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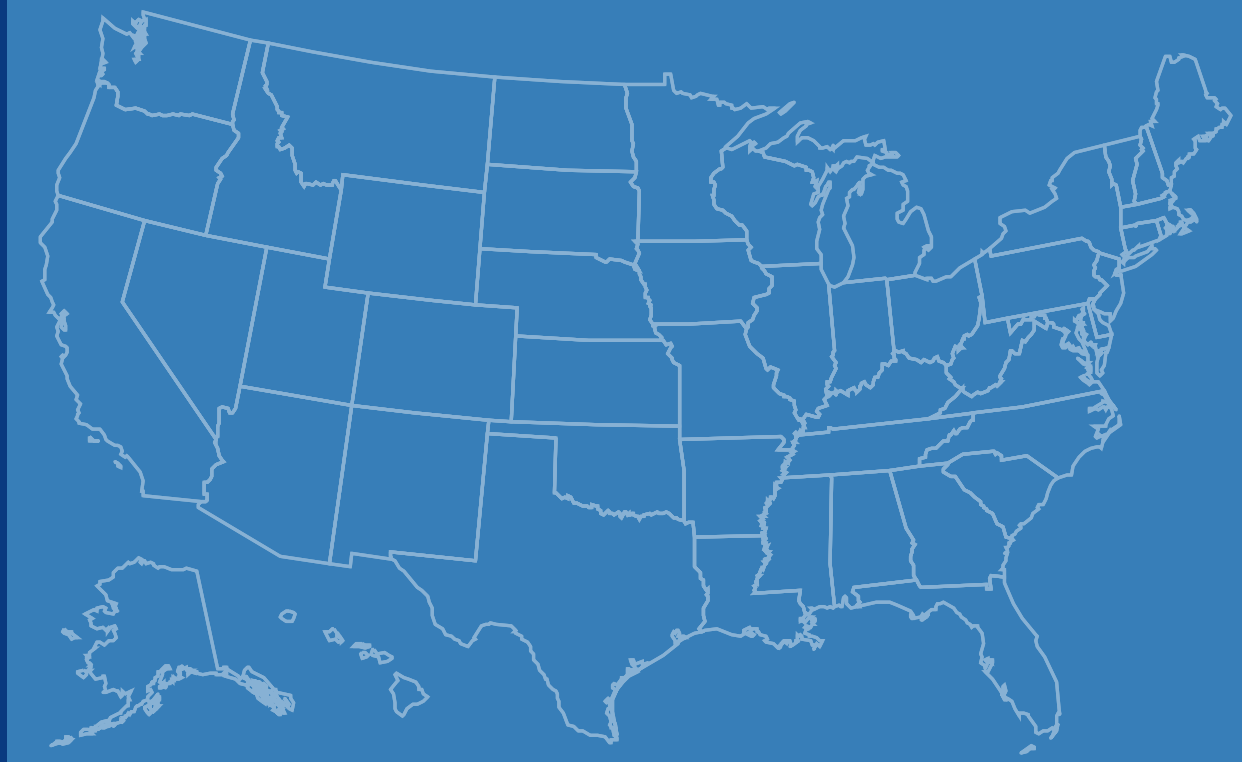
MAX

CENTERS FOR MEDICARE & MEDICAID SERVICES

The Medicaid Analytic eXtract Chartbook



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The Medicaid Analytic eXtract 2004 Chartbook

Victoria Perez, Bob Schmitz, Audra T. Wenzlow, Kathy Shepperson
Mathematica Policy Research, Inc.

David Baugh, Susan Radke
Centers for Medicare & Medicaid Services
Office of Research, Development, and Information

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Contents

1. Introduction

The Medicaid Analytic eXtract (MAX) is a data system derived from the Medicaid Statistical Information System (MSIS) that contains extensive information about Medicaid enrollees and the Medicaid 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 2004 MAX data and presents an overview of enrollee demographic and enrollment characteristics, service utilization, and expenditures at the national and state levels in 2004. The resemblance of this chartbook to its predecessor (Wenzlow et al. 2007) will be apparent. While the information provided here is generally similar to that provided in the previous MAX chartbook based on 2002 data, some new information was added and statistics were refined between 2002 and 2004. In the text, we note each instance in which such changes affect the comparability of results between 2002 and 2004.

This introduction provides an overview of the Medicaid program and the MAX data system. The remaining chapters of the chartbook present figures and tables that characterize the Medicaid population in 2004: Chapter 2 provides a national profile of Medicaid enrollees and their Medicaid experience, Chapter 3 presents State-level statistics, and Chapters 4 through 6 provide supplemental information on special topic areas (managed care, dual Medicare/Medicaid enrollees, and service use and expenditure information by detailed service type, respectively). A separate appendix contains the source data tables used to construct the figures and tables presented in this chartbook.

The Medicaid Program In 2004

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 the aged or disabled poor. The program was enacted in 1965 by Title XIX of the Social Security Act. Medicaid has since grown to become the third largest source of health care spending in the U.S. after Medicare and employer-provided health insurance. Since the 1990s, the number of persons served by Medicaid has exceeded the number enrolled in Medicare.

In 2004, Medicaid covered over 55 million persons, providing health insurance coverage to over 18 percent of the U.S. population and

accounting for approximately 15 percent of total U.S. health expenditures. Medicaid is the largest insurer for nursing home care in the nation, covering almost 45 percent of nursing home costs in 2004 (CMS 2006; Table 9).

Medicaid is administered by States under general guidelines established by the Federal government and is financed jointly by Federal and State funds. The Federal match rate, called the Federal Medical Assistance Percentage (FMAP), differs in each state and is calculated by taking into account the average per capita income in a given state in relation to the national average. In fiscal year 2004, the FMAP ranged from 50 percent in 18 higher-income States to 77 percent in Mississippi.

To receive federal matching funds, a State's Medicaid program must cover basic health services for all individuals in certain mandatory Medicaid eligibility groups:[1]

- *Low-income children*: all 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 age 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 one are eligible if their mother resides in the same household and was eligible for Medicaid at the time of birth.
- *Limited-income families with dependent children*: people who meet the State's Aid to Families with Dependent Children (AFDC) requirements effective on July 16, 1996, are eligible for Medicaid. [2]
- *Supplemental Security Income (SSI) recipients*: with the exception of some individuals living in so-called Section 209(b) States, aged and disabled people receiving SSI are eligible for Medicaid.[3]

[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.

[2] Although the 1996 welfare reform legislation replaced 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 asset limits for Section 1931 coverage.

[3] Section 209(b) of the Social Security Amendments of 1972 permits States to use more restrictive eligibility requirements than those of the SSI program. These requirements cannot be more restrictive than those in place

- *Medicare beneficiaries:* most aged and disabled low-income Medicare beneficiaries are eligible for Medicaid. Those with income below 100 percent of poverty 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. (Most QMBs and some SLMBs also qualify for full Medicaid benefits.)

- *Other:* several other specified groups are mandatorily eligible for Medicaid benefits. For further detail, see Schneider et al. (2002).

Generally, Medicaid is mandated to cover those who have low incomes and few resources and are aged, disabled, 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 ages 21 or older.

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, North Dakota, New Hampshire, Ohio, Oklahoma, and Virginia.

States have the flexibility to provide optional coverage to certain individuals who do not meet the income and resource thresholds 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 SCHIP Children:* States can cover children at a higher income threshold than set for mandatory coverage. The enactment of the State Children's Health Insurance Program (SCHIP) in 1997 provided enhanced funding for states to expand Medicaid coverage for children up to 250 percent of poverty (or higher in some circumstances).[4]

- *Institutionalized aged and disabled*: States can cover aged and disabled persons in nursing homes and other institutions at a higher income threshold up to 300 percent of the SSI standard.

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

- *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]

For further detail on optionally eligible groups, see Schneider et al. (2002).

States may choose to cover certain services, such as dental care or prescription drugs that are not required by federal mandate. As a result, the Medicaid program varies greatly between States. Table 1.1 shows variation in the types of selected optional services that were covered by each State's Medicaid program in 2003 and the enrollees who were eligible for these services. All States covered several key optional services, such as prescription drugs and intermediate care facility services for the mentally retarded (not shown).[6]

State variation in Medicaid coverage, both with regard to eligibility groups and the services that are covered, can result in differences in enrollment rates and expenditures between States. Other factors—including the age distribution, the rate of poverty, and the rate of Medicaid reimbursement to providers within a State—can 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. It should also be kept in mind that this chartbook reflects the Medicaid program and legislative environment in 2004, before the enactment of the Medicare Prescription Drug Improvement and Modernization Act of 2003 and the Deficit Reduction Act of 2005.

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

[6] For further detail about state provision of optional services, see CMS (2005).

TABLE 1.1. CROSS-STATE COMPARISON OF OPTIONAL SERVICES COVERED BY MEDICAID IN 2003

		Institutional Long-Term Care Services				Other Types of Services																	
	2004 FMAP	Inpatient Psychiatric (Under Age 21)	Intermediate Care Facility for Mentally Retarded	Institution for Mental Disease (65 and Older)	Nursing Facility (Under Age 21)	Dental	Dentures	Home Health - Audiology	Home Health - Occupational Therapy	Home Health - Physical Therapy	Home Health - Speech and Language Therapy	Hospice	Mental Health Rehabilitation/Stabilization	Personal Care	Physician Directed Clinic Services	Prescription Drugs	Primary Care Case Management	Private Duty Nursing	Religious (Non-Medical) Health Care Institution	Speech, Hearing, and Language Disorder Therapy	Targeted Case Management	Transportation (Not Administrative)
Alabama	70.75	1	1	1	1							1	1			1					1	1
Alaska	58.39	2	2	2	2	2		2	2	2	2	2	2	2	2	2	1			2	2	2
Arizona	67.26	1	1	1	1	1	1		2	2		2	1	2	1	1		2	1	1	2	1
Arkansas	74.67	1	2		2	1	1		1	1	1	1	1	2	1	1	1	1		1	1	1
California	50.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			1	1	1	1
Colorado	50.00	1	1	1	1			1	1	1	1	1	1		1	1	1	1		1	1	1
Connecticut	50.00	1	1	1	1	1		1	1	1					1						1	1
Delaware	50.00		2	2	2			2	2	2		2	2	2	2	2		2				
District of Columbia	70.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1		1	1	1
Florida	58.93	2	2	2	2	1						1	1	1	1	1	1					
Georgia	59.58		1		1		1	1	1	1	1	1	1		1	1	1	2		1	2	1
Hawaii	58.90	1	1		1	1	1	1	1	1	1	1	1		1	1				1	1	1
Idaho	70.46	2	2	1	2	2	2	2	2	2	2	2		2	2	2	2			2	2	2
Illinois	50.00	1	1	1	1	1		1	1	1	1	1	1		1				1		1	1
Indiana	62.32	2	2	2	2	2	2	2	2	2	2	2	2		2	2		2	2	2	2	2
Iowa	63.93	2		2	2	1	1	1	1	1	1	1	1		1	1	1			1	1	
Kansas	60.82	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			1	1	1
Kentucky	70.09	1	1	2	1	1		1	1	1	1	1			1	1				1	1	1
Louisiana	71.63	2	1	2	1		2		1	1		1		1	1	1					1	1
Maine	66.01	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1
Maryland	50.00	1	1	1	1	1		1	1	1	1	1	1	1	1			1			1	1
Massachusetts	50.00	1	1	1	1			1	1	1	1	1		1	1	1	1	1		1	1	1
Michigan	55.89	1	1	1	1	1		1	1	1		1	1	1	1	1			1		1	1
Minnesota	50.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1		1	1	1
Mississippi	77.08	1	1		1	1		1	1	1	1	1	1		1	1	1			1	1	1
Missouri	61.47	2	2	2	2	2	2	2	2	2		2	2	2	2	2	2				2	
Montana	72.85	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1		1	1	1
Nebraska	59.89	1	1	1	1	1		1	1	1	1		1	1	1		1	1			1	1
Nevada	54.93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1		1	1	1
New Hampshire	50.00	1	1	1	1	1		1	1	1	1		1	1	1	1		1		1	1	1
New Jersey	50.00	2	2	2	2	1	1	1	1	1	1	2	1	2	1	1			2	1	2	1
New Mexico	74.85	1	1			1	1	1	1	1	1	1	1	1	1	1				1	1	1
New York	50.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1
North Carolina	62.85	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1		1	1	1
North Dakota	68.31	1	1	1	1	1		1	1	1	1	1	1	1	1		1	1			1	1
Ohio	59.23	1	1	1	1	1	1	1	1		1	1	1		1	1		1	1	1	1	1
Oklahoma	70.24	1	2	2	1	1							1	1	1	1	2				2	
Oregon	60.81	2	2	1	1	1	1			1			1	1		1		2			1	1
Pennsylvania	54.76	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1
Rhode Island	56.03	1	1	1	1	1	1	1	1	1		1	1	1	1	1					1	1
South Carolina	69.86	1	1		1	1		1	1	1		1			1	1					1	1
South Dakota	65.67		1	1	1	1		1	1	1	1	1	1	1	1		1				1	1
Tennessee	64.40	1	1	1	2	1	1	1	1	1	1	1	1		1	1	1	1		1	1	1
Texas	60.22		1		1				1	1		1	1	1	1	1			1			1
Utah	71.72	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1		1	1	1
Vermont	61.34		2		2	2		1	1	1	1	1	1	2	1	1				1	2	2
Virginia	50.00			2	1	1		1	1	1	1	1	1		1	1	1		1	1	1	1
Washington	50.00	1	1	1	1	1	1	1	1	1		1	1	2	2	1		1		2	2	1
West Virginia	75.19	1	1		1	1		1	1	1	1	1	1	1	1		1	1			1	1
Wisconsin	58.41	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1
Wyoming	59.77		1	1	1	1			1	1	1	1	1		1	1				1	1	1

SOURCE: Centers for Medicare & Medicaid Services, "Medicaid-at-a-Glance 2005."

