and Appendix Tables A7.9a–A7.10b). Nationally, each of these HCBS were used by at least one-quarter of HCBS waiver enrollees. Among them, services in the category of equipment, technology, and modifications were among the lowest cost per service user—although 25 percent of enrollees received these services, expenditures for the category made up less than 1 percent of HCBS waiver expenditures. Similarly, 41 percent of HCBS enrollees used case management services, but those expenditures made up only 4 percent of HCBS expenditures. Home-delivered meals also accounted for a relatively low share of expenditures relative to the number of services users (11 percent used this service, accounting for less than 1 percent of HCBS expenditures), as did nonmedical transportation (15 percent of users and 1 percent of such expenditures) and caregiver support (12 percent of users and 2 percent of such expenditures).

Expenditures for HCBS waivers were largely concentrated among three commonly used service types: round-the-clock services (39 percent), home-based services (25 percent), and day services (13 percent) (Figure 7.14). However, home-based

Figure 7.14
Percentage of HCBS Waiver Enrollees Using HCBS and Expenditures by HCBS Taxonomy Category in 2013



Source: Medicaid Analytic Extract 2013.

Note: Arizona, Rhode Island, and Vermont did not have active HCBS waivers in 2013. Washington had HCBS waivers but did not report enrollment in MAX and is therefore excluded from national averages and other estimates that include claims. In Wisconsin, no individuals enrolled in an HCBS waiver had a waiver claim in 2013. HCBS waiver claims were not fully reported in MAX 2013 for Maine, Montana, and Oregon. HCBS waiver enrollment was not fully reported in MAX 2013 in California, Florida, Kansas, Maine, Massachusetts, Missouri, Montana, Nebraska, North Dakota, Ohio, Oregon, Texas, Virginia, and Wisconsin.

MAX includes information about additional HCBS taxonomy categories: community transition services, rent and food for live-in caregiver, and other services. These categories (not shown in Figure 7.14) were used by less than 3 percent of HCBS enrollees and represented less than 0.2 percent of expenditures in 2013. In addition, about 13 percent of HCBS enrollees used HCBS that could not be further identified in MAX 2013; these unknown services represented less than 5 percent of expenditures.

BHS = behavioral health services.

and day services had relatively high percentages of users (48 percent and 24 percent, respectively) relative to their share of expenditures. Conversely, round-the-clock services users accounted for a comparatively lower percentage of users (21 percent) relative to their share of expenditures.

Glossary of Terms

1115 Waiver (MAS Group): A maintenance assistance status (MAS) group comprising people eligible for Medicaid via a state 1115 waiver program that extends benefits to certain otherwise ineligible persons. In 2013, some states provided only limited family planning or other limited services to 1115 adults, whereas other states provided full Medicaid benefits to persons qualifying through 1115 provisions. Many 1115 waivers also have other provisions, such as mandatory managed care coverage. However, the MAS 1115 waiver group relates only to the 1115 eligibility extensions.

1915(b) Waiver: A Medicaid waiver authorized by the Social Security Act. These waivers allow states to implement mandatory managed care delivery systems or otherwise limit individuals' choice of provider under Medicaid.

1915(c) HCBS Waiver: A Medicaid waiver authorized by the Social Security Act. These waivers allow states to offer long-term care services beyond the scope of the allowed Medicaid benefit package and serve people in community settings. Also called home- and community-based services waivers.

1915(b)(c) Waiver: A Medicaid waiver authorized by the Social Security Act. These waivers implement both 1915(b) and 1915(c) program authorities to provide long-term care services, including HCBS, through managed care or other provider choice restrictions. These waivers must meet all federal requirements for both waiver types.

Adults: A basis of eligibility (BOE) group that includes pregnant women and caretaker relatives in families with dependent (minor) children; most caretaker relatives of dependent children are parents, but this group can also include other

family members serving as caretakers, such as aunts or grandparents. In a few states with Section 1115 waivers or that made use of the state plan option to implement an early ACA expansion, the adult BOE included low-income adults in 2013.

