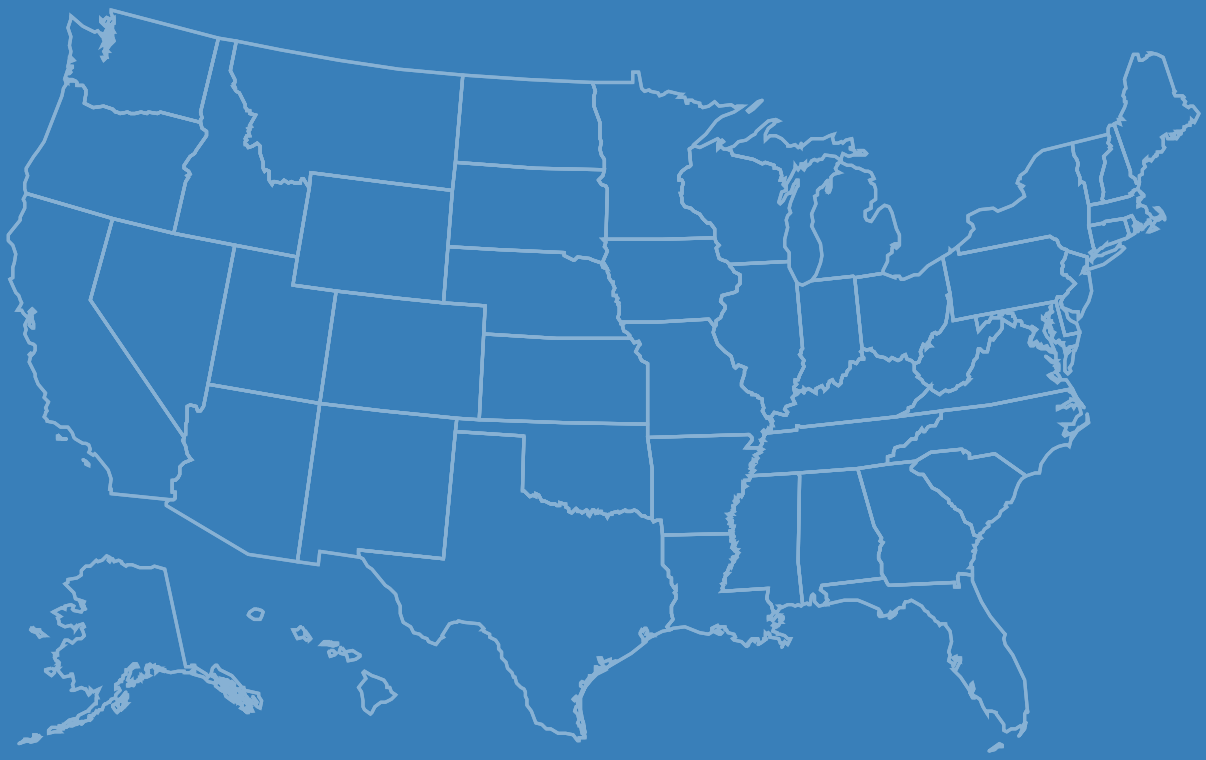
MAX

CENTERS FOR MEDICARE & MEDICAID SERVICES

The Medicaid Analytic eXtract 2010 Chartbook



2014

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Medicaid Analytic eXtract 2010 Chartbook

Rosemary Borck, Laura Ruttner, Vivian Byrd, and Karina Wagnerman

Mathematica Policy Research

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Contents

1. Introduction

The Medicaid Analytic Extract (MAX) is a data system derived from the Medicaid Statistical Information System (MSIS), which contains extensive information about Medicaid enrollees and the Medicaid-financed health services they use during a calendar year. MAX was developed and is produced by the Centers for Medicare & Medicaid Services (CMS). This chartbook is based primarily on 2010 MAX data and presents an overview of enrollee demographic and enrollment characteristics, service utilization, and expenditures at the national and state levels in 2010. This chartbook builds on its predecessors, which used MAX 2002, 2004, and 2008 data (Wenzlow et al. 2007; Perez et al. 2008; Borck et al. 2012; Borck et al. 2013).

This introduction provides an overview of the Medicaid program and the MAX data system. The remaining chapters present figures and tables that characterize the Medicaid population in 2010: Chapters 2 and 3 provide a national profile of Medicaid enrollees and total Medicaid expenditures, and 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 (FFS) basis by detailed service type (Chapter 4), managed care (Chapter 5), dual Medicare and Medicaid enrollees (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 2010

Medicaid is a means-tested entitlement program that provides health care coverage to many of the most vulnerable populations in the United States, including low-income children and their parents, and low-income individuals who are age 65 and older or have disabilities. 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 $330 billion on Medicaid services for enrollees in 2010. Since the 1990s, Medicaid has served more people annually than Medicare. In 2010, Medicaid covered almost 69 million people, covering about 22 percent of the U.S. population at some point during the year and accounting for about 13 percent of total U.S. health expenditures. Medicaid is also the largest insurer for nursing home care in the nation, covering almost one-third of nursing home costs in 2010 (CMS 2012).

States administer Medicaid under guidelines established by the federal government, and the program is financed jointly by federal and state funds. The federal government financed nearly 70 percent of Medicaid outlays in 2011 (CMS 2011), reimbursing states between 50 and 76 percent for services used by Medicaid enrollees and reimbursing at an even higher rate for children enrolled in Medicaid via the Children's Health Insurance Program (CHIP). 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 fiscal year 2010, the FMAP ranged from 50 percent in 15 higher-income states to at least 70 percent in 8 lower-income states (Table 1.1).

In 2010, to receive federal matching funds, a state's Medicaid program must have covered basic health services for all individuals in certain mandatory Medicaid eligibility groups:

- *Low-income children:* children under age 6 with family income at or below 133 percent of the federal poverty level and who satisfy certain asset requirements are eligible for Medicaid. Children between ages 6 and 19 in families at or below 100 percent of the poverty level (satisfying similar asset requirements) are also eligible.
- *Pregnant women:* pregnant women with family income at or below 133 percent of the poverty level who satisfy certain asset requirements remain eligible from the time they become pregnant through the month of the 60th day after delivery, regardless of change in family income.
- *Infants born to Medicaid-eligible pregnant women:* all infants under age 1 are eligible if the mother resides in the same household as the infant and was 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 meet the state's Aid to Families with Dependent Children (AFDC) requirements effective on July 16, 1996, are eligible for Medicaid.[1]
- *Supplemental Security Income (SSI) recipients:* with the exception of some individuals living in one of the 11 Section 209(b) states, all individuals receiving SSI are eligible for Medicaid.[2]
- *Low-income Medicare beneficiaries:* most low-income Medicare beneficiaries are eligible for Medicaid. Those with income below 100 percent of the federal poverty level (FPL) and assets below 200 percent of SSI asset limits are known as Qualified Medicare Beneficiaries (QMB) and receive Medicare premiums and cost-sharing payments. Medicare beneficiaries with income between 100 percent and 120 percent of the poverty level are known as Specified Low-Income Medicare Beneficiaries (SLMBs), and those with income between 120 percent and 135 percent are known as Qualifying Individuals 1 (QI1s). SLMBs and QI1s qualify for assistance with Medicare premiums, but not cost-sharing payments. (Many states also choose to extend full Medicaid benefits to QMBs and some SLMBs.)
- *Other:* several other, generally small, specified populations are mandatorily eligible for Medicaid benefits, including certain working individuals with disabilities, recipients of adoption assistance and foster care, and special protected groups who can keep Medicaid for a period of time, including families who receive 6 to 12 months of Medicaid

[1] 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), 1996 AFDC rules are 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. States have some flexibility in changing income and have set limits for Section 1931 coverage.

[2] 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. At present, there are 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 2010

State	FY 2010 FMAP[a]	CHIP		Medicaid Eligibility For SSI Recipients					
		Medicaid Expansion CHIP[b]	Separate CHIP[b]	Automatic Eligibility[c]	SSI Criteria[c]	Section 209(b)[c]	Medically Needy Eligibility[d]	Full Benefit Poverty-Related Expansion for Aged and Disabled (FPL %)[e]	Special Income Level for Institutionalized[f]
Alabama	68.01		♦	♦					♦
Alaska	51.43	♦			♦				♦
Arizona	65.75		♦	♦				100	♦
Arkansas	72.78	♦	♦	♦			♦	80	♦
California	50.00	♦	♦	♦			♦	100	
Colorado	50.00		♦	♦					♦
Connecticut	50.00		♦			♦	♦		♦
Delaware	50.21	♦	♦	♦					♦
Dist. of Columbia	70.00	♦		♦			♦	100	
Florida	54.98	♦	♦	♦			♦	88	♦
Georgia	65.10		♦	♦			♦		♦
Hawaii	54.24	♦				♦	♦	100	
Idaho	69.40	♦	♦		♦				♦
Illinois	50.17	♦	♦			♦	♦	100	
Indiana	65.93	♦	♦			♦			
Iowa	63.51	♦	♦	♦			♦		♦
Kansas	60.38		♦		♦		♦		♦
Kentucky	70.96	♦	♦	♦			♦		♦
Louisiana	67.61	♦	♦	♦			♦		♦
Maine	64.99	♦	♦	♦			♦	100	♦
Maryland	50.00	♦		♦			♦		♦
Massachusetts	50.00	♦	♦	♦			♦	100	
Michigan	63.19	♦	♦	♦			♦	100	♦
Minnesota	50.00	♦	♦			♦	♦	95	
Mississippi	75.67		♦	♦					♦
Missouri	64.51	♦	♦			♦			
Montana	67.42	♦	♦	♦			♦		♦
Nebraska	60.56	♦			♦		♦	100	♦
Nevada	50.16		♦		♦				♦
New Hampshire	50.00	♦	♦			♦	♦		♦
New Jersey	50.00	♦	♦	♦			♦	100	♦
New Mexico	71.35	♦		♦					♦
New York	50.00		♦	♦			♦		
North Carolina	65.13	♦	♦	♦			♦	100	
North Dakota	63.01	♦	♦			♦	♦		
Ohio	63.42	♦				♦			♦
Oklahoma	64.43	♦	♦			♦		100	♦
Oregon	62.74		♦		♦				♦
Pennsylvania	54.81		♦	♦			♦	100	♦
Rhode Island	52.63	♦	♦	♦			♦	100	♦
South Carolina	70.32	♦	♦	♦				100	♦
South Dakota	62.72	♦	♦	♦					♦
Tennessee	65.57	♦	♦	♦			♦		♦
Texas	58.73		♦	♦			♦		♦
Utah	71.68		♦		♦		♦	100	♦
Vermont	58.73		♦	♦			♦		♦
Virginia	50.00	♦	♦			♦	♦	80	♦
Washington	50.12		♦	♦			♦		♦
West Virginia	74.04		♦	♦			♦		♦
Wisconsin	60.21	♦	♦	♦			♦	84	♦
Wyoming	50.00		♦	♦					♦

Source: Medicaid Analytic Extract Eligibility Anomaly Tables 2010, unless otherwise noted below.

[a] FY 2010 FMAP in Federal Register Vol. 73, No. 229, 2008 pp. 72051-72053.

[b] All states receive enhanced federal matching funds to extend health care coverage to uninsured low-income children under the Children's Health Insurance Program (CHIP). Some states have also opted to cover pregnant women under their CHIP programs in 2010. States can 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, although sometimes reported in MSIS and MAX, are not Medicaid enrollees and are not included in the MAX 2010 chartbook.

[c] States have three options with regard to Medicaid eligibility for SSI recipients. In most states, SSI recipients are automatically enrolled in Medicaid without a separate Medicaid application. In SSI criteria states, SSI recipients are eligible for Medicaid but have to apply separately for the program. Section 209(b) states require a separate Medicaid application for SSI recipients and use more restrictive Medicaid eligibility requirements for SSI recipients than those of the SSI program.

[d] States have the option to implement medically needy programs, which extend Medicaid eligibility to additional qualified individuals who have too much income to qualify under the mandatory or optional categorically needy groups. This option allows these individuals to "spend down" to Medicaid eligibility by incurring medical and/or remedial care expenses to offset their excess income.

[e] States have the option to extend full Medicaid benefits to aged and disabled persons whose income does not exceed the FPL. If a state has implemented an expansion for the aged and disabled, the % FPL used for the expansion is noted.

[f] States have the option to set a special income standard at up to 300 percent of the SSI level ($2,022 per month in 2010) for individuals in nursing facilities and other institutions.

coverage following loss of eligibility under Section 1931 due to earnings, among others.[3]

In summary, state Medicaid programs are mandated to cover those who have low incomes and few resources and are aged people, people with disabilities, children, pregnant women, or adults with dependent children. For these groups, Medicaid must cover 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 for those under age 21, and nursing facility services for those 21 or older.

States have the option to cover certain people who do not meet the income and resource thresholds and other criteria set by the federal government for mandatory coverage:

- *Medically needy.* States may provide coverage to "medically needy" individuals—those who have incurred sufficiently high medical costs to bring their net income below a state-determined level.
- *Pregnant women.* States can cover pregnant women at a higher income threshold than set for mandatory coverage.
- *Children* (*including Medicaid expansion CHIP children*). States can cover children at a higher income threshold than set for mandatory coverage. The enactment of the CHIP in 1997 provided enhanced funding for states to expand Medicaid coverage for children up to 250 percent of the poverty level (or higher in some circumstances).[4]
- *Institutionalized aged and disabled.* States can 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 can apply for demonstration waivers enabled under Section 1115 of the Social Security Act to extend Medicaid coverage to groups that would not otherwise be covered, such as childless adults or higher-income adults who are parents.[5]
- *Lawfully present non-citizens.* Under CHIPRA, states can cover lawfully residing children up to age 21 and/or pregnant women for 60 days postpartum in Medicaid and CHIP.[6]

Table 1.1 shows key program characteristics for state Medicaid programs in 2010.

In addition to the health service benefits states must provide to the mandatory eligibility groups, states may also choose to cover certain services that are not required by federal mandate, such as dental care or prescription drugs, for either mandatory or optional groups. As a result, the Medicaid program varies greatly between states. In 2010, all states covered several key optional services, such as prescription drugs and intermediate care facilities for individuals with intellectual or development disabilities (ICF/IID), but states varied in coverage of some optional services, such as home health, personal care, private-duty nursing, and diagnostic screening (Kaiser Family Foundation 2014).

State variation in Medicaid coverage, with regard both to eligibility groups and to the services that

[3] For more detail, see Medicaid Eligibility at http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Eligibility/Eligibility.html.

[4] States also have the option to establish separate CHIP programs for children.

[5] Section 1115 waivers are also used to waive certain statutory and regulatory Medicaid provisions for research purposes and Medicaid demonstration projects.

[6] For more detail about states' options for covering non-citizens in Medicaid and CHIP, see: http://aspe.hhs.gov/hsp/11/ImmigrantAccess/Eligibility/ib.shtml#Medicaid.

are 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 kept in mind when interpreting the national- and state-level statistics presented in this chartbook.

Readers should also note that this chartbook reflects the Medicaid program as it existed in 2010. These data reflect some changes in Medicaid and CHIP since the MAX 2008 chartbook. In 2009, the Children's Health Insurance Program Reauthorization Act (CHIPRA) authorized states to make some modest 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. CHIPRA also offered financial incentives to state Medicaid programs that adopted policies that were expected to increase enrollment and retention for children. At the same time, CHIPRA limited CHIP coverage by requiring that states terminate all coverage of childless adults through CHIP programs by 2010 (with coverage for parents ending by October 2011). Although these changes resulted in some drops in adult CHIP enrollment in 2010, CHIPRA combined with a continued period of economic recession in many areas of the country could be expected to contribute to increased enrollment of children and pregnant women since 2008.

The MAX 2010 data also reflect some enrollment increases resulting from early implementation of the Affordable Care Act of 2010 (ACA), which authorized states to extend Medicaid coverage to low-income adults as early as March 2010. Four states expanded Medicaid coverage for adults in 2010: California (effective November 2010), Connecticut (effective April 2010), the District of Columbia (effective July 2010 and December 2010), and Minnesota (effective March 2010) (Kaiser Family Foundation 2012a).[7] In most states, however, the Medicaid program in 2010 still reflects 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 enrollees 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 FFS enrollees. For managed care enrollees, MAX includes capitation claims that show expenditures for managed care coverage and encounter records that show services provided via managed care plans.

Annual MAX data include eligibility and claims data for all Medicaid enrollees in the 50 states and the District of Columbia. The data do not include information about Medicaid enrollees in Puerto Rico or other U.S. territories. All Medicaid-expansion CHIP enrollees are included in MAX, but MAX contains only limited information for enrollees of separate CHIP programs. Medicaid-expansion CHIP enrollees, but not separate CHIP enrollees, are included (but not separately reported) in the figures and tables of this chartbook.

[7] New Jersey and Washington also expanded Medicaid coverage for adults, but these expansions were not effective until 2011.

MAX data are research extracts of MSIS. MSIS data, which CMS has collected from states since 1999, contain enrollee eligibility information and Medicaid claims paid in each quarter of the federal fiscal year (FFY).[8] In MSIS, claims are typically paid several months after service use, thus services do not always occur in the same period as the MSIS file. The MAX data system was developed to provide calendar-year utilization and expenditure information. MAX serves as a research tool for the examination of Medicaid enrollment, service utilization, and expenditures by subgroup and over time. Unlike Medicaid expenditure data reported in the CMS Form-64, MAX enables the examination of Medicaid utilization and service expenditures at the enrollee level.

To construct MAX, MSIS claims are merged with person-level enrollment information from MSIS to assemble services utilized by each enrollee during a calendar year. The MAX data system differs from MSIS in a number of ways:

- While MSIS claims files contain separate claim 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 that are reported retroactively in MSIS are incorporated into MAX.
- MSIS type-of-service information is remapped in MAX to reflect further type-of-service detail that may be helpful to researchers.
- MSIS Section 1915(c) waivers are remapped in MAX into more detailed waiver types to provide researchers with additional information about the populations targeted in each waiver.
- MSIS eligibility information 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.
- 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 2010 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 or ILTC), prescription drug (RX), and other service (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 contains only Medicaid-paid services, MAX does not capture service use or expenditures during periods of non-enrollment, services paid by other payers (including Medicare), or services provided at no charge. Because MAX consists only of enrollee-level information, it does not include prescription drug rebates received by Medicaid, Medicaid payments made to disproportionate share hospitals (DSH)—hospitals that serve a disproportionate share of low-income patients with special needs—payments made through

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

upper payment limit (UPL) programs, Medicaid payments to CMS for prescription drug coverage for dual enrollees, and payments to states to cover administrative costs. DSH payments, for example, accounted for about $11.3 billion, or 5.2 percent, of total Medicaid expenditures in FFY 2009 (National Health Policy Forum 2009).

Service utilization information in MAX may be missing or incomplete for certain groups, particularly (1) enrollees in both Medicaid and Medicare (dual enrollees), and (2) enrollees in Medicaid prepaid or managed care plans (either comprehensive or partial plans).

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

For enrollees 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 believed to be incomplete in MAX. CMS and states have been working to improve this reporting in recent years, and a MAX chartbook on encounter data that used MAX 2008 data suggests that in some states, these data may be reliable, particularly for some types of services (Borck et al. 2013). Given that these data are still unreliable in many states in 2010, we present only limited information based on encounter data. We do, however, provide some overview of how these data have become more available in some states by 2010 in Chapter 5.

People 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.[9]

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. Kansas and Maine were unable to accurately report their Medicaid claims, so the MAX 2010 files contain only the eligibility information for these states. Kansas and Maine eligibility data are reported throughout the chartbook, but the states are excluded from calculations that use claims data.

Source Data Used in This Chartbook

The source data used for the chartbook are the MAX 2010 and earlier year PS files. Most of the statistics presented in the chartbook 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.

[9] For enrollees in other, more limited managed care plans, the services provided through managed care may be missing from MAX, but FFS data are otherwise generally complete. For more information about the availability of utilization and expenditure information for managed care enrollees, see Chapters 3 and 5.

Resources for MAX

The figures and tables in this chartbook illustrate a small set of analyses possible 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:

Medicaid Pharmacy Benefit Use and Reimbursement Statistical Compendium: http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/Medicaid-Pharmacy.html

At the time of this writing, MAX data were available for calendar years 1999 through 2010. 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:

- MAX website: http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/MAXGeneralInformation.html
- Research Data Assistance Center (ResDAC) (contains information about how to obtain CMS data): http://www.resdac.org/cms-data
- Information on CMS privacy-protected data: http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/Privacy/index.html

2. Characteristics of Medicaid Enrollees

This chapter provides a national profile of Medicaid enrollees and their demographic and enrollment characteristics in 2010. The summary measures presented in this chapter reflect eligibility and coverage rules established by states regarding individuals and services covered by the program. Because state Medicaid programs vary greatly, national measures can be disproportionately affected by large states. State-to-state differences can be substantial, so some national measures should be interpreted with caution.

The source of state-level variation is multidimensional. The Social Security Act mandates that state Medicaid programs cover both a minimum set of services and a minimum defined population of eligible persons. Beyond this mandate, states have a great deal of flexibility in determining their Medicaid program's 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 enrollees across states. States also differ in their demographic characteristics and economic status. States 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.

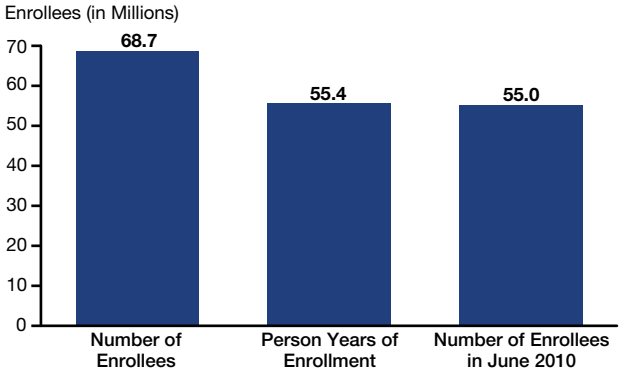
Despite the numerous factors that affect state Medicaid programs, common federal guidelines and a common data-reporting system (MSIS) make the examination of state-level summary statistics useful and feasible. The MAX data system, which is derived from MSIS, can be used to examine any state's Medicaid population in a national context. 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 statistics presented in this chapter, we encourage readers to review the MAX 2010 anomaly tables available on the MAX website.[10] In addition to identifying anomalous data, the anomaly tables document unusual aspects of state Medicaid programs that might affect data in MAX in that year.

Almost 69 million people—just over 22 percent of the U.S. population—were enrolled in Medicaid at some point in 2010 (Figure 2.1 and Appendix Table A2.1).[11] Because pathways to Medicaid eligibility, such as age, family status, and income, can change over time, Medicaid eligibility can be transitory. Only about 60 percent of Medicaid enrollees in 2010

[10] The MAX eligibility and claims anomaly tables for 2010 can be downloaded at: http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidData-SourcesGenInfo/MAXGeneralInformation.html.

[11] 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.

Figure 2.1
Total Medicaid Enrollment in 2010



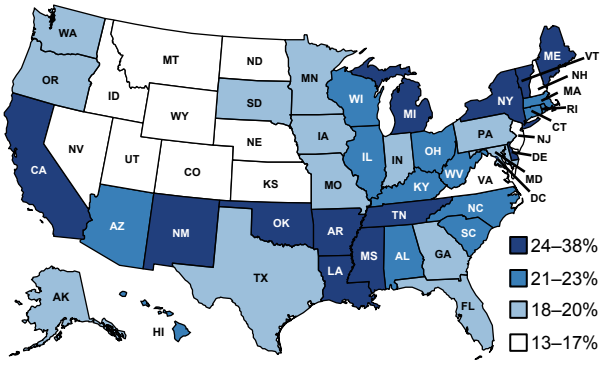
Source: Medicaid Analytic Extract 2010

were enrolled for the entire year, accounting for 55 million person-years of Medicaid enrollment.[12]

At the state level, Medicaid enrollment in 2010 ranged from fewer than 100,000 people in North Dakota and Wyoming to 11.6 million in California (Table 2.1). Enrollees in the three most populated states in the United States—California, New York, and Texas—made up one-third of all Medicaid enrollees in 2010.[13] As noted above, national averages can be strongly affected by these states and can thus be poor indicators of the characteristics of Medicaid enrollees in any individual state.

Medicaid enrollment ranged from about 13 percent of the population of four states—Nevada, New Hampshire, North Dakota, and Utah—to over 35 percent in the District of Columbia (Table 2.1). Medicaid is a means-tested program, and high Medicaid enrollment often indicates a high poverty rate. For example, Medicaid enrollment rates are generally high in southern states with high poverty levels (Figure 2.2).[14] Other factors, such as the generosity of state eligibility criteria and large optional programs, also influence Medicaid enrollment. California, for example, has the Family Planning, Access, Care and Treatment Program, which has received funding through an 1115 waiver since 1999. This program had about 2.2 million enrollees in 2010 and caused California to have one of the highest rates of Medicaid enrollment in the nation (31 percent) in 2010. Similarly, Massachusetts, New York, and Vermont, which had high rates of Medicaid enrollment in 2010 despite relatively low poverty rates, had large 1115 waivers that expanded Medicaid eligibility to higher-income children and adults.

Figure 2.2
Percentage of the Population (in Quartiles) Enrolled in Medicaid in 2010



Sources: Medicaid Analytic Extract 2010; U.S. Census Bureau

Medicaid enrollment increased by about 9 percent from 2008 to 2010, from 20.3 percent of the U.S. population to 22.2 percent in 2010. This represents a faster rate of growth than the growth experienced between 2004 and 2008, when Medicaid had an annualized rate of increase of less than 1 percent (Figure 2.3). Since the first MAX chartbook in 2002, the percentage of the population in Medicaid has increased 20 percent (Appendix Table A2.2). The

[12] Because enrollees 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.

[13] State population estimates were taken from U.S. Census reports at: www.census.gov/geo/www/guidestloc/guide_main.html.

[14] Estimates of the percentage of the population below the FPL are drawn from the U.S. Census Bureau, American Community Survey, 2010, available at: www.census.gov/prod/2010pubs/acsbr09-1.pdf.

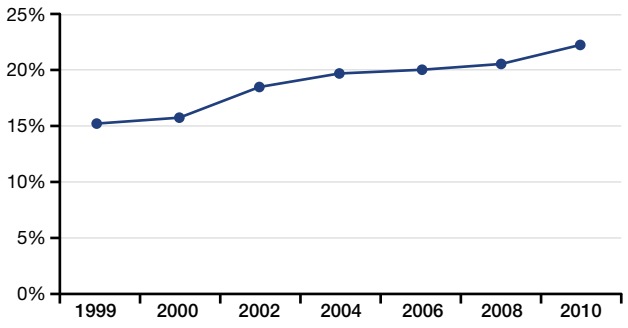
Table 2.1
Medicaid Enrollment in 2010

States	Number of Enrollees	Percentage of State Population	Percentage of Enrollees Enrolled All Year	Total Person-Years of Enrollment	Number of Enrollees in June 2010
United States	**68,716,830**	**22.2**	**59.7**	**55,433,757**	**55,028,691**
Alabama	1,025,693	21.4	64.5	861,850	857,097
Alaska	142,512	20.0	55.2	113,259	113,218
Arizona	1,452,923	22.7	64.5	1,232,731	1,217,904
Arkansas	783,018	26.8	66.5	660,885	647,176
California	11,602,118	31.1	53.7	9,072,935	9,061,679
Colorado	717,492	14.2	51.2	549,696	545,708
Connecticut	738,792	20.7	61.2	605,320	615,569
Delaware	229,612	25.5	57.9	185,388	183,222
District of Columbia	227,283	37.6	60.4	180,662	163,605
Florida	3,750,082	19.9	54.3	2,869,993	2,814,784
Georgia	1,898,703	19.5	53.2	1,469,800	1,458,770
Hawaii	295,109	21.6	68.5	251,547	247,263
Idaho	262,544	16.7	55.7	202,684	198,103
Illinois	2,954,366	23.0	76.2	2,596,931	2,593,673
Indiana	1,241,204	19.1	62.1	1,032,207	1,044,093
Iowa	580,713	19.0	58.4	466,986	461,147
Kansas	399,640	14.0	55.4	316,453	316,013
Kentucky	990,373	22.8	59.7	796,404	793,822
Louisiana	1,324,653	29.1	76.1	1,173,353	1,174,260
Maine	387,427	29.2	71.6	335,070	334,508
Maryland	1,088,309	18.8	64.7	907,971	907,238
Massachusetts	1,516,456	23.1	31.8	991,774	866,799
Michigan	2,335,161	23.6	61.5	1,898,018	1,879,825
Minnesota	946,226	17.8	57.1	741,427	741,031
Mississippi	770,879	26.0	61.6	638,279	629,458
Missouri	1,176,302	19.6	60.9	945,710	934,485
Montana	136,548	13.8	54.8	107,373	107,621
Nebraska	290,099	15.9	58.4	229,203	226,560
Nevada	363,206	13.4	46.1	267,404	264,997
New Hampshire	169,281	12.9	59.7	135,735	135,488
New Jersey	1,288,627	14.6	68.5	1,085,003	1,082,705
New Mexico	643,709	31.2	68.2	550,910	552,338
New York	5,689,534	29.3	64.5	4,745,840	4,734,108
North Carolina	1,961,676	20.5	59.1	1,577,037	1,574,943
North Dakota	86,562	12.8	52.5	65,898	65,783
Ohio	2,452,760	21.3	68.1	2,087,101	2,067,622
Oklahoma	929,190	24.7	56.8	739,970	734,388
Oregon	681,143	17.7	53.3	517,727	506,831
Pennsylvania	2,449,082	19.3	66.8	2,052,200	2,043,337
Rhode Island	239,243	22.7	62.9	198,950	198,915
South Carolina	997,841	21.5	61.4	820,184	810,540
South Dakota	144,593	17.7	58.4	115,680	115,899
Tennessee	1,539,201	24.2	70.3	1,321,364	1,328,177
Texas	4,976,683	19.7	50.7	3,786,327	3,758,802
Utah	361,382	13.0	43.1	252,352	249,941
Vermont	198,309	31.7	57.7	162,478	162,634
Virginia	1,079,677	13.5	62.7	886,747	881,984
Washington	1,366,485	20.3	61.0	1,115,120	1,112,833
West Virginia	430,935	23.2	58.7	350,878	349,919
Wisconsin	1,315,111	23.1	64.0	1,096,848	1,094,774
Wyoming	88,363	15.7	52.9	68,095	67,102

Source: Medicaid Analytic Extract 2010

rate of increase between 2002 and 2010 was greatest for adults (25 percent), followed by children (20 percent), individuals with disabilities (17 percent), and aged individuals (12 percent).