1 = covers all eligible groups in state; 2 = covers some eligible groups in state; (blank) = covers no eligible groups in state.

The Medicaid Analytic Extract (MAX)

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 regarding age, race and ethnicity, monthly enrollment status, eligibility group, and use and costs of services during the year. MAX also includes claims-level records that can be used for more detailed analysis of patterns of service utilization, diagnoses, and cost of care among Medicaid enrollees.

MAX includes both summary information and claims data for all Medicaid enrollees in the 50 States and the District of Columbia. It does not include information about Medicaid enrollees in Puerto Rico or other U.S. territories. All Medicaid SCHIP (M-SCHIP) expansion enrollees are included in MAX, but MAX contains only limited information for enrollees of separate SCHIP (S-SCHIP) programs. M-SCHIP enrollees, but not S-SCHIP enrollees, are included (but not separately reported) in the figures and tables of this chartbook.

MAX data are research extracts of MSIS. MSIS data, which have been collected from each state since 1999, contain enrollee eligibility information and Medicaid claims paid in each quarter of the federal fiscal year (FFY).[7] Given a standard lag of several months between service use and claim payment, claims paid in a given period are not always for services used during the same period. The MAX data system was developed to provide calendar-year utilization and expenditure information as an alternative to the payment-focused structure of MSIS data. 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 MSIS and CMS Form-64, MAX enables the examination of Medicaid utilization and service expenditures at the individual enrollee level.

To construct MAX, MSIS claims are merged with person-level enrollment information 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 event records in MAX.
- Changes in eligibility that are reported retroactively are incorporated in MAX monthly enrollment measures.
- MSIS type-of-service information is remapped in MAX to reflect further type-of-service detail that may be helpful to researchers.
- MSIS eligibility information is remapped in MAX to correct coding inconsistencies where possible.

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

- 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 2004 MAX data system consists of a person summary (PS) file and four claims files for each of the 50 States and the District of Columbia. The PS file contains summary demographic and enrollment characteristics and summary claim information for each person enrolled in Medicaid in the State during a given year. Four claims files—inpatient (IP), institutional long-term care (LT), prescription drug (RX), and other 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 breadth of information contained in the MAX files. Because it contains only Medicaid-paid services, it does not capture service use or expenditures during periods of non-enrollment, services paid by other payers, 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 upper payment limit (UPL) programs, and payments to States to cover administrative costs. DSH payments, for example, accounted for about $14.3 billion, or 5.2 percent, of total Medicaid expenditures in federal fiscal year (FFY) 2003 (Holahan and Ghosh 2005).

In addition, service information in MAX may be missing or incomplete for certain groups of enrollees. This is particularly important for two groups: individuals enrolled in both Medicaid and Medicare (dual enrollees) and persons enrolled 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 will capture 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 5 on dual enrollees for further detail.) Medicare premiums paid by Medicaid on behalf of duals are not included in the MAX claims or person summary file.

For enrollees in managed care plans, information in MAX is restricted to premium payments and some service-specific utilization information. It does not include service-specific expenditure information. Claims reflecting utilization of managed care services in MAX are called "encounter claims." Because encounter claims are believed to be incomplete in MAX,

utilization of managed care services, by type, is not presented in this chartbook. However, managed care enrollment and premium payment information is summarized in Chapter 4 and in other locations in the chartbook.

People enrolled in comprehensive managed care plans, such as health maintenance organizations (HMOs), typically have few fee-for-service (FFS) claims and are thus excluded from all tables and figures describing FFS service use by type. For this reason, FFS statistics from States with extensive managed care enrollment should be interpreted with caution.

Finally, as with all large data sets, MAX contains some anomalous and possibly incomplete or incorrect data elements. Users should consult MAX anomaly notes, available on the MAX website (see Resources for MAX below), for information that may explain unusual patterns in each State's data.

Source Data Used in This Chartbook

The source data used for the chartbook are limited to the MAX 2004 and earlier year person summary files, and in particular to summary tables created by CMS to validate the MAX data system each year. The source validation tables and variable construction documentation are available on the MAX website. Excel tables with more detailed enrollment, utilization, and expenditure information, by state, are available as an appendix to this chartbook.

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.hhs.gov/MedicaidDataSourcesGenInfo/08_MedicaidPharmacy.asp

At the time of this writing, MAX data were available for calendar years 1999 through 2004. 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 the websites listed below.

- MAX website: http://www.cms.hhs.gov/MedicaidDataSourcesGenInfo/07_MAXGeneralInformation.asp
- Research Data Assistance Center (ResDAC) (contains information about how to obtain CMS data): http://www.resdac.umn.edu/Medicaid/
- Information on CMS privacy protected data: http://www.cms.hhs.gov/PrivProtectedData/02_Criteria.asp

2. A National Overview

This chapter presents national measures of enrollment, utilization, and expenditures for all Medicaid enrollees in 2004. The measures reflect eligibility and coverage choices made by States regarding persons and services covered by the program. Because State Medicaid programs vary greatly, national measures can be disproportionately affected by large States like California, New York, and Texas. Readers should bear in mind that State-to-State differences can be substantial. Chapter 3 provides summary information at the State level.

As noted in Chapter 1, Medicaid is funded by both State and Federal governments. The Federal government financed nearly 60 percent of the $290 billion in Medicaid outlays in 2004 (CMS 2009), reimbursing States between 50 and 77 percent for services used by Medicaid enrollees, and reimbursing at an even higher rate for persons enrolled in M-SCHIP.

Demographic Characteristics

Over 58 million people—just under 20 percent of the U.S. population—were enrolled in Medicaid at some point in 2004. Medicaid eligibility can be transitory, however. Only 56 percent of enrollees were enrolled for the entire year. In total, there were 45.8 million person-years of Medicaid enrollment in 2004, about the same as the 45.6 million persons who were enrolled in Medicaid in June of 2004 (Figure 2.1).

The majority of Medicaid enrollees are children (Table 2.1). Over 58 percent were under age 21 in 2004, including almost 4 percent who were infants (under one year of age). In comparison, working age adults—those aged 21 to 64—accounted for 32 percent of Medicaid enrollees. The elderly made up only 10 percent of all Medicaid enrollees.

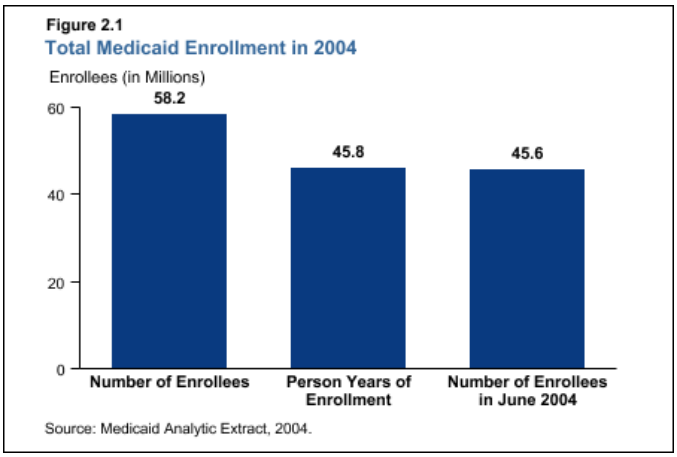


TABLE 2.1. CHARACTERISTICS OF MEDICAID ENROLLEES IN 2004

	Number of Enrollees	Percentage of Enrollees
All Enrollees	58,239,315	100.0
Enrolled All Year	32,730,495	56.2
Age		
0 years	2,282,063	3.9
1-20 years	31,615,630	54.3
21-64 years	18,389,739	31.6
65 years and older	5,951,883	10.2
Race and Ethnicity		
Non-Hispanic white	24,904,291	42.8
African American	13,403,715	23.0
Hispanic or Latino	12,093,948	20.8
Asian	1,552,932	2.7
Native American	793,500	1.4
Pacific Islander	606,248	1.0
Other	3,177,664	5.5
Institutionalized[8]	1,707,017	2.9

Source: Medicaid Analytic Extract, 2004.

Non-Hispanic whites represented 43 percent of the Medicaid population and were the largest race or ethnic group enrolled in Medicaid in 2004. An additional 23 percent of enrollees were African American and 21 percent were Hispanic or Latino. Smaller percentages were Asian (2.7 percent), Native American or Alaska Native (1.4 percent), Pacific Islander or Native Hawaiian (1.0 percent), or other race or ethnicity (5.5 percent).

Although a large portion of Medicaid expenditures is devoted to long-term care services, only 2.9 percent of enrollees were institutionalized in 2004 (see Table 2.1). Among aged Medicaid enrollees, however, about 23 percent were institutionalized (data not shown).

Eligibility Characteristics

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

- *Children*: persons under age 18 or up to age 21 in States electing to cover older children
- *Adults*: pregnant women and caretaker relatives in families with dependent (minor) children[9]
- *Aged*: people age 65 or older
- *Disabled*: 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 which can be expected to result in death or has lasted or can be expected to last for a

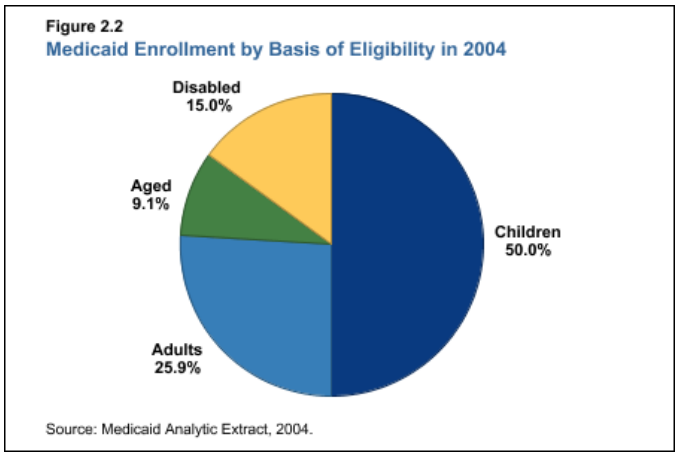
[8] Institutionalized enrollees include those receiving Medicaid covered services in nursing homes, intermediate care facilities for the mentally retarded (ICF-MR), mental hospitals for the aged, or inpatient psychiatric facilities for individuals under age 21 any time in 2004.

[9] 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. Parents can be under 18. In a few states with waivers, the adult BOE group includes non-disabled adults without dependent children.

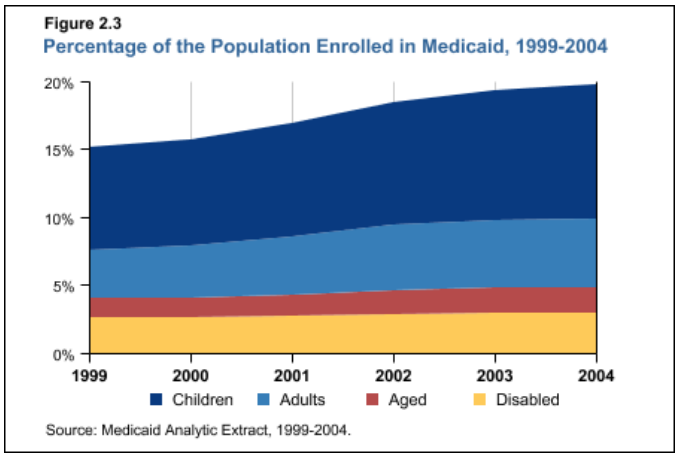
continuous period of not less than twelve months[10]

Working-age adults who are not disabled and have no dependent children typically do not qualify for Medicaid. The exceptions are States such as Massachusetts, New York, and Wisconsin, that have obtained Medicaid waivers to cover this group.

Figure 2.2 shows the composition of Medicaid enrollees by BOE in 2004. Those in the child BOE category made up half of all enrollees; eligible adults accounted for about a quarter of Medicaid enrollees; smaller shares were aged (9.1 percent) or disabled (15.0 percent).



Medicaid enrollment rose from 18.5 to 19.8 percent of the population between 2002 and 2004 (Figure 2.3). This represents an annualized rate of increase of just less than 3.5 percent, much lower than the 6.8 percent annual rate of increase between 1999 and 2002. The annual rate of increase between 2002 and 2004 was greatest for children (4.5 percent) and smallest for disabled enrollees (1.7 percent).

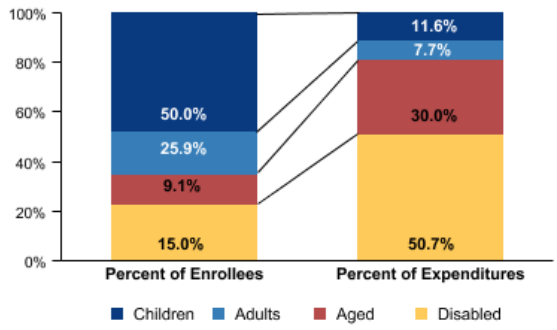


- While aged and disabled enrollees constituted only a quarter of all Medicaid enrollees in 2004, they accounted for 81 percent of Medicaid expenditures (see Figure 2.4). Over half of all expenditures paid on behalf of enrollees were for the disabled; another 30 percent were spent on the aged. In comparison, children accounted for 11.6 percent and adults accounted for 7.7 percent of all Medicaid expenditures in 2004.