Affordable Care Act of 2010 (ACA): A health reform law enacted in March 2010. The ACA included several provisions related to Medicaid eligibility, financing, and benefits. Many provisions, including the option for states to expand Medicaid coverage to low-income nondisabled adults without dependent children, were not implemented until 2014. Some states, however, did expand coverage or change benefits for Medicaid beneficiaries between 2010 and 2013.

Aged: A basis of eligibility (BOE) group that includes people ages 65 or older.

Aid to Families with Dependent Children

(AFDC): A federal assistance program for children and families with low or no income that was in operation from 1935 through 1996.

Alien: A person who is not a permanent resident or citizen of the United States. In Medicaid, "unqualified" aliens include illegal immigrants and immigrants entering the United States legally after 1996 for five years from their date of entry; unqualified aliens are eligible only for emergency hospital services.

Annualized Expenditures: An annual per capita measure of expenditures adjusted as if each beneficiary was enrolled in Medicaid for all 12 months of the year. Annualized expenditures are calculated by dividing total expenditures by total person-years of enrollment. Given that Medicaid beneficiaries are not always enrolled for the entire year (and some subgroups of beneficiaries

tend to have shorter lengths of enrollment than others), this measure allows a more commensurate comparison of annual expenditures between beneficiary groups.

Basis of Eligibility (BOE): An eligibility grouping that traditionally has been used by CMS to classify beneficiaries; BOE categories include children, adults, aged, and disabled (see other entries for descriptions of these categories).

Behavioral Health Organization (BHO): A health organization that provides care for mental health and substance use disorders. BHOs had the highest enrollment in 2013 of any type of PHP.

Beneficiaries: For the purposes of this chartbook, people enrolled in Medicaid for at least one day in 2013 (sometimes referred to as enrollees or eligibles).

Capitation or Capitated Payment: A method of payment for health services in which a health plan, practitioner, or hospital is paid a fixed amount in advance to cover specified health services for an individual for a specific period of time, regardless of the amount or type of services provided. In contrast with fee-for-service (see entry below), capitation shifts the financial risk of caring for patients from the payer to the provider.

Children: A basis of eligibility (BOE) group that includes persons under age 18, or up to 21 in states electing to cover older children.

Children's Health Insurance Program (CHIP): Authorized in 1997 and reauthorized in 2009, this program provides enhanced federal matching funds to help states expand health care coverage to the nation's uninsured children. CHIP is jointly financed by federal and state governments, and administered by states. States may administer CHIP through their Medicaid program (referred to as M-CHIP) or as a separate program (referred to as S-CHIP); M-CHIP

children are included in the MAX data and reported under the poverty-related maintenance assistance status (MAS).

Children's Health Insurance Program Reauthorization Act (CHIPRA): Authorized states to make expansions to CHIP coverage, including authorization for states to cover pregnant women through CHIP and the option to cover lawfully residing immigrant children and pregnant women in Medicaid and CHIP without a five-year waiting period.

Comprehensive Managed Care: Health care plans that provide comprehensive medical services to people in return for a prepaid fee. This group includes health maintenance organizations, health insuring organizations, and Program of All-Inclusive Care for the Elderly plans.

Disabled: A basis of eligibility (BOE) group that includes persons of any age (including children) unable to engage in substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or that has lasted or can be expected to last for a continuous period of not less than 12 months.

Disproportionate Share Hospital (DSH):

A hospital that serves a disproportionate share of low-income patients. DSH facilities receive supplemental Medicaid payments in addition to reimbursements for the Medicaid beneficiaries they serve.

Duals: Persons dually enrolled in Medicare and Medicaid (sometimes referred to as dual eligibles). In this chartbook, duals are defined as people in the Medicaid data files with matching records in the Medicare Enrollment Database indicating enrollment in both Medicare and Medicaid in at least one month in 2013.

Durable Medical Equipment (DME): Medical equipment (wheelchairs, beds); supplies (adult diapers, dialysis equipment); home improvements (ramps); emergency response systems; and repairs, replacements, or renting of these items.

Encounter Records: Records for services utilized under managed care. Encounter records do not include payment information for services used. MAX encounter records are incomplete in some states.