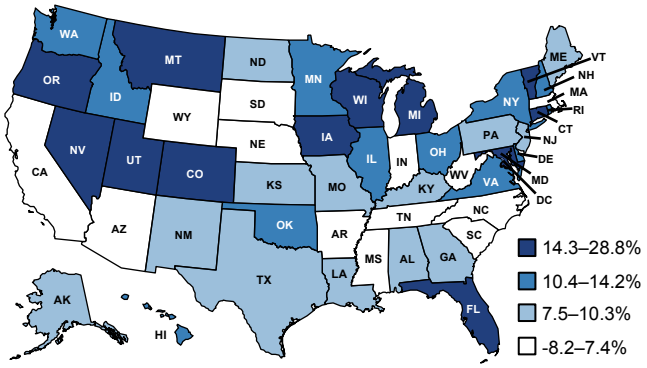
Figure 2.3
Percentage of the Population Enrolled in Medicaid 1999-2010



Sources: Medicaid Analytic Extract 1999-2010; U.S. Census Bureau

The period from the 2008 chartbook to 2010 was a period of Medicaid growth in most states, and the scale of growth in some states was particularly notable. Only three states, Arizona, Massachusetts, and Tennessee, reported enrollment declines. Forty-seven states and the District of Columbia reported increased enrollment as a percentage of the state population during this period, with 13 states reporting growth of about 15 percent or more (Figure 2.4).

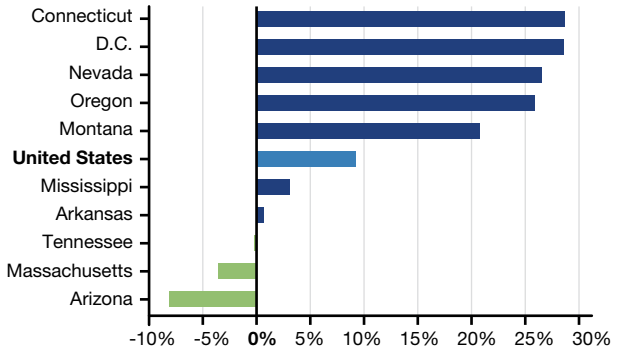
Figure 2.4
Growth in Medicaid Enrollment (in Quartiles), 2008-2010



Source: Medicaid Analytic Extract 2008-2010

Some of the states with the highest rates of growth, such as Colorado, Montana, Nevada, and Utah, were states that had among the lowest percentages of their state population in Medicaid in 2008. Connecticut and the District of Columbia reported increases of almost 29 percent, the highest rates in the country (Figure 2.5). Shifts of this magnitude can sometimes be attributed to substantial changes in state eligibility policy, particularly implementation of optional programs. For example, in 2010 Connecticut increased income eligibility levels for some Medicare enrollees, leading to an increase in the number of dual eligibles in the state. Also, Connecticut and the District of Columbia both expanded Medicaid coverage to uninsured adults with income less than 133 percent of the FPL in 2010. These policy changes resulted in considerable increases in Medicaid enrollment in these states.[15]

Figure 2.5
Growth in Medicaid Enrollment, 2008-2010: Top and Bottom 5 States



Source: Medicaid Analytic Extract 2008-2010

[15] The enrollment increase in the District of Columbia may also be a result of a new Medicaid Management Information System (MMIS) for MAX 2010 that led to improved data reporting.

Demographic Characteristics of All Medicaid Enrollees

In 2010, just over half of all Medicaid enrollees were children (Table 2.2): 53 percent of Medicaid enrollees were under age 21, including about 3 percent who were infants (under 1 year). In comparison, working-age adults (age 21 to 64) accounted for 37 percent of Medicaid enrollees. The elderly made up only about 9 percent of all Medicaid enrollees.

Table 2.2
Characteristics of Medicaid Enrollees in 2010

	Number of Enrollees	Percentage of Enrollees
All Enrollees	68,716,830	100.0
Age		
0 years	2,317,391	3.4
1-20 years	34,303,514	49.9
21-64 years	25,652,451	37.3
65 years and older	6,351,239	9.2
Gender		
Male	28,586,201	41.6
Female	40,035,537	58.3
Race		
White	30,595,298	44.5
African American	15,352,040	22.3
Asian	2,245,478	3.3
Native American	1,026,356	1.5
Pacific Islander	714,117	1.0
Unknown	19,085,599	27.8
Ethnicity		
Hispanic or Latino	16,855,288	24.5

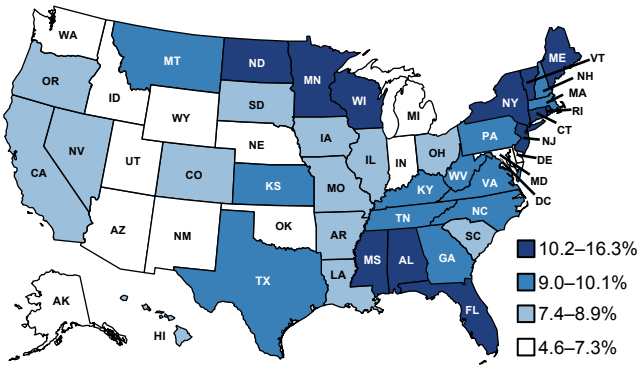
Source: Medicaid Analytic Extract 2010

Figure 2.6 shows the percentage of the Medicaid population in each state that was 65 or older in 2010, one indication of the density of higher-cost enrollees. States with more elderly in their Medicaid populations tended to be those with more elderly in their general populations. Florida had the highest proportion of people 65 and over in the state population and the third-highest percentage of Medicaid enrollees 65 and older (almost 13 percent, compared with about 9 percent nationally; see Appendix Table A2.3).[16]

[16] Estimates of the percentage of the state population 65 and older are drawn from the U.S. Census Bureau, available at: www.census.gov/prod/cen2010/briefs/c2010br-03.pdf.

Similarly, Maine had the highest percentage of Medicaid enrollees 65 and older (16 percent) and also one of the highest rates of people 65 and older in the state population. Alaska and Utah had the lowest proportions of elderly in their general populations and two of the lowest percentages of elderly Medicaid enrollees.

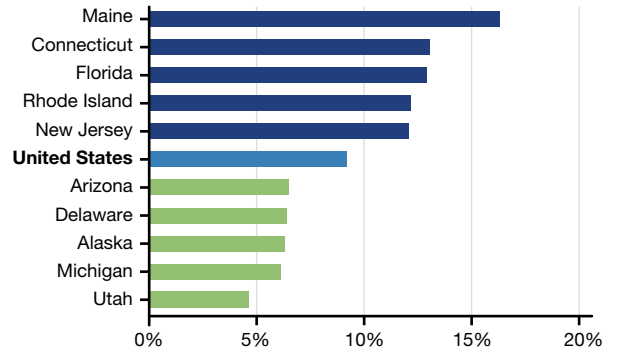
Figure 2.6
Percentage of Medicaid Enrollees (in Quartiles) Who Were 65 and Older in 2010



Source: Medicaid Analytic Extract 2010

Other factors that influence the age distribution of Medicaid enrollees in a state are expansions to cover children and adults. For example, in 2010, three of the states with smaller proportions of elderly among Medicaid enrollees than in their total populations (Arizona, Michigan, and New Mexico) had large waiver programs that expanded coverage to additional children and adults (Figure 2.7).

Figure 2.7
Percentage of Medicaid Enrollees Who Were 65 and Older in 2010: Top and Bottom 5 States



Source: Medicaid Analytic Extract 2010

Whites comprised 45 percent of the Medicaid population and were the largest racial/ethnic group enrolled in Medicaid in 2010 (Table 2.2). An additional 22 percent of enrollees were African American. Smaller percentages were Asian (3 percent), Native American (2 percent), and Pacific Islander (1 percent). Twenty-five percent of enrollees were Hispanic or Latino. Increasingly, states identify enrollees as "unknown race" in MSIS, with about 28 percent of enrollees thus identified in 2010, compared to less than 10 percent in 2004. Among reasons for the increase in unknown race status are that states have increasingly eliminated the requirement for in-person applications for Medicaid and that fewer states require applicants to self-report race in their Medicaid applications. Moreover, in many states individuals with Hispanic ethnicity are not asked to separately report their race.

Almost 60 percent of Medicaid enrollees in 2010 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 maintained large family-planning programs that 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 of state Medicaid enrollees, respectively.

Pathways to Medicaid Eligibility

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

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[17] and, starting in 2010 in states implementing the ACA expansion, working-age adults
3. *Aged:* people aged 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 which 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 months.[18]

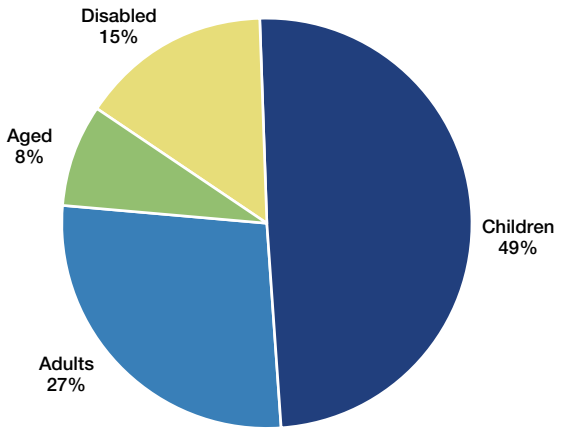
Before the ACA, working-age adults who were not disabled and had no dependent children typically did not qualify for Medicaid. In 2010, 21 states and the District of Columbia had obtained Section 1115 Medicaid waivers to cover this group, and three states and the District of Columbia had adopted the early ACA expansion of Medicaid coverage to uninsured adults (see Chapter 7 on Waiver Enrollment and Utilization for more detail on Section 1115 waivers).

The BOE groups generally correspond to age, but there are some differences. Children and adults under 65 who are eligible for Medicaid because of disabilities are reported to the disabled eligibility group. People over 65 with disabilities are usually reported in the aged category, but some states report them as disabled. Figure 2.8 shows the composition of Medicaid enrollees by BOE in 2010. Those in the child category made up about half of all enrollees; eligible adults accounted for

[17] 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.

[18] This definition of disability is employed in Medicare, Medicaid, and in the income security programs with which they are associated, including the Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI) programs.

Figure 2.8
Medicaid Enrollment by Basis of Eligibility in 2010



Source: Medicaid Analytic Extract 2010

just over a quarter of Medicaid enrollees; smaller shares were aged (8 percent) and individuals with disabilities (15 percent).

Although Medicaid enrollees who were aged or eligible on the basis of disability were the smallest eligibility groups in 2010, these enrollees tended to have longer enrollment periods than children and adults. Length of Medicaid enrollment in 2010 varied substantially by eligibility group, with more of the aged and those eligible on the basis of disability enrolled for the full year (74 and 79 percent, respectively) than children and adults (61 and 41 percent, respectively) (Table 2.3). One explanation for this pattern is that once aged and disabled enrollees are eligible, the factors related to Medicaid qualification are unlikely to change. Children and non-disabled adults, however, may be more likely to experience changes in family status and income. In addition, children may age out of eligibility.

There appears to be a strong relationship between age and service utilization and expenditures among Medicaid enrollees. Children and non-disabled adults often use only limited services, whereas the elderly, as well as enrollees eligible on the basis of

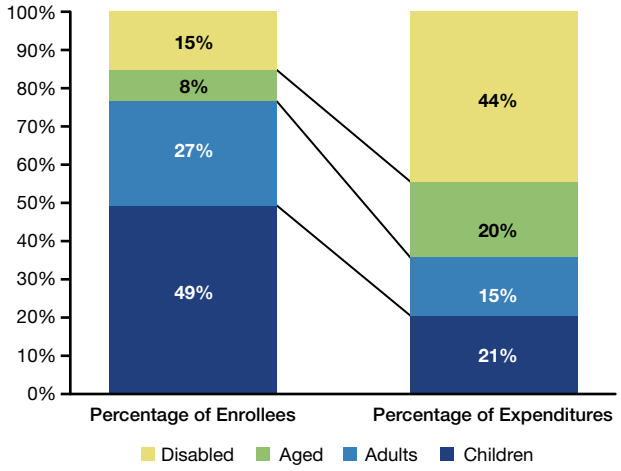
Table 2.3
Number and Percentage of Medicaid Enrollees Enrolled All Year in 2010

	Number of Enrollees	Percentage of Enrollees
Total	41,023,948	59.7
Aged	50,850,454	74.0
Disabled	54,355,013	79.1
Children	42,192,134	61.4
Adults	28,380,051	41.3

Source: Medicaid Analytic Extract 2010

disability, tend to use a variety of acute care services and expensive long-term care. Enrollees who were aged or had disabilities constituted less than a quarter of all Medicaid enrollees in 2010, but they accounted for 64 percent of Medicaid expenditures (Figure 2.9). In 2010, close to half of all expenditures (44 percent) paid on behalf of enrollees were for people with disabilities; another 20 percent were spent on the aged. In comparison, children accounted for 21 percent and adults accounted for 15 percent of all Medicaid expenditures in 2010.

Figure 2.9
Medicaid Enrollment and Expenditure by Basis of Eligibility in 2010



Source: Medicaid Analytic Extract 2010

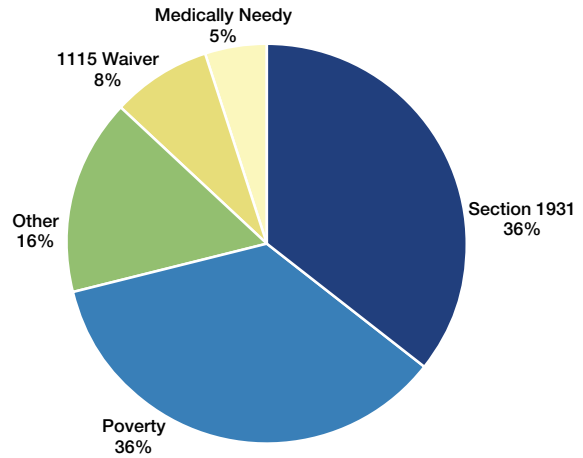
The makeup of enrollees by BOE in a state depends on a state's demographic composition, eligibility rules, and many other factors. Table 2.4 shows the variation across states in the distribution of enrollees among eligibility groups. In most states, the largest proportion of enrollees was children and the smallest was aged, often by a wide margin. The percentage of enrollees who were children in 2010 ranged from less than 30 percent in Massachusetts to 65 percent in Idaho and Wyoming. The only states that had more adult enrollees than children were states that had large 1115 waivers for adults, aged, or enrollees with disabilities, such as California, Delaware, Massachusetts, New York and Vermont. In five states (Kentucky, Maine, Mississippi, Pennsylvania, and West Virginia), at least one-third of enrollees were aged or eligible on the basis of disability in 2010.

While BOE represents the population subgroup through which a person becomes eligible for Medicaid, MAS reflects the primary financial eligibility criteria met by the enrollee. The five MAS groups include:

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. These income eligibility levels are 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 includes Medicare cost-sharing dual enrollees as well as children and adults who are 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 qualifying under Section 1931 rules and poverty-related rules accounted for the largest portions of the Medicaid population (each represented about 36 percent of enrollees) in 2010 (Figure 2.10). Eight percent were eligible under a state 1115 waiver program, and almost 5 percent were medically needy. Sixteen percent qualified under other eligibility criteria.

Figure 2.10
Medicaid Enrollment by Maintenance Assistance Status in 2010



Source: Medicaid Analytic Extract 2010
Note: 1115 Waiver category includes individuals who are covered under 1115 demonstration expansion programs.

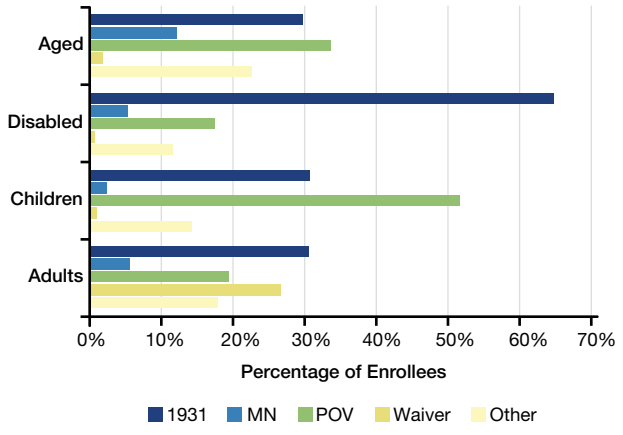
Table 2.4
Medicaid Enrollment by Basis of Eligibility (Percentage of Enrollees) in 2010

State	Children	Adults	Aged	Disabled	Aged or Disabled
United States	**49.2**	**27.2**	**8.3**	**15.2**	**23.6**
Alabama	51.7	15.9	9.3	23.1	32.4
Alaska	59.4	22.3	5.4	12.9	18.3
Arizona	44.6	39.7	5.5	10.2	15.7
Arkansas	57.1	15.0	8.9	18.9	27.8
California	39.6	42.8	7.2	10.4	17.6
Colorado	57.9	19.8	8.0	14.3	22.4
Connecticut	41.4	35.5	12.9	10.2	23.1
Delaware	40.5	42.0	6.3	11.2	17.4
District of Columbia	38.9	37.1	5.2	18.9	24.1
Florida	51.3	20.1	11.6	17.0	28.6
Georgia	58.8	15.6	7.8	17.9	25.7
Hawaii	46.8	35.5	8.2	9.5	17.7
Idaho	64.6	12.9	6.8	15.7	22.5
Illinois	55.1	26.7	5.4	12.8	18.2
Indiana	57.9	20.7	7.1	14.3	21.4
Iowa	49.5	29.3	7.3	14.0	21.2
Kansas	56.6	14.3	9.4	19.7	29.1
Kentucky	51.6	14.6	9.8	24.1	33.9
Louisiana	56.6	17.5	8.7	17.2	25.9
Maine	36.4	30.1	16.2	17.4	33.5
Maryland	53.2	26.2	7.1	13.5	20.6
Massachusetts	29.9	38.5	9.9	21.7	31.6
Michigan	51.1	27.4	6.1	15.4	21.5
Minnesota	47.5	28.1	10.2	14.2	24.4
Mississippi	52.1	14.7	9.6	23.5	33.1
Missouri	54.0	18.8	8.4	18.8	27.2
Montana	57.1	16.1	9.4	17.3	26.8
Nebraska	62.9	16.2	7.0	13.9	20.9
Nevada	59.4	20.0	7.5	13.2	20.6
New Hampshire	59.2	13.8	9.3	17.7	27.0
New Jersey	52.2	21.3	10.3	16.2	26.5
New Mexico	56.0	26.5	5.2	12.2	17.4
New York	37.4	39.4	9.1	14.2	23.2
North Carolina	53.3	20.3	9.4	17.0	26.4
North Dakota	54.0	21.0	11.0	13.9	24.9
Ohio	53.5	23.0	7.4	16.1	23.5
Oklahoma	59.1	19.9	7.1	13.9	21.0
Oregon	49.1	27.7	8.5	14.7	23.2
Pennsylvania	44.0	21.2	9.9	24.9	34.8
Rhode Island	44.0	26.1	10.4	19.5	30.0
South Carolina	53.7	21.5	7.6	17.2	24.8
South Dakota	62.2	15.7	7.6	14.5	22.1
Tennessee	52.7	20.2	7.7	19.4	27.0
Texas	63.6	13.7	9.1	13.6	22.7
Utah	57.3	26.0	4.1	12.6	16.6
Vermont	34.6	41.9	11.2	12.3	23.5
Virginia	57.4	15.8	9.3	17.5	26.8
Washington	56.1	21.5	7.1	15.3	22.4
West Virginia	47.3	14.8	9.7	28.2	37.9
Wisconsin	42.1	34.4	10.5	13.1	23.5
Wyoming	65.0	15.2	6.7	13.2	19.8

Source: Medicaid Analytic Extract 2010

Rates of enrollment in MAS categories varied markedly by eligibility group (Figure 2.11). Qualification under Section 1931 rules remained the primary route to Medicaid eligibility among enrollees eligible on the basis of disability. By comparison, aged enrollees qualified almost equally through Section 1931 and poverty-related rules. Section 1931 and 1115 waiver programs were the most common routes to Medicaid eligibility for adults. Just over half of all child enrollees qualified for Medicaid through poverty criteria. 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 diverge from national patterns. In 47 states and the District of Columbia, Section 1931 rules represented the most common pathway for enrollees with disabilities. There was greater diversity in pathways for the aged. In 24 states and the District of Columbia, the most common pathway for aged enrollees was poverty-related rules, and in 6 states, Section 1931 rules was the most common pathway. For 14 states, however, other eligibility criteria were the most common pathway for aged enrollees, indicating that these states may have had more generous standards for long-term care, larger HCBS waiver programs, or populations of aged enrollees who otherwise differed from the national rates (See Appendix Tables A2.6 to A2.8 for additional information about basis of eligibility and maintenance assistance status categories by state).

Figure 2.11
Maintenance Assistance Status by Basis of Eligibility in 2010



Source: Medicaid Analytic Extract 2010
1931 = Section 1931; MN = medically needy; POV = Poverty-related eligible; Waiver = 1115 Waiver.

Overview of Key Medicaid Groups

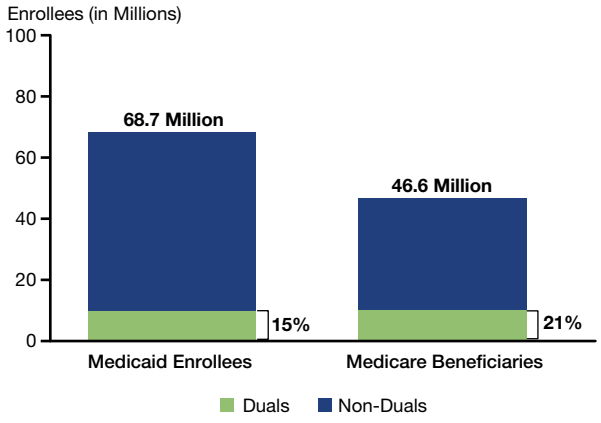
The following sections in this chapter introduce some key groups of Medicaid enrollees with which researchers should be familiar. Enrollment and service utilization among the duals and managed care enrollees are further explored in Chapters 5 and 6 of this chartbook, but readers should consider these groups in the national enrollment and service utilization patterns described in Chapters 2 through 4.

Dual Enrollees

Most Medicaid enrollees who are aged or eligible on the basis of disability are also enrolled in Medicare. These enrollees are commonly referred to as "dual enrollees" or simply "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 2010.

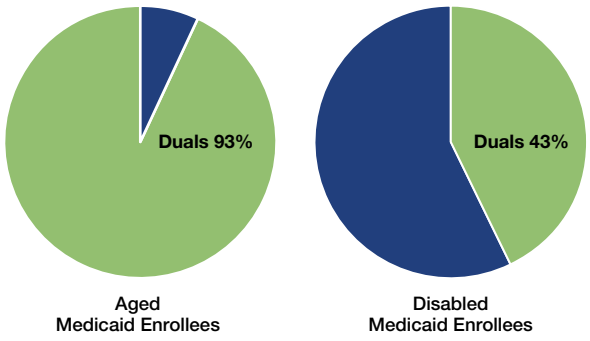
In total, there were almost 10 million duals in 2010. They represented about 15 percent of the 69 million Medicaid enrollees and 21 percent of all Medicare beneficiaries that year (Figure 2.12). Nationally, almost 93 percent of aged enrollees and 43 percent of Medicaid enrollees eligible on the basis of disability were duals in 2010 (Figure 2.13).

Figure 2.12
Ever Enrolled in Both Medicare and Medicaid in 2010



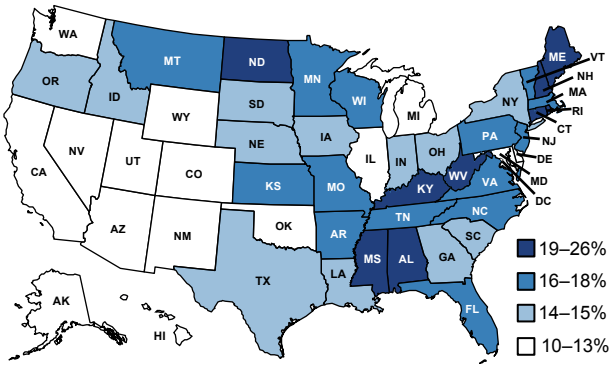
Sources: Medicaid Analytic Extract 2010; 2011 Medicare and Medicaid Statistical Supplement

Figure 2.13
Percentage Ever Dually Enrolled in Both Medicare and Medicaid in 2010



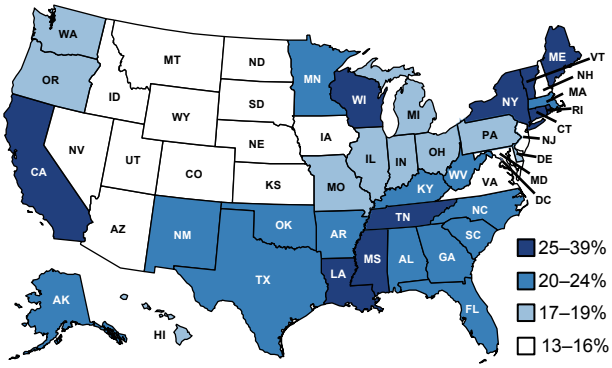
Source: Medicaid Analytic Extract 2010

Figure 2.14
Percentage of Medicaid Enrollees Who Were Duals in 2010



Source: Medicaid Analytic Extract 2010
Dual = ever enrolled in both Medicaid and Medicare in 2010.

Figure 2.15
Percentage of Medicare Beneficiaries Who Were Duals in 2010



Sources: Medicaid Analytic Extract 2010; Medicare and Medicaid Statistical Supplement 2010
Dual = ever enrolled in both Medicaid and Medicare in 2010

The percentage of enrollees dually enrolled in Medicare and Medicaid in 2010 ranged from about 10 percent in Arizona and Utah to at least 20 percent in Alabama, Maine, Mississippi, and West Virginia (Figure 2.14). Because such a high percentage of aged enrollees are duals, the percentage of Medicaid enrollees dually eligible corresponded closely with the percentage aged 65 or older (Appendix Table A2.9).

In contrast to the proportion of Medicaid enrollees who are duals, the percentage of Medicare enrollees who are duals within a state reflects the portion of Medicare beneficiaries with low income and few assets (Figure 2.15).[19] However, a relatively high Medicaid eligibility income threshold in a state can also result in high dual enrollment among Medicare beneficiaries. For example, Vermont has 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

[19] Estimates of the percentage of the population below the FPL are drawn from the U.S. Census Bureau, American Community Survey, 2010, available at: http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

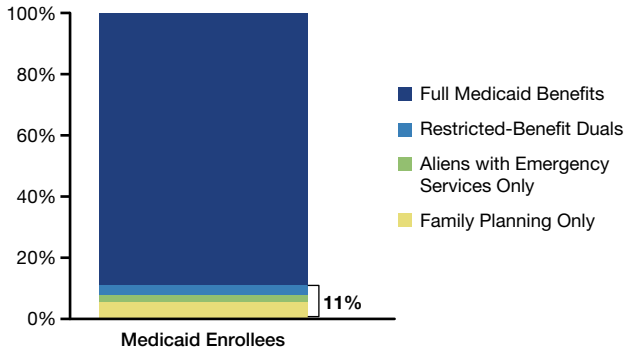
benefits to higher-income individuals who were aged or had disabilities in 2010. Maine has a particularly high rate of dual eligible enrollment because in addition to its relatively large aged population, the state also extends Medicaid eligibility to Medicare enrollees who are aged or have disabilities with incomes up to 100 percent of the FPL.

Because duals are among the most vulnerable and costly Medicaid enrollees, we examine their enrollment characteristics, service use, and expenditures in more detail in Chapter 6. In reviewing information presented on duals in this and subsequent chapters, readers should bear in mind that Medicare covers most acute-care services for duals. Medicaid utilization and expenditures, therefore, understate their overall use and 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. Therefore, 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 Enrollees

Most Medicaid enrollees, including duals, qualify for the full range of Medicaid benefits provided in their state. However, a subset of enrollees receives only very limited health coverage; they are referred to as "restricted-benefit" enrollees. These include (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 enrollees accounted for about 11 percent of Medicaid enrollees in 2010 (Figure 2.16).[20]

Figure 2.16
Medicaid Enrollees Receiving Only Restricted Medicaid Benefits in 2010



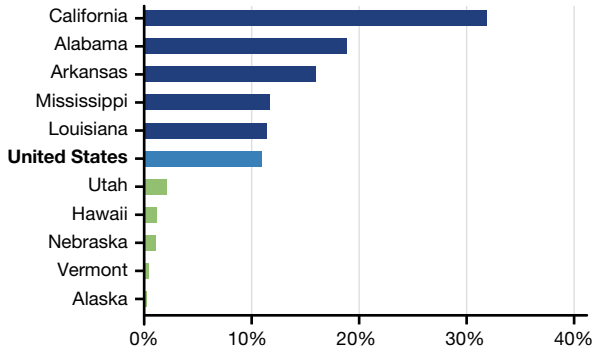
Source: Medicaid Analytic Extract 2010
Dual = ever enrolled in both Medicare and Medicaid in 2010

The proportion of enrollees who received only restricted Medicaid benefits in 2010 ranged from less than 1 percent in Alaska and Vermont to almost one-third in California (Figure 2.17). Of the states with the largest percentages of enrollees with restricted benefits in 2010, California, Arkansas, and Alabama each had large family-planning-only programs: 23 percent of all enrollees in California, 9 percent in Arkansas, and 8 percent in Alabama received only family planning services. In addition, 8 percent of enrollees in California were aliens eligible only for emergency services, and 10 percent in Alabama were restricted-benefit duals, for whom Medicaid covers only Medicare cost-sharing expenses. By comparison, in almost half of states (24), less than 6 percent of enrollees received only restricted benefits (including family-planning-only enrollees, aliens eligible for emergency services only, or restricted-benefit duals). (See Appendix Table A2.10 for additional state-level details.)