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

Figure 2.4

Medicaid Enrollment and FFS Expenditure in 2004



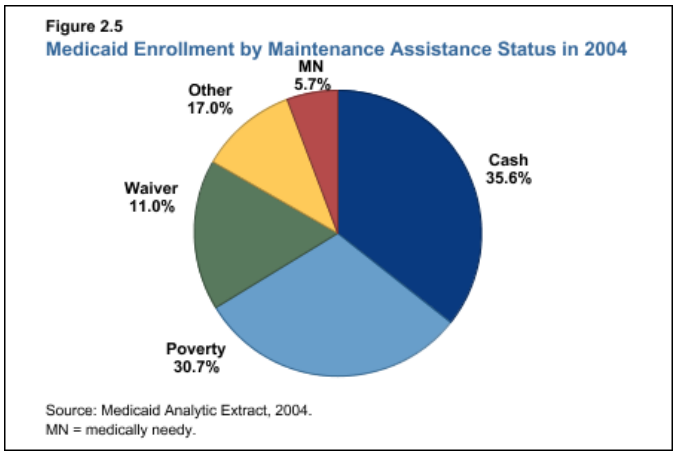
Source: Medicaid Analytic Extract, 2004.

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 cash assistance-related, medically needy, poverty-related, Section 1115 waiver, and "other."

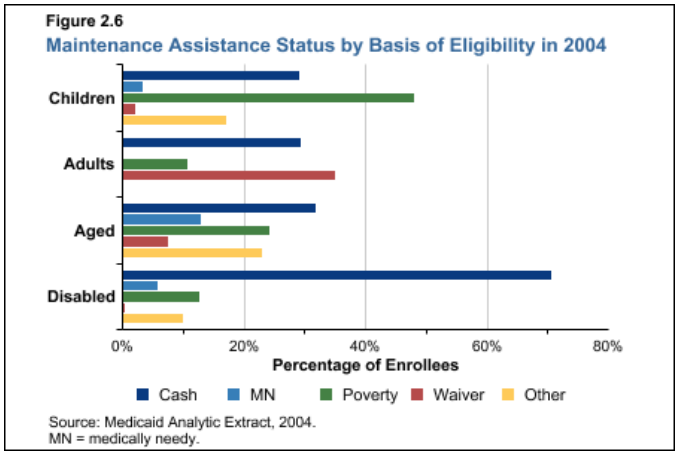
- *Cash assistance-related*: persons receiving SSI benefits and those who would have qualified under the pre-welfare reform Aid to Families with Dependent Children (AFDC) rules (hence the name "cash assistance").
- *Medically needy*: persons qualifying through the medically needy provision (a State option) that allows for a higher income threshold than required by the AFDC cash assistance level; persons 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.
- *Poverty-related:* persons qualifying through any poverty-related Medicaid expansions enacted from 1988 on; this group includes QMB, SLMB, and QI dual groups described in Chapter 1 (see also Schneider et al. 2002 for details).
- *Section 1115 waiver:* people eligible only under a State 1115 waiver program that extends benefits to certain otherwise ineligible persons.[11]
- *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 care waivers, and immigrants who qualify for emergency Medicaid benefits only.

People qualifying under the cash assistance-related rules comprised the largest MAS subgroup (35.6 percent) in 2004 (Figure 2.5). Another 30.7 percent were eligible due to the poverty-related rules, 11.0 percent were eligible under a State waiver program, and 5.7 percent were medically needy.

[11] Some States provide only limited family planning benefits or other limited services to 1115 adults. However, a few States provide full Medicaid benefits to persons qualifying through 1115 provisions.



Maintenance assistance status varies markedly by Basis of Eligibility (Figure 2.6). Receipt of cash assistance remains the primary route to Medicaid eligibility for aged and disabled enrollees. Section 1115 waiver programs are the primary route to Medicaid eligibility for adults, though many of these qualify for family planning benefits only. Almost half of all child enrollees qualify for Medicaid through poverty-related criteria.



Dual Enrollees

Most aged and many disabled Medicaid enrollees are enrolled in both Medicare and Medicaid. Such enrollees are commonly referred to as "dual enrollees" or simply "duals." Medicare enrollment is identified in MAX by a match to the Medicare Enrollment Database (EDB). In this chartbook, dual enrollees 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 2004.

In total, there were 8.6 million duals in 2004. They represented 14.8 percent of the 58.2 million Medicaid enrollees and 21.2 percent of all Medicare beneficiaries that year (Figure 2.7). Almost 93 percent of aged enrollees and about 42 percent of disabled enrollees were duals in 2004 (Figure 2.8).

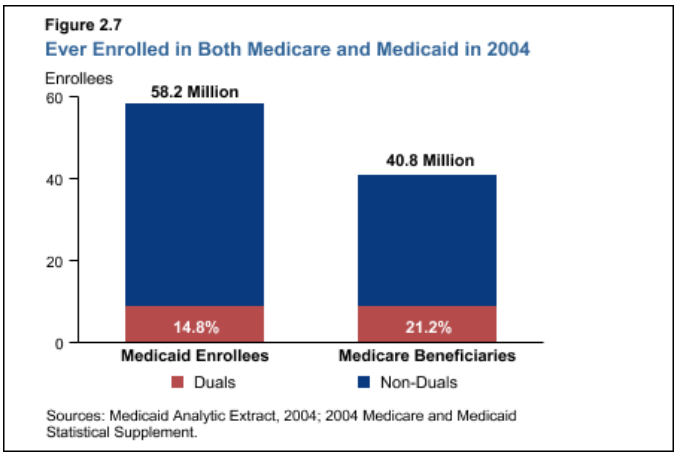
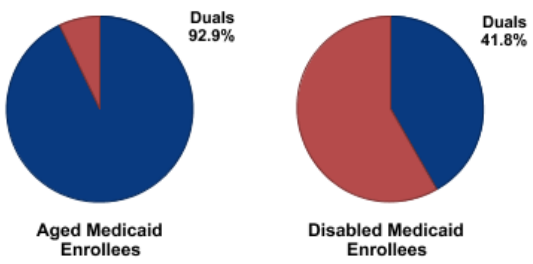


Figure 2.8

Percentage Ever Dually Enrolled in Both Medicare and Medicaid in 2004



Source: Medicaid Analytic Extract, 2004.

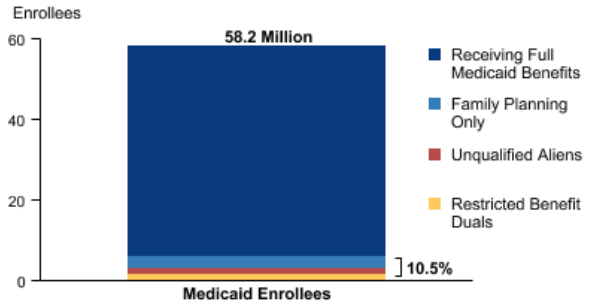
Because duals are among the most vulnerable and costly Medicaid enrollees, we examine their enrollment characteristics, service use, and expenditures separately in Chapter 5 of this chartbook. In reviewing information presented on duals in this and subsequent chapters, readers should bear in mind that 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 dual enrollees.

Restricted-Benefit Enrollees

The majority of Medicaid enrollees, including duals, qualify for the full range of Medicaid benefits provided in their State. However, a subset of enrollees receives only limited health coverage and are referred to as "restricted-benefit" enrollees. Restricted-benefit enrollees include (1) "unqualified" aliens eligible for emergency services only, (2) duals receiving coverage for Medicare premiums and cost sharing only, and (3) people receiving only family planning services.[12] These three groups of restricted-benefit enrollees represented 10.5 percent of Medicaid enrollees in 2004 (Figure 2.9). Restricted-benefit enrollees accounted for only 1.2 percent of total Medicaid expenditures in 2004.

Figure 2.9

Medicaid Enrollees Receiving Only Restricted Medicaid Benefits in 2004



Source: Medicaid Analytic Extract, 2004.
Dual = ever enrolled in both Medicare and Medicaid in 2004.

Managed Care

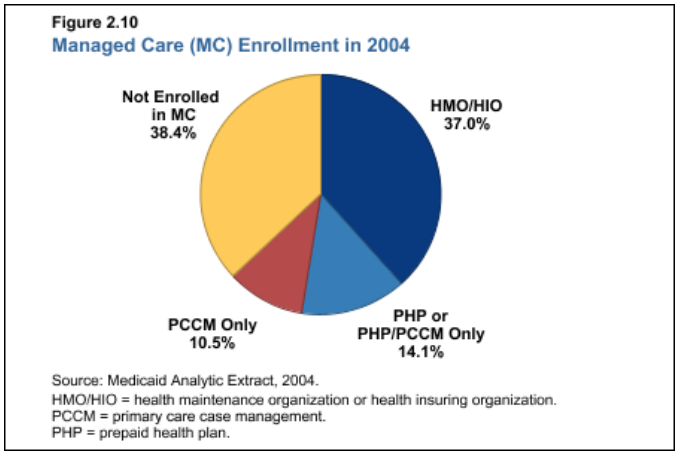
Medicaid managed care plans are organizations that provide a defined bundle of health services in return for a fixed monthly fee. The MAX data system records enrollment in three general types of managed care: (1) health maintenance organizations (HMOs) or health insuring organizations (HIOs), (2) prepaid health plans

[12] Unqualified aliens generally include illegal immigrants and immigrants entering the U.S. legally after 1996 for 5 years from their date of entry.

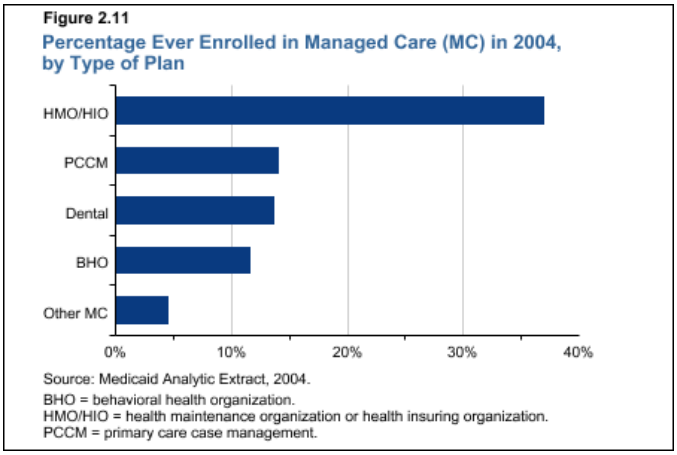
(PHPs), and (3) primary care case management (PCCM) plans.

For the most part, HMOs and HIOs are comprehensive prepaid plans that cover most health services for their enrollees. PHPs typically provide more limited services, and coverage varies greatly by plan. They may, for example, cover only dental care or behavioral health services. PCCMs are the least comprehensive managed care type identified in MAX. PCCMs involve the payment of a small premium (often 3 dollars per month) for case management services only. Even though care provided by PCCMs is managed care, most services are provided on a fee-for-service basis. In some states, PCCM premiums are not paid unless case management services are delivered.

Sixty-nine percent of all Medicaid enrollees in 2004 were enrolled in some type of managed care: 41.3 percent were ever enrolled in HMOs/HIOs, 15.7 percent were enrolled only in PHPs or in a combination of PHPs and PCCMs, and 11.7 percent were in PCCMs only (Figure 2.10).



Almost 12 percent were ever enrolled in behavioral health organizations in 2004, 14.4 percent were ever enrolled in PCCMs, almost 13.7 percent were in dental plans, and another 4.6 percent were enrolled in some other managed care plan (Figure 2.11). For information about managed care enrollment combinations in June of 2004, see Chapter 4.



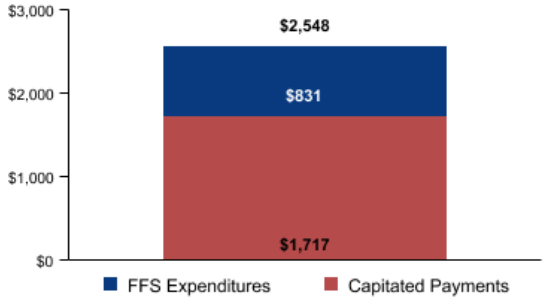
As noted in Chapter 1, MAX contains information on Medicaid premium payments on behalf of managed care enrollees, some limited encounter claims, and no information on incurred cost for services used. Therefore it is not possible to measure the utilization of managed-care enrollees, particularly for those enrolled in HMOs/HIOs. People enrolled in HMOs/HIOs are thus excluded from all analyses in this chartbook that are based on fee-for-service (FFS) claims records.

Because people can be enrolled in Medicaid managed care and FFS at different points during 2004, Medicaid may make both capitation and FFS payments on their behalf during the year. In addition, some managed care plans "carve out" certain services (for example, behavioral health

care) from the plan. These services may be paid for under FFS. Finally, most services used by people enrolled in PHP or PCCM are paid under FFS arrangements.

Figure 2.12 shows per-enrollee expenditures for full-benefit HMO/HIO enrollees by type of payment. Most expenditures for HMO/HIO enrollees in 2004 were for capitated care, although a significant share—$831 of $2,548 (33 percent)—were for FFS payments. (For more detailed information about FFS utilization among HMO and HIO enrollees, see Chapter 4.)