[Medicare] Enrollee Database (EDB): The authoritative data source for all Medicare entitlement information; contains information on all Medicare beneficiaries, including demographic information, enrollment dates, and Medicare managed care enrollment.

Family Planning: Services and supplies that enable individuals and couples to anticipate and have the desired number of children, and space and time their births. No regulatory definition for the services and supplies covered by Medicaid exists, but CMS has provided guidance that states may cover counseling services, examination and treatment by medical professionals, pharmaceutical devices to prevent conception, infertility services, and assistance with access to primary care. In 2013, states also maintained family planning programs (implemented through a Section 1115 waiver or a state plan amendment) that provided only these services to beneficiaries otherwise ineligible for Medicaid.

Federal Fiscal Year (FFY): The federal fiscal year begins on October 1 and ends on September 30 of the following year; FFY 2013 ran from October 1, 2012 through September 30, 2013.

Federal Medical Assistance Percentage (FMAP): The federal matching rate for states for service costs incurred by the Medicaid program. The

FMAP is calculated by considering the average per capita income in a given state in relation to the national average; the FMAP ranged from 50 to 74 percent in 2013, with higher matching allocated to states with lower per capita income.

Federal Poverty Level (FPL): A measure of income issued annually by the United States Department of Health and Human Services used to determine eligibility for certain programs, such as Medicaid.

Fee-for-Service (FFS): A payment mechanism in which payment is made for each service used.

Financial Alignment Initiative: A CMS demonstration program that aims to address the financial misalignment between Medicare and Medicaid—a longstanding barrier to coordinating care for duals—by allowing states with approved demonstrations to test models to better align the financing of these two programs and integrate primary, acute, behavioral health, and long-term services and supports for duals. The Financial Alignment Initiative has two models, the capitated model and the managed FFS model.

Health Insurance Flexibility and Accountability (HIFA): A type of 1115 waiver created in 2001 to extend basic health coverage to low-income uninsured adults.

Home- and Community-Based Services (HCBS): Long-term support services for people who are not institutionalized but do require nursing or other support services typically provided in nursing homes or other institutions. In this chartbook, we include six MAX service types in HCBS: adult day care, home health, hospice care, personal care services, residential care, and private duty nursing (sometimes referred to as community long-term care). These services may be offered through a 1915(c) HCBS waiver or under the Medicaid state plan.

Inpatient Care: Health care received when a person is admitted to a hospital.

Inpatient File (IP): MAX inpatient hospital care claims file, which includes inpatient hospital services as well as some bundled services, such as lab tests or prescription drugs filled during an inpatient stay.

Institutional Long-Term Care (ILTC): Medicaid-covered institutional or inpatient long-term care services. ILTC includes four service types: (1) nursing facility services, (2) intermediate care facilities for individuals with intellectual disabilities (ICF/IID), (3) mental hospital services for the aged, and (4) inpatient psychiatric facility services for those under age 21.

Institutional Long-Term Care File (LT): MAX institutional long-term care (ILTC) claims file (community long-term care services are categorized as “Other” and can be found in the MAX OT file).

Intermediate Care Facility for Individuals with Intellectual Disabilities (ICF/IID): A Medicaid benefit that can be provided as a state option. Many of the individuals covered under this option are non-ambulatory or have seizure disorders, behavior problems, mental illness, visual or hearing impairments, or a combination.

Maintenance Assistance Status (MAS): An eligibility grouping traditionally used by CMS to classify beneficiaries by the financial-related criteria by which they are eligible for Medicaid. MAS groups include cash assistance-related, medically needy, poverty-related, 1115 waiver, and “other” (see other entries for descriptions of these categories).

Managed Care (MC): Systems and payment mechanisms used to manage or control the use of health care services, which may include

incentives to use certain providers and case management. A managed care plan usually involves a system of providers with a contractual arrangement with the plan; health maintenance organizations, primary care case management plans, and prepaid health plans are examples of managed care plans.

Managed Long Term Services and Supports

(MLTSS): Long-term services and supports delivered through capitated Medicaid managed care programs.

Medicaid Analytic eXtract (MAX): A set of person-level data files derived from MSIS and T-MSIS data on Medicaid eligibility, service utilization, and payments.