All of the estimates provided thus far in this chapter include all Medicaid enrollees. Estimates that focus

[20] In 2008, MAX data also started identifying a fourth group of Medicaid enrollees with restricted benefits: individuals who receive only assistance with the purchase of private insurance. These enrollees could not be systematically identified in all states in 2010, so these enrollees are not presented in this chartbook. However, researchers interested in identifying these enrollees can use MAX data to find them in some states, as indicated in the MAX 2010 eligibility anomaly tables.

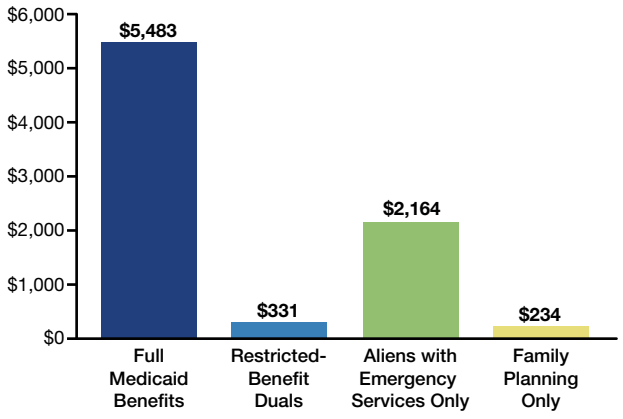
Figure 2.17
Percentage of Enrollees Receiving Only Restricted Benefits in 2010: Top and Bottom 5 States



Source: Medicaid Analytic Extract 2010

on full-benefit enrollees exclusively would look different. In this chartbook, we restrict analyses of service use and costs to enrollees receiving full Medicaid benefits. As Figure 2.18 shows, service utilization and expenditures for the enrollees with benefit restrictions differ notably from those of full-benefit enrollees. For this reason, enrollees eligible only for limited services are not included because they can distort average per capita expenditure estimates, particularly in states with relatively

Figure 2.18
Average Medicaid Expenditures Per Enrollee by Type of Benefits in 2010



Source: Medicaid Analytic Extract 2010
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

large restricted-benefit populations. Some states also offered somewhat reduced benefits to some Section 1115 waiver enrollees, but these benefits are generally more extensive than the benefits offered to the restricted-benefit enrollees, and these enrollees are included in counts of full-benefit enrollees.

In addition to identifying individuals with benefit restrictions, MAX data also include information about individuals who receive their benefits through several selected programs. In general, the benefits these Medicaid enrollees receive are either equivalent to the full range of Medicaid benefits, or they are substantial enough that these enrollees are generally counted as full Medicaid enrollees. Table 2.5 shows the additional benefit groups that can be identified in MAX in each state. Some of these programs, such as individuals receiving pregnancy-related benefits, are reported with sizeable enrollment in most states. Money Follows the Person enrollment is also reported in most (30) states, but enrollment in this program is generally low. Other benefit groups, such as the Alternative Benchmark Plan, the Psychiatric Residential Treatment Facility (PRTF) grant, and Health Opportunity Account program, are reported in few states and have low national enrollment.

Full-Benefit Enrollees 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 general 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

Table 2.5
Benefit Categories for Full-Benefit Medicaid Enrollees in 2010

State	Pregnancy Related Benefits	Alternative Benchmark Plan	Money Follows the Person	PRTF Grant	Health Opportunity Account	Other
Alabama	48,599	0	0	0	0	0
Alaska	106	0	0	0	0	0
Arizona	0	0	0	0	0	0
Arkansas	0	0	93	0	0	0
California	104,632	0	779	0	0	9,703
Colorado	0	0	0	0	0	0
Connecticut	0	0	399	0	0	0
Delaware	0	0	30	0	0	0
Dist. of Columbia	1,072	0	53	0	0	0
Florida	36,786	0	0	0	0	245,142
Georgia	5,302	0	431	773	0	580
Hawaii	0	0	49	0	0	0
Idaho	11,066	242,613	0	0	0	0
Illinois	9,668	0	204	0	0	0
Indiana	41,301	0	187	712	59,966	23,850
Iowa	1,846	0	158	0	0	0
Kansas	0	207	219	356	0	0
Kentucky	8,467	NR	146	0	0	0
Louisiana	60,335	0	75	0	0	18,235
Maine	138	0	0	0	0	0
Maryland	0	0	677	153	0	70,512
Massachusetts	702	0	0	0	0	126,447
Michigan	0	0	547	0	0	126,570
Minnesota	45	0	0	0	0	25,425
Mississippi	36,409	0	0	11	0	3,708
Missouri	5,027	0	163	0	0	0
Montana	0	0	0	40	0	15,074
Nebraska	333	0	61	0	0	0
Nevada	8,767	0	0	0	0	19
New Hampshire	0	0	47	0	0	0
New Jersey	12,883	0	136	0	0	164,558
New Mexico	17,971	0	0	0	0	55,628
New York	27,098	0	244	0	0	959,090
North Carolina	79,914	0	57	0	0	73,875
North Dakota	0	0	35	0	0	0
Ohio	0	0	469	0	0	0
Oklahoma	36	0	152	0	0	11
Oregon	0	0	242	0	0	85,258
Pennsylvania	1,596	0	462	0	0	73,268
Rhode Island	12,527	0	0	0	0	20,799
South Carolina	0	0	0	66	11	0
South Dakota	5,188	0	0	0	0	0
Tennessee	15,172	0	0	0	0	0
Texas	750	0	2,988	0	0	69,596
Utah	0	0	0	0	0	30,881
Vermont	0	0	0	0	0	29,707
Virginia	0	0	236	40	0	13,908
Washington	0	0	796	0	0	24,276
West Virginia	0	227,202	0	0	0	0
Wisconsin	5,592	17,796	91	0	0	468
Wyoming	4,594	0	0	0	0	77
States Reporting Program Enrollment	**31**	**4**	**30**	**8**	**2**	**27**
Total NR or 0	**20**	**47**	**21**	**43**	**49**	**24**

Source: Medicaid Analytic Extract 2010

Notes: NR = not reported; PRTF = Psychiatric Residential Treatment Facility.

To protect privacy, state counts representing fewer than 11 people were recoded to 11 for the state count, and the denominator was used to calculate an average measure. If only one state had a count of less than 11, a value of 11 was used to contribute to the U.S. total.

Most full-benefit enrollees in each state are assigned to the category of full Medicaid benefits. Table 2.5 shows enrollment in additional full-benefit equivalent categories in MAX 2010.

See the MAX 2010 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.

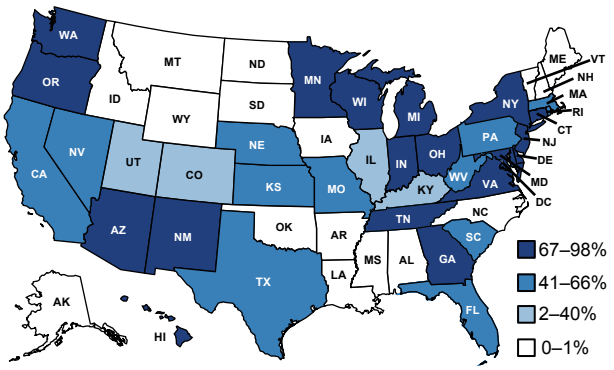
coverage varies greatly by plan. They may, for example, cover only dental care or behavioral health services or non-emergency transportation services. All other services for these enrollees are provided on an FFS basis. PCCMs are the least comprehensive managed care type identified in MAX. PCCMs involve the payment of a small premium (often a few dollars 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 enrollees are on an FFS basis. In some states, PCCM premiums are not paid unless case management services are delivered.

Just over half of all full-benefit Medicaid enrollees (54 percent) were in comprehensive managed care at some point in 2010 (see Appendix Table A5.1).[21] This national total includes enrollees in 43 states, from less than 1 percent of enrollees in PACE plans in seven states to more than 95 percent of enrollees in Hawaii and Tennessee.[22] Variation across states in enrollment in comprehensive managed care is of particular importance because it has implications for Medicaid utilization and expenditure analyses using MAX. Records of capitated services, called encounter data, may be 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 is available for these enrollees in MAX. In 2010, states varied considerably in the percentage of enrollees in comprehensive managed care; 15 states covered less than 1 percent of full-benefit enrollees in comprehensive managed care plans, whereas 18 states and the District of Columbia covered more than two-thirds of enrollees in these plans (Figure 2.19). Medicaid managed care enrollment is discussed in more detail in Chapter 5. The next chapter provides an overview of Medicaid expenditures and service utilization for key populations of Medicaid enrollees nationally and at the state-level.

[21] Because restricted-benefit enrollees 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.

[22] The seven states with less than one percent of enrollees in PACE plans and no other comprehensive managed care enrollment are Arkansas, Iowa, Louisiana, North Carolina, North Dakota, Oklahoma, and Vermont. In addition, Montana reported fewer than five enrollees in comprehensive managed care each month in 2010, and this reporting may be have been in error.

Figure 2.19
Percentage Ever Enrolled in Comprehensive Managed Care in 2010



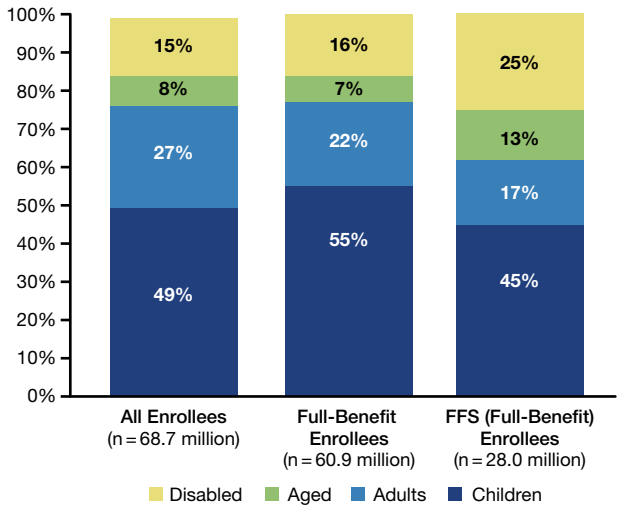
Source: Medicaid Analytic Extract 2010

3. Medicaid Expenditures Among Full-Benefit Enrollees

This chapter examines Medicaid costs nationally and for each state. The MAX dataset is unique because it contains person-level service utilization and expenditures for Medicaid enrollees. As noted in Chapter 1, this information is contained in three types of records: 1) FFS claims report expenditures for services provided on an FFS basis; 2) capitation payments report monthly payments made by state Medicaid agencies to managed care plans; 3) encounter data report services provided to enrollees via managed care plans (but unlike FFS claims, these records do not contain service-level expenditure information). Taken together, these three types of records offer a unique overview of Medicaid expenditures for full-benefit Medicaid enrollees in a given year.[23] Because different types of information are available depending on an enrollee's managed care status, this chartbook examines expenditures and service utilization patterns separately for comprehensive managed care enrollees and those enrolled on an FFS basis. This chapter provides national- and state-level statistics on service utilization and expenditures for all full-benefit enrollees and then separately examines patterns for comprehensive managed care enrollees and for full-benefit enrollees with no comprehensive managed care enrollment in 2010, called FFS enrollees.

The populations of full-benefit and FFS enrollees differ somewhat in composition from the population of all Medicaid enrollees described in Chapter 2 because some eligibility groups are more likely to receive restricted benefits or be enrolled in comprehensive managed care. For example, non-disabled adults are more likely to be enrolled as restricted-benefit enrollees than other populations. And children and adults are more likely to be enrolled in comprehensive managed care, and thus excluded from the FFS population, than individuals who are aged or have disabilities. Figure 3.1 compares the composition of the populations of all Medicaid enrollees (68 million enrollees in 2010),

Figure 3.1
Percentage of Enrollees in 2010, by Basis of Eligibility and Service Delivery System



Source: Medicaid Analytic Extract 2010
FFS Enrollees = full-benefit enrollees not enrolled in comprehensive managed care (HMO/HIO/PACE) in 2010.

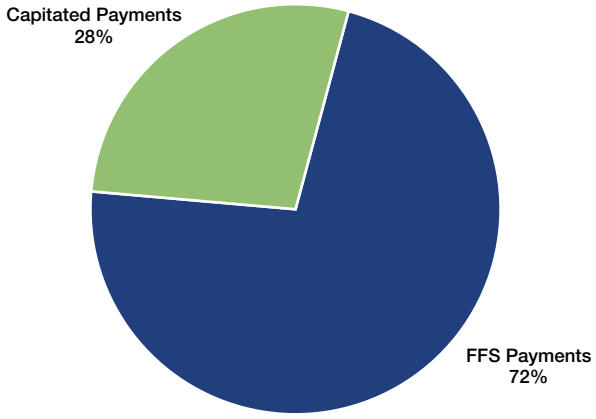
[23] As discussed in Chapter 1, this chartbook excludes restricted-benefit enrollees from analyses of expenditures and service utilization because their service use patterns differ greatly from those of full-benefit Medicaid enrollees.

full-benefit enrollees (61 million), and FFS enrollees (28 million). Researchers should consider the differences in these populations when assessing enrollment and expenditure statistics in this chartbook.

State-level summaries of Medicaid service utilization and expenditures highlight the variation both in Medicaid coverage and in the composition of Medicaid enrollees across states. In addition to differences in state Medicaid programs resulting from the state demographic differences and Medicaid eligibility criteria described in Chapter 2, additional factors affect state-level variation in Medicaid expenditures. As noted in Chapter 1, the FMAP varied between 50 and 76 percent in 2010, with higher matching allocated to states with lower per capita income. The variation in the FMAP produces variation in the net cost of Medicaid-covered services to states, which can in turn affect the types of services and people that 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 throughout the United States. Moreover, states differ in whether they cover optional services and the extent to which these services are offered.[24]

Medicaid spent about $330 billion on services for full-benefit enrollees in 2010, or about $5,500 per enrollee (Appendix Table A3.1).[25] Among those with full benefits, FFS payments accounted for most (72 percent) of the Medicaid expenditures in 2010 (Figure 3.2). This rate, while high, represents a continued decline over time, from about 83 percent of Medicaid expenditures in 2004 and about 76 percent in 2008 (Perez et al. 2008; Borck et al. 2012). About 28 percent of Medicaid expenditures for full-benefit enrollees were premiums (capitation payments) to managed care organizations.

Figure 3.2
FFS and Capitated Payments Among Full-Benefit Medicaid Enrollees in 2010



Source: Medicaid Analytic Extract 2010
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

FFS expenditures represented a majority of expenditures in all but seven states (Arizona, Hawaii, Michigan, New Mexico, Oregon, Pennsylvania, and Tennessee) (Appendix Table A3.1). Only about 11 percent of expenditures went to FFS payments in Arizona, compared with 16 percent in Hawaii, 24 percent in Tennessee, and 29 percent in New Mexico, the next three lowest states. All these states enrolled most full-benefit enrollees in comprehensive managed care plans as well as PHPs.

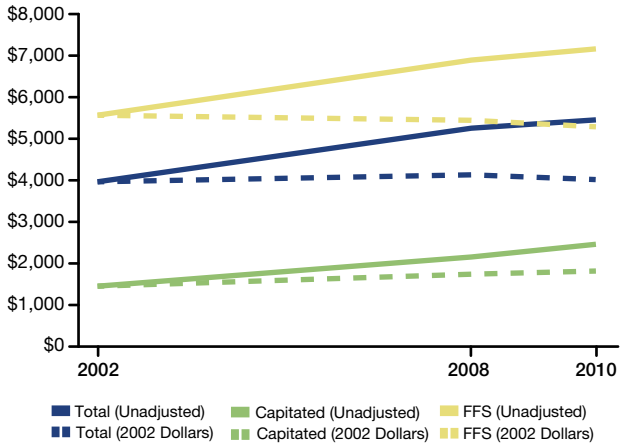
Average expenditures per full-benefit enrollee—including FFS enrollees and those in comprehensive managed care—rose by about 38 percent between 2002 and 2010 (Appendix Table A3.3). However, in 2002 dollars, the increase over the nine-year period was only about 1 percent (Appendix Table A3.2 and Figure 3.3).[26] This slight increase includes a period of greater increase

[24] Claims data were unavailable for Kansas and Maine in 2010 so these states are excluded from all analyses in this chapter.

[25] Comparatively, Medicaid spent about $339 billion on services for all enrollees in 2010.

[26] 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).

Figure 3.3
Per-Enrollee Expenditure Trends Among Full-Benefit Enrollees (in Unadjusted and 2002 Dollars), 2002-2010



Source: Medicaid Analytic Extract 2002, 2008, and 2010
Note: Capitated dollars are per comprehensive managed care enrollee; Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

between 2002 and 2008 (when expenditures per enrollee increased by about 4 percent) and then a 2.7 percent decline in expenditures from 2008 to 2010.

Figure 3.3 also shows trends in capitated expenditures for comprehensive managed care enrollees and FFS expenditures for FFS enrollees. The pattern for total expenditures was driven by an increase and then decline in average FFS expenditures during this period. Capitated payments rose at both points in this period, though the percentage increase from 2008 to 2010 was smaller than the increase from 2002 to 2008. When measured in 2002 dollars, average capitated payments per enrollee in comprehensive managed care rose by 24 percent between 2002 and 2010, while FFS expenditures per FFS enrollee declined by about 5 percent. Note that because children and adults are more likely to enroll in managed care than the aged and individuals with disabilities, and typically have lower medical expenditures and shorter periods of enrollment, average expenditures for FFS enrollees are not directly comparable to those of enrollees in comprehensive managed care.

Not surprisingly, the states with the most Medicaid enrollees also had the highest total Medicaid expenditures—New York, California, and Texas alone accounted for almost a third of Medicaid expenditures in 2010 for all full-benefit enrollees. New York's total Medicaid expenditures exceeded those of all other states ($46.3 billion, Appendix Table A3.1), but Alaska had the highest Medicaid expenditures per full-benefit enrollee ($8,594). New York ranked second ($8,457), followed by North Dakota ($8,275), Minnesota ($8,222), and the District of Columbia ($7,988). New York, Minnesota, and North Dakota had relatively large aged populations, which might have contributed to the higher expenditures per enrollee. The District of Columbia had a relatively large population eligible on the basis of disability (data not shown). Alaska had relatively high costs per user for institutional long-term care services (data not shown).

States with the lowest per-enrollee costs were Illinois ($3,838), Nevada ($3,845), New Mexico ($3,995), Utah ($4,061), and California ($4,200), all of which had higher percentages of child and adult enrollees, who are typically less expensive. Lower costs were also associated with less expansive coverage for some enrollees. Utah, for example, provides only primary care benefits to some Section 1115 waiver enrollees.

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 the year. FFS expenditures for comprehensive managed care enrollees may include services that an enrollee received during a month when he was not enrolled in comprehensive managed care as well as coverage for services that are commonly carved out of managed care (such as behavioral health

services or long-term care). A comprehensive managed care enrollee who uses these "carved out" services may receive them on an FFS basis. In 2010, total Medicaid expenditures for the average comprehensive managed care enrollee included about $1,200 in FFS expenditures in addition to about $2,500 in capitation payments (Appendix Table A3.1). Chapter 5 further examines expenditures and service utilization for comprehensive managed care enrollees.

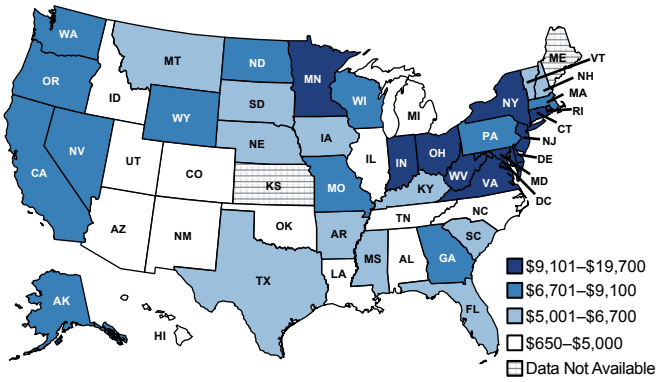
Medicaid FFS Expenditures and Service Utilization Among FFS Enrollees

MAX data for a given year contain Medicaid FFS claims with the date of service in that year, which permits analyses of patterns of service use and expenditures by type among full-benefit FFS enrollees. FFS expenditures reported in MAX include all FFS payments made by Medicaid, but they may not be representative of the costs of covering all Medicaid enrollees. In states with high comprehensive managed care penetration, the people who remain in FFS coverage may not be comparable to other Medicaid enrollees in the state. Readers should keep in mind that national rates of FFS expenditures and utilization are based on varied subpopulations of enrollees across states.

Nationally, state Medicaid programs spent about $7,200 per FFS enrollee in 2010. Per-enrollee expenditures varied substantially across states (Figure 3.4), from about $650 in Hawaii to more than $19,000 in the District of Columbia, Maryland, and New York (Appendix Table A3.1). Hawaii placed almost 98 percent of full-benefit enrollees in comprehensive managed care, including high percentages of aged and disabled enrollees, which suggests that the few enrollees left in FFS in the state may not be typical of the FFS population in other states.

Average FFS expenditures were much higher for the aged and those eligible on the basis of disability than

Figure 3.4
Per-Enrollee FFS Expenditures (in Quartiles) Among FFS Enrolles in 2010

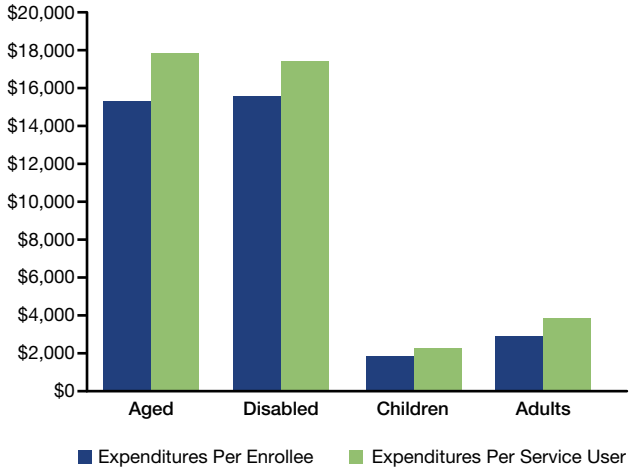


Source:Medicaid Analytic Extract 2010
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

for children and adults (Figure 3.5 and Appendix Table A3.4). FFS expenditures per enrollee were about $15,000 per FFS enrollees in the aged and disabled groups (Appendix Table A3.5). In comparison, FFS costs among children and adults using Medicaid services averaged about $1,900 and $2,900, respectively. As noted previously, these differences can be attributed to differences in the frequency and types of services these different populations use. Enrollees who were aged or eligible on the basis of disability also generally had longer periods of enrollment than children and adults, which may have contributed to their higher expenditures per enrollee in 2010.

Most FFS enrollees (84 percent) used at least one service in 2010 (Appendix Table A3.6). Mirroring expenditure patterns, the highest rates of service use were among enrollees who were aged or eligible on the basis of disability, 86 percent and 89 percent respectively, using at least one Medicaid service in 2010. About 83 percent of FFS children and 75 percent of FFS adults used services in 2010. The percentage of FFS enrollees utilizing services varied little across states in 2010. Except in Arizona, Hawaii, and New Mexico, the utilization rate ranged from

Figure 3.5
FFS Expenditures Among FFS Enrollees in 2010, by Basis of Eligibility



Source: Medicaid Analytic Extract 2010
FFS enrollees = full benefit enrollees not enrolled in comprehenisve managed care (HMO/HIO or PACE) in 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

70 percent in Michigan to 92 percent in Kentucky and Montana. All of the 10 states with the lowest FFS utilization rates per enrollee enrolled at least 50 percent of enrollees in managed care. The high rate of comprehensive managed care enrollment affects any interpretation of utilization rates in these states.

Medicaid services are categorized into 30 types of services in MAX. These service types can be grouped into four general categories that correspond to the four types of claim files available in MAX: Inpatient, institutional long-term care (ILTC), prescription drug (RX), and Other. While inpatient and RX files contain individual types of services, ILTC claims are composed of several services, including:

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

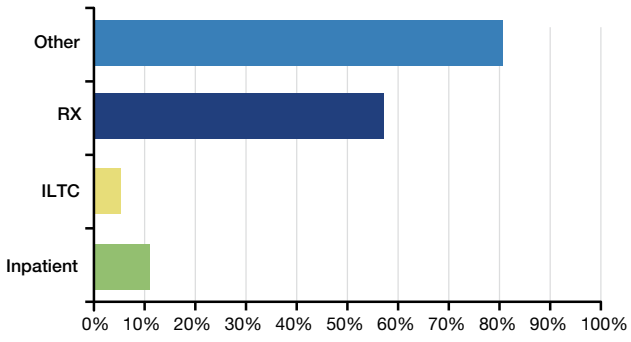
Other service claims consist of all claims, primarily claims for ambulatory care, not included in the other three groups. These include HCBS such as private-duty nursing, residential care, and home health; physician and other ambulatory services; and lab, X-ray, supplies, and other wraparound services.

The most commonly used services by FFS enrollees were the broad category of Other services (Figure 3.6).[27] Eighty-one percent of FFS enrollees used an Other service in 2010. Other services also accounted for the largest share (48 percent) of FFS expenditures (Figure 3.7).

Prescription drug services were used by 58 percent of FFS enrollees and were the most utilized service after Other. Although utilization rates for prescription drugs were relatively high in 2010, expenditures for these services represented the smallest share of expenditures, at about 9 percent of all FFS expenditures in 2010. This relatively low level of expenditures for prescription drugs is partly caused by Medicare

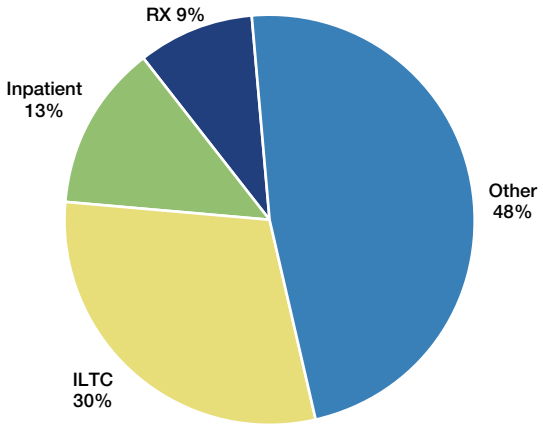
[27] Certain types of service claims may be found in one of two or more claim type files. For example, while most durable medical equipment claims are in Other files, some may be placed in RX files. See MAX data documentation for details.

Figure 3.6
Percentage of FFS Enrollees Using Services in 2010, by Type of Service



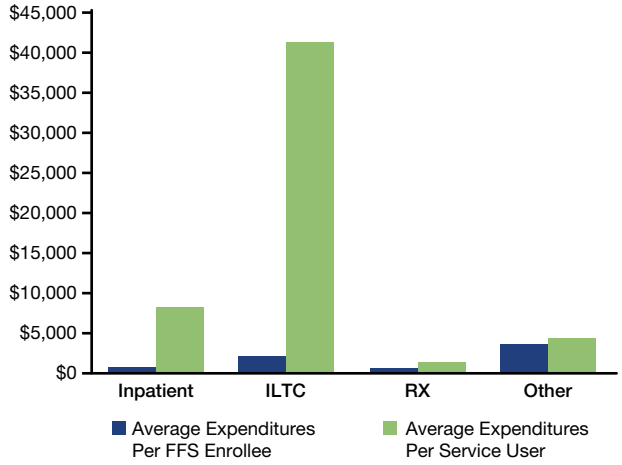
Source: Medicaid Analytic Extract 2010
FFS enrollees = full-benefit enrollees not enrolled in comprehensive managed care (HMO/HIO or PACE) in 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Figure 3.7
Composition of Medicaid FFS Expenditures Among FFS Enrollees in 2010, by Type of Service



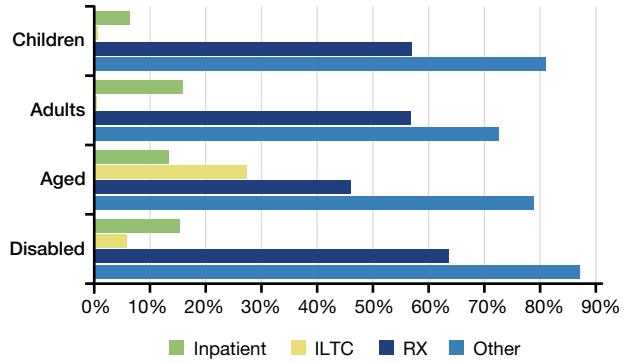
Source: Medicaid Analytic Extract 2010
FFS enrollees = full-benefit enrollees not enrolled in comprehensive managed care (HMO/HIO or PACE) in 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Figure 3.8
Average FFS Expenditures Among FFS Enrollees in 2010, by Type of Service



Source: Medicaid Analytic Extract 2010
FFS enrollees = full-benefit enrollees not enrolled in comprehensive managed care (HMO/HIO or PACE) in 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Figure 3.9
Percentage of FFS Enrollees Using Services in 2010, by Basis of Eligibility



Source: Medicaid Analytic Extract 2010
FFS enrollees = full-benefit enrollees not enrolled in comprehensive managed care (HMO/HIO or PACE) in 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Part D, which shifted most prescription drug costs for dual eligibles to Medicare.

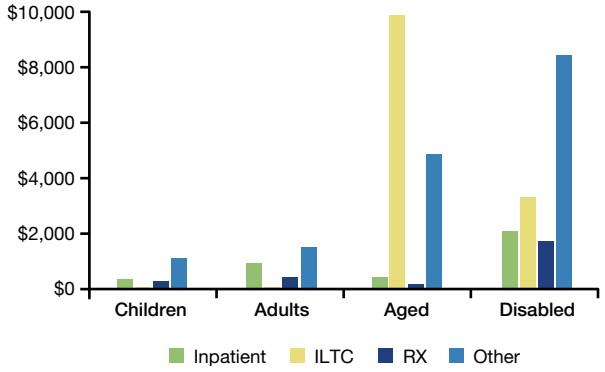
Inpatient services were used by 11 percent of FFS enrollees in 2010 and accounted for about 13 percent of FFS expenditures in the FFS subpopulation. Of note, Medicare also covers most inpatient services for duals, so Medicaid expenditures for inpatient services do not represent total expenditures for these services.