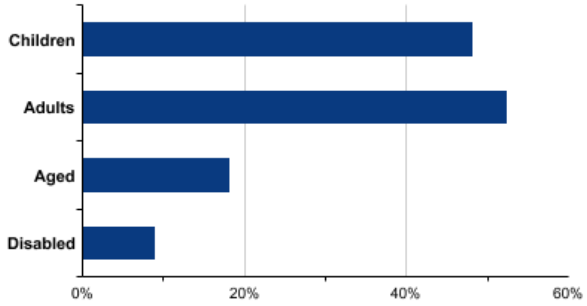
Figure 2.12
Per-Enrollee Expenditures Among People Ever Enrolled in HMOs/HIOs in 2004



Source: Medicaid Analytic Extract, 2004.
FFS = fee-for-service.
HMO/HIO = health maintenance organization or health insuring organization.

People enrolled in Medicaid managed care, whether by choice or by State Medicaid rule, can differ greatly from people receiving FFS care. As Figure 2.13 shows, for example, roughly 50 percent of children or adult enrollees, but only about 20 percent of disabled and 10 percent of aged enrollees were enrolled in an HMO/HIO during 2004.

Figure 2.13
Percentage of Medicaid Enrollees Ever Enrolled in HMOs/HIOs in 2004, by Basis of Eligibility



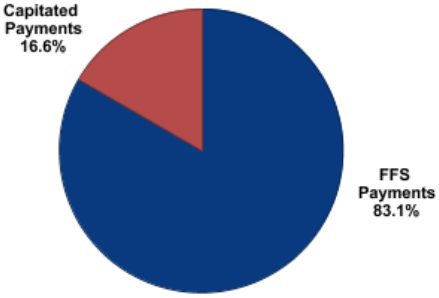
Source: Medicaid Analytic Extract, 2004.
HMO/HIO = health maintenance organization or health insuring organization.
PHP = prepaid health plan.

Total Medicaid Expenditures

Over $253 billion was spent on Medicaid covered services in 2004: about $250 billion for full-benefit enrollees and about $3 billion for the growing number of enrollees eligible for only restricted Medicaid benefits.

Among those with full benefits, FFS payments accounted for most (83.1 percent) Medicaid expenditures in 2004 (Figure 2.14).

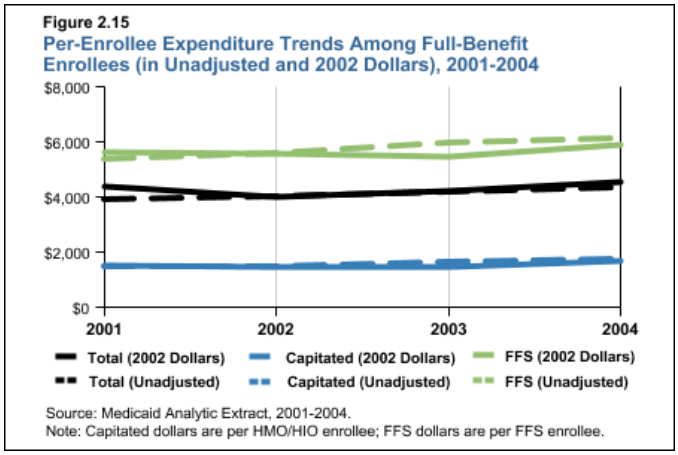
Figure 2.14
Fee-for-Service (FFS) and Capitated Payments Among Full-Benefit Medicaid Enrollees in 2004



Source: Medicaid Analytic Extract, 2004.

We refer to full-benefit enrollees who never enrolled in HMOs/HIOs in 2004 as "FFS enrollees." For all full-benefit enrollees—including FFS enrollees and those enrolled in

HMOs/HIOs—unadjusted average expenditures rose by more than 11 percent between 2001 and 2004. When measured in 2002 dollars, the increase over the three-year period was 3.7 percent (Figure 2.15).[13] This increase stands in contrast to the five percent decline in adjusted expenditures per enrollee between 1999 and 2002.



Capitated payments per enrollee in an HMO/HIO rose by 9.9 percent between 2001 and 2004, while FFS expenditures per FFS enrollee increased by 4.3 percent (or 19.7 and 13.6 percent, respectively, in unadjusted dollars). Note that because children and adults are more likely to enroll in managed care than the aged and disabled, and typically have lower medical expenditures, average expenditures for FFS enrollees are not directly comparable to those of people enrolled in HMOs/HIOs.

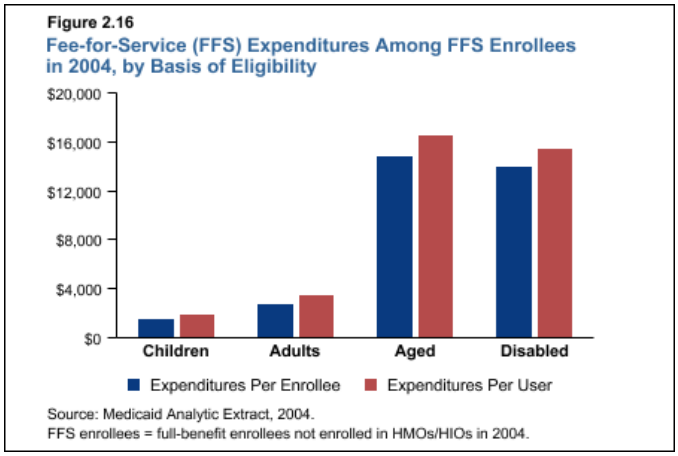
Medicaid FFS Utilization And Expenditures

Because the MAX data system for a given year contains Medicaid FFS claims with the date of service in that year, it permits analyses of patterns of service use and expenditures by type among FFS enrollees. In this chartbook we restrict analyses of service use and costs to those FFS enrollees receiving full Medicaid benefits. Persons eligible for limited services only are not included because they can distort average per capita expenditure estimates.

Most FFS enrollees (84.3 percent) used at least one service in 2004; 90.4 percent of FFS disabled enrollees and 90.0 percent of FFS aged (statistics not shown) used at least one Medicaid service. About 81.9 percent of FFS children and 78.8 percent of FFS adults used services in 2004.

Average FFS expenditures were much higher among aged or disabled enrollees compared to children and adults (Figure 2.16). FFS costs were $14,766 per aged and $13,929 per disabled FFS enrollee. In comparison, FFS costs among children and adults averaged $1,474 and $2,703, respectively.

[13] Expenditure data were adjusted by the Consumer Price Index-All Urban Consumers: Medical Care. See Series ID: CUUR0000SAM at http://data.bls.gov/cgi-bin/surveymost?cu. Pharmacy Plus enrollees are included in the estimates for 2001 and 2002 but not in 2003 or 2004 in Figure 2.15. Because restricted-benefit enrollees have lower expenditures per enrollee, the presented figures may overestimate 2001 and 2002 expenditures.

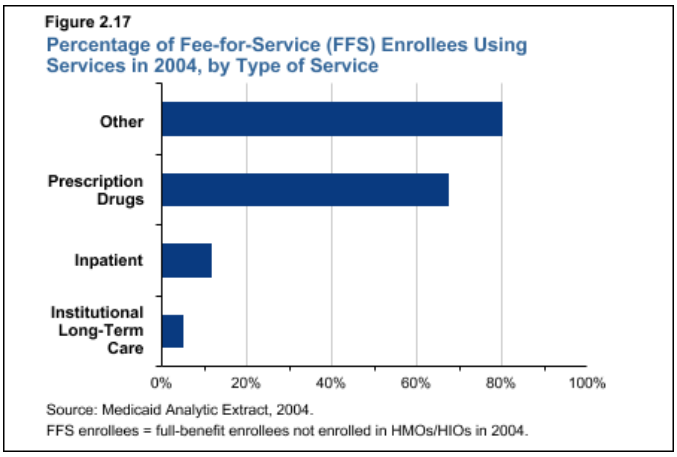


Services in MAX are categorized into one of 30 types of services in the person summary file. These service types can be grouped into four general categories that correspond to the four types of claim files available in MAX: inpatient (IP), institutional long-term care (LT), prescription drug (RX), and other (OT). While IP and RX files contain individual types of services, LT claims are composed of

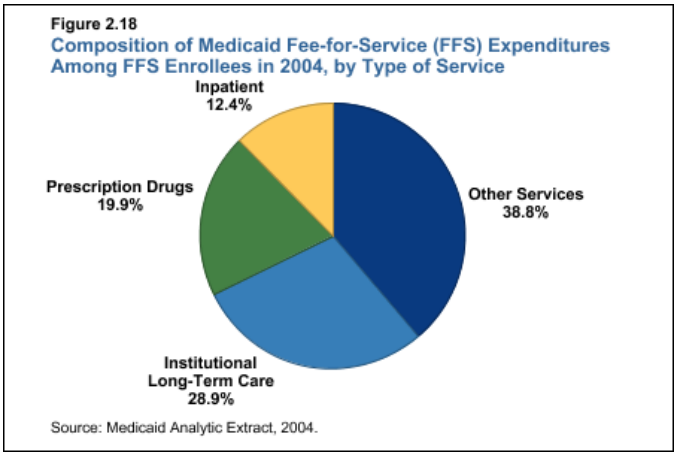
- Nursing facility services
- Intermediate care facilities for the mentally retarded (ICF-MR)
- Mental hospital services for the aged
- Inpatient psychiatric facility services for people under age 21

OT claims consist of all claims not included in the other three groups. These include community long-term care services 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 prescription drugs and the broad category of OT services (Figure 2.17). About 80 percent used an OT service and 68 percent had a prescription filled in 2004. In comparison, only 12.1 percent used inpatient and 5.3 percent used institutional long-term care services during the year.



OT services were used by more enrollees than any other service and accounted for the largest share (38.8 percent) of FFS expenditures (Figure 2.18). The OT category consists of a variety of service types. Chapter 6 explores utilization and expenditures by detailed type of service.

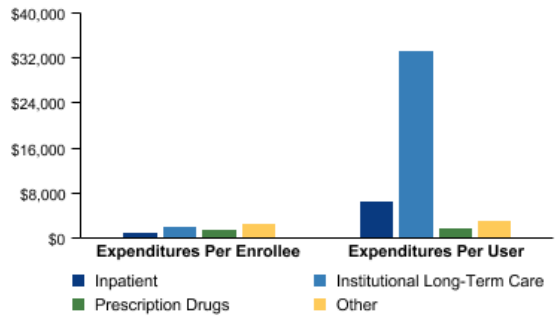


Of the four service type categories, inpatient care represented the smallest share (12.4 percent) of

FFS expenditures in the FFS subpopulation. This is due in part to the coverage of most inpatient services by Medicare among duals.

Institutional long-term care was the most expensive type of service among persons utilizing the service. Institutional care was used by only 5.3 percent of FFS enrollees but accounted for 28.9 percent of all FFS expenditures. The high unit cost of institutional care can be seen in Figure 2.19. While average institutional long-term care costs among FFS enrollees were $1,764 in 2004, expenditures per enrollee using long-term care services were $33,188.

Figure 2.19
Per-Enrollee Fee-for-Service (FFS) Expenditures Among FFS Enrollees in 2004, by Type of Service

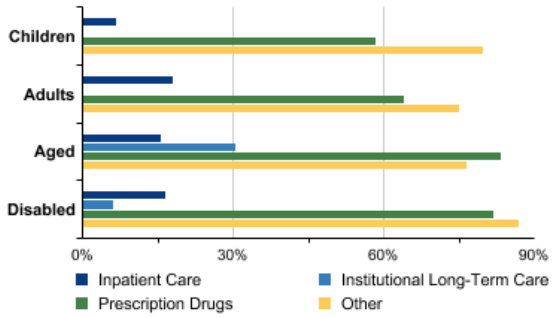


Source: Medicaid Analytic Extract, 2004.

FFS utilization and expenditures vary greatly by basis of eligibility (Figure 2.20). Between 15 and 18 percent of adult, aged, and disabled enrollees, but only 7 percent of children used inpatient services in 2004. Almost 31 percent of aged enrollees used institutional long-term care services, compared to only 0.3 percent of children, 0.1 percent of adults, and 6.1 percent of disabled enrollees. The percent who filled at least one prescription varied from 64.7 percent among adults to 83.4 percent among the aged.

More than three quarters of enrollees in each of the four BOE groups used OT services.

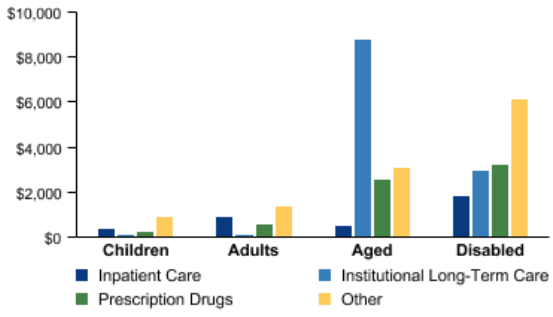
Figure 2.20
Percentage of Fee-for-Service (FFS) Enrollees Using Services in 2004, by Basis of Eligibility



Source: Medicaid Analytic Extract, 2004.
FFS enrollees = full-benefit enrollees not enrolled in HMOs/HIOs in 2004.