Medicaid Statistical Information System (MSIS):

The CMS data system containing complete eligibility and claims data from each state Medicaid program. Electronic submission of data by states to MSIS became mandatory in 1999, in accordance with the Balanced Budget Act of 1997.

Medically Needy (MN): A maintenance assistance status (MAS) group that includes persons qualifying for Medicaid through the medically needy provision (a state option) that allows a higher income threshold than required by the Aid to Families with Dependent Children cash assistance level. Persons with income above the medically needy threshold can deduct incurred medical expenses from their income and/or assets—or “spend down” their income/assets—to determine financial eligibility.

Medicare Prescription Drug, Improvement,

and Modernization Act of 2003 (MMA): An amendment to Title XVIII of the Social Security Act that added Part D (the Medicare prescription drug benefit) to cover the costs of outpatient prescription drugs through prescription drug plans, beginning in 2006.

Other: A maintenance assistance status (MAS) group that consists of a mixture of mandatory and optional coverage groups not reported under the other MAS categories, including many institutionalized aged and disabled, those qualifying through hospice and home- and community-based services waivers, and immigrants who qualify for emergency Medicaid benefits only.

Other Services File (OT): MAX other services claims file, which includes claims for all Medicaid services that are not reported to the inpatient (IP), institutional long-term care (LT), or prescription drug (RX) files. Other claims include claims for home- and community-based services; physician and other ambulatory services; and lab, x-ray, supplies, and other wraparound services.

Person Summary (PS): Files in the MAX data system contain summary demographic and enrollment characteristics and summary claim information for each person enrolled in Medicaid in a state during a given year.

Person-Years Enrollment (PYE): A measure of the actual amount of time that Medicaid beneficiaries were enrolled in Medicaid. In contrast with the number of beneficiaries, this measure assigns a lower count for those beneficiaries not enrolled for a full year (for example, a person who is enrolled in Medicaid for six months of the year will contribute enrollment of 0.5 person-years).

Poverty-Related: A maintenance assistance status (MAS) group that consists of persons qualifying through any poverty-related Medicaid expansions enacted from 1988 on; in addition, it includes Qualified Medicare Beneficiary, Specified Low-Income Medicare Beneficiary, and Qualified Individual dual groups.

Prepaid Health Plan (PHP): A type of managed care plan that provides less than comprehensive services on an at-risk basis; these may include dental care, behavioral health services, long-term care, or other service types.

Prescription Drug File (RX): MAX prescription drug claims file, which includes all Medicaid prescriptions filled, except those bundled with inpatient, nursing home, or other services.

Primary Care Case Management (PCCM): A type of managed care plan that is paid a small premium (often \$3 per person per month) for case management services only; in some states, PCCM premiums are not paid unless case management services are delivered.

Program of All-Inclusive Care for the Elderly (PACE): A program that states may offer to older Medicaid beneficiaries in need of nursing facility care. PACE providers are paid on a capitated basis, and enrollees receive all the services covered by Medicare and Medicaid through their PACE provider. These plans are one type of comprehensive managed care plan.

Psychiatric Residential Treatment Facility (PRTF): A facility that provides treatment to those struggling with severe emotional and/or behavioral problems.

Qualified Disabled and Working Individuals (QDWIs): Disabled and working Medicare beneficiaries with income between 175 and 200 percent of the federal poverty level and eligible for Medicare Part A. States have the option to cover Medicare Part A premiums for QDWIs.

Qualified Individuals 1 (QI1s): Medicare beneficiaries with income between 120 percent and 135 percent of the federal poverty level; Medicaid pays all or some of Medicare Part B premiums for QI1s.

Qualified Individuals 2 (QI2s): Medicare beneficiaries with income between 135 and 175 percent of the federal poverty level. States have the option to cover a portion of Medicare Part B premiums for QI2s.

Qualified Medicare Beneficiary (QMB): A Medicare beneficiary with income below 100 percent of federal poverty level and assets under 200 percent of the SSI asset limit. QMBs receive Medicare premiums and cost-sharing payments, and a vast majority of QMBs qualify for full Medicaid benefits.