ILTC had the lowest rate of utilization in 2010, with only 5 percent of FFS enrollees using it during the year. Despite low utilization rates, ILTC services accounted for 30 percent of all FFS expenditures, the second-largest share of FFS expenditures. These services had the highest costs per user, about $41,500 in 2010 (Figure 3.8).

FFS utilization and expenditures vary somewhat by BOE group (Figure 3.9). All eligibility groups used Other and prescription drug services at a relatively high rate in 2010. About 6 percent of children had claims for inpatient services, a somewhat lower rate than the rates for adults, aged, and enrollees with disabilities (between 13 and 16 percent in each group). The greatest variation by eligibility group was in ILTC use. About 27 percent of aged enrollees and 6 percent of enrollees eligible on the basis of disability used ILTC services, compared to only 0.3 percent of children and 0.1 percent of adults.

For all but aged enrollees, expenditures per enrollee were highest for Other services (Figure 3.10). While less than 30 percent of aged and less than 10 percent of disabled enrollees used ILTC services in 2010, expenditures per enrollee were substantial for both. On a per-user basis, however, expenditures for ILTC services surpassed those for any other service for all eligibility groups (Figure 3.11), ranging from about $14,300 per adult user to $57,400 per user with disabilities.

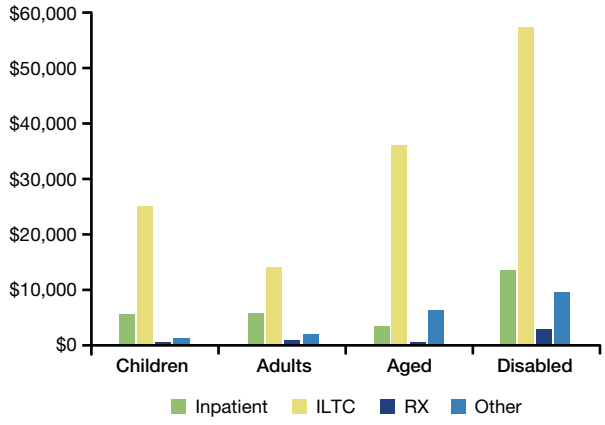
Figure 3.10
Per-Enrollee FFS Expenditures Among FFS Enrollees in 2010, by Basis of Eligibility



Source: Medicaid Analytic Extract 2010
FFS enrollees = full-benefit enrollees not enrolled in comprehensive managed care (HMO/HIO or PACE) in 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

The utilization and expenditure measures presented in this chapter are examples of the types of analyses that are possible using the MAX data system. The utilization and expenditures of other population subgroups and service types are also feasible in MAX and worthy of investigation. Detailed information about FFS utilization and expenditures among FFS enrollees is available for each state in Appendix Tables A3.7 through A3.17 by basis of eligibility and type of service. The rate of capitated managed care enrollment in a state affects the makeup of FFS enrollees and the interpretation of their expenditures and utilization patterns. In the appendix tables, notes identify states with low rates of FFS enrollment, the result of high comprehensive managed care enrollment in the state. Enrollee composition, managed care enrollment, and state variation in service coverage, as well as state anomalies, should be taken into account when interpreting the statistics reported in the appendix. In addition to the appendix tables for this chapter, additional information about utilization and expenditures by state can be found by detailed type of service in Chapter 4.

Figure 3.11
FFS Expenditures per User Among FFS Enrollees in 2010, by Basis of Eligibility



Source: Medicaid Analytic Extract 2010
FFS enrollees = full-benefit enrollees not enrolled in comprehensive managed care (HMO/HIO or PACE) in 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

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

States cover a range of medical services in Medicaid. As discussed in Chapter 1, these include both mandatory services that state Medicaid programs must cover under federal law, as well as optional services that vary across states. Detailed analysis of Medicaid FFS service use and expenditures by type of service is possible with the MAX data system.[28] In this chapter, we summarize Medicaid service utilization and costs in 2010 for all full-benefit FFS enrollees and for the subgroup of FFS duals by the type of service.

In Chapter 3, Medicaid services were categorized into Inpatient care, ILTC, RX, and Other services, following the four types of claim files in MAX. 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. Information about annual utilization and FFS expenditures incurred during the year for each of the 30 categories is included for each FFS enrollee in the MAX PS file. In this chapter, we provide an overview of utilization and expenditures by these 30 detailed type of service categories.

Note that type of service information presented in this chartbook reflects FFS enrollees and their FFS

[28] MAX contains extensive Medicaid FFS utilization and payment information and monthly premiums 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.

Table 4.1
Type-of-Service (TOS) Codes in MAX 2010, by File Type

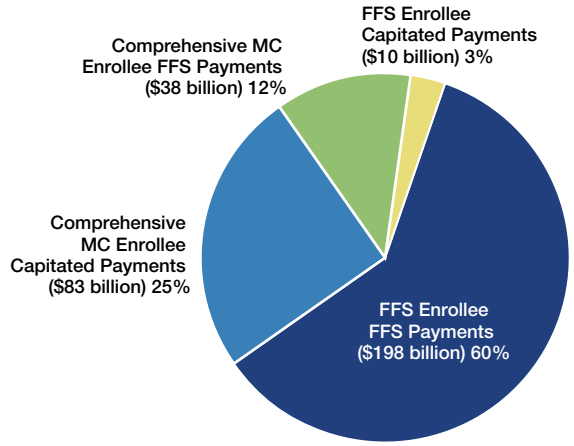
Type of Service	TOS Code
Inpatient (IP) File	
Inpatient hospital	01
Institutional Long-Term Care (LT) File	
Mental hospital services for the aged	02
Inpatient psychiatric facility services for individuals under age 21	04
Intermediate care facility services for individuals with intellectual disabilities (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
Lab 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 non-medical 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.

utilization only. As discussed previously, FFS enrollees exclude two important groups: (1) enrollees receiving only restricted Medicaid benefits in 2010, and (2) people ever enrolled in comprehensive managed care (HMOs, HIOs, or PACE) in 2010. FFS expenditures also exclude capitated payments for PHP and PCCM plans in which FFS enrollees may be enrolled and services rendered through a PHP.

The proportion of all expenditures for full-benefit enrollees accounted for by FFS expenditures for FFS enrollees has continued to drop over the last decade, from 76 percent in 2004 to 65 percent in 2008 to 60 percent in 2010 (Perez et al. 2008; Borck et al. 2012). In 2010, total FFS expenditures for FFS enrollees were $198 billion (Figure 4.1). This decline can be attributed to the growth of managed care enrollment in Medicaid.

Figure 4.1
FFS Expenditures Among FFS Enrollees as a Percentage of All Full-Benefit Enrollee Expenditures in 2010



Total Expenditures = $330 billion

Source: Medicaid Analytic Extract 2010
Note: Totals do not add up to $330 billion due to rounding.
Comprehensive MC Enrollee = full-benefit enrollee with any comprehensive managed care enrollment (HMO, HIO, or PACE) during 2010.
FFS Enrollee = full-benefit enrollee with no comprehensive managed care enrollment during 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Because there is significant variation across states in managed care enrollment levels, the statistics presented in this chapter represent a differential 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 is covered under FFS. In other words, in these states at least 25 or 50 percent of enrollees are in comprehensive managed care and are excluded from FFS estimates presented in the tables. Chapter 5 has additional managed care enrollment detail by type of plan by state.

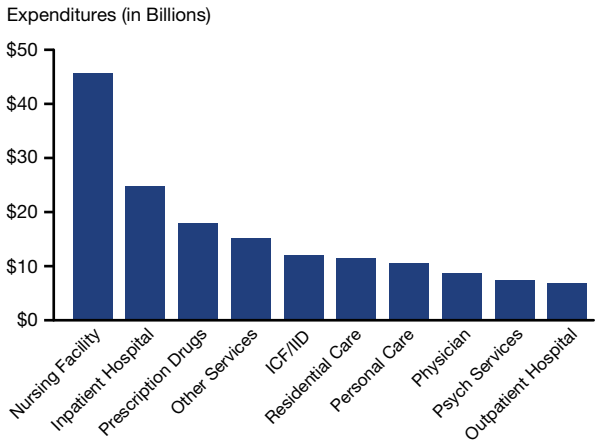
As discussed in previous chapters, observed differences in utilization and expenditures between states may also be due to differences in the structure of states' Medicaid programs, demographic composition, enrollment in PHPs and PCCM plans, or other utilization factors. Such differences must be considered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

Most Expensive and Most Utilized Services Among Medicaid FFS Enrollees

The 10 services with the highest expenditures (of the 30 service categories) accounted for 81 percent of the $198 billion in FFS expenditures for FFS enrollees in 2010. As in previous years, nursing facility services contributed most ($45.7 billion) to this population's FFS costs in 2010 (Figure 4.2). Inpatient hospital services, the next-highest cost service in 2010, were about $24.9 billion, or just over half the cost of nursing home services. These services were followed by prescription drugs ($18.0 billion), other types of services ($15.3 billion), and ICF/IID ($12.0 billion).

High-cost service categories can reflect frequently used services, services with high per-unit costs, or both. Prescription drugs—among the five most costly services—were used by a majority of FFS enrollees

Figure 4.2
Service Types with the Highest Expenditures in Medicaid Among All FFS Enrollees in 2010

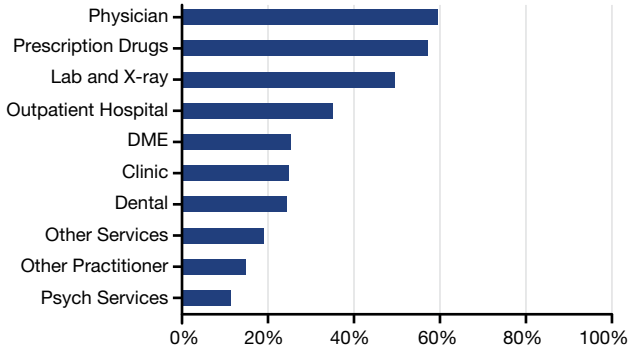


Source: Medicaid Analytic Extract 2010
ICF/IID = intermediate care facility for individuals with intellectual disabilities
FFS Enrollee = full-benefit enrollee with no comprehensive managed care enrollment (HMO, HIO, or PACE) during 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

(57 percent) (Figure 4.3). On the other hand, two other high-cost services—nursing facilities and ICF/IIDs—were used by only small percentages (4.6 and 0.3 percent, respectively) of Medicaid FFS enrollees.

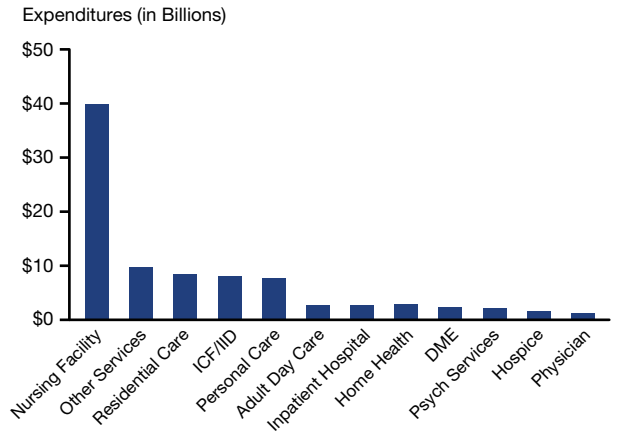
The subset of FFS enrollees who were dually enrolled in Medicare and Medicaid incurred a total of $95.6 billion in FFS Medicaid expenditures, accounting for almost half (48 percent) of FFS expenditures for all FFS enrollees (Appendix Table A6.5). Dual eligibles accounted for the majority of FFS expenditures on several high-cost services in 2010 (data not shown). Notably, about $40 billion was spent on nursing facility services for duals (Figure 4.4), accounting for 88 percent of all FFS Medicaid nursing facility expenditures in 2010. Duals also accounted for the bulk of ICF/IID expenditures ($8.0 of $12.0 billion), personal care services ($7.7 of $10.5 billion), and residential care services ($8.3 of $11.5 billion). Conversely, duals account for much smaller percentages of Medicaid expenditures

Figure 4.3
Top 10 Most Utilized Services by All FFS Enrollees in 2010



Source: Medicaid Analytic Extract 2010
FFS Enrollee = full-benefit enrollee with no comprehensive managed care enrollment (HMO, HIO, or PACE) during 2010.
DME = durable medical equipment; psych = psychiatric
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Figure 4.4
Service Types with the Highest Expenditures in Medicaid Among FFS Duals in 2010



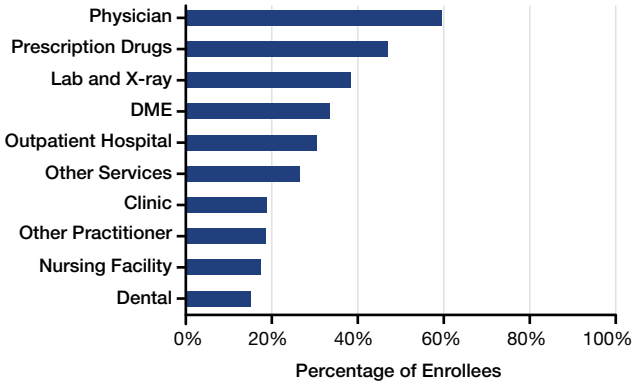
Source: Medicaid Analytic Extract 2010
FFS duals = full-benefit dual enrollees with no comprehensive managed care enrollment (HMO, HIO, or PACE) in 2010.
ICF/IID = intermediate care facility for individuals with intellectual disabilities
DME= durable medical equipment; psych = psychiatric
Some services are covered by Medicare for duals. Expenditures in Figure 4.4 show only Medicaid expenditures.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

for inpatient hospital care ($2.7 of $24.9 billion), prescription drugs ($1.1 of $18.0 billion), physician services ($1.1 of $8.8 billion), and outpatient hospital services ($1.1 of $6.9 billion). Because Medicare

is the primary payer for these services for duals, Medicaid expenditures for these services reflect only the cost of copayments and coinsurance for this coverage and not the full cost of the services.

Because duals are aged or have disabilities, they were more likely than other enrollees to use most Medicaid services, particularly long-term care services. Seventeen percent of FFS duals used nursing facility services in 2010 (Figure 4.5), compared with only 5 percent among all FFS enrollees (data not shown). Only a handful of services—typically those covered by Medicare for duals, such as clinic, inpatient, and lab and X-ray services—were used more often by non-duals than duals in 2010 (see Appendix Tables A4.1 through A4.16).

Figure 4.5
Top 10 Most Utilized Services by FFS Duals in 2010



Source: Medicaid Analytic Extract 2010
FFS duals = full-benefit dual enrollees with no comprehensive Medicaid managed care enrollment (HMO, HIO, or PACE) in 2010.
DME = durable medical equipment
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

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 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 (RX):* all Medicaid prescriptions filled, except those bundled with inpatient, nursing home, or other services.

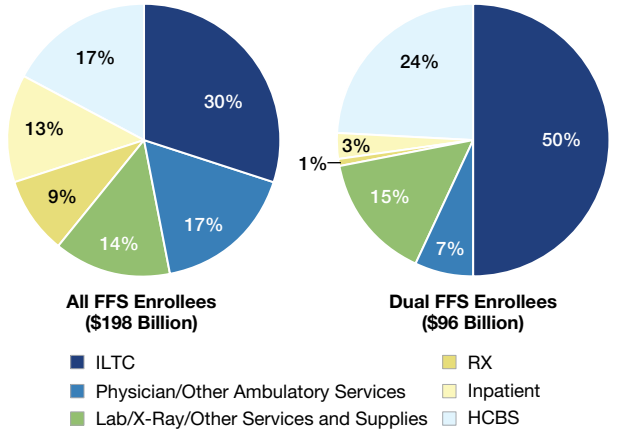
We further divide Other claims into three service classes:

1. *HCBS:* residential care, home health, personal care services, adult day care, private-duty nursing, and hospice care.[29] This class includes HCBS that were 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 (PT/OT), rehabilitation, and psychiatric services.
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 enrollees (30 percent) and among FFS duals (50 percent) (Figure 4.6). Expenditures for all of the service classes were consistent with expenditures in previous years.

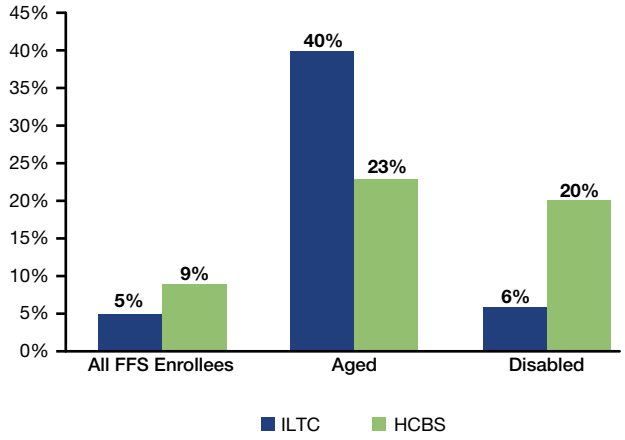
[29] Some HCBS may not be included in the HCBS class: psychiatric residential care may be classified with psychiatric services under physician and other professional services; some HCBS provided under HCBS waivers may be unclassified and grouped with Other services; and transportation, targeted case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

Figure 4.6
Composition of FFS Expenditures Among FFS Enrollees in 2010



Source: Medicaid Analytic Extract 2010
FFS enrollees = full-benefit enrollees not enrolled in comprehensive Medicaid managed care plans (HMO, HIO, or PACE) in 2010; FFS duals = FFS enrollees with dual eligible status during the year.
Some services are covered by Medicare for duals. Expenditures in Figure 4.6 show only Medicaid expenditures.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Figure 4.7
Percentage of FFS Enrollees Using HCBS and ILTC Services in 2010



Source: Medicaid Analytic Extract 2010
FFS enrollees = full-benefit enrollees with no comprehensive Medicaid managed care enrollment (HMO, HIO, or PACE) in 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Long-Term Care Utilization and Expenditures

In 2010, ILTC services and HCBS combined accounted for almost half (47 percent) of all FFS enrollee costs and three-quarters (74 percent) of FFS costs among the subgroup of duals. 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 FFS enrollees. Overall, more FFS enrollees used HCBS (9 percent) than ILTC services (5 percent) in 2010. Aged enrollees and those eligible on the basis of disability were the primary users of long-term care services (data not shown). Aged enrollees, in particular, used ILTC services at a high rate (Figure 4.7).

Long-term care service costs for duals were large in both percentage and absolute value. Because Medicare covers many acute care services for duals, it is expected that long-term care and other non-acute care costs would account for a larger portion of expenditures than inpatient care or physician services among this group. FFS duals' use of ILTC and HCBS accounted for 74 percent of the FFS long-term care costs incurred by all FFS enrollees (Appendix Tables A4.2, A4.4, A4.10, and A4.12). Because FFS duals make 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 enrollees, unless otherwise noted below.

Within long-term care, institutional care expenditures were about twice as large as HCBS expenditures in 2010. Among all FFS enrollees, ILTC services accounted for 30 percent ($59.4 billion) of FFS costs, compared with 17 percent ($33.4 billion) for HCBS. Most ILTC services are mandatory covered services, but HCBS are generally covered at state option, and there is greater variation across states in the type and extent of this coverage.[30]

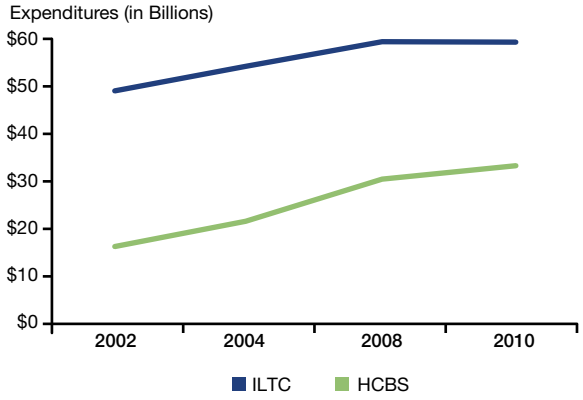
[30] Because some HCBS are excluded from the HCBS category, the estimated expenditure measure may understate total Medicaid HCBS costs.

Expenditures for HCBS have grown at a faster rate than those for ILTC since 2002, the year of the first MAX chartbook. In 2002, ILTC expenditures were about triple the costs of HCBS (Figure 4.8). From 2002 to 2010, HCBS costs grew from $16.3 billion to $33.4 billion, an annualized rate of about 9 percent per year.[31] During the same period, ILTC expenditures grew at an annualized rate of 2.4 percent, resulting in expenditures that were only about twice as large as those for HCBS in 2010.[32]

Nursing facilities were the biggest driver of long-term care costs and accounted for almost half (49 percent) of all FFS long-term care expenditures for FFS enrollees in 2010 (Figure 4.9). Moreover, nursing facility services accounted for about one-fourth (24 percent) of all FFS expenditures for FFS enrollees. Other services accounting for large percentages of long-term care costs for FFS enrollees were ICF/IID (13 percent), residential care (13 percent), and personal care services (11 percent). Remaining long-term care services were grouped in an Other category (5 percent). Since 2002, residential care and personal care services (10 and 6 percent of long-term care services in 2002, respectively) have grown to represent greater proportions of long-term care services, and are driving the overall increase in HCBS service use and expenditures.

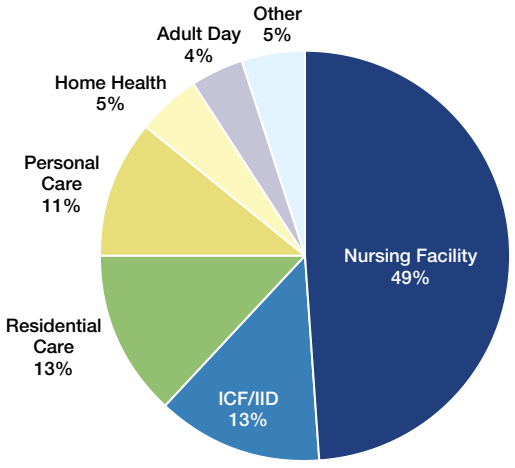
In addition to being the largest expenditure, nursing facility services were also the most utilized long-term care service, with about 5 percent of FFS enrollees using them in 2010. The next-most-utilized long-term care services include personal care (3 percent), home

Figure 4.8
Total FFS Long-Term Care Expenditures Among FFS Enrollees, 2002 to 2010



Source: Medicaid Analytic Extract 2002-2010
FFS Enrollees = full-benefit enrollees with no comprehensive managed care enrollment (HMO, HIO, or PACE) in 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Figure 4.9
Composition of FFS HCBS and ILTC Expenditures Among FFS Enrollees in 2010



Total Expenditures = $92.8 Billion

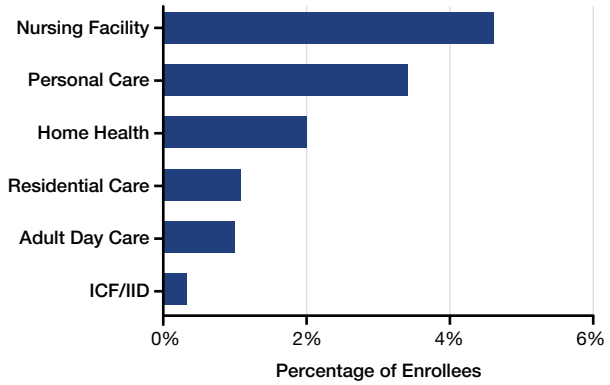
Source: Medicaid Analytic Extract 2010
FFS Enrollees = full-benefit enrollees with no comprehensive managed care enrollment (HMO, HIO, or PACE) in 2010; ICF/IID= intermediate care facility for individuals with intellectual disabilities.
Other = MH (mental health) Aged, Inpatient psychiatric facility for individuals under age 21, hospice, and private duty nursing. Each of these represented 2 percent or less of total long-term care expenditures.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

[31] Expenditures for private-duty nursing ($924 million in 2010) were not included in HCBS expenditures in 2002. When expenditures for these services are not included in 2010 HCBS totals, the growth rate from 2002 to 2010 drops to 8.6 percent per year.

[32] In addition to the expansion of HCBS, another possible contributor to this growth is improved identification in MAX of HCBS covered under Section 1915(c) waivers and improved reporting of these services by states.

health (2 percent), residential care (1 percent), and adult day care (1 percent) (Figure 4.10). FFS duals had higher rates of long-term care utilization: 17 percent used nursing facilities, followed by personal care (11 percent), home health (4 percent), and residential care (3 percent) (data not shown).

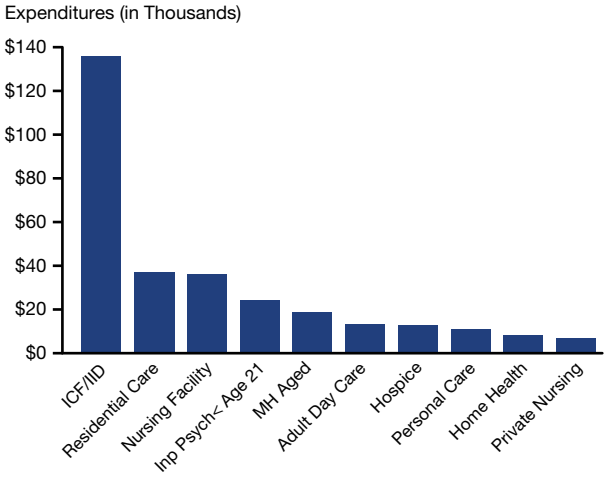
Figure 4.10
Percentage of FFS Enrollees Who Used Selected Long-Term Care Services in 2010



Source: Medicaid Analytic Extract 2010
FFS Enrollees = full-benefit enrollees with no comprehensive managed care enrollment (HMO, HIO, or PACE) in 2010; ICF/IID= intermediate care facility for individuals with developmental disabilities.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

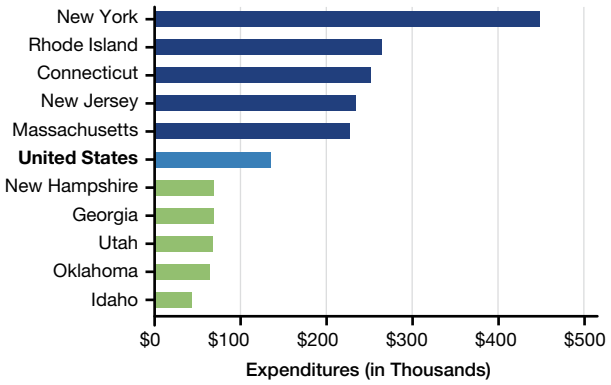
ICF/IID services were by far the most costly long-term care service on a per-user basis; average expenditures were $135,700 per enrollee served in an ICF/IID in 2010 (Figure 4.11). Average expenditures per user of these services were high in all states but varied greatly, ranging from $43,871 in Idaho to $448,901 in New York (Figure 4.12). Other long-term care services with high annual per-user costs included residential care, ($37,246), nursing facility ($35,890), inpatient psychiatric care for those under 21 ($24,039), and mental hospitals for the aged ($18,910).

Figure 4.11
Per-User Expenditures on Long-Term Care Services Among FFS Enrollees in 2010



Source: Medicaid Analytic Extract 2010
FFS Enrollees = full-benefit enrollees with no comprehensive managed care enrollment (HMO, HIO, or PACE) in 2010; ICF/IID= intermediate care facility for individuals with developmental disabilities; MH Aged = mental hospital for the aged.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Figure 4.12
Per-User ICF/IID Expenditures in 2010: Top and Bottom 5 States



Source: Medicaid Analytic Extract 2010
FFS Enrollees = full-benefit enrollees with no comprehensive managed care enrollment (HMO, HIO, or PACE) in 2010; ICF/IID= intermediate care facility for individual with intellectual disabilities.
Arizona, Hawaii, and Oregon reported no ICF/IID utilization in 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

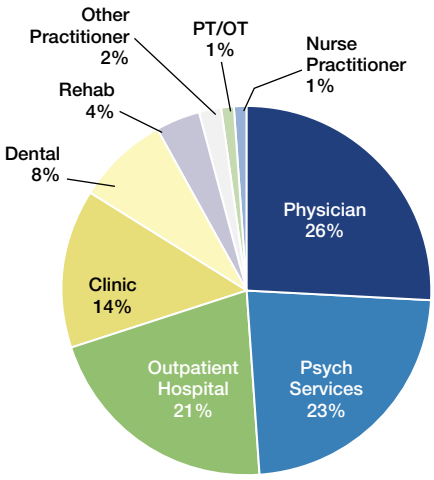
Physician and Other Ambulatory Services

Physician and other ambulatory services accounted for 17 percent of FFS expenditures among FFS enrollees and were the category of service with the second-largest total expenditures among FFS enrollees, after long-term care.[33]

Physician services were both the largest contributor to physician and other ambulatory service expenditures ($8.8 billion of $33.4 billion) and the most utilized service in this category by Medicaid FFS enrollees (60 percent) (Figures 4.13 and 4.14). Other key cost-driving services were psychiatric ($7.5 billion), outpatient hospital ($6.9 billion), clinic ($4.8 billion), dental ($2.8 billion), and rehabilitation services ($1.2 billion).

[33] Claims for physician services include separately billed physician services provided in inpatient settings.