The differences between expenditure per enrollee and expenditure per user are striking. For all but aged enrollees, expenditures per enrollee were highest for OT services (Figure 2.21). While less than half of aged and less than 10 percent of disabled enrollees used long-term care services in 2004, expenditures per enrollee were substantial for both. On a per-user basis, however, expenditures for institutional long-term care services dwarfed those for any other service (Figure 2.22), ranging from $10,147 for adults to $47,143 for disabled enrollees.

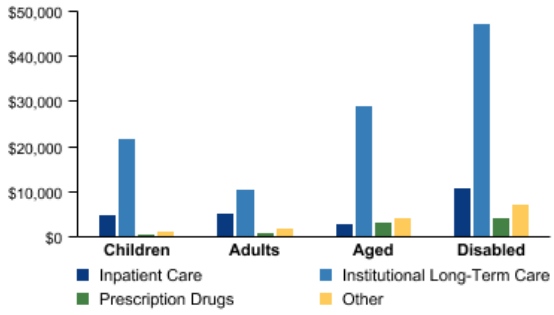
Figure 2.21
Per-Enrollee Fee-for-Service (FFS) Expenditures Among FFS Enrollees in 2004, by Basis of Eligibility



Source: Medicaid Analytic Extract, 2004.
FFS enrollees = full-benefit enrollees not enrolled in HMOs/HIOs in 2004.

Figure 2.22

Fee-for-Service (FFS) Expenditures per User Among FFS Enrollees in 2004, by Basis of Eligibility



Source: Medicaid Analytic Extract, 2004.
FFS enrollees = full-benefit enrollees not enrolled in HMOs/HIOs in 2004.

The utilization and expenditure measures presented in this chapter are examples of the analyses that are possible using the MAX data system. The utilization and expenditures of other population subgroups and service types are also worthy of investigation. Chapter 5, for example, describes FFS expenditures for dual enrollees. Chapter 6 presents detailed service-type information for all FFS enrollees and for FFS duals. In the following chapter, we examine variation in Medicaid enrollment, utilization, and expenditures across States.

3. State-Level Detail

The Social Security Act mandates both a minimum set of services and a minimum defined population of eligible persons that State Medicaid programs must cover. Beyond this mandate, States have a great deal of flexibility in determining their Medicaid program's eligibility criteria and medical benefits (see Chapter 1 for details). Because each State has a distinct Medicaid program, there is significant variation in the composition of Medicaid enrollees, Medicaid utilization, and Medicaid expenditures across States.

States also differ in their demographic characteristics and economic status. States with particularly large elderly and poor populations will have more Medicaid-eligible residents as a share of their total population. In addition, the Federal match rate (FMAP) varied between 50 and 77 percent in 2004, 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 to medical facilities, physicians, and other practitioners for Medicaid-covered services. The cost of care and incentives to use certain services does therefore vary throughout the United States.

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.

In this chapter, we present summary information illustrating the variation in Medicaid enrollment, utilization, and expenditures across States. 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, utilization, and costs.

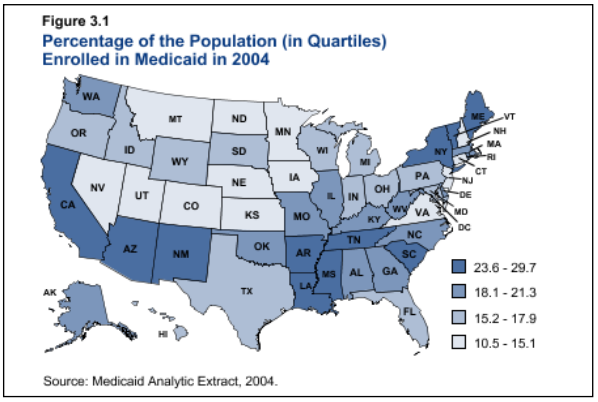
When interpreting statistics presented in this chapter, we encourage readers to review the lists of MAX 2004 eligibility and claim anomalies available on the MAX website. In addition to listing anomalous data, the anomaly notes

identify unusual aspects of State Medicaid programs that might affect data in MAX. This is particularly useful for interpreting summary measures at the State level.

Demographic Characteristics

More than 58 million people were enrolled in Medicaid in 2004, from 75 thousand in North Dakota to 10.7 million in California (Table 3.1). Enrollees in three States—California, New York, and Texas—alone made up one third of all Medicaid enrollees in 2004. National averages can be strongly affected by these States and thus can be poor indicators of the characteristics of Medicaid enrollees in any one individual State.

Medicaid enrollment ranged from 10.5 percent of the population in New Hampshire to 29.7 percent in California. Medicaid is a means-tested program, and high Medicaid enrollment typically indicates a high poverty rate. In general, Medicaid enrollment is higher in southern States (Figure 3.1). Other factors, such as State eligibility criteria, will influence Medicaid enrollment. California, for example, introduced the Family Planning, Access, Care and Treatment Program (FPACT) under an 1115 waiver in 1999. Largely because of the size of the program, adults constitute 42 percent of Medicaid enrollees in California, a higher share than in any other State. Although FPACT covers only family planning services, it resulted in the highest rate of Medicaid enrollment in the U.S. (29.7 percent) in 2004.



Between 2002 and 2004, Medicaid enrollment grew 7.3 percent (Figure 3.2), far slower than the 21 percent increase observed from 1999-2001, when most States experienced double-digit growth in Medicaid enrollment. The change in enrollment between 2002 and 2004 ranged from a 14.9 percent decline in Maine to a 19.8 percent in increase in Wisconsin. The decrease in enrollment in Maine resulted from the cancellation of the "Healthy Maine" prescription-drug program in 2003.

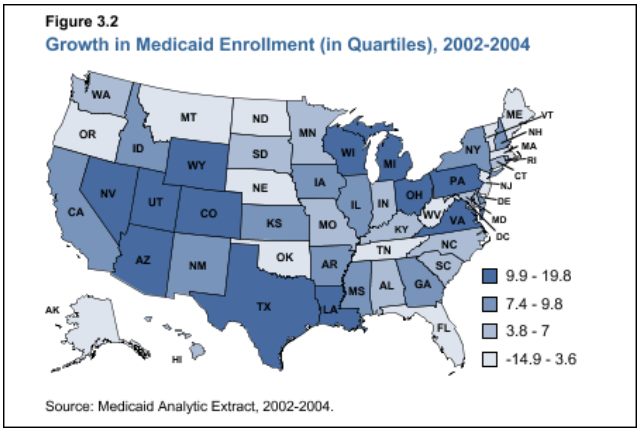


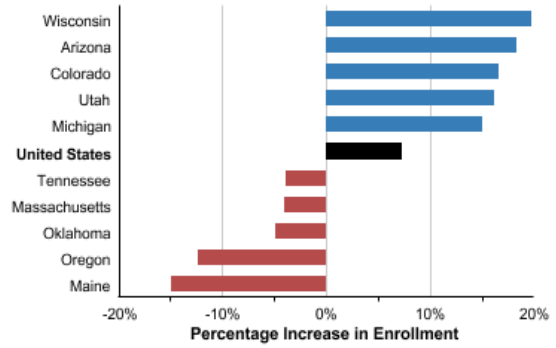
Table 3.1 Medicaid Enrollment in 2004

	Number of Enrollees	Percentage of Population	Percentage Enrolled All Year	Total Person-Years of Enrollment	Number of Enrollees in June 2004
United States	**58,239,315**	**19.8**	**56.2**	**45,773,439**	**45,562,821**
Alabama	925,555	20.5	65.2	782,310	782,251
Alaska	129,831	19.7	38.0	94,769	98,155
Arizona	1,422,960	24.8	44.0	1,036,975	1,017,000
Arkansas	708,286	25.8	66.9	592,363	580,297
California	10,654,369	29.7	49.6	7,997,384	7,947,047
Colorado	534,212	11.6	43.3	388,854	394,241
Connecticut	522,360	14.9	67.7	440,472	439,468
Delaware	168,732	20.3	56.3	134,415	133,893
District of Columbia	162,905	29.4	70.1	139,886	139,241
Florida	2,879,943	16.6	51.5	2,169,873	2,157,537
Georgia	1,766,533	19.8	50.3	1,332,231	1,309,649
Hawaii	225,248	17.8	63.0	184,804	181,480
Idaho	223,497	16.0	55.8	174,238	173,318
Illinois	2,308,239	18.2	64.7	1,899,721	1,911,098
Indiana	989,501	15.9	56.0	781,214	782,518
Iowa	396,289	13.4	54.4	308,175	308,857
Kansas	344,156	12.6	49.8	259,372	259,224
Kentucky	836,057	20.2	59.9	678,119	676,930
Louisiana	1,169,513	26.0	66.4	962,664	957,557
Maine	310,115	23.6	66.8	260,853	258,047
Maryland	842,699	15.2	62.2	689,276	685,397
Massachusetts	1,161,496	18.1	65.4	965,749	964,025
Michigan	1,793,901	17.8	59.1	1,438,579	1,441,452
Minnesota	750,039	14.7	54.5	574,954	576,309
Mississippi	792,928	27.3	61.0	653,866	656,749
Missouri	1,224,239	21.3	67.2	1,025,227	1,016,714
Montana	114,714	12.4	49.1	85,166	85,415
Nebraska	263,200	15.1	54.4	203,194	202,804
Nevada	261,213	11.2	40.2	183,920	186,959
New Hampshire	136,228	10.5	53.9	105,019	104,974
New Jersey	1,012,323	11.7	64.2	829,037	833,226
New Mexico	521,318	27.4	59.4	426,336	427,875
New York	4,939,778	25.6	59.3	3,999,442	3,987,228
North Carolina	1,550,676	18.2	55.7	1,212,791	1,209,975
North Dakota	75,069	11.8	45.4	53,769	53,573
Ohio	2,040,873	17.8	59.7	1,637,911	1,610,926
Oklahoma	690,487	19.6	52.3	529,413	526,919
Oregon	579,169	16.1	43.5	415,076	423,206
Pennsylvania	1,919,324	15.5	66.0	1,598,489	1,587,722
Rhode Island	216,662	20.1	68.8	184,385	184,356
South Carolina	1,006,290	24.0	68.3	858,597	860,599
South Dakota	125,995	16.3	54.8	98,278	97,227
Tennessee	1,624,483	27.6	68.8	1,387,937	1,377,067
Texas	3,972,486	17.7	46.2	2,916,710	2,898,053
Utah	301,897	12.5	38.5	203,163	202,586
Vermont	163,149	26.3	52.5	127,886	127,739
Virginia	834,454	11.2	60.1	669,840	667,318
Washington	1,201,468	19.4	49.3	924,242	905,536
West Virginia	380,934	21.0	55.5	300,630	299,181
Wisconsin	985,289	17.9	59.8	797,172	796,007
Wyoming	78,233	15.5	50.0	58,689	57,896

Source: Medicaid Analytic Extract, 2004.

The high rate of growth in Wisconsin continues a trend that began with implementation of the BadgerCare Program in 1999. Enrollment increased by 18 percent in Arizona, a State that also experienced strong growth in the 1999-2002 period (Figure 3.3).

Figure 3.3
Growth in Medicaid Enrollment, 2002-2004: Top and Bottom 5 States

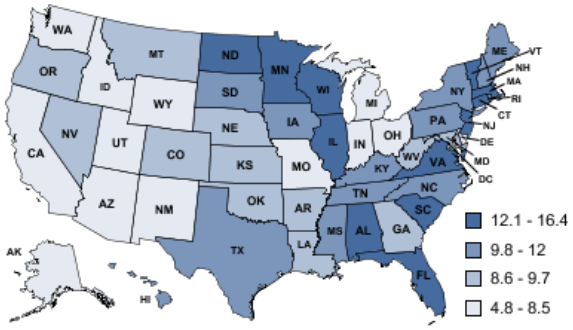


Source: Medicaid Analytic Extract, 2002-2004.

Despite the high rates of growth observed in Wisconsin, Arizona, Colorado, Utah and Michigan, the overall enrollment rate in all except Arizona remained below the national average in 2004. (See Appendix Table A3.2 for details.)

There is a strong relationship between age and service utilization and expenditures among Medicaid enrollees. Children and non-disabled adults often use only limited services, whereas disabled adults and the elderly tend to use a variety of prescription drugs and expensive long-term care. Figure 3.4 shows the percentage of the Medicaid population in each state that was 65 or older in 2004, one indication of the density of higher-cost enrollees.

Figure 3.4
Percentage of Medicaid Enrollees (in Quartiles) Who Were 65 and Older in 2004



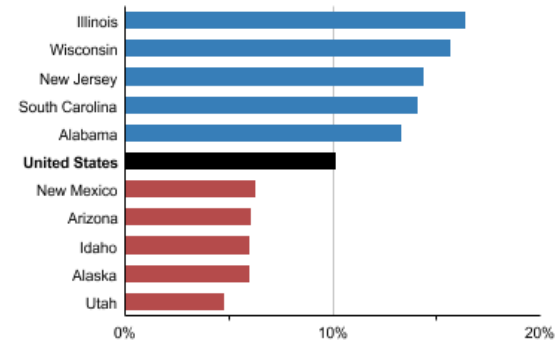
Source: Medicaid Analytic Extract, 2004.

States with larger numbers of elderly in their Medicaid populations tended to be those with larger numbers of elderly in their general populations. Florida and Pennsylvania had the highest proportion of people aged 65 and over in their populations in 2004 – 16.8 and 18.1 respectively; both had above-average percentages of enrollees who were 65 and older (See Table A3.3). Alaska (66 percent) and Utah (8.8 percent) had the lowest proportions of elderly in their general populations and had lower-than-average percentages of elderly Medicaid enrollees.