Restricted-Benefit Beneficiaries: Medicaid beneficiaries who receive only limited health coverage. In this chartbook, restricted-benefit beneficiaries include aliens eligible only for emergency hospital services, duals receiving coverage only for Medicare premiums and cost sharing, and people receiving only family planning services.

Section 1931/Cash Assistance-Related: A maintenance assistance status (MAS) group that consists of persons receiving Supplemental Security Income benefits and those who would have qualified under the pre-welfare reform Aid to Families with Dependent Children rules.

Section 209(b) States: States that have elected to use eligibility requirements more restrictive than those of the Supplemental Security Income program. These requirements cannot be more restrictive than those in place in the state's Medicaid plan as of January 1, 1972. Section 209(b) states include Connecticut, Hawaii, Illinois, Indiana, Minnesota, Missouri, New Hampshire, North Dakota, Ohio, and Oklahoma.

Specified Low-Income Medicare Beneficiary (SLMB): A Medicare beneficiary with income between 100 percent and 120 percent of the federal poverty level and eligible for Medicaid

payment of Part B Medicare premiums; some SLMBs also qualify for full Medicaid benefits.

State Plan Amendment (SPA): Documentation sent by a state to CMS for review and approval when the state is planning to make a change to the program policies or operational approach outlined in its Medicaid and Children's Health Insurance Program (CHIP) state plan. A Medicaid and CHIP state plan is an agreement between a state and the federal government describing how that state administers its Medicaid and CHIP programs. It gives assurance that a state will abide by federal rules and may claim federal matching funds for its program activities. The state plan specifies the groups of individuals to be covered, services to be provided, methodologies for providers to be reimbursed, and the administrative activities underway in the state.

Supplemental Security Income (SSI): A federal entitlement program providing cash assistance to low-income aged, blind, and disabled individuals; people receiving SSI are eligible for Medicaid in all but Section 209(b) states, where more restrictive criteria may be used to determine Medicaid eligibility.

Temporary Assistance for Needy Families (TANF): A block grant program that provides states with federal matching funds for cash and other assistance to low-income families with children. Established through the 1996 welfare law that repealed the Aid to Families with Dependent Children (AFDC) program, TANF eligibility has no direct bearing on Medicaid eligibility (as was the case with AFDC); however, 1996 AFDC rules are still used to determine eligibility for Medicaid. AFDC groups are commonly referred to as the Section 1931 groups (after the section of the Social Security Act that specifies AFDC-related eligibility after welfare reform).

Transformed Medicaid Statistical Information

System (T-MSIS): An enhanced CMS data system containing complete eligibility and claims data from each state program. In 2013, CMS replaced MSIS with T-MSIS to expand on the data that state Medicaid agencies report to CMS while improving the data's quality and timeliness. T-MSIS differs from MSIS in that data are submitted by states and retained in a relational database format as opposed to a flat fixed-length format, it requires monthly reporting instead of quarterly reporting, and has new and modified data elements. T-MSIS also captures additional data not previously captured in MSIS on providers, managed care plans, and third-party liability (that is, information about whether each enrollee has coverage in addition to Medicaid through an individual, entity, insurance, or program that is liable to pay for health care services). The first state (Colorado) made the transition from MSIS to T-MSIS with its 2011 data while the remaining states transitioned between 2012 and 2015. As a result, the MAX 2013 files were produced with a combination of MSIS and T-MSIS data converted to MSIS format for easy incorporation into MAX.

Upper Payment Limit (UPL): Limit on payments made by states to facilities and providers for which the federal government will provide matching funds. UPL programs are funding mechanisms in which states supplement reimbursable service costs at specific facilities; payments may exceed the costs of services provided to Medicare beneficiaries in those facilities as long as they are not higher than the aggregate UPL for that class of facilities.

User: Beneficiaries with a claim for a specific service are called "users" of that service; beneficiaries typically use multiple services.

Waivers: Statutory authorities that allow states to receive federal matching funds for Medicaid expenditures even if the state is not in compliance with requirements of the federal Medicaid statute; for example, 1115 waivers allow states to cover categories of people that are not generally covered under Medicaid.