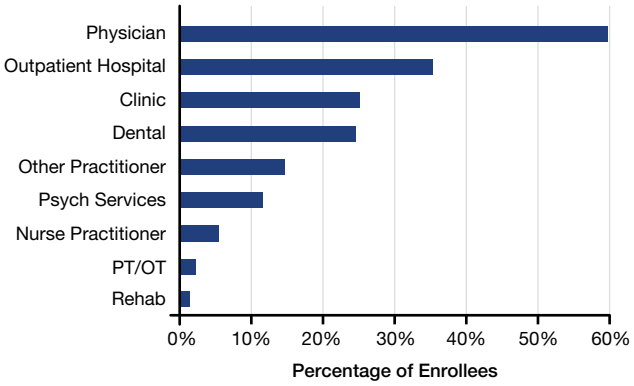
Figure 4.13
Composition of FFS Physician and Other Ambulatory Service Expenditures Among FFS Enrollees in 2010



Total Expenditures = $33 billion

Source: Medicaid Analytic Extract 2010
FFS Enrollees = full-benefit enrollees with no comprehensive managed care enrollment (HMO, HIO, or PACE) in 2010; PT/OT = physical therapy/occupational therapy.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Figure 4.14
Percentage of FFS Enrollees Who Used Physician or Other Ambulatory Services in 2010

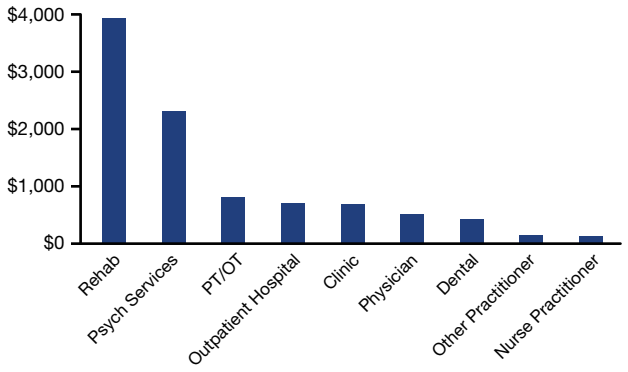


Source: Medicaid Analytic Extract 2010
FFS Enrollees = full-benefit enrollees with no comprehensive managed care enrollment (HMO, HIO, or PACE) in 2010; PT/OT = physical therapy/occupational therapy.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Among physician and other ambulatory services, costs per user were highest for rehabilitation services, which were used by only 1 percent of Medicaid FFS enrollees but represented 4 percent of their ambulatory service expenditures. Figure 4.15 shows that within physician and other ambulatory services, the expenditures for rehabilitation services ($3,876 per user) were higher than the next-most-expensive ambulatory services, psychiatric ($2,358) and PT/OT ($809). Additional summary information about FFS ambulatory service use and expenditures in 2010 is in Appendix Tables A4.5 and A4.6 for all FFS enrollees and in Tables A4.13 and A4.14 for FFS duals.

Figure 4.15

Per-User Expenditures for Physician and Other Ambulatory Services Among FFS Enrollees in 2010



Source: Medicaid Analytic Extract 2010
FFS Enrollees = full-benefit enrollees with no comprehensive managed care enrollment (HMO, HIO, or PACE) in 2010; PT/OT = physical therapy/occupational therapy.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

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.

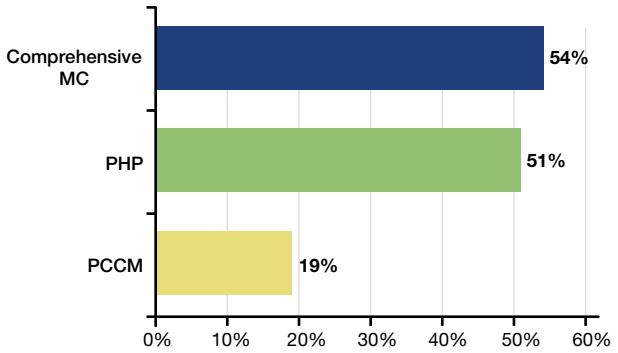
5. Managed Care Enrollment Among Full-Benefit Enrollees

Chapters 2 and 3 provided some introductory information about Medicaid managed care enrollment in MAX. This chapter presents more detailed information about managed care plan enrollment among full-benefit Medicaid enrollees, including combinations of plans and enrollment by subpopulation, as well as summaries of the availability of capitated payment and encounter data, and capitated payments by type of plan.[34] The discussion of expenditures for managed care enrollees also includes a summary of FFS expenditures for people ever enrolled in comprehensive managed care in 2010, to capture all Medicaid expenditures for managed care enrollees.

Managed care has become an integral part of the Medicaid service delivery system, with over 85 percent of full-benefit enrollees in some form of managed care in 2010 and many enrollees in multiple types of managed care plans (Appendix Table A5.1). Managed care plans differ greatly in the breadth of services they cover. As noted in Chapter 2, 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 provide case management only, and all other services for these enrollees are provided on an FFS basis. Just over half of all full-benefit Medicaid enrollees (54 percent) were in comprehensive managed care at some point in 2010 (Figure 5.1). Almost the same proportion (51 percent) were enrolled in PHPs, and 19 percent were in PCCMs. Note that enrollees can be enrolled in multiple types of managed care in a given month. For example, enrollees in comprehensive managed care can also be enrolled in a PHP that provides specialty services, such as behavioral health care, dental care, or transportation. Enrollees 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 2010. In 17 states, at least 95 percent of full-benefit enrollees were in some type of managed

Figure 5.1
Percentage Ever Enrolled in Managed Care (MC) in 2010, by Type of Plan



Source: Medicaid Analytic Extract 2010
Comprehensive MC = HMO, HIO, or PACE; PHP = prepaid health plan; PCCM = primary care case management.
Enrollment counts include all individuals ever enrolled in any managed care plan type during 2010. Individuals may be enrolled in multiple managed care plan types during the year.

[34] Full-benefit enrollees exclude enrollees with restricted benefits (aliens eligible for emergency services only, duals receiving coverage for Medicare premiums and cost sharing only, and people receiving only family planning services).

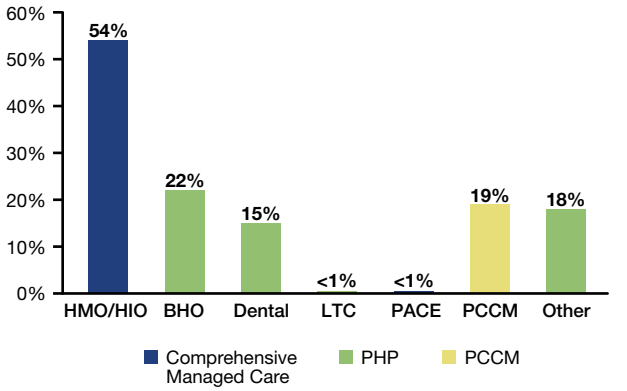
care in 2010, whereas three (Alaska, New Hampshire, and Wyoming) reported no managed care enrollment of any kind during the year (Appendix Tables A5.1 and A5.2). In the states that reported almost 100 percent enrollment in managed care, the type of managed care varied among comprehensive, PHP, and PCCM plans. Table 5.1 shows separately the top 10 states in terms of the percentage ever enrolled in comprehensive managed care, PHP, and PCCM plans in 2010. In Hawaii and Tennessee, almost all enrollees were in comprehensive managed care plans. In Mississippi and South Carolina, all enrollees were in PHPs. Some states had low or moderate comprehensive managed care enrollment but had high enrollment in PHP or PCCM plans. Delaware and Tennessee are notable because they enrolled almost all full-benefit enrollees in both comprehensive plans and PHPs. In four states (Louisiana, Maine, Montana, and South Dakota), managed care enrollment was limited to PCCM plans.

A range of PHPs was available across states, and substantial variation exists within PHP coverage. For example, Tennessee's large PHP provided behavioral health services. Large PHPs in Delaware, Mississippi, and South Carolina provided transportation benefits.

The types of PHPs with the highest enrollment in 2010 were behavioral health organizations (BHOs) (22 percent) and dental plans (15 percent) (Figure 5.2). Over 18 percent of full-benefit enrollees participated in a PHP designated as "other" by the state, such as a transportation plan.[35]

[35] The MAX 2010 Eligibility Anomaly Tables include a brief description of each of the Other PHPs that states reported in 2010 (see Chapter 1 for web link).

Figure 5.2
Percentage of Full-Benefit Enrollees in Managed Care in 2010, by Type of Plan



Source: Medicaid Analytic Extract 2010
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 identified as "other" managed care by the state.
Individuals may be enrolled in more than one plan type at a time.

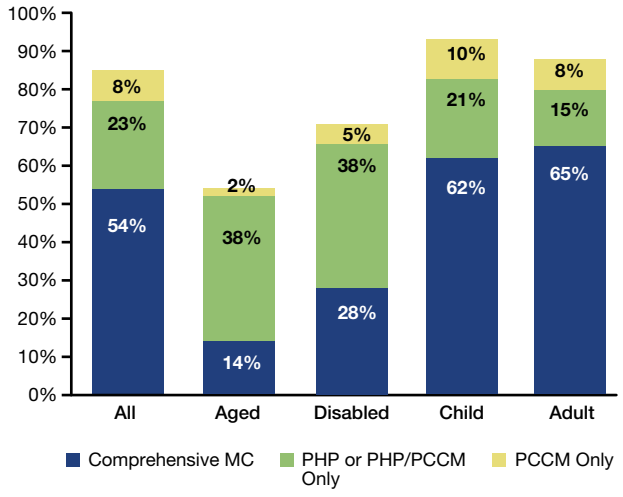
Table 5.1
Percentage Enrolled in Managed Care (MC) in 2010 Top 10 States, by Type of Plan

Ever Enrolled in Comprehensive MC		Ever Enrolled in PHP		Ever Enrolled in PCCM	
State	Percentage	State	Percentage	State	Percentage
Hawaii	97.6	Delaware	100.0	North Carolina	81.2
Tennessee	96.7	Mississippi	100.0	Idaho	80.4
Delaware	87.1	Tennessee	100.0	South Dakota	79.6
Maryland	86.8	South Carolina	100.0	Montana	78.8
Oregon	85.9	Washington	99.9	Vermont	76.4
Arizona	82.6	Kentucky	99.3	Alabama	76.1
Ohio	81.4	Colorado	98.9	Louisiana	74.0
New Jersey	78.9	Michigan	98.5	Arkansas	70.2
New Mexico	78.2	Arizona	98.5	Oklahoma	69.8
Indiana	76.9	Oregon	97.5	Illinois	69.2

Source: Medicaid Analytic Extract 2010
Comprehensive managed care = HMO/HIO or PACE.
Individuals may be enrolled in multiple managed care plan types.

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 the information about total managed care enrollment. For example, although similar percentages of full-benefit enrollees in both Alabama and Maryland were enrolled in managed care in 2010 (85 and 87 percent, respectively), the nature of Medicaid managed care was quite different in the two states. In Maryland, managed care enrollees were only members of comprehensive plans, but in Alabama, only about 1 percent were in comprehensive plans, with most enrollees covered in a combination of other PHP and PCCM care (Appendix Tables A5.1 and A5.2). Figure 5.3 shows how managed care enrollment patterns differed by eligibility group in 2010, with children and non-disabled adults more likely to be enrolled in comprehensive managed care and managed care for individuals who are aged or have disabilities more likely to be PHP coverage, with or without PCCM coverage (Appendix Table A5.3).

Figure 5.3
Type of Managed Care (MC) Enrollment Among Full-Benefit Enrollees in 2010



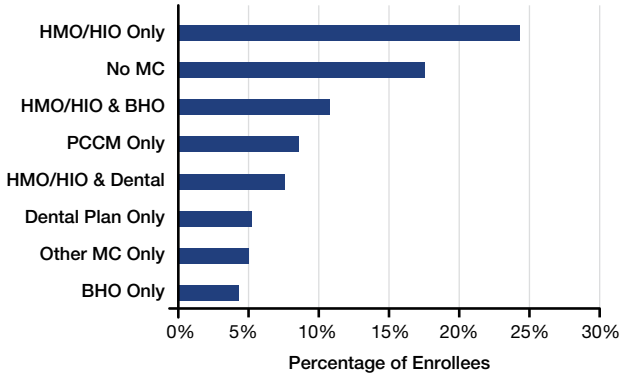
Source: Medicaid Analytic Extract 2010
Comprehensive = ever-enrolled in HMO/HIO or PACE in 2010;
PHP = Prepaid Health Plan; PCCM = Primary Care Case Management.
All enrollees are assigned to one type of managed care enrollment.

Managed Care Enrollment Combinations

Even states that use similar types of managed care plans may differ in how they combine these plans 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 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 point in time.

Figure 5.4 shows the eight most common combinations of managed care enrollment in Medicaid in June of 2010. The percentage of full-benefit enrollees in HMOs or HIOs only (24 percent) outranked the percentage of full-benefit enrollees not enrolled in managed care (18 percent) as the most common managed care enrollment status. Other common managed care combinations in 2010 were HMO/HIO and BHO (11 percent), PCCM plan only (9 percent), HMO/HIO and dental

Figure 5.4
Managed Care (MC) Enrollment: Eight Most Common Combinations in June 2010 Among Full-Benefit Enrollees



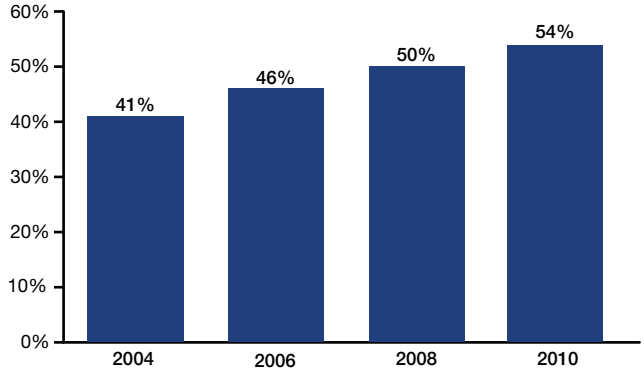
Source: Medicaid Analytic Extract 2010
HMO/HIO = Health Maintenance Organization/Health Insuring Organization;
BHO = Behavioral Health Organization; PCCM = Primary Care Case Management; Other MC = plans designated as other types of prepaid health plans by the state.
All enrollees are assigned to one managed care enrollment combination.

(8 percent), dental only (5 percent), state-identified PHP Other MC only (5 percent) and BHO only (4 percent). Highlighting the complexity of managed care coverage in 2010, 16 states had more than 50 percent of enrollees in a combination of two or more plan types. For more detail about managed care plan combinations by state, see Appendix Table A5.4.

Managed Care Enrollment Trends

Comprehensive managed care enrollment increased moderately since the MAX 2008 chartbook, from 50 percent of enrollees in 2008 to about 54 percent in 2010 (Figure 5.5). Though this rate of increase is not especially high, it represents an increase of 30 percent in comprehensive managed care enrollment in the six years from 2004 to 2010.

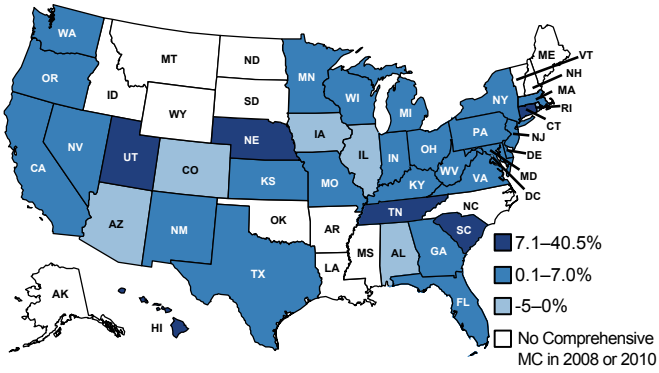
Figure 5.5
Percentage of All Medicaid Enrollees Enrolled In Comprehensive Managed Care, 2004-2010



Source: Medicaid Analytic Extract 2004-2010
Comprehensive managed care = HMO/HIO or PACE.

The national expansion of comprehensive managed care from 2008 to 2010 masks some state variation (Figure 5.6). During this period, of the 43 states with any comprehensive managed care, 27 states reported modest increases (24 states) or slight decreases (3 states) in comprehensive managed care enrollment, in the range of changes from 0.1 to 10 percent of enrollees. A few states reported more notable changes

Figure 5.6
Increase in Comprehensive Managed Care Enrollment, 2008-2010



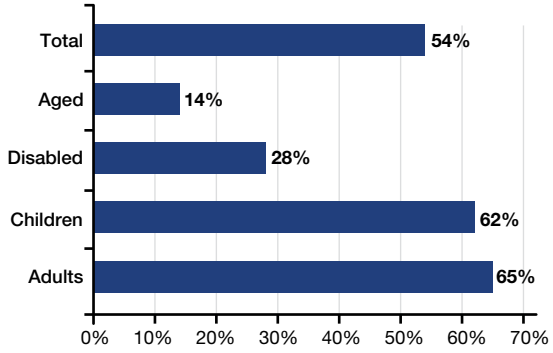
Source: Medicaid Analytic Extract 2010
Comprehensive managed care = HMO/HIO or PACE.

in comprehensive managed care coverage in this two-year period. Hawaii and Tennessee expanded existing comprehensive managed care statewide from 2008 to 2010. In 2009, Utah changed its managed care contracts, and by 2010, almost one-quarter of full-benefit enrollees in the state were in these plans (Appendix Table A5.5).

As noted above, children and adults are more likely than the aged or individuals with disabilities to be enrolled in comprehensive managed care: keeping with this pattern, 62 percent of children and 65 percent of adults were enrolled in such care at some point in 2010 (Figure 5.7), compared with only 28 percent of enrollees with disabilities and 14 percent of aged enrollees. States are generally less likely to enroll dual enrollees in comprehensive managed care, and the high rates of dual enrollment among the aged may help to explain their traditionally low managed care enrollment rates.

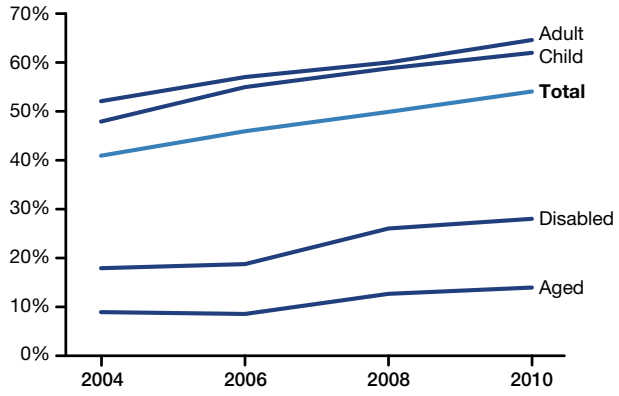
Although rates of comprehensive managed care enrollment remained low among enrollees eligible on the basis of disability and aged enrollees in 2010, they have increased since 2008, and increased considerably since 2004, when such rates among these populations were 18 and 9 percent, respectively

Figure 5.7
Percentage of Medicaid Enrollees Ever Enrolled in Comprehensive Managed Care in 2010, by Basis of Eligibility



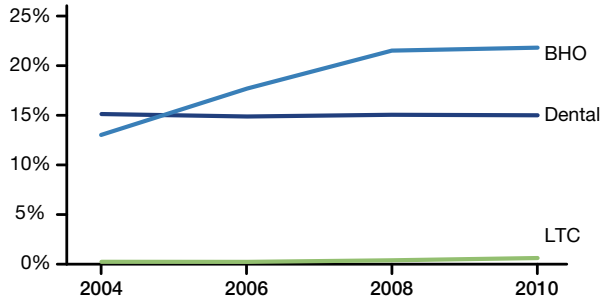
Source: Medicaid Analytic Extract 2010
Comprehensive managed care = HMO/HIO or PACE.

Figure 5.8
Percentage of Full-Benefit Enrollees in Comprehensive Managed Care from 2004 to 2010, by Basis of Eligibility



Source: Medicaid Analytic Extract 2004-2010
Comprehensive managed care = HMO/HIO or PACE.

Figure 5.9
Percentage of Full-Benefit Enrollees in PHPs from 2004 to 2010



Source: Medicaid Analytic Extract 2004-2010
BHO = Behavioral Health Organization; LTC = long-term care.

(Perez et al. 2008). Figure 5.8 shows the increases in comprehensive managed care enrollment among full-benefit enrollees by eligibility group between 2004 and 2010. Enrollment in such care has increased among all groups during this period (Appendix Table A5.6). This is true of other types of managed care as well, with over 37 percent of full-benefit enrollees who are aged or have disabilities in some form of PHP or PHP-and-PCCM coverage in 2010 (Appendix Table A5.7). Therefore, the increases in total expenditures among comprehensive managed care enrollees over the past decade that were described in Chapter 3 are due in part to an increase in the total number of comprehensive managed care enrollees and an increase in the percentage of such enrollees who are in the higher-cost eligibility groups (aged and individuals with disabilities). In other words, the increase in average expenditures per enrollee may be due to actual increases in costs or to the changing composition of the comprehensive managed care population.

Figure 5.9 shows enrollment trends among PHPs. While enrollment in dental PHPs remained fairly constant in the United States between 2004 and 2010, BHO enrollment increased until 2008 and then remained level in 2010 (Appendix Table A5.8). Most states with a BHO covered more than 80 percent of their full-benefit enrollees with the plan. The increase in BHO participation was evident in the managed care enrollment combinations, where the combination of HMO and BHO participation moved from being the fifth-most-common combination in 2004 to the second-most-common in 2010. Long-term care managed care has grown during this period, but in 2010 it still covers less than 1 percent of enrollees nationally. Growth in this program has been limited to the few states (including Arizona, New Mexico, New York, and Wisconsin) that opt to use this type of coverage.

Expenditures and Service Utilization for Managed Care Enrollees

As noted earlier, capitated payments reflect the set fee that the state pays to a managed care organization to cover an enrollee, regardless of service use. Because PCCMs provide case management only, service use for PCCM enrollees is captured through FFS claims data. For comprehensive managed care enrollees and PHP enrollees, service use is captured through encounter data, claim records that contain utilization but not expenditure information. The availability of capitation payment data and encounter data in MAX varies by state and by type of managed care. Researchers 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 payments in MAX 2010. For most states, if the state reported capitation payments in MSIS, these claims are available for nearly all enrollees in these programs. In 2010, 40 of the 43 states with comprehensive managed care submitted capitation payment records for over 90 percent of comprehensive managed care enrollees, while two states (Montana and Vermont) did not submit any capitation data for them.[36] Although states report less capitation data for enrollees in PHP and PCCM plans, most of the states with such plans submitted capitation data for over 90 percent of their 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 capitation data (Table 5.3). Encounter data are a potential source of information about service utilization among comprehensive managed care and PHP enrollees, particularly as states continue to improve the availability and quality of

[36] Montana had fewer than 5 enrollees in comprehensive managed care each month in 2010, and this enrollment may have been reported in error. Vermont also had a small number of comprehensive managed care enrollees (less than 1 percent of full-benefit enrollees), and this coverage was limited to PACE plans.

Table 5.2
Status of Capitation Payment Reporting in 2010, by Plan Type

	Comprehensive MC	PHP	PCCM
Number of states with managed care plan type[a]	43	35	28
Number of states with capitation payments for more than 90% of enrollees	40	23	17
Number of states with capitation payments for 0% of enrollees	2	9	6

Source: Medicaid Analytic Extract 2010
Comprehensive = HMO/HIO or PACE; PHP = Prepaid Health Plan; PCCM = Primary Care Case Management.
Kansas and Maine were unable to accurately report claims data. These states are excluded from national averages and other estimates that include claims.
[a] State was considered to have a managed care plan if at least one person was reported as enrolled.

Table 5.3
Availability of Encounter Data in 2010, by Plan Type

	Comprehensive MC	PHP Only or PHP and PCCM Only
Number of states with managed care plan type[a]	43	33
Number of states with encounter data for more than 75% of enrollees	22	2
Number of states with encounter data for 0% of enrollees	12	9

Source: Medicaid Analytic Extract 2010
Comprehensive = HMO/HIO or PACE; PHP = Prepaid Health Plan; PCCM = Primary Care Case Management.
Kansas and Maine were unable to accurately report claims data. These states are excluded from national averages and other estimates that include claims.
[a] State was considered to have a managed care plan if at least one person was reported as enrolled.

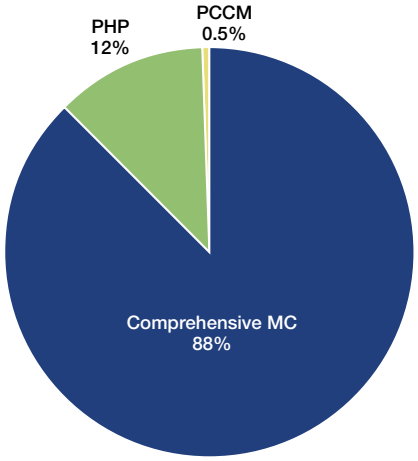
encounter data. About half the states with comprehensive managed care (22 of 43) submitted encounter data for more than 75 percent of the managed care enrollees in 2010. However, 12 of the 43 states with comprehensive managed care submitted no encounter data.[37] This pattern is similar to rates of encounter data reporting in 2008. Fewer states submitted encounter data for enrollees in PHP-only or PHP-and-PCCM-only plans. Only two states (New Mexico and New York) submitted encounter data for more than 75 percent of enrollees in PHP-only or PHP-and-PCCM-only plans.[38]

Capitation Payments for Managed Care

Medicaid paid $81.2 billion in capitated payments to managed care organizations in 2010, 18 percent more than in 2008. Although the total amount of capitated payments in 2010 was an increase from 2008, the distribution of payments across plans was similar; nearly 88 percent of the $81.2 billion was payments to comprehensive managed care plans, 12 percent was for PHP plans, and less than 1 percent was spent on premiums for PCCM case management (Figure 5.10). The distribution of payments reflects the cost and services typically covered by each type of plan. Average monthly payments per plan enrollee in 2010 were $273 for comprehensive managed care, $38 for PHPs, and $4 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 because individual contracts between states and plans vary in the level of services plans cover and the populations they serve. Therefore, capitation payments depend on the characteristics of utilized plans as well as the characteristics of managed care enrollees. Payments to PHPs, in particular, differed greatly by state, reflecting variation in the breadth and depth of services covered by PHPs. Expenditures for PHPs ranged from less than $4 per person per month in Oklahoma to $1,740 per person per month in Wisconsin, a far higher average payment than in any other state. Most of the PHP capitation payments that Wisconsin reported were for enrollees in a long-term care PHP, a traditionally costly category of services. By comparison, in 9 states and the District of Columbia, PHP coverage was limited to relatively low-cost non-emergency transportation plans.[39]

Figure 5.10
Composition of Medicaid Capitated Payments in 2010 Among Full-Benefit Enrollees



Source: Medicaid Analytic Extract 2010
Comprehensive = HMO/HIO or PACE; PHP = Prepaid Health Plan; PCCM = Primary Care Case Management.
Kansas and Maine were unable to accurately report claims data. These states are excluded from national averages and other estimates that include claims.

[37] Arkansas, Iowa, Louisiana, North Carolina, North Dakota, Oklahoma, and Vermont reported PACE but no HMO/HIO plans in 2010. Montana reported fewer than five enrollees in comprehensive managed care in 2010. Several states report that they do not receive encounter data from PACE plans because the plans integrate care for the Medicare and Medicaid programs.

[38] Any encounter data reported for this group likely represents services provided via PHPs, as service records delivered under PCCM programs are typically reported as FFS records.

[39] The 9 states were Arkansas, Delaware, Georgia, Kentucky, Mississippi, Nevada, New Jersey, Oklahoma, and South Carolina.

Table 5.4
Capitated Payments Per Person Per Month in Managed Care in 2010, by Type of Plan: Top and Bottom 5 States

Comprehensive Managed Care		PHP		PCCM	
State	Dollars	State	Dollars	State	Dollars
Louisiana[a]	3,309	Wisconsin	1,740	Indiana	75
North Carolina[a]	3,219	Hawaii	214	Georgia	18
Arkansas[a]	3,086	Massachusetts	135	Washington	10
Iowa[a]	2,952	Pennsylvania	128	South Carolina	8
Oklahoma[a]	2,794	Illinois	104	North Carolina	8
United States	**273**	**United States**	**38**	**United States**	**4**
California	147	Delaware	7	North Dakota	2
Indiana	127	New Jersey	6	Alabama	2
Illinois	106	Georgia	5	Virginia	2
Alabama	33	Nevada	4	South Dakota	2
Utah	10	Oklahoma	4	Iowa	2

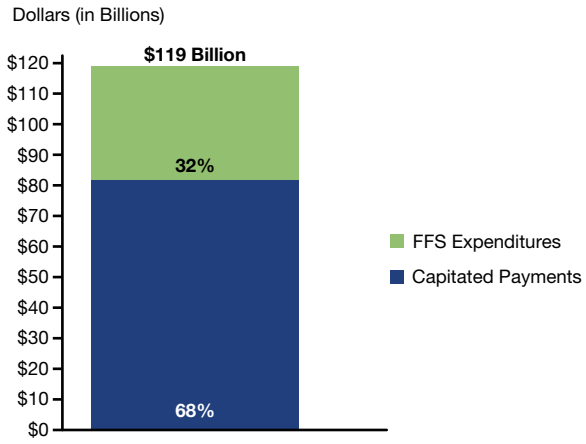
Source: Medicaid Analytic Extract 2010
Comprehensive = HMO/HIO or PACE; PHP = Prepaid Health Plan; PCCM = Primary Care Case Management.
[a] Only comprehensive managed care in state is PACE, and these plans typically have higher capitation payments than HMO and HIO plans.
Kansas and Maine were unable to accurately report claims data. These states are excluded from national averages and other estimates that include claims.
States that reported no capitation payments for a plan type are not included in Table 5.4.

In comparison with PHPs, average monthly capitated payments for comprehensive managed care were larger, averaging $273 nationally and ranging from $33 a month in Alabama to $3,309 a month in Louisiana.[40] Payments for PCCM plans do not cover services rendered, but rather represent a payment for service management, as services are rendered on an FFS basis. As a result, capitation payments for these plans are much lower and, in 2010, ranged from under $2 to $75 per person per month.

FFS Expenditures Among People Enrolled in Comprehensive Managed Care

Comprehensive managed care enrollees in 2010 incurred a total of $119.3 billion in Medicaid expenditures, 30 percent more than in 2008. Although most of their expenditures were for managed care capitated payments, $38 billion (32 percent) was paid on an FFS basis (Figure 5.11). Because comprehensive managed care enrollees are excluded from most FFS expenditure summary statistics in this chartbook, we provide some information about their FFS costs in this section.