Other factors that influence the age distribution of Medicaid enrollees in a State are expansions to cover children and 1115 adults. Oklahoma's population, for example, is somewhat older than the U.S. as a whole. Nonetheless, it has a slightly smaller-than-average share of aged enrollees in its Medicaid program, in part because of its very high rate of enrollment among children.[14] Arizona is also slightly older than the U.S. as a whole, but has a small share of Medicaid enrollees aged 65 and over because of the large number of adults enrolled in Medicaid (Figure 3.5).

[14] Oklahoma operates its SCHIP program as a Medicaid Expansion program called SoonerCare. (See Southern Governor's Association 2007.)

Figure 3.5
Percentage of Medicaid Enrollees Who Were 65 and Older in 2004: Top and Bottom 5 States



Source: Medicaid Analytic Extract, 2004.

Additional details about the demographic make-up of State Medicaid populations can be found in the appendix tables. Tables A3.3, A3.4, and A3.5 summarize the age distribution, racial composition, and institutional status of State Medicaid enrollees, respectively.

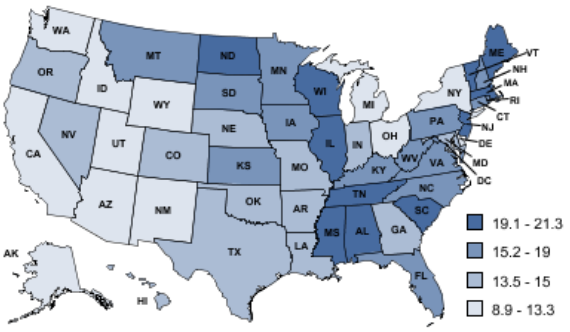
Enrollment Characteristics

As described in Chapter 2, Medicaid enrollees are categorized by their basis of eligibility as children, adults, aged, or disabled. These eligibility groups typically correspond to enrollee age groups, with the exception of the disabled, who can be of any age. Like the Medicaid population's age distribution, the makeup of enrollees by basis of eligibility depends on a state's demographic composition, State eligibility rules, and many other factors.

Table 3.2 shows the variation in eligibility groups across States. In nearly every State, the largest proportions of enrollees were children and the smallest were aged enrollees. The percentage of enrollees who were children in 2004 ranged from 39.2 percent in Maine to 64.9 percent in Idaho. Kentucky and West Virginia had the highest percentage of aged or disabled enrollees in 2004 (35.3 percent and 35.2 percent). (See appendix tables A3.6 to A3.8 for additional information about basis of eligibility and maintenance assistance status categories by State.)

Almost all aged and many disabled enrollees are eligible for both Medicare and Medicaid (see Chapter 5 for details). Figure 3.6 shows the variation in the percentage of enrollees who were duals in 2004, ranging from 9.0 in Arizona to 20.6 in Alaska. High dual enrollment corresponded closely with the percentage that was 65 or older. States that did not follow this pattern (for example, Texas) typically had lower-than-average dual enrollment among disabled enrollees (35.0 percent in Texas compared with 41.8 percent nationally). (See Appendix Table A3.9.)

Figure 3.6
Percentage of Medicaid Enrollees (in Quartiles) Who Were Duals in 2004



Source: Medicaid Analytic Extract, 2004.
Dual = ever enrolled in both Medicare and Medicaid in 2004.

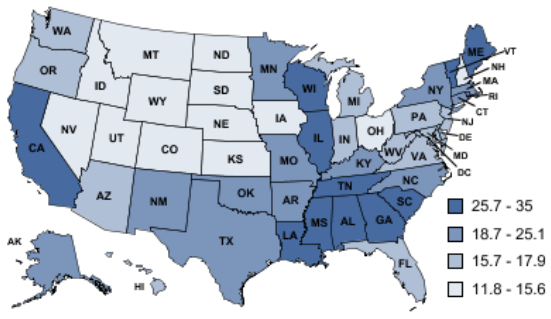
In contrast to the proportion of Medicaid enrollees who are duals, the percentage of *Medicare* enrollees who are duals reflects, within a State, the portion of the aged and disabled population with low income and few assets (Figure 3.7). State Medicaid waiver programs may also affect the share of Medicare enrollees who are duals. In Illinois and Wisconsin, two States with per-capita incomes near the national average, the proportions of Medicare beneficiaries who are duals is well above the national average. In these two States, the majority of aged Medicaid enrollees qualified under an 1115 waiver in 2004.

Table 3.2 Medicaid Enrollment By Basis Of Eligibility (Percentage Of Enrollees) In 2004

	Children	Adults	Aged	Disabled	Aged or Disabled
United States	**50.0**	**25.9**	**9.1**	**15.0**	**24.1**
Alabama	48.7	18.5	11.0	21.8	32.8
Alaska	62.8	21.1	5.4	10.7	16.1
Arizona	45.8	40.0	5.2	9.1	14.3
Arkansas	52.5	23.9	8.9	14.8	23.7
California	41.0	41.9	6.9	10.2	17.1
Colorado	57.1	19.0	9.4	14.4	23.8
Connecticut	54.0	21.4	12.5	12.2	24.7
Delaware	43.6	37.7	7.0	11.8	18.8
District of Columbia	49.1	24.5	6.3	20.1	26.4
Florida	51.9	18.8	11.4	17.9	29.3
Georgia	58.8	17.2	7.8	16.2	24.0
Hawaii	45.9	33.3	9.8	11.1	20.9
Idaho	64.9	15.5	6.0	13.7	19.7
Illinois	53.6	17.8	14.4	14.1	28.5
Indiana	59.3	18.5	8.0	14.1	22.1
Iowa	53.3	20.0	9.8	16.9	26.7
Kansas	56.6	17.3	9.7	16.4	26.1
Kentucky	49.3	15.4	8.3	27.0	35.3
Louisiana	62.7	11.3	9.3	16.7	26.0
Maine	39.2	34.3	10.9	15.6	26.5
Maryland	55.2	20.8	8.1	15.9	24.0
Massachusetts	40.0	27.8	12.1	20.1	32.2
Michigan	53.1	23.5	5.9	17.5	23.4
Minnesota	51.0	23.0	12.0	14.1	26.1
Mississippi	52.8	15.4	10.8	20.9	31.7
Missouri	53.8	22.8	8.2	15.2	23.4
Montana	54.3	20.7	8.6	16.5	25.1
Nebraska	59.0	19.7	8.9	12.5	21.4
Nevada	55.0	21.2	8.8	15.0	23.8
New Hampshire	61.6	14.2	10.4	13.8	24.2
New Jersey	51.2	18.4	11.4	19.1	30.5
New Mexico	60.2	23.4	4.8	11.6	16.4
New York	42.5	34.8	8.2	14.6	22.8
North Carolina	51.9	19.2	11.6	17.4	29.0
North Dakota	50.7	22.8	12.9	13.6	26.5
Ohio	53.5	22.9	7.9	15.7	23.6
Oklahoma	64.4	13.0	8.8	13.8	22.6
Oregon	46.1	32.6	8.3	12.9	21.2
Pennsylvania	47.7	17.4	11.6	23.3	34.9
Rhode Island	45.5	25.5	9.6	19.4	29.0
South Carolina	48.5	23.2	13.5	14.8	28.3
South Dakota	61.5	16.4	8.1	14.0	22.1
Tennessee	43.4	26.6	8.2	21.8	30.0
Texas	64.1	13.9	10.3	11.7	22.0
Utah	54.9	29.7	4.5	10.8	15.3
Vermont	42.1	33.3	11.9	12.7	24.6
Virginia	56.4	13.9	11.8	17.9	29.7
Washington	51.8	27.8	7.0	13.4	20.4
West Virginia	49.2	15.6	8.1	27.1	35.2
Wisconsin	42.3	28.9	13.6	15.3	28.9
Wyoming	63.8	17.8	6.9	11.5	18.4

Source: Medicaid Analytic Extract, 2004.

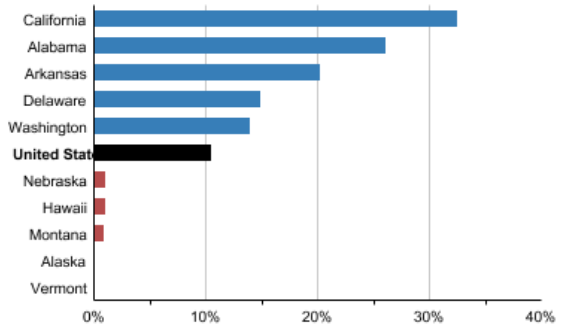
Figure 3.7
Percentage of Medicare Beneficiaries (in Quartiles) Who Were Duals in 2004



Sources: Medicaid Analytic Extract, 2004; Medicare and Medicaid Statistical Supplement, 2004. Dual = ever enrolled in both Medicare and Medicaid in 2004.

The percentage of enrollees receiving only restricted Medicaid benefits (defined as family planning only enrollees, unqualified aliens, people enrolled in "Pharmacy Plus" waiver programs, or restricted-benefit duals) ranged from 0.0 percent in Vermont to 32.5 percent in California (Figure 3.8).

Figure 3.8
Percentage of Enrollees Receiving Only Restricted Medicaid Benefits in 2004: Top and Bottom 5 States



Source: Medicaid Analytic Extract, 2004.

California, Alabama, and Arkansas each had extensive family planning-only programs: 22.1 percent of enrollees in California, 16.1 percent of enrollees in Arkansas, and 16.3 percent of enrollees in Alabama were enrolled in such programs. In addition, 10.2 percent of enrollees in California were unqualified aliens, and 9.7 percent of enrollees in Alabama were restricted-benefit duals. In three States— Vermont, Alaska, and Montana —less than 1 percent of all Medicaid enrollees received only restricted Medicaid benefits in 2004. (See Appendix Table A3.10 for additional state-level details.)

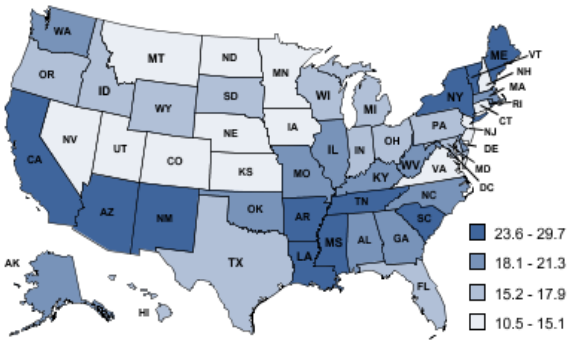
Managed Care

As described in Chapter 2, managed care plans range from comprehensive HMOs and HIOs, which provide most care used by enrollees, to PCCM plans that provide only case management services. PHPs typically cover a selected set of services such as dental or behavioral health care. Because restricted-benefit enrollees receive such limited Medicaid services, and are typically not eligible to join Medicaid managed care plans, we exclude them from these analyses to make States more comparable.

Managed care enrollment varied widely across states in 2004. In some states (Delaware, Kentucky, South Dakota, and Washington) almost all enrollees were in some type of managed care in 2004, whereas in others (Alaska, New Hampshire, and Wyoming) no one was enrolled in managed care plans during 2004 (Figure 3.9 and Appendix Table A3.11). Among the states that reported almost 100 percent enrollment in prepaid plans, the type of managed care enrollment varied between HMO/HIO plans and PHP or PHP/PCCM plans. In Delaware and Washington, the majority of enrollees were in comprehensive HMO/HIO plans. In South Dakota and Kentucky, most enrollees were enrolled in either PHP or both PHP and PCCM plans. Only 20 States reported enrollment in PCCM plans only.

Figure 3.9

Percentage (in Quartiles) Ever Enrolled in Managed Care in 2004



Source: Medicaid Analytic Extract, 2004.

Tables 3.3a, 3.3b, and 3.3c show the top 10 States in the percentage ever enrolled in an HMO or HIO, PHP, or PCCM. Variation across states in enrollment in Medicaid HMO/HIO plans is of particular importance because it has implications for Medicaid utilization and expenditure analyses using MAX. Claims for capitated services, called encounter claims, are incomplete in the MSIS and MAX data systems. Because HMO/HIO enrollees typically have most of their medical care covered under a capitated payment, only limited service use information is available for these people.

Some states had few enrollees in HMOs/HIOs, but had high enrollment in PHP or PCCM plans. The five states with highest PHP-only or PHP-and-PCCM-only enrollment reflect the range of PHP plans available across states: South Dakota's PHP is a dental plan, Oklahoma has a hybrid PHP/PCCM plan that covers only case management, , some office procedures, and lab work, Utah's and Colorado's are BHOs, and Kentucky's PHP provides transportation benefits.

Table 3.3a. Percentage Enrolled in HMO/HIO in 2004, Top 10 States

Ever Enrolled in HMO/HIO	
State	**Percentage**
Hawaii	78.2
Arizona	78.0
Maryland	72.2
Connecticut	71.5
Delaware	70.6
Pennsylvania	70.4
Rhode Island	69.9
Minnesota	69.9
Michigan	68.3
New Mexico	68.1
United States	**37.0**

Source: Medicaid Analytic Extract, 2004.