Acronyms and Abbreviations

| | |
|---|---|
| 1115: Section 1115 waiver | MAS: Maintenance assistance status |
| 1915(b): Section 1915(b) waiver | MAX: Medicaid Analytic Extract |
| 1915(b)(c): Section 1915(b)(c) waiver | MC: Managed care |
| 1915(c): Section 1915(c) waiver, also known as HCBS waiver | MI/SED: Mental illness/severe emotional disturbance |
| 1931: Section 1931/Cash assistance | MLTSS: Managed Long-Term Services and Supports |
| ACA: Affordable Care Act of 2010 | MN: Medically needy |
| AFDC: Aid to Families with Dependent Children | MSIS: Medicaid Statistical Information System |
| BHO: Behavioral health organization | OT: Occupational therapy in the context of specific services; “other” services in the context of summary type of service; MAX other types of claims file |
| BOE: Basis of eligibility | PACE: Program of All-Inclusive Care for the Elderly |
| CHIP: Children’s Health Insurance Program | PCCM: Primary care case management |
| CHIPRA: Children’s Health Insurance Program Reauthorization Act | PHP: Prepaid health plan |
| CMS: Centers for Medicare & Medicaid Services | PRTF: Psychiatric Residential Treatment Facility |
| DME: Durable medical equipment | PRWORA: Personal Responsibility and Work Opportunity Reconciliation Act of 1996 |
| DSH: Disproportionate share hospital | PS: [MAX] person summary [file] |
| EDB: [Medicare] Enrollee DataBase | PT: Physical therapy |
| FFS: Fee-for-service | QDWI: Qualified Disabled and Working Individual |
| FFY: Federal fiscal year | QI: Qualified Individual |
| FMAP: Federal medical assistance percentage | QMB: Qualified Medicare Beneficiary |
| FPL: Federal poverty level | ResDAC: Research Data Assistance Center |
| HCBS: Home- and community-based services | RX: Prescription drugs; MAX prescription drug claims file |
| HHS: United States Department of Health and Human Services | SLMB: Specified Low-Income Medicare Beneficiary |
| HIFA: Health Insurance Flexibility and Accountability | SPA: State plan amendment |
| HIO: Health insuring organization | SSDI: Social Security Disability Insurance |
| HMO: Health maintenance organization | SSI: Supplemental Security Income |
| HMO/HIO: Health maintenance organization/health insuring organization | TANF: Temporary Assistance for Needy Families |
| ICF/IID: Intermediate care facility for individuals with intellectual disabilities | T-MSIS: Transformed Medicaid Statistical Information System |
| ID/DD: Intellectual or developmental disabilities | TOS: Type of service |
| ILTC: Institutional long-term care | UPL: Upper payment limit |
| IP: Inpatient; MAX inpatient claims file | |
| LT: MAX long-term care claims file | |