Figure 5.11
Composition of Expenditures for Comprehensive Managed Care Enrollees in 2010



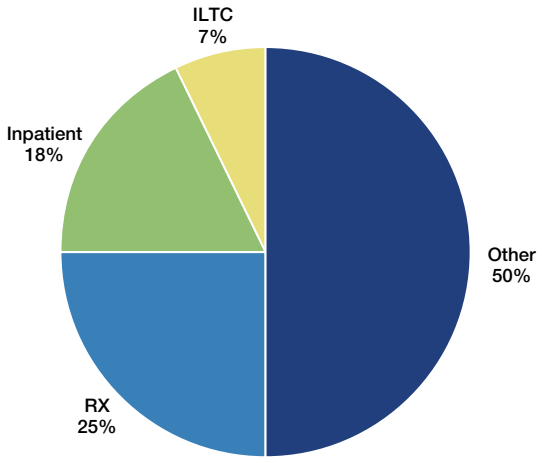
Source: Medicaid Analytic Extract 2010
Comprehensive managed care = HMO/HIO or PACE.

[40] Arkansas, Iowa, Louisiana, North Carolina, North Dakota, and Oklahoma reported PACE but no HMO/HIO plans in 2010. These plans are typically more costly than traditional HMO/HIO plans that primarily cover children and non-disabled adults.

As noted in Chapter 3, there are two key reasons why people enrolled in comprehensive managed care at some point in 2010 might have FFS expenditures. First, some Medicaid enrollees 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 do not typically 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 be covered on an FFS basis.

On average, $1,171 was spent in FFS payments for each comprehensive managed care enrollee in 2010 (Appendix Table A5.11). The services with the highest FFS expenditures among comprehensive managed care enrollees included several services submitted as Other claims, which include HCBS, ambulatory services, and wraparound services. These services accounted for just over half of all FFS expenditures among comprehensive managed care enrollees (Figure 5.12). Another 18 percent of their FFS costs were for inpatient care, 25 percent were for prescription drugs, and 7 percent were for ILTC.

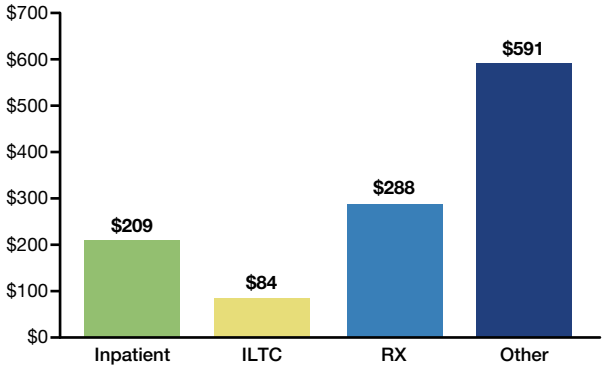
Figure 5.12
Composition of FFS Expenditures Among Comprehensive Managed Care Enrollees in 2010



Source: Medicaid Analytic Extract 2010
Comprehensive managed care = HMO/HIO or PACE; ILTC = institutional long-term care; RX = prescription drugs.

FFS expenditures per enrollee in comprehensive managed care were highest for Other services ($591), followed by prescription drugs ($288), inpatient ($209), and ILTC ($84) (Figure 5.13). This pattern of expenditures by type of service was evident in most states with managed care enrollment, which suggests that some types of ambulatory services were often not covered under comprehensive managed care plans.

Figure 5.13
Per-Enrollee FFS Expenditures Among Comprehensive Managed Care Enrollees in 2010, by Type of Service

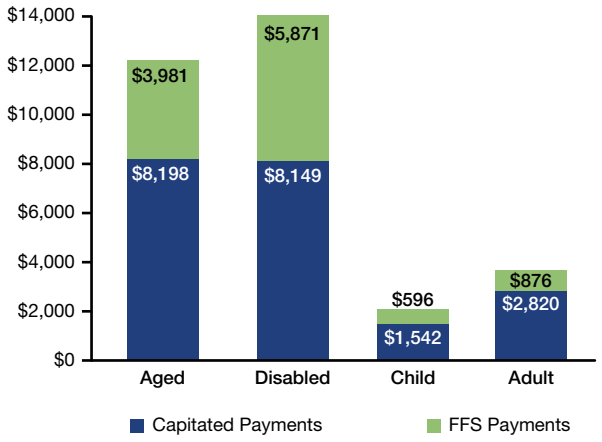


Source: Medicaid Analytic Extract 2010
Comprehensive managed care = HMO/HIO or PACE; ILTC = institutional long-term care; RX = prescription drugs.

Average FFS expenditures per enrollee in comprehensive managed care varied by eligibility group as well. While fewer full-benefit aged and people 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 (Figure 5.14). In 2010, the average capitated payments per enrollee were highest for aged enrollees, followed by those with disabilities, adult enrollees, and children. The average FFS expenditures per capitated managed care enrollee were highest for enrollees with disabilities, followed by aged enrollees, adult enrollees, and children (Appendix Table A5.12).

Figure 5.14

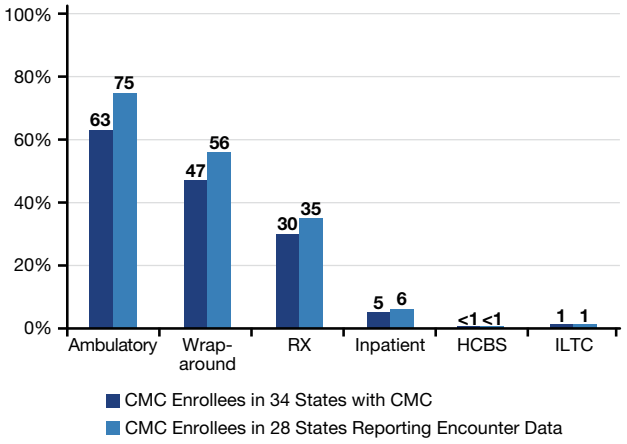
Average FFS Expenditures and Capitated Payments Among Full-Benefit Enrollees in Comprehensive Managed Care in 2010, by Basis of Eligibility



Source: Medicaid Analytic Extract 2010
Comprehensive managed care = HMO/HIO or PACE.

Figure 5.15

Percentage of Comprehensive Managed Care Enrollees with Encounter Data in 2010, by Service Class



Source: Medicaid Analytic Extract 2010
Note: Includes 34 states that enrolled at least 5 percent of full-benefit Medicaid enrollees in comprehensive managed care. Kansas is excluded because the state did not submit claims data in 2010. Of these 34 states, 28 reported any encounter data for CMC enrollees.
CMC = comprehensive managed care (HMO, HIO, or PACE); ILTC = institutional long-term care; HCBS = home and community-based services.

The substantially greater FFS costs among the aged and people with disabilities are likely due to the fact that most states do not include long-term care and other high-cost services in the set of services covered by capitated plans and prefer to use other arrangements for payment.

Service Utilization for Comprehensive Managed Care Enrollees

Encounter data provide insights into the services that Medicaid enrollees receive in exchange for capitation payments. In 2010, the most commonly reported services in encounter data for comprehensive managed care enrollees were for services in the physician and other ambulatory service class (ambulatory services), followed by the wraparound and other services class (wraparound), and prescription drugs (RX) (Figure 5.15).[41] States reported particularly low rates of encounters for ILTC and HCBS use, but this is expected because of the low rate of individuals who are aged or have disabilities in comprehensive managed care. In general, small percentages of Medicaid comprehensive managed care enrollees use these services each year, and they are not services typically covered under comprehensive managed care contracts. Similarly, states reported inpatient encounters for only a small percentage of comprehensive managed care enrollees in 2010. Appendix Tables A5.13 and A5.14–A5.17 provide state-level encounter data reporting by service class and by eligibility group, respectively. Researchers interested in studying encounter data for a specific subpopulation of enrollees may want to replicate this analysis by Medicaid eligibility group.

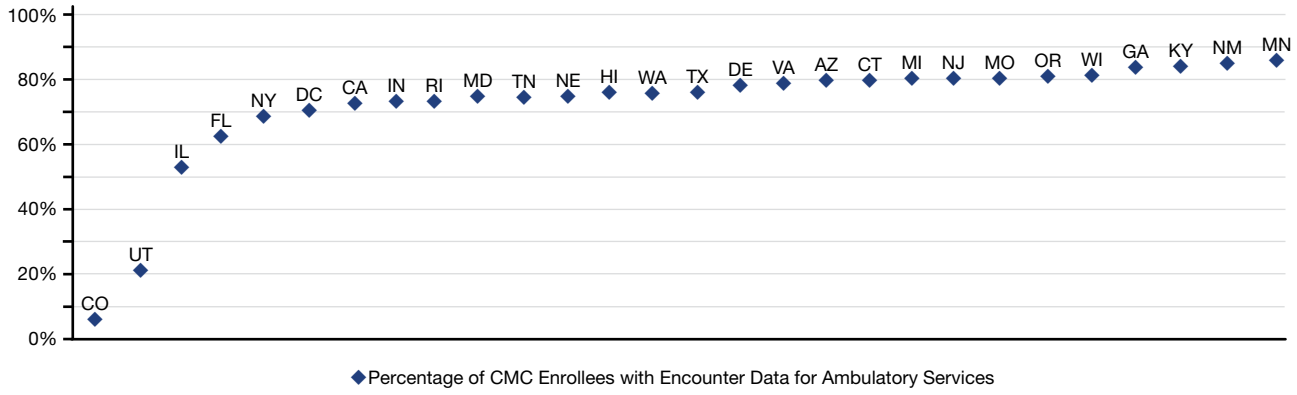
[41] As noted previously, some states with substantial comprehensive managed care enrollment did not report encounter data in MAX in 2010. When the analysis is limited to the 28 states that enrolled at least 5 percent of full-benefit enrollees in comprehensive managed care and also reported encounter data, the percentage of comprehensive care enrollees reported with service use increases notably. For example, 75 percent of comprehensive managed care enrollees in the 28 states reporting encounter data had encounters for ambulatory services in MAX 2010. Including the six states that did not report encounter data lowers this rate to 63 percent. To examine better the content of the encounter data that were submitted in MAX 2010, this section uses data from only the 28 states that reported these data, unless otherwise noted.

By a notable margin, ambulatory services were the most commonly reported services in encounter data in 2010, with about 75 percent of comprehensive managed care enrollees reported with such an encounter. The percentage varied from a low of about 6 percent of comprehensive managed care enrollees in Colorado to about 86 percent in Minnesota (Figure 5.16). One possible explanation of this variance is that the encounter data some states submit to MSIS are incomplete and do not accurately reflect utilization under managed care arrangements.[42] Though a few states reported very low rates of ambulatory encounters, most of the states reporting these data (25 of 28 states) reported encounters for at least 60 percent of comprehensive managed care enrollees, which is in line with reported utilization of many ambulatory services provided on an FFS basis (see Chapter 4 for more information about FFS service utilization). (See Appendix Tables A5.14 and A5.18–A5.21 for state-level rates of encounter data reporting by service class.)

As enrollment in comprehensive managed care has increased in recent years, CMS has worked with states to improve reporting of encounter data in MAX (Byrd and Verdier 2011). Figure 5.17 highlights the increases in reporting of average encounters per person-year of comprehensive managed care enrollment from 2008 to 2010 for commonly reported services in encounter data (see Appendix Table A5.22 for average numbers of encounters by state in 2010). From 2008 to 2010, the average number of ambulatory encounters per person-year of comprehensive managed care enrollment increased from 10 to 14. Similarly, the average number of wraparound service encounters increased from 7 to 9 during this period. These increases may result from more complete reporting of encounters by states or by increased use of services due to changes in the composition of comprehensive managed care

[42] Several states have reported that they do not receive complete encounter data from their managed care plans, or that they do not report all encounter data to MSIS. See Byrd and Verdier 2011.

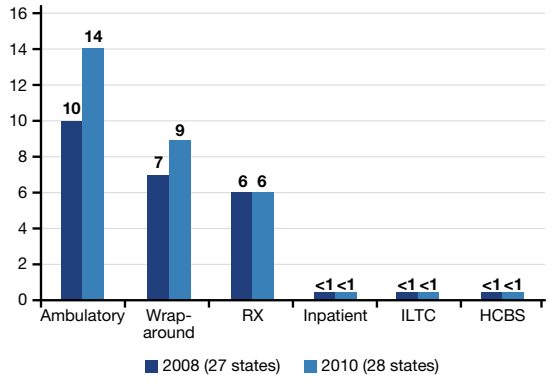
Figure 5.16
Percentage of Comprehensive Managed Care Enrollees with Encounter Data for Ambulatory Services in 2010



Source: Medicaid Analytic Extract 2010
Note: Includes 28 states that enrolled at least 5 percent of full-benefit enrollees in comprehensive managed care and reported encounter data for ambulatory services for them.
CMC = comprehensive managed care (HMO/HIO or PACE).

Figure 5.17

Average Number of Encounters per Person-Year of Comprehensive Managed Care in 2008 and 2010, by Service Class



Source: Medicaid Analytic Extract 2008-2010
Notes: Includes states that enrolled at least 5 percent of enrollees in CMC and reported encounter data for them.
CMC = comprehensive managed care (HMO, HIO, or PACE); ILTC = institutional long-term care; HCBS = home- and community-based services.

enrollees across states, though it is worth noting that service utilization among FFS enrollees did not shift noticeably from 2008 to 2010. Nationally, average numbers of prescription drug, inpatient, ILTC, and HCBS encounters were unchanged during the period. (Also see Appendix Table A5.23 for state-level changes in the percentage of comprehensive managed care enrollees reporting any encounter data from 2004 to 2010.)

6. Dual Enrollees

Dual enrollees ("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 (MedPAC 2011). Average health care costs for duals are more than double those of other Medicare beneficiaries (Jacobson et al. 2011) and almost eight times higher than those of low-income children covered by Medicaid. 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 costly subgroup of enrollees.

Duals must meet the eligibility requirements of both Medicare and Medicaid. Generally, Medicare provides basic health insurance coverage for most people age 65 and older, as well as 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, however, substantial out-of-pocket costs for Medicare beneficiaries, including premiums and cost-sharing payments, and some uncovered services, most notably for long-term care. As a result, many low-income Medicare beneficiaries who are aged or have disabilities receive assistance 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.

Most duals qualify for full Medicaid benefits. For these enrollees, Medicare is the primary payer for services covered by both programs, and Medicaid covers services not covered by Medicare (such as ILTC, some home health services, and HCBS). 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 usually 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 covers prescription drugs for duals.[43]

For services that are covered only by Medicaid, Medicaid claim records in MAX should reflect all services delivered, and Medicaid payment amounts can be interpreted like those for other enrollees. For services that are covered by both Medicaid and Medicare, Medicaid payment amounts in MAX claim records reflect only the coinsurance and deductible

[43] Medicare Part D is optional for most Medicare enrollees, but full-benefit dual enrollees must either enroll in a Part D plan or be automatically enrolled into one. 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.

amounts that Medicaid paid after Medicare made payments up to its coverage limits.[44] For this reason, expenditures in MAX for Medicare-covered services provided to duals substantially understate the total cost of care for those services. They do, however, reflect the Medicaid payments made for the service.

A smaller population of restricted-benefit duals includes Medicare enrollees who do not receive the full range of Medicaid benefits. Generally, duals who qualify only for restricted Medicaid benefits have higher income and/or assets than duals who qualify for full Medicaid benefits. Services such as ILTC, which are covered only by Medicaid, are not covered for restricted-benefit duals. For some such duals, such as the Qualified Medicare Beneficiary-only (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 Working Disabled Individuals (QDWI) and Part B premiums for specified low-income-only (SLMB-only) and qualified individual (QI) duals.

The unique characteristics of dual enrollees and their MAX records should be kept in mind when interpreting the summary enrollment, Medicaid service utilization, and expenditure statistics presented in this chapter. The MAX 2010 anomaly tables provide additional detail regarding the completeness and limitations of MAX data for duals.[45]

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

[45] The MAX eligibility anomaly tables for 2010 can be downloaded at: http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSources-GenInfo/MAXGeneralInformation.html.

Enrollment Characteristics of Duals

There were nearly 10 million duals in 2010—about 15 percent of all Medicaid enrollees. There was significant variability across states in the percentage of enrollees who were duals in 2010, which ranged from 10 percent in Utah to 26 percent in Maine (Table 6.1). The proportion of enrollees who were female among dual enrollees (62 percent) was similar to that in the overall Medicaid population (58 percent). Appendix Tables A6.1 and A6.2 show enrollment characteristics of duals by state.

Medicaid enrollees who were aged were more likely than enrollees with disabilities to be duals in 2010.[46] Nationally, about 93 percent of aged and 43 percent of Medicaid enrollees eligible on the basis of disability were dually enrolled in Medicare during the year (Table 6.1). There was more variation in dual enrollment among enrollees with disabilities than among aged enrollees. In all but 5 states, at least 90 percent of aged enrollees were dually enrolled in Medicare and Medicaid in 2010. The percentage of aged who were duals was lowest in Massachusetts and California: about 86 percent in both states (Figure 6.1). Overall, Medicare eligibility is very high among aged individuals. In general, aged people who worked (or had a spouse who worked) and paid Medicare taxes for at least 10 years are eligible for Medicare.

The percentage of enrollees eligible on the basis of disability who were dually enrolled in Medicare and Medicaid varied more, ranging from 31 percent in Pennsylvania to 59 percent in Connecticut (Figure 6.2). Variation in rates of dual enrollment can be attributed to differences in state eligibility criteria. For

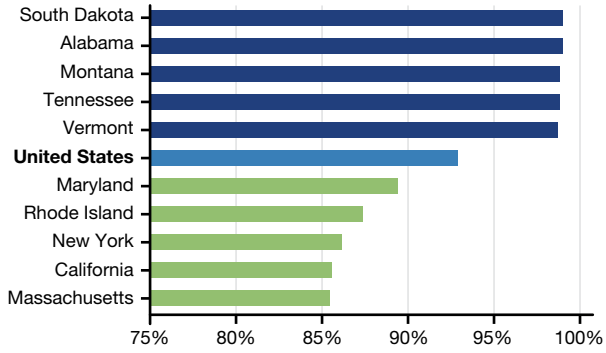
[46] Nationally, around 160,000 dual eligibles were eligible for Medicaid on the basis of being a child or an adult rather than on the basis of being aged or having a disability. This may be due to an error in the assignment of dual codes or due to a lag in updating the basis of eligibility for Medicaid enrollees who transition to dual status.

Table 6.1
Dual Enrollment in Medicare and Medicaid in 2010, by Basis of Eligibility

	Percentage of All Medicaid Enrollees Who Were Duals			Number of Dual Enrollees			Percentage of Duals	
	Total	Aged	Disabled	Total	Aged	Disabled	Aged	Disabled
United States	**14.5**	**92.9**	**42.6**	**9,949,934**	**5,331,601**	**4,458,535**	**53.6**	**44.8**
Alabama	20.2	99.0	47.1	207,080	94,791	111,469	45.8	53.8
Alaska	10.7	90.7	44.1	15,184	6,956	8,086	45.8	53.3
Arizona	10.4	93.5	44.4	151,357	75,330	65,533	49.8	43.3
Arkansas	16.5	97.8	40.9	129,557	68,176	60,536	52.6	46.7
California	10.9	85.6	43.9	1,267,266	712,390	531,717	56.2	42.0
Colorado	12.7	90.1	37.4	91,035	51,966	38,412	57.1	42.2
Connecticut	19.0	94.7	58.5	140,168	90,504	44,092	64.6	31.5
Delaware	11.6	95.6	46.2	26,702	13,730	11,864	51.4	44.4
District of Columbia	11.9	91.2	35.6	27,120	10,844	15,269	40.0	56.3
Florida	18.3	93.5	43.2	687,678	408,234	275,704	59.4	40.1
Georgia	15.3	96.2	43.1	289,835	142,462	146,382	49.2	50.5
Hawaii	12.0	95.3	41.3	35,438	23,098	11,601	65.2	32.7
Idaho	13.6	96.7	44.5	35,746	17,234	18,375	48.2	51.4
Illinois	12.1	90.1	51.5	357,006	143,178	195,348	40.1	54.7
Indiana	14.2	96.4	50.5	176,735	85,133	89,356	48.2	50.6
Iowa	14.6	97.5	52.1	84,867	41,237	42,215	48.6	49.7
Kansas	17.9	94.7	45.1	71,389	35,684	35,395	50.0	49.6
Kentucky	18.6	97.9	37.2	184,398	94,941	88,715	51.5	48.1
Louisiana	14.6	96.9	36.0	193,874	111,162	82,187	57.3	42.4
Maine	26.4	96.4	54.7	102,211	60,459	36,757	59.2	36.0
Maryland	11.3	89.4	33.3	123,168	68,871	49,134	55.9	39.9
Massachusetts	16.5	85.5	36.0	249,572	128,600	118,247	51.5	47.4
Michigan	12.5	96.4	40.6	291,832	137,370	146,327	47.1	50.1
Minnesota	16.9	95.3	48.1	159,987	91,690	64,689	57.3	40.4
Mississippi	20.4	98.5	46.2	157,269	73,147	83,701	46.5	53.2
Missouri	16.4	94.9	44.6	193,066	93,642	98,545	48.5	51.0
Montana	18.0	98.9	43.8	24,530	12,751	10,366	52.0	42.3
Nebraska	13.9	93.3	53.1	40,413	18,849	21,380	46.6	52.9
Nevada	13.0	97.0	42.6	47,097	26,328	20,341	55.9	43.2
New Hampshire	19.4	93.0	57.6	32,921	14,665	17,228	44.5	52.3
New Jersey	16.8	90.8	45.6	217,069	120,132	95,165	55.3	43.8
New Mexico	11.1	98.0	46.7	71,420	32,890	36,770	46.1	51.5
New York	14.3	86.1	43.9	816,087	444,032	353,319	54.4	43.3
North Carolina	16.8	97.9	44.0	329,125	180,172	146,560	54.7	44.5
North Dakota	18.7	98.3	56.4	16,220	9,350	6,810	57.6	42.0
Ohio	13.7	92.3	41.2	335,322	167,942	162,618	50.1	48.5
Oklahoma	12.9	96.9	43.0	120,142	63,967	55,372	53.2	46.1
Oregon	15.3	97.6	46.8	104,551	56,709	46,680	54.2	44.6
Pennsylvania	17.3	94.5	31.4	424,031	229,556	191,457	54.1	45.2
Rhode Island	18.9	87.3	44.3	45,301	21,801	20,720	48.1	45.7
South Carolina	15.3	98.0	44.6	153,156	74,211	76,441	48.5	49.9
South Dakota	14.9	99.0	50.6	21,606	10,861	10,636	50.3	49.2
Tennessee	17.6	98.9	50.1	271,118	116,633	149,342	43.0	55.1
Texas	13.7	97.2	34.9	680,253	442,360	236,388	65.0	34.8
Utah	9.8	96.6	45.9	35,462	14,189	20,890	40.0	58.9
Vermont	18.4	98.8	56.7	36,530	21,946	13,852	60.1	37.9
Virginia	17.1	95.3	46.4	184,289	95,976	87,429	52.1	47.4
Washington	12.7	96.7	37.9	173,985	93,562	79,260	53.8	45.6
West Virginia	19.6	98.4	35.2	84,422	41,064	42,858	48.6	50.8
Wisconsin	17.0	98.1	47.4	224,066	135,012	81,585	60.3	36.4
Wyoming	12.8	98.7	46.6	11,278	5,814	5,412	51.6	48.0

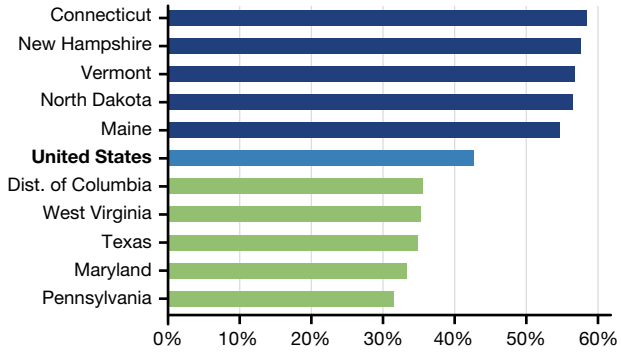
Source: Medicaid Analytic Extract 2010
Dual = enrolled in both Medicare and Medicaid in at least one month in 2010.
Note: Nationally, about 160,000 children and adults are reported as dual eligibles. This enrollment is very low across states and is not reported at the state level.

Figure 6.1
Percentage of Aged Medicaid Enrollees Who Were Duals in 2010: Top and Bottom 5 States



Source: Medicaid Analytic Extract 2010
Dual = ever enrolled in both Medicare and Medicaid in 2010.

Figure 6.2
Percentage of Disabled Medicaid Enrollees Who Were Duals in 2010: Top and Bottom 5 States



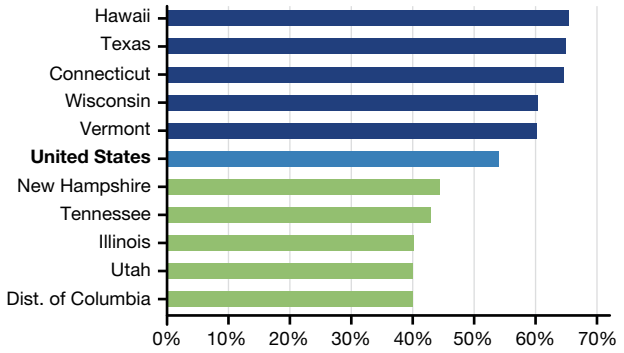
Source: Medicaid Analytic Extract 2010
Dual = ever enrolled in both Medicare and Medicaid in 2010.

example, Vermont's high rate of dual enrollment can be attributed partially to an 1115 waiver program that extends Medicaid coverage to Medicare enrollees with household income up to 200 percent of the FPL. In other states, these Medicare enrollees are not eligible for Medicaid benefits.

Of all duals, about 54 percent were classified as aged, while 45 percent had disabilities. This composition of duals may at first seem unexpected, since 93 percent of aged Medicaid enrollees were duals, compared to about 43 percent of enrollees with disabilities. However, enrollees eligible on the basis of disability represented a larger share of all Medicaid enrollees in 2010 (15 percent, compared with 8 percent for the aged), so the composition of duals is weighted only slightly toward the aged.

The percentage of duals who were aged or had disabilities varied significantly across states (Figure 6.3 and Table 6.1). In Hawaii, Texas, and Connecticut, about 65 percent of duals were aged in 2010. In Illinois, Utah, and the District of Columbia, however, about 40 percent were aged. 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 Who Were Aged in 2010: Top and Bottom 5 States



Source: Medicaid Analytic Extract 2010
Dual = ever enrolled in both Medicare and Medicaid in 2010.

Restricted-Benefit Duals

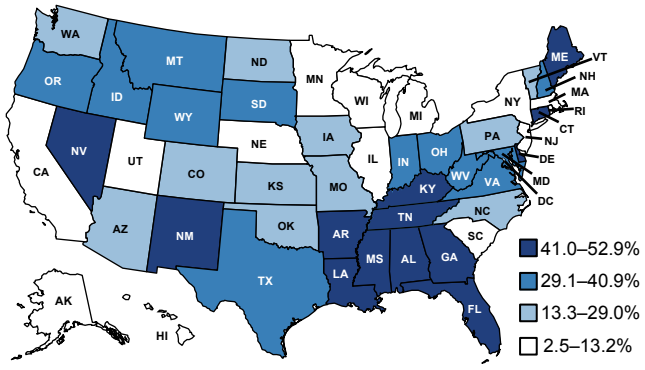
As discussed in Chapter 2, duals may be eligible for full or restricted Medicaid benefits. A person's dual eligibility status can change, primarily as a result of changes in income. In MAX 2010, duals were assigned an annual code based on their status during their last month of eligibility in 2010, so that each

dual was assigned to only one dual eligibility group. About 25 percent of all duals qualified for only restricted Medicaid benefits during their last month of dual eligibility in 2010. Some of these enrollees may have been eligible for full benefits at some point during the year. When this group is restricted to those who qualified for only restricted benefits throughout 2010, their Medicaid expenditures are generally quite low, because these enrollees receive only premium and cost-sharing assistance. In 2010, average Medicaid expenditures for restricted-benefit duals were $687 per person, much lower than the average Medicaid expenditures of $14,842 per dual who received full benefits at some point during the year (Appendix Table A6.2).

The percentage of duals that had restricted benefits in 2010 ranged from 3 percent in Alaska and California to 53 percent in Alabama (Figure 6.4).[47] In 28 states, more than a 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 enrollees and those with disabilities. For example, states with poverty-related coverage expansions for people who are aged or have disabilities and have incomes up to 100 percent of the FPL generally had fewer restricted-benefit duals in 2010.[48]

In addition to distinctions based on benefit status, there are four primary categories of duals: QMB, SLMB, QI, and QDWI (also see Chapter 1). 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 enrollees and those eligible on

Figure 6.4
Percentage of Dual Enrollees (in Quartiles) with Restricted Medicaid Benefits in 2010



Source: Medicaid Analytic Extract 2010
Dual status based on last month of dual eligibility for enrollee. Dual = ever enrolled in both Medicare and Medicaid in at least one month in 2010. Restricted benefit = duals with benefits limited to Medicare cost-sharing.

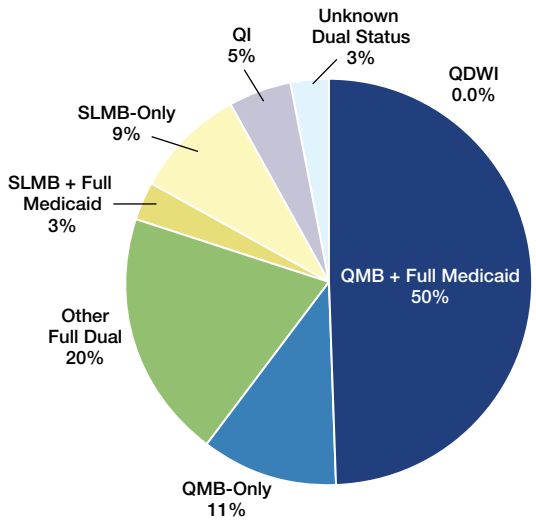
the basis of disability vary, a dual in each of these categories could qualify for cost-sharing only (restricted-benefits dual) or for cost-sharing plus full Medicaid eligibility (full-benefit dual) depending on state of residence. Nationally, 61 percent of all duals were QMB duals, most of whom were eligible for full Medicaid benefits (Figure 6.5). The next largest group, about 20 percent of duals, was Other full-benefit duals, a designation that indicates that a dual receives full benefits but that the state cannot identify the dual category (QMB or SLMB), and an additional 3 percent of duals had unknown dual status (and were included as full-benefit duals).[49] A smaller percentage were SLMBs (12 percent) and QIs (5 percent), most of whom received only restricted benefits. Nationally, states reported a combined total of fewer than 100 QDWIs in 2010. The relatively large percentage of duals with Other or unknown dual status calls for caution when disaggregating the duals into the different types for analysis, because the exact status of many duals (about one-fifth) is unknown. (Appendix Table A6.3 shows state-level enrollment by dual type.)