Table 3.3b. Percentage Ever Enrolled in PHP only or PHP and PCCM only in 2004: Top 10 States

Ever Enrolled in PHP Only or PHP and PCCM Only	
State	**Percentage**
South Dakota	96.0
Oklahoma	92.0
Utah	85.2
Kentucky	74.7
Colorado	73.5
Iowa	66.2
Alabama	66.1
Nebraska	62.6
Massachusetts	32.0
Nevada	31.7
United States	**14.1**

Source: Medicaid Analytic Extract, 2004.

Table 3.3c. Percentage Ever Enrolled in PCCM only in 2004: Top 10 States

Ever Enrolled in PCCM Only	
State	**Percentage**
Idaho	79.9
Louisiana	77.1
Montana	72.4
Vermont	69.5
Georgia	69.3
North Carolina	68.6
North Dakota	64.5
Maine	63.9
Arkansas	62.6
Kansas	39.9
United States	**10.5**

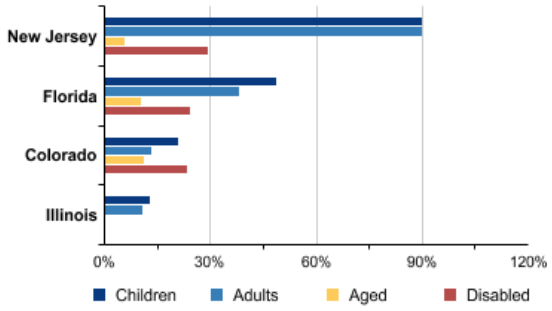
Source: Medicaid Analytic Extract, 2004.

In nine States, over half of enrollees were enrolled in only PCCM plans: Idaho, Louisiana, Montana, Vermont, Georgia, North Carolina, North Dakota, Maine, and Arkansas.. (See Appendix Table A3.14 and Chapter 4 for additional information about managed care enrollment by type of plan by State.)

While some States require Medicaid recipients to enroll in managed care, others allow recipients to make the choice themselves. In those states, people may selectively enroll in managed care based on their demographic characteristics and health status. As a result, FFS utilization and expenditures examined in this chartbook reflect a selective portion of Medicaid enrollees in each State. About 48 percent of children and 52 percent of adults, but only 18 percent of disabled and nine percent of aged enrollees were enrolled in an HMO/HIO in 2004.

There is substantial State-to-State variation in managed care enrollment. Figure 3.10 shows variation in managed care enrollment in four select States—Colorado, New Jersey, Florida, and Illinois—by basis of eligibility. While each State is unique in the demographics of its managed care enrollees, the figure illustrates a pattern evident in many states: HMO/HIO enrollment is typically highest among children and adults and is often much lower among aged and disabled enrollees. (See Appendix Table A3.13 for additional State-level detail.)

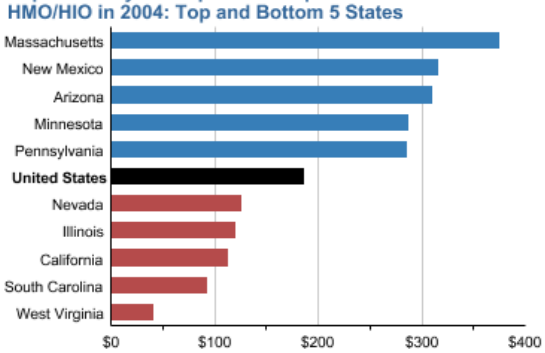
Figure 3.10
Percentage Ever Enrolled in HMO/HIO in 2004 in Select States, by Basis of Eligibility



Source: Medicaid Analytic Extract, 2004.
HMO/HIO = health maintenance organization or health insuring organization.
PHP = prepaid health plan.

Capitated payments per person per month enrolled in an HMO/HIO ranged from $42 in West Virginia to $375 in Massachusetts (Figure 3.11). Such variation arises not only from differences in the underlying cost of health care, but also from State-to-State differences in services covered under managed care plans, and differences in the enrolled populations.

Figure 3.11
Capitated Payments per Person per Month Enrolled in HMO/HIO in 2004: Top and Bottom 5 States

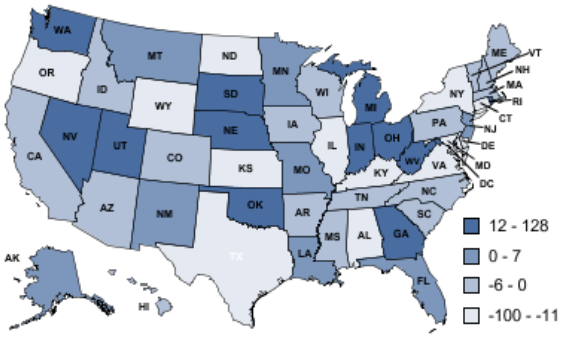


Source: Medicaid Analytic Extract, 2004.
HMO/HIO = health maintenance organization or health insuring organization.

For the U.S. as a whole, enrollment in HMOs/HIOs increased only slightly as a proportion of full-benefit enrollees between 2001 and 2004. The rate of enrollment in HMOs/HIOs more than doubled in Indiana and New York and fell to zero in Tennessee, Oklahoma, and Utah. Figure 3.12 displays the growth and decline in enrollment by State. There was a noticeable, though inconsistent, tendency for enrollment to regress to the mean. Five of the six States with

increases of more than 30 percent had below average enrollment in HMOs/HIOs in 2001; four of seven States with enrollment declines of more than 30 percent had above-average enrollment in 2001. (See Appendix Table A3.12 for more State-level detail.)

Figure 3.12
Growth in HMO/HIO Enrollment, 2001-2004



Sources: Medicaid Analytic Extract, 2001-2004.
HMO/HIO = health maintenance organization or health insuring organization.

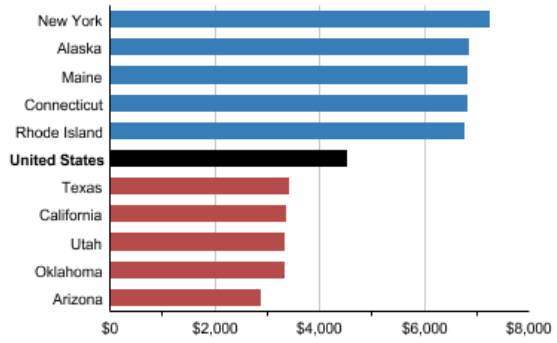
Service Utiization and Expenditures among Full-Benefit Enrollees

State-level summaries of Medicaid service utilization and expenditure highlight the variation in Medicaid coverage and the variation in the composition of Medicaid enrollees across States.

Expenditures for all full-benefit Medicaid enrollees exceeded $247 billion in 2004.[15] States with the highest total Medicaid expenditures corresponded directly with those that had the largest number of Medicaid enrollees—California, New York, and Texas alone accounted for 31 percent of all full-benefit Medicaid expenditures in 2004.

New York's expenditures exceeded those of all other States, overall ($37 billion) as well as per enrollee ($7,580) (Figure 3.13). As shown in Table 1.1 of Chapter 1, New York's Medicaid program covered several optional services that were not included in many State programs. Also among the top 5 in per-enrollee costs were Alaska ($7,136), Maine ($7,111), Connecticut ($7,112), and the District of Columbia ($7,016). Maine and Connecticut had higher-than-average percentages of elderly in its Medicaid population; Alaska, the District of Columbia had a higher-than-average percentage of disabled enrollees.

Figure 3.13
Per-Enrollee Medicaid Expenditures Among Full-Benefit Enrollees in 2004: Top and Bottom 5 States



Source: Medicaid Analytic Extract, 2004.

States with the lowest per-enrollee costs were Arizona ($3,042), Oklahoma ($3,487), Utah ($3,491), California ($3,510), and Texas ($3,569). Each of these states had higher percentages of typically less expensive child and adult enrollees. Lower costs were also associated with less expansive Medicaid programs. Oklahoma, for example, did not cover some optional home health services (audiology, occupational therapy, or speech and language therapy) that were covered in each of the five highest-cost States in 2004.

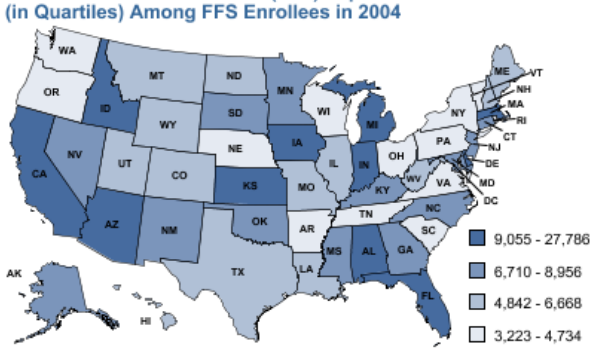
FFS expenditures represented about 83 percent of all full-benefit enrollee Medicaid costs in 2004 and a majority of expenditures in all states except Arizona. Only 13.3 percent of expenditures went to FFS payments in Arizona, compared with 51.2 percent in New Mexico,

[15] Expenditures for restricted-benefit enrollees totaled 3.1 billion in 2004.

53.6 percent in Pennsylvania, and 58.2 percent in Oregon, the next three lowest States (see Appendix Table A3.15).

On average, $6,685 was spent per full-benefit FFS enrollee in 2004.[16] Expenditures for such enrollees varied dramatically across States. FFS expenditures per FFS enrollee was less than $3,300 in Utah and Arizona and more than $20,000 in Connecticut, Maryland, and Rhode Island (Figure 3.14). Utah has the lowest share of aged and disabled enrollees in its Medicaid population of all U.S. States, which may account in part for their low spending per FFS enrollee. In Arizona, Maryland, and Connecticut, more than 70 percent of full-benefit enrollees are in HMOs/HIOs. The FFS population may therefore be atypical of enrollees in general.

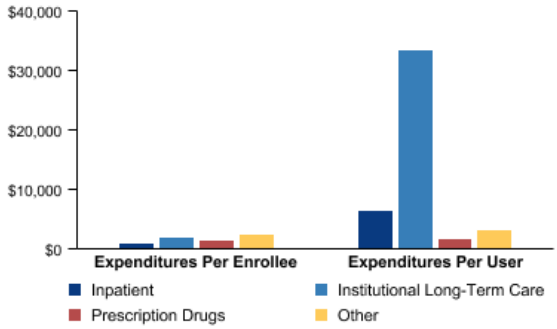
Figure 3.14
Per-Enrollee Fee-for-Service (FFS) Expenditures (in Quartiles) Among FFS Enrollees in 2004



Source: Medicaid Analytic Extract, 2004.
FFS Enrollees = full-benefit enrollees not enrolled in HMOs/HIOs in 2002.

In Connecticut, for example, more than 90 percent of children and adults, but less than two percent of aged or disabled enrollees, were in HMOs/HIOs. Hence most FFS care was provided to aged and disabled enrollees. The high average FFS outlays in Connecticut were accounted for by particularly high FFS expenditures for long-term care, prescription drugs, and "other" (OT) services.[17] Figure 3.15 shows average expenditures per enrollee and per user of service in Connecticut.

Figure 3.15
Per-Enrollee Fee-for-Service (FFS) Expenditures Among FFS Enrollees in Connecticut in 2004, by Type of Service



Source: Medicaid Analytic Extract, 2004.

While expenditures per user of prescription drugs were higher in Connecticut ($4,054) than in any other State, six States had higher expenditure per user for institutional long-term care—New York, Alaska, Delaware, Rhode Island, the District of Columbia, and New Jersey. Minnesota had higher expenditure per user for OT services. In all of these States but Alaska, however, over 50 percent of all enrollees were in HMOs or HIOs in 2004, so FFS expenditure per enrollee or per user reflected only a selected portion of each State's Medicaid population. In general, most States with high costs per user or per enrollee had extensive managed care plans, leading to selective and possibly atypical FFS enrollee subgroups. In each of the 10 States with the highest prescription drug expenditure per user, over 50 percent of full-benefit enrollees were in HMOs/HIOs.

[16] FFS enrollees include only enrollees who received full benefits and who never enrolled in an HMO or HIO in 2004. See Chapter 2 for details.

[17] OT services include community long-term care services; physician and other ambulatory services; and lab, X-ray, supplies and other wraparound services

Tables 3.4a – 3.4d show the highest-ranking states in expenditure per FFS enrollee in 2004. States in the North and East appear frequently among the top ten states in expenditure.

Table 3.4a. Per-User 2004 FFS Expenditure among FFS Enrollees: Top 10 States – Inpatient

	Inpatient
State	**Dollars**
DC **	18,143
Maine	14,294
New York **	12,242
Maryland **	9,134
Rhode Island **	9,090
Minnesota **	7,620
New Jersey **	6,350
Arizona **	6,102
Connecticut **	5,445
Delaware **	5,125
United States	**6,236**

Source: Medicaid Analytic Extract, 2004.

**FFS enrollees represent less than 50 percent of all full-benefit enrollees in this state.

Table 3.4b. Per-User 2004 FFS Expenditure among FFS Enrollees: Top 10 States – Institutional Long-Term Care

	Institutional Long-Term Care
State	**Dollars**
New York **	57,433
Alaska	55,402
Delaware **	47,941
Rhode Island **	47,475
DC **	47,433
New Jersey **	46,153
Connecticut **	41,487
North Dakota	40,613
Maryland **	39,539
Hawaii **	38,666
United States	**33,188**

Source: Medicaid Analytic Extract, 2004.