References

- Borck, Rosemary, Laura Ruttner, Vivian Byrd, and Karina Wagnerman. "Medicaid Analytic eXtract 2010 Chartbook." Washington, DC: Centers for Medicare & Medicaid Services, 2014.
- Borck, Rosemary, Allison Hedley Dodd, Ashley Zlatinov, Shinu Verghese, Rosalie Malsberger, and Cara Petroski. "Medicaid Analytic eXtract 2008 Chartbook." Washington, DC: Centers for Medicare & Medicaid Services, 2012.
- Centers for Medicare & Medicaid Services. "Medicaid Managed Care Enrollment and Program Characteristics 2013." 2015. Available at <https://wayback.archive-it.org/2651/20181022141123/https://www.medicare.gov/medicaid-chip-program-information/by-topics/data-and-systems/medicaid-managed-care/downloads/enrollment-by-program-and-population.zip>. Accessed February 18, 2020.
- Centers for Medicare & Medicaid Services. National Health Expenditure Data (NHED). "National Health Expenditures by type of service and source of funds, CY 1960–2018." Available at <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical>. Accessed December 21, 2019.
- Hayes, Susan L., Claudia A. Salzberg, Douglas McCarthy, David Radley, Melinda K. Abrams, Tanya Shah, and Gerard Anderson. "High-Need, High-Cost Patients: Who Are They and How Do They Use Health Care? A Population-Based Comparison of Demographics, Health Care Use, and Expenditures." The Commonwealth Fund, August 29, 2016. Available at <https://www.commonwealth-fund.org/publications/issue-briefs/2016/aug/high-need-high-cost-patients-who-are-they-and-how-do-they-use>. Accessed February 20, 2020.
- Kaiser Family Foundation. "Medicaid Benefits." 2020. Available at <https://www.kff.org/state-data/collection/medicaid-benefits/>. Accessed June 12, 2020.
- Kaiser Family Foundation. "Health Plan Enrollment in the Capitated Financial Alignment Demonstrations for Dual Eligible Beneficiaries." August 3, 2017. Available at <https://www.kff.org/medicaid/fact-sheet/health-plan-enrollment-in-the-capitated-financial-alignment-demonstrations-for-dual-eligible-beneficiaries/>. Accessed October 23, 2018.
- Kaiser Family Foundation. "How is the Affordable Care Act leading to changes today? State Adoption of five new Options." Washington, DC: Kaiser Family Foundation, May 2012a. Available at <https://kaiserfamilyfoundation.files.wordpress.com/2013/01/8312.pdf>. Accessed April 20, 2020.
- Kaiser Family Foundation. "Medicaid's Role for Women Across the Lifespan: Current Issues and the Impact of the Affordable Care Act." Washington, DC: Kaiser Family Foundation, December 2012b. Available at <http://files.kff.org/attachment/medicaid-role-for-women-across-the-lifespan-issue-brief>. Accessed February 26, 2020.
- Kaiser Family Foundation. "State Financing of the Medicare Drug Benefit: New Data on the "Clawback." November 2005. Available at <https://www.kff.org/medicaid/issue-brief/state-financing-of-the-medicare-drug-benefit/>. Accessed February 14, 2020.

- Lemos, Kristin Andrews, Lauren Hula, Alyssa Maccarone, Vivian Byrd, Alicia Demers, and Tasnuva Khan. “Medicaid Analytic eXtract 2012 Chartbook.” Washington, DC: Centers for Medicare & Medicaid Services, November 2019.
- MedPAC and MACPAC. “Data Book: Beneficiaries Dually Eligible for Medicare and Medicaid.” January 2018. Available at http://www.medpac.gov/docs/default-source/data-book/jan18_medpac_macpac_dualsdatabook_sec.pdf?sfvrsn=0. Accessed February 25, 2020.
- National Association of State Budget Offices (NASBO). “State Expenditure Report: Examining Fiscal 2012–2014 State Spending.” 2014. Available at <https://higherlogicdownload.s3.amazonaws.com/NASBO/9d2d2db1-c943-4f1b-b750-0fca152d64c2/UploadedImages/SER%20Archive/State%20Expenditure%20Report%20Fiscal%202012%202014%20S.pdf>. Accessed February 25, 2020.
- Perez, Victoria, Bob Schmitz, Audra Wenzlow, and Kathy Shepperson. “The Medicaid Analytic eXtract 2004 Chartbook.” Washington, DC: Centers for Medicare & Medicaid Services, 2008.
- Truffer, Christopher J., Christian J. Wolfe, and Kathryn E. Rennie. “2014 Actuarial Report on the Financial Outlook for Medicaid.” Centers for Medicare & Medicaid Services, Office of the Actuary, 2014. Available at <https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/ActuarialStudies/Downloads/MedicaidReport2014.pdf>. Accessed February 6, 2020.
- United State Census Bureau. “Total Population in the United States: 2013: ACS 1-Year Estimates Data Profiles.” Available at <https://data.census.gov/cedsci/table?q=Total%20Population%20in%20the%20United%20States&hidePreview=false&tid=ACSDT1Y2013.B01003&vintage=2018>. Accessed February 11, 2020.
- Wenzlow, Audra, Daniel Finkelstein, Ben LeCook, Kathy Shepperson, Christine Yip, and David Baugh. “The Medicaid Analytic eXtract Chartbook: 2002.” Washington, DC: Centers for Medicare & Medicaid Services, 2007.

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