[47] Restricted-benefit duals are identified based on the annual dual code in MAX 2010.

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

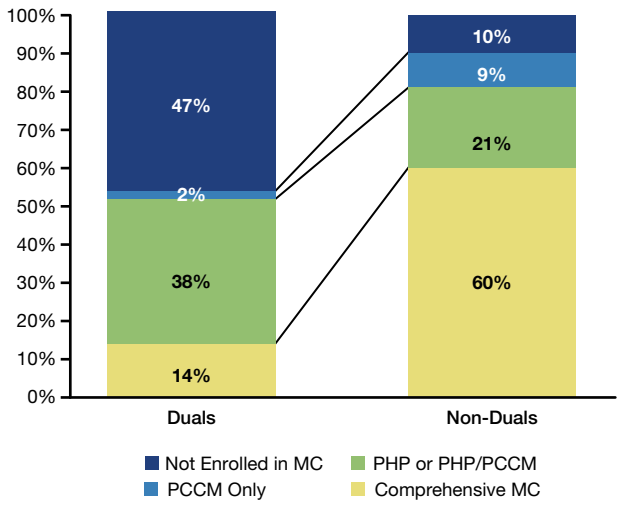
[49] Duals with unknown status had the dual status code filled with a code in MAX that indicates that the state was unable to identify the enrollee's dual status.

Figure 6.5
Dual Enrollment by Type of Dual Status in 2010



Source: Medicaid Analytic Extract 2010
Note: Dual status based on last month of dual eligibility for enrollee.
QI = Qualified Individual, QMB = Qualified Medicare Beneficiary, SLMB = Specified Low-Income Medicare Beneficiary, QDWI = Qualified Disabled Working Individual.

Figure 6.6
A Comparison of Managed Care (MC) Enrollment Between Full-Benefit Dual and Non-Dual Medicaid Enrollees in 2010



Source: Medicaid Analytic Extract 2010
Dual = Ever enrolled in both Medicare and Medicaid in 2010.
PCCM = primary care case management
PHP = prepaid health plan
Comprehensive = HMO, HIO, or PACE
Each enrollee is reported in only one category.

Managed Care Enrollment Among Full-Benefit Duals

Nationally, duals were less likely than non-duals to be enrolled in Medicaid managed care in 2010. About 53 percent of full-benefit duals were enrolled in managed care of some kind in 2010, compared to about 90 percent of full-benefit non-duals (Figure 6.6).[50] Lower rates of managed care participation among duals relative to non-duals could reflect the difficulty either of establishing risk-adjusted capitation rates for duals or of coordinating care with Medicare coverage.

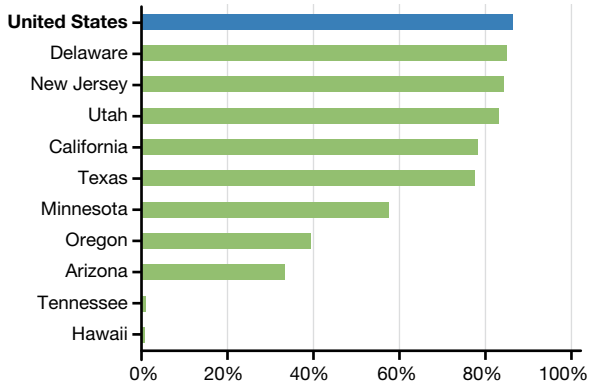
Comprehensive managed care enrollment (HMO, HIO, or PACE) was particularly low among duals, with only 14 percent of full-benefit duals enrolled in these plans, compared to 60 percent of full-benefit non-duals. In 28 states and the District of Columbia, at least 95 percent of full-benefit duals were FFS, meaning that they were never enrolled in comprehensive managed care in 2010. Relatively high rates of comprehensive managed care enrollment among full-benefit duals in a small number of large states drove the national comprehensive managed care enrollment rate to 14 percent. Only 10 states had FFS enrollment rates below the national rate of 86 percent (Figure 6.7). In particular, less than 50 percent of duals were FFS in Oregon (40 percent), Arizona (32 percent), and Hawaii and Tennessee (1 percent) in 2010.

Although rates of comprehensive managed care enrollment among duals were generally low, 47 states and the District of Columbia enrolled at least some full-benefit duals in some form of managed care in 2010, most commonly PHPs and PCCMs. In a few states, nearly all duals were enrolled in PHPs (Table 6.2). For example, Georgia, Mississippi, Nevada, and South Carolina enrolled almost all full-benefit duals in non-emergency transportation plans. Washington enrolled most full-benefit duals in behavioral health

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

plans. Because most PHPs cover only a limited set of services, duals in these states typically received managed care benefits concurrently with FFS benefits and are included in the subset of "FFS duals" examined below. Appendix Table A6.4 shows state-level managed care enrollment by plan type.

Figure 6.7
FFS Duals as a Percentage of All Full-Benefit Duals in 2010: 10 States with Rates Lower than U.S. Average



Source: Medicaid Analytic Extract 2010
Dual = ever enrolled in both Medicare and Medicaid in 2010.
Fee-for-Service dual = Full-benefit dual who was not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2010.

Medicaid FFS Utilization and Expenditures Among FFS Duals

The FFS duals included in the following expenditure analysis are the full-benefit duals who were never enrolled in comprehensive managed care during 2010. For states with high rates of comprehensive managed care among full-benefit duals, particularly Arizona, Hawaii, Oregon, and Tennessee, FFS expenditures by type of service should be interpreted with particular caution. Cost information is available in MAX only for services reimbursed on an FFS basis. Because high-cost users may self-select themselves into either FFS or managed care, average FFS expenditures in states with high rates of enrollment in comprehensive managed care plans may greatly understate or overstate the true average cost of duals. More importantly, total FFS expenditures in these states understate the total cost of care for duals.

Total FFS expenditures for FFS duals in 2010 were $95.6 billion (Appendix Table A6.5). Duals represented less than one-fourth (22 percent) of all FFS Medicaid enrollees but accounted for almost half

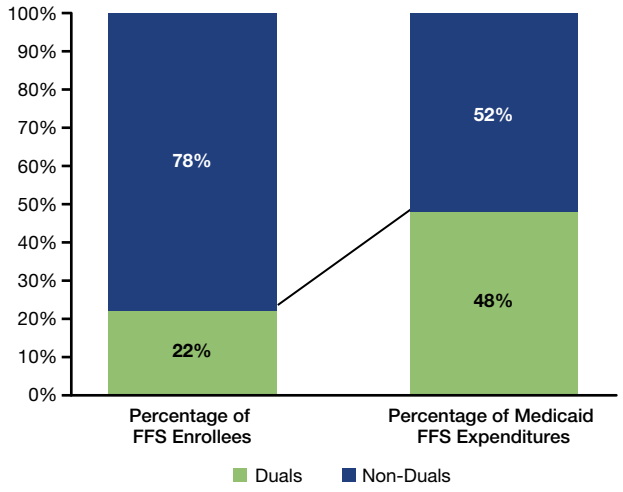
Table 6.2
Percentage of Full-Benefit Duals Enrolled in Medicaid Managed Care in 2010, by Type of Plan, Top 10 States

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	99.3	Mississippi	100.0	North Carolina	35.6
Tennessee	99.1	Washington	97.4	Idaho	31.3
Arizona	67.7	South Carolina	97.3	Vermont	8.4
Oregon	60.5	Georgia	95.2	Illinois	5.7
Minnesota	42.4	Nevada	94.4	Louisiana	5.2
Texas	22.4	Iowa	93.8	Montana	4.4
California	21.8	District of Columbia	93.5	Maine	3.8
Utah	16.9	Colorado	90.9	Indiana	3.3
New Jersey	15.7	Oklahoma	89.4	South Dakota	2.4
Delaware	15.0	Michigan	88.2	**United States**	**1.9**
United States	**13.6**	**United States**	**37.9**	Texas	1.1

Source: Medicaid Analytic Extract 2010
Duals with managed care enrollment are assigned to only one of the three managed care groups.
Comprehensive managed care = (HMO, HIO, or PACE).

(48 percent) of Medicaid FFS expenditures in 2010 (Figure 6.8). This is consistent with research suggesting that duals require extensive and costly medical care.

Figure 6.8
Medicaid Enrollment and FFS Expenditures Among Dual and Non-Dual FFS Enrollees in 2010



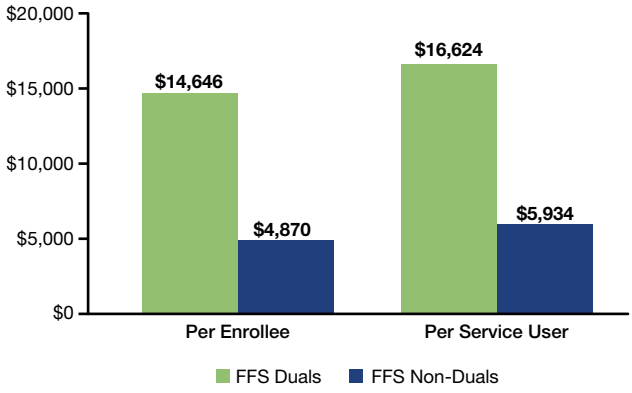
Source: Medicaid Analytic Extract 2010
FFS enrollees = full-benefit enrollees not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2010.
Dual = ever enrolled in both Medicare and Medicaid in 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

A comparison of per-enrollee expenditures between dual and non-dual FFS enrollees indicates that the average FFS costs for duals ($14,646) were about three times higher than costs for non-duals ($4,870). This differential is also evident when comparing average costs per service user ($16,624 for duals and $5,934 for non-duals) (Figure 6.9).

Medicaid FFS expenditures per dual varied significantly across states (Figure 6.10). States with the highest average costs paid close to $30,000 per FFS dual, as observed in Connecticut and Wyoming. At the low end, five states (California, Michigan, New Mexico, South Carolina, and Wisconsin) spent less than $10,000 per dual[51] (Appendix Table A6.5).

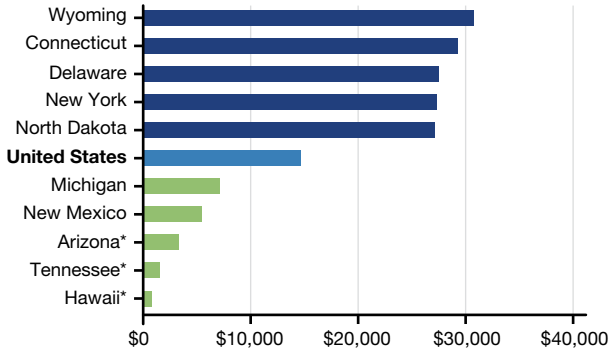
[51] Arizona, Hawaii, and Tennessee also had very low average expenditures per dual, but these states enrolled most duals in comprehensive managed care and are therefore likely not comparable to other states.

Figure 6.9
A Comparison of Medicaid FFS Expenditures Between FFS Duals and Non-Duals in 2010



Source: Medicaid Analytic Extract 2010
FFS enrollees = full-benefit enrollees not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2010.
Dual = ever enrolled in both Medicare and Medicaid in 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Figure 6.10
Per-Enrollee FFS Expenditures Among FFS Duals in 2010: Top and Bottom 5 States

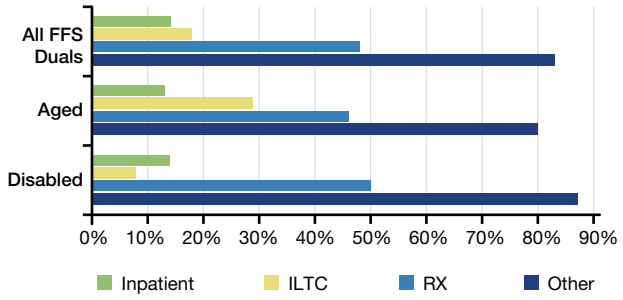


Source: Medicaid Analytic Extract 2010
FFS duals = full-benefit duals not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2010.
Dual = ever enrolled in both Medicare and Medicaid in 2010.
*FFS duals represented less than 50 percent of full-benefit duals in Arizona, Hawaii, and Tennessee
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Several factors may account for these differences in expenditures. 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 enrollees, or may not extend Medicaid coverage to costly services that some Medicaid programs cover for duals, such as personal care through the Medicaid State Plan.

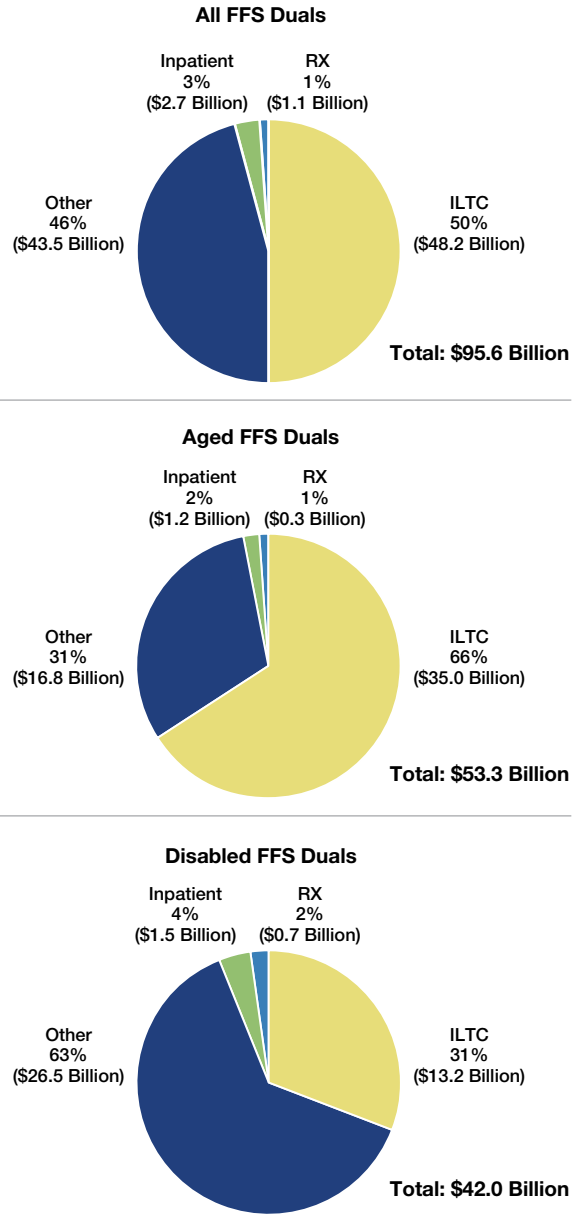
Per-enrollee expenditures for FFS duals who were aged ($15,632) were about 13 percent higher than expenditures for those eligible on the basis of disability ($13,830) in 2010 (Appendix Table A6.5). This difference can be attributed to higher rates of ILTC use among aged duals (Figure 6.11). ILTC was the costliest service among FFS duals, accounting for about half their expenditures (50 percent) in 2010 (Figure 6.12). As might be expected, total ILTC expenditures were much higher among aged duals ($35.0 billion) relative to those for their counterparts with disabilities ($13.2 billion) (Figure 6.12). (Appendix Tables A6.6 through A6.11 and A4.9 through A4.16 present state-level detail on dual service utilization and expenditures by basis of eligibility and by type of service.)

Figure 6.11
Percentage of FFS Duals Using Four Major Types of Service in 2010, by Basis of Eligibility



Source: Medicaid Analytic Extract 2010
Dual = ever enrolled in both Medicare and Medicaid in 2010.
FFS duals = full-benefit duals not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Figure 6.12
Medicaid FFS Expenditures Among FFS Duals in 2010, by Type of Service



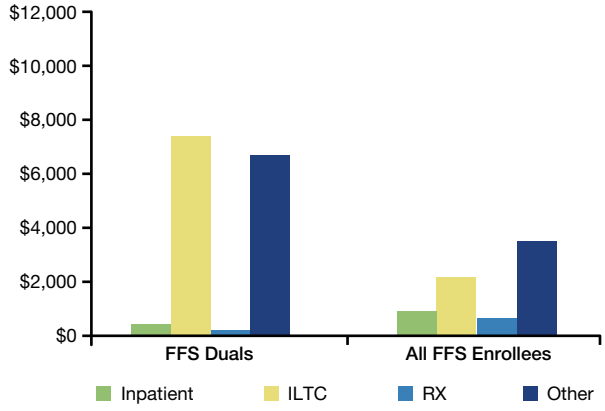
Source: Medicaid Analytic Extract 2010
Dual = ever enrolled in both Medicare and Medicaid in 2010.
FFS duals = full-benefit duals not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

As in the overall Medicaid FFS population (Chapter 3), duals used Other services at a higher rate than any other type of service (Figure 6.11).[52] The highest shares of Other FFS expenditures among duals were for HCBS, including personal care services, residential care, home health, and adult day care (data not shown).

FFS duals used inpatient services at a lower rate than Other services in 2010 (14 percent of FFS duals used inpatient services), similar to the rate in the overall Medicaid FFS population (about 11 percent). Because Medicare Part A covers inpatient care for duals, per-enrollee FFS expenditures for these services ($419) (Figure 6.13) were low compared to per-enrollee inpatient expenditures in the overall Medicaid population ($905).

Medicaid FFS expenditures on prescription drugs for duals have dropped substantially since the implementation of Medicare Part D in 2006. Prescription drug expenditures for FFS duals were $1.1 billion in 2010, and accounted for only 1 percent of FFS expenditures among FFS duals (Figure 6.12). In 2004, prior to 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. States continue to cover prescription drugs that are 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; this payment is not included in MAX data.

Figure 6.13
Per-Enrollee FFS Expenditures Among FFS Duals in 2010, by Basis of Eligibility



Source: Medicaid Analytic Extract 2010
Dual = ever enrolled in both Medicare and Medicaid in 2010.
FFS duals = full-benefit duals not enrolled in comprehensive managed care (HMO, HIO, or PACE) in 2010.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

[52] Other 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.

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:

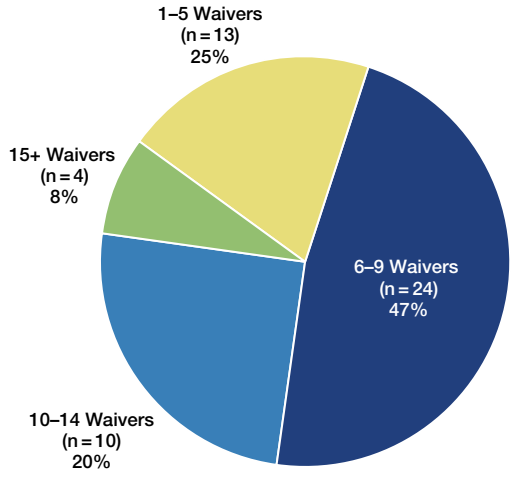
- *Freedom of choice.* Enrollees must be allowed to choose any authorized provider of services.
- *Statewideness.* Eligibility rules, benefit packages, and reimbursement rates must be the same throughout the state.
- *Comparability.* Benefits offered to one categorically eligible group must be comparable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

If states want to expand eligibility or services beyond what is allowed by Title XIX or provide them in a way that differs from what the 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 to 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 to subpopulations of enrollees.
4. *Section 1915(b)(c).* 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.

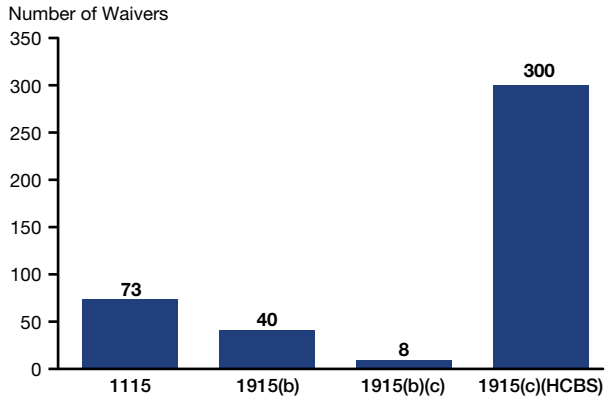
In 2010, every state had at least one Medicaid waiver. Most states maintained multiple waivers of different types, with 38 states operating six or more waivers in 2010 (Figure 7.1). Florida had the most waivers in 2010, including 15 HCBS waivers and three 1115 waivers. Nationally, HCBS waivers were the most utilized type of waiver, with 300 active waivers of this type identified in MAX in 2010 (Figure 7.2).

Figure 7.1
Number of Medicaid Waivers Per State in 2010



Source: Medicaid Analytic Extract Waiver Crosswalk 2010
Note: Waiver count includes all CMS-approved Medicaid waivers that were active at any time during 2010.

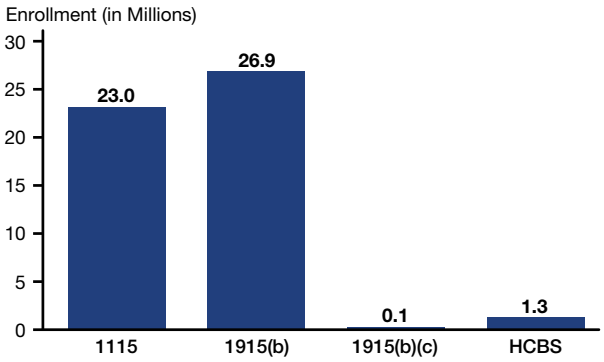
Figure 7.2
Number of Waivers by Type in 2010



Source: Medicaid Analytic Extract Waiver Crosswalk 2010
Note: Waiver count includes all CMS-approved Medicaid waivers that were active at any time during 2010.

Despite their large number, HCBS waivers covered disproportionately fewer Medicaid enrollees than Section 1915(b) or 1115 waivers in 2010 (Figure 7.3). 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 2010, had over

Figure 7.3
Medicaid Enrollment by Type of Waiver in 2010



Source: Medicaid Analytic Extract Waiver Crosswalk 2010
Note: Waiver count includes all CMS-approved Medicaid waivers that were active at any time during 2010.

7.2 million enrollees a month. The smallest HCBS waivers enrolled fewer than 20 people a month. In 2010, about 1.3 million Medicaid enrollees were enrolled in HCBS waivers. By comparison, about 26.9 million Medicaid enrollees were covered by 1915(b) waivers. About 23 million Medicaid enrollees were enrolled in Section 1115 waivers in 2010; of these, 5.5 million were expansion enrollees who would have otherwise been ineligible for Medicaid. (For more detail, see Appendix Tables A7.1 to A7.3.).[53] Individuals can be enrolled in more than one waiver at a time. For example, an enrollee who received managed behavioral health services through a PHP could also receive HCBS through an HCBS waiver.

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 are also continually working to improve reporting for Section 1115 and 1915(b) waivers; researchers should consult the 2010 MAX eligibility anomaly tables for more

[53] Appendix Table A7.2 shows combined enrollment in 1915(b) and 1915(b)(c) waivers, nationally and by state. Figure 7.3 separates this enrollment into enrollment in 1915(b) waivers and enrollment in 1915(b)(c) waivers.

information about waiver-reporting anomalies. The MAX 2010 waiver crosswalk also includes detailed information about each state's Medicaid waivers.[54] The remainder of this chapter provides an overview of some of the analyses of waiver enrollment and expenditure data that are possible with MAX data, focusing on each type of Medicaid waiver: Section 1115, Section 1915(b) and Section 1915(b)(c), and HCBS.[55]

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 an 1115 waiver program will be budget neutral for the federal government, and the waiver must include an evaluation component.

In 2010, 38 states and the District of Columbia maintained 1115 waivers, which they used for diverse purposes. Table 7.1 shows the populations that were covered under Section 1115 waivers in each state in 2010. (State-level enrollment in 1115 waivers is in Appendix Table A7.1.) State experiments operated under 1115 waivers in 2010 included:

- *Delivery system changes,* such as mandatory enrollment in managed care. Delivery system changes can apply to specific eligibility groups (such as all children in the state) or to geographic regions (such as major cities or statewide). For example, Kentucky's Health Care Partnership 1115 waiver implemented mandatory comprehensive managed care enrollment for almost all non-institutionalized Medicaid beneficiaries in one region of the state.
- *Coverage expansions with targeted benefits for specific populations,* such as a Medicaid-expansion program with benefits tailored to uninsured individuals with HIV/AIDS in Maine and a prescription drug coverage program for aged enrollees in Wisconsin.
- *Coverage expansions with basic benefit packages for broader uninsured populations,* such as Maryland's Primary Adult Care 1115 waiver program. This waiver provided basic primary care benefits to enrollees who would have otherwise not been covered in Medicaid.
- *Combinations of coverage expansions and delivery system changes,* such as Vermont's Global Commitment to Healthcare 1115 waiver. Through this waiver, Vermont operated a publicly sponsored managed care organization with mandatory enrollment for many children and adult Medicaid enrollees, which also expanded coverage to otherwise-ineligible aged, individuals with disabilities, children, pregnant women, parents, and childless adults, and also provided premium assistance to eligible individuals with access to employer-sponsored insurance. The state also used this waiver to expand its HCBS availability. Like Vermont, many states combined the implementation of managed care or other cost-savings approaches with expansion programs to ensure that the waiver remained budget neutral.

[54] MAX 2010 anomaly tables and waiver crosswalk are available at: http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/MAXGeneralInformation.html. To access the crosswalk, download the "MAX Data 2010 General Information" file, and open "Waiver_Crosswalks-MAX_2010.xlsx".

[55] Section 1915(b)(c) waivers are presented with Section 1915(b) waivers because these waivers offer more extensive services than those offered in HCBS waivers.

Table 7.1
Section 1115 Waivers in MAX 2010

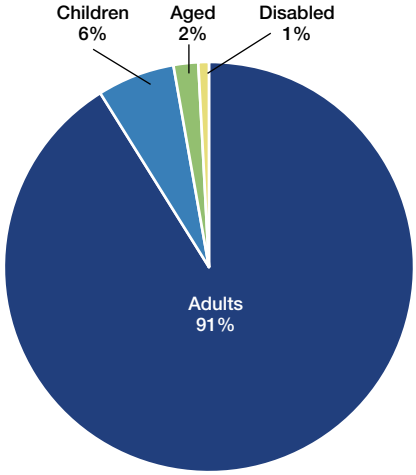
State	No Section 1115 Waiver	Section 1115 Waiver with Non-Expansion Components	1115 Waiver Expands Medicaid Eligibility and/or Extends Targeted Coverage to a Special Population								
			Aged Expansion	Disabled Expansion	Children Expansion	Pregnant Women Expansion	Parents/ Caretakers Expansion	Childless Adult Expansion	Family Planning Only[a]	HIV Positive Individuals	Prescription Drug Only[a]
Total Number of States	12	21	4	10	11	9	20	22	27	3	2
Alabama									♦		
Alaska	♦										
Arizona		♦					NR	♦	♦		
Arkansas		♦		♦	♦		NR	NR	♦		
California		♦						NR	♦		
Colorado	♦										
Connecticut	♦										
Delaware		♦					♦	♦	♦		
District of Columbia								♦		♦	
Florida		♦	♦	♦					♦		
Georgia	♦										
Hawaii		♦		♦	♦	♦	♦	♦			
Idaho		♦						♦			
Illinois									♦		
Indiana		♦					♦	♦			
Iowa		♦			♦	♦	♦	♦	♦		
Kansas	♦										
Kentucky		♦									
Louisiana							♦	♦	♦		
Maine								♦		♦	
Maryland		♦		♦			♦	♦	♦		
Massachusetts		♦		♦	♦	♦	♦	♦		♦	
Michigan								♦	♦		
Minnesota		♦			♦	♦	♦		♦		
Mississippi			♦	♦					♦		
Missouri									♦		
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									♦		
Utah						♦	♦	♦			
Vermont		♦	♦	♦	♦	♦	♦	♦			♦
Virginia									♦		
Washington									♦		
West Virginia	♦										
Wisconsin					♦		♦	♦	♦		♦
Wyoming									♦		

Source: Medicaid Analytic Extract 2010
Notes: Some states have multiple Section 1115 waivers. These waivers have been combined to show total Section 1115 waiver coverage in a single row per state. See the MAX 2010 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 2010 data.
[a] Prescription Drug Only and Family Planning Only waivers extend coverage for these services only to individuals who are otherwise not eligible for Medicaid.

In 2010, almost all states with Section 1115 waivers used this authority to extend coverage to people who were otherwise ineligible for Medicaid.[56] Adults made up the largest group receiving Medicaid coverage through an 1115 expansion in 2010, accounting for almost 91 percent of all 1115 expansion enrollees (Figure 7.4). Overall, about 27 percent of all Medicaid-covered adults in 2010 were covered through 1115 waiver expansions, compared to about 2 percent of all aged enrollees, 1 percent of all child enrollees, and less than 1 percent of enrollees eligible on the basis of disability (Figure 7.5 and Appendix Table 7.1). States had limited options outside 1115 waivers for covering adults in Medicaid State Plans in 2010; the 22 states that covered childless adults in 2010 were able to do so only through 1115 waivers or through early implementation of the ACA expansions. Other common 1115 expansions for adults in 2010 included those to higher-income pregnant women, parents or caretaker relatives of children enrolled in Medicaid or CHIP,

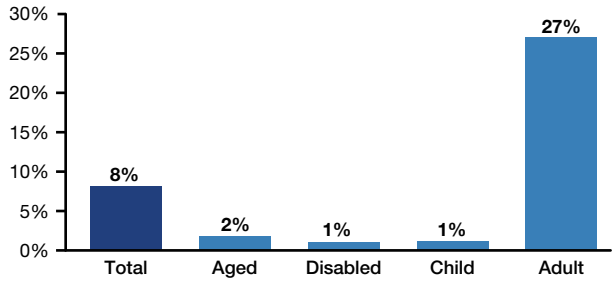
[56] Kentucky used an 1115 waiver to implement only delivery system changes, not to expand Medicaid coverage. As Appendix Table A7.1 shows, Kentucky had no 1115 waiver expansion enrollment.

Figure 7.4
Percentage of Section 1115 Expansion Enrollees by Basis of Eligibility in 2010



Source: Medicaid Analytic Extract 2010

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



Source: Medicaid Analytic Extract 2010

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 of 1115 expansions on adult populations may shift as states opt to expand Medicaid eligibility to adults under the ACA.

States that expand Medicaid coverage through 1115 waivers can provide more limited benefit packages to those enrollees than to mandatory coverage groups. In particular, one type of 1115 waiver, the Health Insurance Flexibility and Accountability (HIFA) waiver, was created in 2001 to extend basic health coverage to low-income uninsured adults.[57] In 2010, seven states (Arizona, Arkansas, Idaho, Maine, New Jersey, New Mexico, and Oklahoma) used HIFA waivers to extend limited Medicaid coverage to adults. Medicaid benefits provided via HIFA waivers may be limited to premium assistance payments toward the purchase of employer-sponsored insurance or enrollment in state employee

[57] HIFA waivers are shown with all other Section 1115 waivers in tables for this chartbook, but researchers can identify them separately by waiver type in MAX data.

insurance. People enrolled in Medicaid through these waivers receive only primary care benefits.[58]

In 2010, 27 states had family planning waivers, a type of 1115 waiver that covers only family planning benefits for individuals, typically women of childbearing age, who are not otherwise eligible for Medicaid (Table 7.1). These waivers, first offered in 1993, provide only limited services, including contraceptive coverage, testing for sexually transmitted diseases, limited counseling, and assistance with access to primary care services. In 2010, Medicaid expenditures for family planning enrollees averaged only about $234 per enrollee, compared to $2,896 per full-benefit adult enrollee (Appendix Tables A7.4 and A3.5).[59] (State-level family planning enrollment and expenditures are shown in Appendix Table A7.4.)

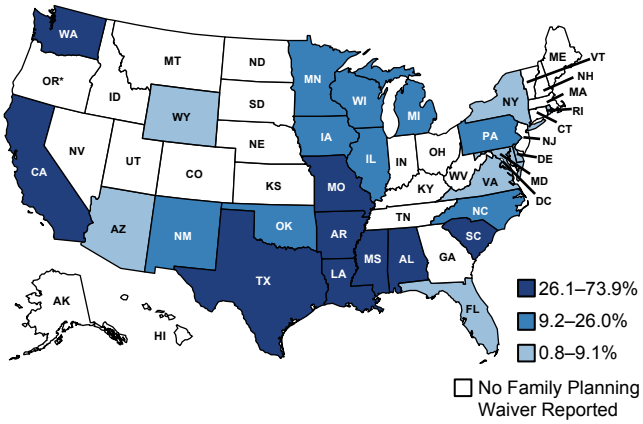
Nationally, about 24 percent of all adult Medicaid enrollees were enrolled in family planning waivers at some point during 2010. Further, about 21 percent of adults received only family planning services during the year. California's large family planning waiver, with 2.7 million enrollees, accounted for about 61 percent of the 4.4 million Medicaid enrollees in family planning waivers in 2010. In several additional states, however, family planning enrollees accounted for sizable portions of the adult enrollee population. Among states with family planning waivers, the percentage of adult Medicaid enrollees that were family planning enrollees ranged from a low of 1 percent of adult enrollees in Florida to 74 percent in Alabama and Arkansas (Figure 7.6). In addition to differences in program size, the percentage of enrollees that are 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 states that were otherwise more restrictive in coverage for adults; for example, with lower income eligibility limits for this population. Because family planning enrollees receive very limited benefits, expenditure and service utilization analyses that include them may cause these states to differ considerably from states that do not have family planning waiver programs.[60]

[58] Because some HIFA waiver enrollees receive only premium assistance, and because of the limited and unique scope of these benefits, these enrollees may be undercounted in state MMIS data. When states are able to identify these enrollees, they are reported in MSIS as 1115 waiver enrollees. Because individuals who receive only premium assistance cannot be identified in all states, enrollees in these waivers are considered full-benefit enrollees in this chartbook. Researchers may want to flag individuals who receive only premium assistance in states where these individuals can be identified. For more information on reporting anomalies for specific waivers, see the MAX 2010 anomaly tables at: http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSources-GenInfo/MAXGeneralInformation.html.

[59] States receive a federal match rate of 90 percent for family planning waiver expenditures.

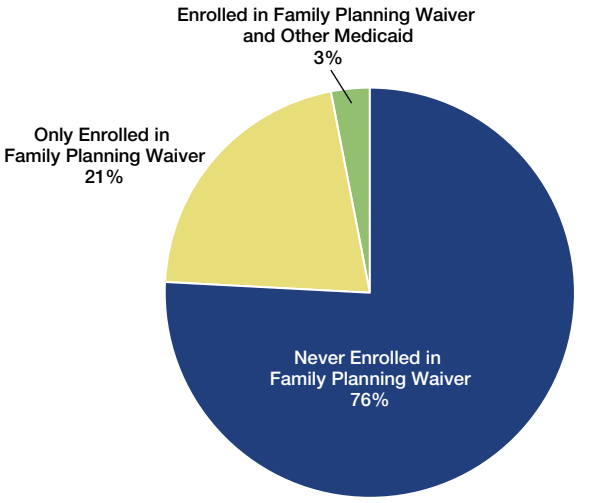
[60] As discussed in Chapter 2, people who received only family planning benefits in 2010 were identified as restricted-benefit enrollees in this analysis and were excluded from the population of full-benefit enrollees in this chartbook.

Figure 7.6
Percentage of All Adult Medicaid Enrollees (in Thirds) Enrolled In Family Planning Waivers During 2010



Source: Medicaid Analytic Extract 2010
*Oregon has a family planning waiver but did not report enrollment in MAX 2010.

Figure 7.7
Percentage of All Adult Medicaid Enrollees Participating in Family Planning Waivers in 2010



Source: Medicaid Analytic Extract 2010
Note: Family planning enrollees receive only the benefits specified in the waiver while enrolled in the waiver.

A small percentage of adult Medicaid enrollees (3 percent) transitioned between family planning waivers and other Medicaid benefits during 2010 (Figure 7.7). These enrollees represent about 13 percent of all family planning enrollees. This pattern varied considerably across states that maintained these programs. Less than 10 percent of the family planning enrollees in Minnesota received any other Medicaid coverage during the year. In other states, enrollees moved more regularly between this coverage and full Medicaid benefits. In Illinois, around 70 percent of family planning enrollees received additional Medicaid benefits at some point during 2010. Illinois's family planning waiver specifically targeted postpartum women leaving Medicaid coverage and other women who were otherwise losing Medicaid coverage, whereas other states generally targeted all eligible women who were otherwise ineligible for Medicaid.

In 2010, the Affordable Care Act authorized states to provide family planning and related services to otherwise-ineligible people under the State Plan, and California transitioned its large family planning program from a waiver to its State Plan in July 2010. As other states begin to offer family planning services through State Plans instead of waivers in future years, there should be changes in the number of states offering this coverage and the populations receiving it.

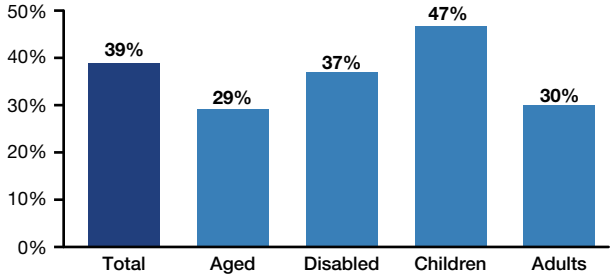
Section 1915(b) Managed Care/Freedom of Choice Waivers

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 2010, 25 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 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 2010, states frequently used 1915(b) waivers to implement managed care programs that carved out specialty services, most commonly including mental health services and dental services. In Washington, 1915(b) waiver use was limited to placing enrollees into behavioral health plans. States may also use 1915(b) waivers to place different populations into different kinds of managed care. For example, Virginia's managed care waiver placed enrollees into either PCCMs or comprehensive managed care.

Nationally, about 27 million enrollees, or just under two-fifths of all Medicaid enrollees, were placed into some form of managed care by Section 1915(b) or 1915(b)(c) waivers (Figure 7.8). Large programs in some states accounted for much of this enrollment. California used 1915(b) waivers to place about 8.9 million enrollees into comprehensive managed care plans and dental PHPs or to provide them with mental health services. Florida placed about 3.4 million enrollees in non-emergency transportation, mental health, and disease management PHPs.

Figure 7.8
Percentage of All Medicaid Enrollees in Section 1915(b) or 1915(b)(c) Waivers in 2010



Source: Medicaid Analytic Extract 2010

Six states (Florida, Michigan, Minnesota, New Mexico, North Carolina, and Pennsylvania) used combination Section 1915(b)(c) waivers to implement mandatory managed care programs that included HCBS.[61] Managed care programs implemented under these waivers included comprehensive managed care as well as plans that carved out coverage for behavioral or other specialty managed care. These programs ranged from FFS adult day care and Alzheimer's programs in Florida to comprehensive managed care in Minnesota. Because these programs included HCBS, they generally targeted enrollees who were aged or had disabilities. For example, in Minnesota, aged enrollees could elect to enroll in the state's integrated Medicare managed care program, or they were enrolled in the state's 1915(b) Senior Care managed care and HCBS combination program.

In 2010, states had multiple options for placing Medicaid enrollees 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 represent only a fraction of Medicaid managed care in 2010. See Chapter 5 for more detail on all Medicaid managed care in 2010.

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

Since 1982, Section 1915(c) of the Social Security Act authorizes the HHS Secretary to waive Medicaid provisions to allow long-term care services to be delivered in home and community settings to people who would otherwise require care in an institution. Section 1915(c) waivers (called HCBS waivers) give the aged and enrollees eligible on the basis of 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.[62] To serve an individual in an HCBS waiver, the state must use a standard evaluation process to determine that the individual requires an institutional level of care.

Medicaid services covered under HCBS waivers can include medical services, such as skilled nursing and dental services, as well as non-medical 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

[61] Each of these states also operated a separate Section 1915(b) waiver.

[62] This requirement was established in 1999 in the U.S. Supreme Court's Olmstead v. L.C. decision.

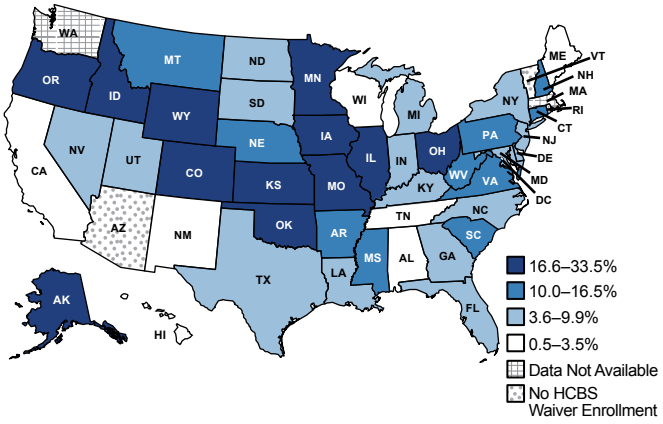
an HCBS waiver cannot duplicate services that are provided under a Medicaid State Plan, but states can use these waivers to augment services in the Medicaid State Plan by raising the amount, duration, or frequency of covered services for waiver participants. States can also use these waivers to waive certain income and resource rules and cover services in the community that would otherwise be available only in an institutional setting.

Every state except Arizona, Rhode Island, and Vermont maintained at least one HCBS waiver in 2010 (data not shown).[63] These three states had programs similar to HCBS waiver programs, but they operated them through 1115 waivers. 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, these waivers target almost exclusively enrollees who are aged or have disabilities, and nearly 70 percent of HCBS waiver enrollees are duals. While dual HCBS waiver enrollees are evenly split between enrollees who are aged or have disabilities, nearly all non-dual HCBS waiver enrollees have disabilities (Appendix Tables A7.5 and A7.6). Nationally, about 8 percent of all Medicaid enrollees who were aged or had disabilities were enrolled in HCBS waivers in 2010. Among states reporting HCBS waiver enrollment, enrollment rates among enrollees who were aged or had disabilities varied considerably across states in 2010, from less than 1 percent of aged enrollees in Hawaii and New Mexico to 33 percent in Oregon (Figure 7.9), and from about 1 percent of enrollees with disabilities in Michigan to 29 percent in Wyoming (Figure 7.10). States in the Midwest and West generally had high rates of HCBS waiver enrollment.

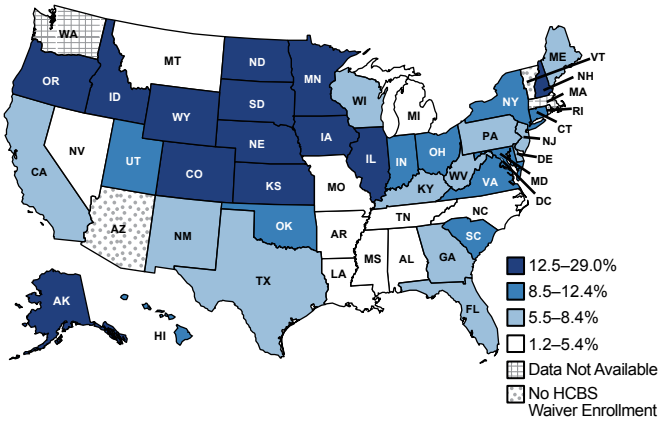
[63] Massachusetts and Washington maintained HCBS waivers, but because of data system limitations, this enrollment was not reported in MAX data in 2010. For more information about these and other waiver reporting anomalies, see the MAX 2010 data anomaly tables or the MAX 2010 Waiver Crosswalk.

Figure 7.9
Percentage of Aged Medicaid Enrollees in HCBS Waivers in 2010



Source: Medicaid Analytic Extract 2010
Note: Arizona, Rhode Island, and Vermont did not have active HCBS waivers in 2010. Massachusetts and Washington had HCBS waivers but did not report this enrollment in MAX.

Figure 7.10
Percentage of Disabled Medicaid Enrollees in HCBS Waivers in 2010



Source: Medicaid Analytic Extract 2010
Note: Arizona, Rhode Island, and Vermont did not have active HCBS waivers in 2010. Massachusetts and Washington had HCBS waivers but did not report this enrollment in MAX.

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 2010, states targeted HCBS waivers to a variety of populations, including:

- 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

Waivers for people with ID/DD were the most common type of HCBS waiver in 2010; these waivers operated in 46 states, with an enrollment of nearly 550,000 (Table 7.2). In comparison, fewer than 10 states maintained HCBS waivers for people with MI/SED or people with autism, and such waivers had fewer than 20,000 enrollees nationwide. State-level expenditure and enrollment data for HCBS waiver types are reported in Appendix Table A7.7.

Nationally, expenditures for HCBS provided through waivers were about $23,400 per waiver enrollee. Average expenditures for HCBS ranged from a low of $5,308 per enrollee in Missouri to a high of $63,522 in New Mexico (Figure 7.11). Low average waiver expenditures for HCBS enrollees could be driven by lower service costs in these states or by limited service offerings in these waivers.

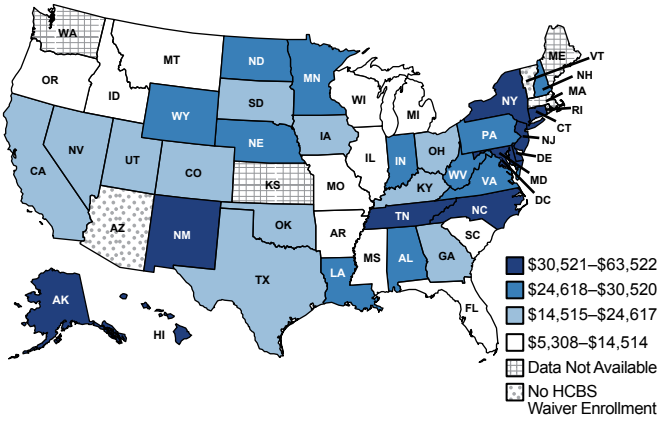
Average HCBS waiver expenditures also varied considerably by waiver type, from a low of $4,299 nationally per enrollee in HIV/AIDS waivers to a high of about $41,572 for those in ID/DD waivers (Table 7.2). This variation stems from the range of service offerings in these waivers and the diverse needs of the populations covered.

Table 7.2
Enrollment and Expenditures by HCBS Waiver Type in 2010

HCBS Waiver Type	Number of States with HCBS Waiver Type	National Enrollment	Average HCBS Waiver Expenditures ($) per Waiver Enrollee
Aged	12	159,756	4,541
Aged and Disabled	39	454,526	10,149
Autism	8	3,788	13,458
Brain Injuries	20	17,138	33,003
HIV/AIDS	13	12,468	4,229
ID/DD	46	546,965	41,572
Mentally Ill/Severely Emotionally Disturbed	9	15,235	11,149
Physically Disabled	25	94,362	17,079
Technology-Dependent/Medically Fragile	19	11,153	18,794

Source: Medicaid Analytic Extract 2010
Kansas and Maine were unable to report their claims in 2010. These states are excluded from national averages and other estimates that include claims.
Waivers are included in these counts if they are reported with enrollment in MAX 2010.
ID/DD = intellectual or developmental disability.

Figure 7.11
Average Waiver Expenditures for Enrollees in HCBS Waivers in 2010 (in Quartiles)

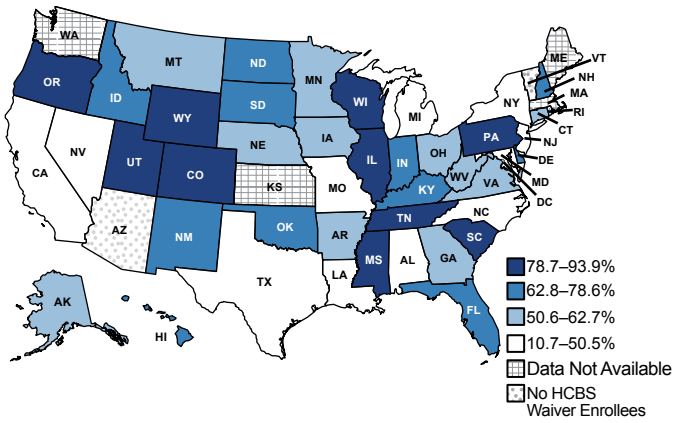


Source: Medicaid Analytic Extract 2010
Note: Arizona, Rhode Island, and Vermont did not have active HCBS waivers in 2010. Massachusetts and Washington had HCBS waivers but did not report this enrollment in MAX.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Expenditures through HCBS waivers comprise a considerable portion of total Medicaid spending for the average HCBS waiver enrollee. Nationally, expenditures for all Medicaid services were about $36,500 per HCBS waiver enrollee. In total, expenditures for HCBS waiver services accounted for 64 percent of all Medicaid expenditures for HCBS waiver enrollees. Percentages varied across states, from 26 percent of total expenditures in Missouri to 92 percent in New Mexico (data not shown). The wide range can be attributed to differences in the services offered through HCBS waivers across states, as well as in how states divide long-term care service provision across HCBS waivers, HCBS offered in the State Plan, and reliance on ILTC services. (Chapter 4 further discusses utilization and expenditure rates for long-term care services offered in the community as compared to institutional settings.)

States vary in their provision of HCBS and the extent to which they provide these services through waivers. States may also 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 enrollees. In 2010, around 3 million enrollees received Medicaid HCBS, and 43 percent of all HCBS users were enrolled in HCBS waivers. In other words, in some states HCBS waiver enrollment may represent only a fraction of the population that receives HCBS. An example would be Alabama, where only 11 percent of HCBS users were enrolled in an HCBS waiver in 2010. By comparison, some states, like Wyoming, where 94 percent of all HCBS users were enrolled in HCBS waivers, appear to have used HCBS waivers as the primary vehicle for providing HCBS to Medicaid enrollees. Figure 7.12 highlights state variations in approaches for providing HCBS to Medicaid enrollees. In the top quartile of states, 79 percent or more of HCBS users received these services through waivers. In the bottom quartile, about half of HCBS users (or fewer) were provided with these services through waivers. State-level

Figure 7.12
Percentage of HCBS Users Enrolled in HCBS Waivers (in Quartiles) in 2010

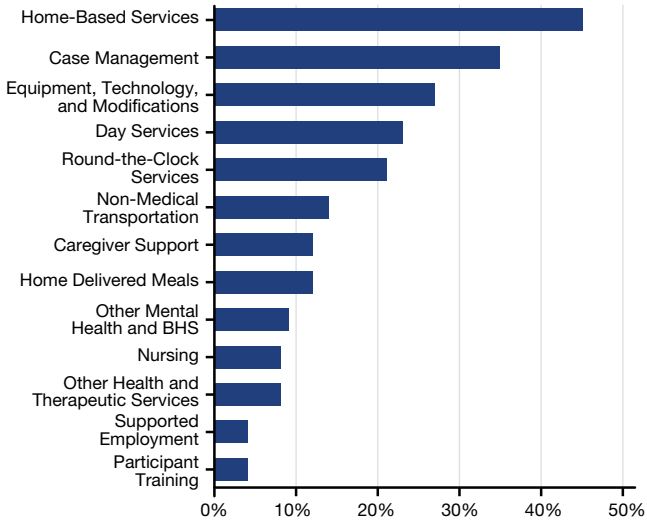


Source: Medicaid Analytic Extract 2010
Note: Arizona, Rhode Island, and Vermont did not have active HCBS waivers in 2010. Massachusetts and Washington had HCBS waivers but did not report this enrollment in MAX.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

long-term care utilization and expenditures are reported in Appendix Table A7.8.

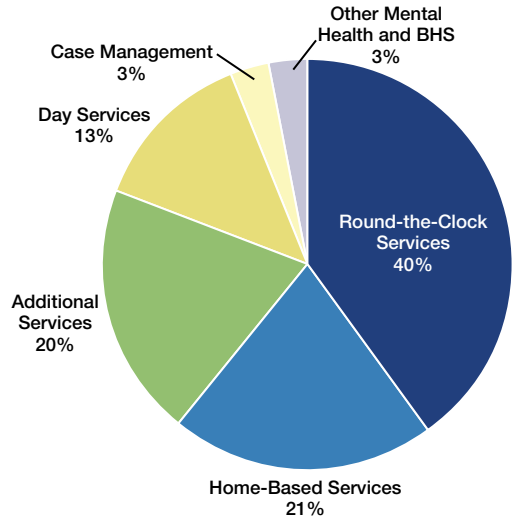
States offered a variety of HCBS through waivers in 2010. New data fields in MAX 2010 group these services into standard categories across states so that researchers can learn more about the services provided via HCBS waivers. The most common types of HCBS received by HCBS waiver enrollees were home-based services; case management; and equipment technology, and modifications (Figure 7.13 and Appendix Tables A7.9 to A7.10). Nationally, each of these HCBS were used by over a quarter of HCBS waiver enrollees. Among them, services in the category of equipment, technology, and modifications were the lowest cost per service-user—while 27 percent of enrollees received these services, expenditures for the category made up less than 1 percent of HCBS waiver expenditures. Expenditures for waiver HCBS were largely concentrated among three commonly used service types: round-the-clock services (40 percent), home-based services (21 percent), and day services (13 percent) (Figure 7.14).

Figure 7.13
Percentage of HCBS Waiver Enrollees Using HCBS by HCBS Taxonomy Category in 2010



Source: Medicaid Analytic Extract 2010
Note: Arizona, Rhode Island, and Vermont did not have active HCBS waivers in 2010. Massachusetts and Washington had HCBS waivers but did not report this enrollment in MAX.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.
MAX includes information about additional HCBS taxonomy categories. These categories (other services, services supporting participant direction, community transition services, and rent and food for live-in caregiver) were used by less than 4 percent of HCBS enrollees in 2010 and are not shown in Figure 7.13. In addition, about 17 percent of HCBS enrollees used HCBS that could not be further identified in MAX 2010.
BHS = behavioral health services.

Figure 7.14
Percentage of HCBS Waiver Expenditures by HCBS Taxonomy Category in 2010



Source: Medicaid Analytic Extract 2010
Note: "Additional Services" includes service categories which each represented less than 2 percent of total HCBS expenditures. These include rent and food expenses for live-in caregivers; community transition services; other services; other health and therapeutic services; home delivered meals; services supporting participant direction; equipment, technology, and modifications; nursing; supported employment; participant training; non-medical transportation; and caregiver support. This group also includes the category of unknown services, which represented almost 10 percent of total HCBS expenditures.
Arizona, Rhode Island, and Vermont did not have active HCBS waivers in 2010. Massachusetts and Washington had HCBS waivers but did not report this enrollment in MAX.
Kansas and Maine were unable to accurately report their claims in 2010. These states are excluded from national averages and other estimates that include claims.

Glossary of Terms

1115 Waiver (MAS Group) a maintenance assistance status (MAS) group that consists of people eligible for Medicaid via a state 1115 waiver program that extends benefits to certain otherwise ineligible persons. Some states provide only limited family planning benefits or other limited services to 1115 adults, although a few states provide 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 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 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 (HCBS) waivers.

1915(b)(c) Waiver 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 waivers, the adult BOE group includes childless adults.

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 non-disabled adults without dependent children, were not implemented until 2014. Some states, however, did expand coverage or change benefits for Medicaid enrollees in 2010.

Aged a basis of eligibility (BOE) group that includes people aged 65 or older.

Aid to Families with Dependent Children (AFDC) a federal assistance program for children and families with low or no income 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.

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

Behavioral Health Organizations (BHO) provide mental health and substance use disorder care. They had the highest enrollment in 2010 of any type of PHP.

Capitation or Capitated Payment a method of payment for health services in which a health plan, practitioner, or hospital is paid in advance

a fixed amount 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 (HMOs), health insuring organizations (HIOs), and Program of All-Inclusive Care for the Elderly (PACE) plans.

Disabled a basis of eligibility (BOE) group that includes persons of any age (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 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 enrollees 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 EDB indicating enrollment in both Medicare and Medicaid in at least one month in 2010.

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 believed to be incomplete in many states.

Enrollees for the purposes of this chartbook, people enrolled in Medicaid for at least one day in 2010 (sometimes referred to as beneficiaries or eligibles).

[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 to space and time their births. There is no regulatory definition for the services and supplies covered by Medicaid, 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 assist with access to primary care. States also maintain Family Planning waivers that provide only these services to enrollees who are 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; FY 2010 runs from October 1, 2009, through September 30, 2010.

Federal Medical Assistance Percentage (FMAP) the federal matching rate for states for service costs incurred by the Medicaid program. The FMAP is calculated by taking into account the average per capita income in a given state in relation to the national average; the FMAP ranged from 50 to 76 percent in 2010, with higher matching allocated to states with lower per capita income.

Federal Poverty Level a measure of income issued annually by HHS that is 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.

Health Insurance Flexibility and Accountability (HIFA) waivers were 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 who do require nursing or other support services typically provided in nursing homes or other institutions. In this chartbook, we include 6 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 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 at state option. Many of the individuals covered under this option are non-ambulatory, have seizure disorders, behavior problems, mental illness, visual or hearing impairments, or a combination.

Maintenance Assistance Status (MAS) eligibility grouping traditionally used by CMS to classify enrollees 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 (HMOs), primary care case management (PCCM) plans, and prepaid health plans (PHPs) are examples of managed care plans.

Medicaid Analytic eXtract (MAX) data are a set of person-level data files derived from 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 AFDC 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) 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 HCBS 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 2010 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 enrollees were enrolled in Medicaid. In contrast with the number of enrollees, this assigns a lower count for those enrollees who are 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, this group includes QMB, SLMB, and QI 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 involves the payment of 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 enrollees who are 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) provide 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 (FPL) 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 FPL; 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 FPL. 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 FPL and assets under 200 percent of SSI asset limit. QMBs receive Medicare premiums and cost-sharing payments, and a vast majority of QMBs qualify for full Medicaid benefits.

Restricted-Benefit Enrollees Medicaid enrollees who receive only limited health coverage. In this chartbook, restricted-benefit enrollees include aliens eligible for only emergency hospital services, duals receiving only coverage 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 SSI benefits and those who would have qualified under the pre-welfare reform Aid to Families with Dependent Children (AFDC) rules.

Section 209(b) States states that have elected to use eligibility requirements more restrictive than those of the Supplemental Security Income (SSI) 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 FPL who is eligible for Medicaid payment of Part B Medicare premiums; some SLMBs also qualify for full Medicaid benefits.

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).

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 enrollees with a claim for a specific service are called "users" of that service; enrollees 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

1915(b) Section 1915(b) waiver

1915(b)(c) Section 1915(b)(c) waiver

1915(c) Section 1915(c) waiver, also known as HCBS waiver

1931 Section 1931/Cash assistance

ACA Affordable Care Act of 2010

AFDC Aid to Families with Dependent Children

BHO behavioral health organization

BOE basis of eligibility

CHIP Children's Health Insurance Program

CHIPRA Children's Health Insurance Program Reauthorization Act

CMS Centers for Medicare & Medicaid Services

DME durable medical equipment

DSH disproportionate share hospital

EDB [Medicare] Enrollee DataBase

FFS fee-for-service

FFY federal fiscal year

FMAP federal medical assistance percentage

FPL federal poverty level

HCBS home- and community-based services

HHS United States Department of Health and Human Services

HIFA Health Insurance Flexibility and Accountability

HIOs health insuring organizations

HMO/HIO health maintenance organization/health insuring organization

ICF/IID intermediate care facility for individuals with intellectual disabilities

ID/DD intellectual or developmental disabilities

ILTC institutional long-term care

IP inpatient; MAX inpatient claims file

LT MAX long-term care claims file

MAS maintenance assistance status

MAX Medicaid Analytic Extract

MC managed care

MI/SED mental illness/severe emotional disturbance

MN medically needy

MSIS Medicaid Statistical Information System

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

PACE Program of All-Inclusive Care for the Elderly

PCCM primary care case management

PHP prepaid health plan

PRTF Psychiatric Residential Treatment Facility

PS [MAX] person summary [file]

PT physical therapy

QDWI Qualified Disabled and Working Individual

QI Qualified Individual

QMB Qualified Medicare Beneficiary

ResDAC Research Data Assistance Center

RX prescription drugs; MAX prescription drug claims file

SLMB Specified Low-Income Medicare Beneficiary

SSI Supplemental Security Income

TANF Temporary Assistance for Needy Families

UPL upper payment limit

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