**FFS enrollees represent less than 50 percent of all full-benefit enrollees in this state.

Table 3.4c. Per-User 2004 FFS Expenditure among FFS Enrollees: Top 10 States – Prescription Drugs

	Prescription Drugs
State	**Dollars**
Connecticut **	4,054
New Jersey **	3,877
Rhode Island **	3,294
Maryland **	3,237
DC **	2,768
Hawaii **	2,758
New York **	2,692
Pennsylvania	2,480
Minnesota **	2,361
Washington **	2,145
United States	**1,510**

Source: Medicaid Analytic Extract, 2004.

**FFS enrollees represent less than 50 percent of all full-benefit enrollees in this state.

Table 3.4d. Per-User 2004 FFS Expenditure among FFS Enrollees: Top 10 States – Other Services

	Other Services
State	**Dollars**
Minnesota **	11,316
Connecticut **	8,230
New York **	7,805
Maryland **	7,230
New Jersey **	7,046
DC **	6,582
Delaware **	5,300
Arizona **	5,240
Rhode Island **	5,195
Maine	4,887
United States	**2,954**

Source: Medicaid Analytic Extract, 2004.

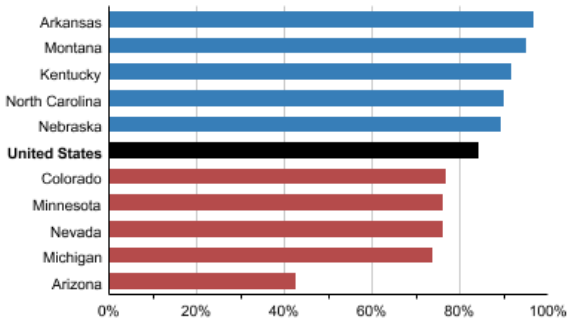
**FFS enrollees represent less than 50 percent of all full-benefit enrollees in this state.

Compared with expenditures per enrollee and per user, the percentage utilizing services varied less widely across States. Over 84 percent of all FFS enrollees used at least one Medicaid service in 2004. With the exception of Arizona, where

most of the population was enrolled in an HMO or HIO and the utilization rate among FFS enrollees was 42.8 percent, the utilization rate ranged from 73.9 percent in Michigan to 97 percent in Arkansas (Figure 3.16).

Figure 3.16

Percentage of Fee-for-Service (FFS) Enrollees Using Services in 2004: Top and Bottom 5 States



Source: Medicaid Analytic Extract, 2004.
FFS Enrollees = full-benefit enrollees not enrolled in HMOs/HIOs in 2002.

Detailed information about FFS utilization and expenditures among FFS enrollees is available for each State in appendix tables A3.15 through A3.29 by basis of eligibility and type of service. As made clear in this chapter, both utilization and expenditures captured in FFS claims records are greatly influenced by the rate of capitated managed care enrollment in a State. In the appendix tables, as in Tables 3.4a-3.4d, asterisks identify States with high HMO/HIO enrollment. 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 for dual enrollees in Chapter 5 and by detailed type of service in Chapter 6.

4. Special Topic: Managed Care

Chapters 2 and 3 summarized the enrollment and expenditure information for managed care enrollees nationally and across States. MAX data can be used to examine patterns of managed care enrollment in much more detail than shown in Chapters 2 and 3. For example, MAX can be used to examine concurrent enrollment in multiple types of managed care plans, the duration of managed care enrollment, and enrollment differences by subgroup. This chapter provides supplementary information about managed care enrollees that gives a taste of the types of analyses that are possible with MAX data.

Almost 62 percent of Medicaid enrollees were enrolled in some type of prepaid plan in 2004, nearly identical to the proportion enrolled in 2002. Enrollment varied widely across States. Alaska and Wyoming had no Medicaid managed care enrollment of any kind in 2004. In Kentucky and South Dakota, nearly every full-benefit enrollee was enrolled in some type of managed care. (See Chapter 3 and Appendix Table A3.11). Perhaps the most striking change from 2002 was the complete disappearance of managed care from the Tennessee Medicaid program. In 2002, almost every Medicaid enrollee was enrolled in an HMO/HIO. By 2004, none were. While many enrollees remained a part of the well-known TennCare program, the plans in that program were no longer bearing risk. In total, Medicaid capitated payments for managed-care plans totaled $41 billion in 2004.

Managed care plans differ greatly in the breadth of services they cover. HMOs and HIOs typically provide comprehensive care for their enrollees, while PHPs usually cover a limited set of services, such as behavioral health or dental care, and PCCMs provide case management only. Assessing the role of Medicaid managed care in any State therefore requires an understanding of the composition of plans in that State. While managed care enrollment in both Delaware and South Dakota exceeds 98 percent, for example, the nature of Medicaid managed care is quite different in the two States. In Delaware, over 70 percent of enrollees are members of comprehensive HMO/HIO plans. In South Dakota virtually all enrollees are members of plans that provide only prepaid dental care or PCCM. (See appendix tables A3.11-A3.14 for details.)

Expenditures for capitated payments also vary greatly across States; they depend on the characteristics of utilized plans as well as the

characteristics of people enrolled in such plans. As reported in Chapter 2, enrollment in managed care is highest among children and adults who typically have lower health care expenditures than disabled or elderly Medicaid enrollees. Nationally, 48.3 percent of child enrollees and 52.4 percent of adult enrollees eligible for full Medicaid benefits were enrolled in an HMO or HIO in 2004, compared with 18.2 percent of disabled and only 9.0 percent of aged enrollees. As a result, capitated payments typically represent a disproportionately small share of total Medicaid expenditures.

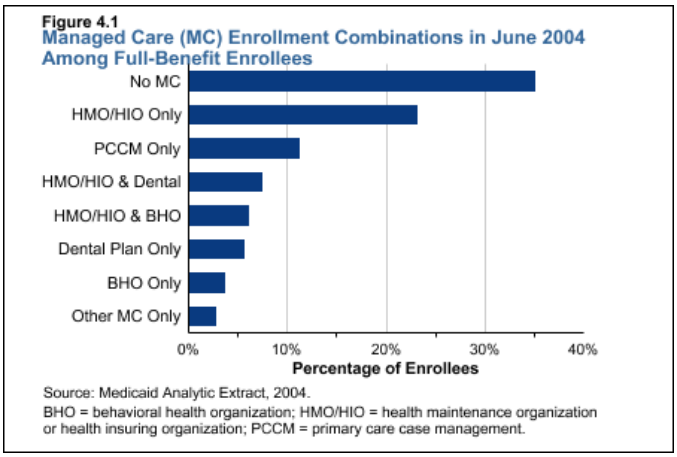
This chapter presents information about managed care plan enrollment combinations and capitated payments by type of plan for full-benefit enrollees. It also provides a summary of FFS expenditures for people ever enrolled in HMOs/HIOs in 2004.

In reviewing summary managed care statistics, it is important to keep in mind that claim records for services used under managed care, called encounter records, are limited in their scope (they contain utilization but no expenditure information) and are not always complete. Therefore, in this chapter, managed care plan enrollment and payment information reflects data for capitated payments only. The supplementary FFS information for HMO/HIO enrollees reflects services received outside managed care.

Managed Care Enrollment Combinations in June 2004

People can enroll in more than one type of prepaid plan. When behavioral health services, for example, are "carved out" of traditional HMOs, a person can be enrolled in both an HMO and a behavioral health organization (BHO), which is a form of PHP. 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.

Figure 4.1 shows the eight most common combinations of prepaid plans in Medicaid in June of 2004. Nationally, 35.2 percent of full-benefit enrollees were not enrolled in any type of managed care, 23.2 percent were enrolled in an HMO/HIO only, 11.3 percent were enrolled in a PCCM plan only, and 7.5 percent were enrolled in a HMO/HIO and Dental plan. Other common managed care combinations were dental only (5.8 percent), BHO only (3.8 percent), and other MC only (2.9 percent).



Enrollment in plan combinations varied greatly across States. Enrollment in HMOs/HIOs exceeded 70 percent of full-benefit Medicaid enrollees in June 2004 in seven states: Arizona, Connecticut, Delaware, Hawaii, Maryland, New Mexico, and Pennsylvania. In only nine States were more than 50 percent of enrollees in a combination of two or more plan types:

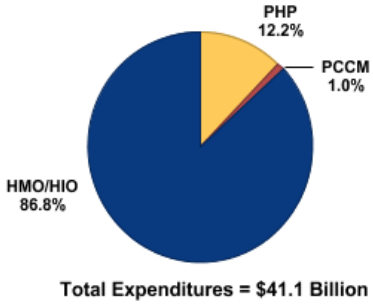
California, Delaware, Iowa, Kentucky, Michigan, Oregon, Pennsylvania, South Dakota, and Washington. For more detail about managed care enrollment combinations by State, see Appendix Table A4.1.

Capitated Payments by Type of Plan

Medicaid paid $41.1 billion in capitated payments to managed care organizations in 2004, 24 percent more than in 2002. Nearly 87 percent of the $41.1 billion was for enrollment in HMOs/HIOs, 12.2 percent was for PHP plans, and 1.0 percent was spent on PCCM plans (Figure 4.2). The distribution of payments reflects the cost and services typically covered by each type of plan. Average monthly payments for persons enrolled in a plan were $187 for HMOs/HIOs, $35 for PHPs, and $6 for PCCM plans (Tables 4.1a - 4.1c).

Figure 4.2

Composition of Medicaid Capitated Payments in 2004 Among Full-Benefit Enrollees



Total Expenditures = $41.1 Billion

Source: Medicaid Analytic Extract, 2004.

HMO/HIO = health maintenance organization or health insuring organization.
PCCM = primary care case management.
PHP = prepaid health plan.

There was substantial variation in average premium payments across States. Payments for 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 $2 per person per month in Nevada to $3,536 per person per month in New York, a far higher average payment than in any other State. While less than one percent of full-benefit enrollees in New York were enrolled in a PHP, many of these were enrolled in Programs of All-Inclusive Care for the Elderly (PACE), a comprehensive and relatively costly program of community care for enrollees eligible to enter nursing homes. Many enrollees in Wisconsin were enrolled in a Milwaukee County Plan called "The Independent Care Plan," coded as a PHP in MAX data. The plan provides medical and social services to people with physical, developmental, or emotional disabilities.

Table 4.1a. Capitated Payments per Person per Month in Managed Care in 2004: Top 10 States – HMO/HIO

Comprehensive Managed Care (HMO/HIO)

State	Dollars
Massachusetts	375
New Mexico	317
Arizona	311
Minnesota	288
Pennsylvania	286
Kentucky	276
Oregon	248
Maryland	241
District of Columbia	226
Delaware	221
United States	**188**

Source: Medicaid Analytic Extract, 2004.

Table 4.1b. Capitated Payments per Person per Month in Managed Care in 2004: Top 10 States – PHP

Prepaid Health Plan (PHP)

State	Dollars
New York	3,536
Wisconsin	1,179
Arizona	254
Hawaii	160
Pennsylvania	107
Illinois	100
South Carolina	68
Alabama	63
Michigan	57
Oregon	51
United States	**35**

Source: Medicaid Analytic Extract, 2004.

Table 4.1c. Capitated Payments per Person per Month in Managed Care in 2004: Top 10 States – PCCM

Primary Care Case Management (PCCM)

State	Dollars
Massachusetts	56*
Oregon	5
North Carolina	4
South Carolina	4
Kentucky	4
Florida	4
Pennsylvania	3
Indiana	3
Alabama	3
Maine	3
United States	**6**

Source: Medicaid Analytic Extract, 2004.

*Evidence from the Anomaly Notes suggests that the premium may have been misreported in Massachusetts in 2004.

In comparison with PHPs, capitated payments per person per month in HMOs/HIOs averaged $188 nationally and ranged from $42 in West Virginia to $375 in Massachusetts. Payments for PCCM plans ranged from $1 to $5 in all States except Massachusetts, whose average PCCM payments was $56.[18]

FFS Expenditures Among People Enrolled in HMOs/HIOs

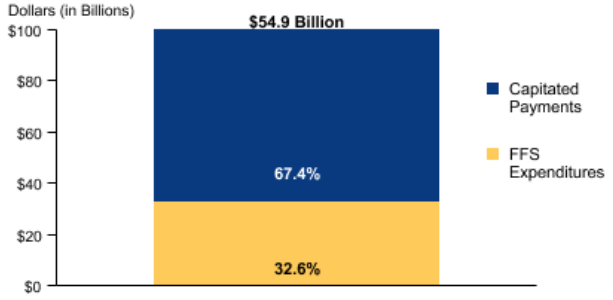
People ever enrolled in comprehensive managed care plans (HMOs/HIOs) in 2004 incurred a total of $54.9 billion in Medicaid expenditures, 10 percent more than in 2002. While most of their costs were for managed care capitated payments, 33 percent was paid by FFS (Figure 4.3). Because HMO/HIO enrollees are excluded from most FFS expenditure summary statistics presented in this chartbook, we provide some information about their FFS costs in this section.

As noted in Chapter 2, there are two key reasons why people enrolled in HMOs or HIOs at some point in 2004 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 of the year. Second, HMOs and HIOs do not always cover all Medicaid services. For example, dental care, behavioral health care, long-term care, and other services may not be included in the HMO or HIO capitated rate.

[18] MAX Anomaly Notes report that 2004 BHO capitation claims were erroneously reported with a type of service of PCCM capitation claim. As a result, reported mean payouts for PCCM in Massachusetts overstate true PCCM payments.

Figure 4.3

Composition of Expenditures for HMO/HIO Enrollees in 2004

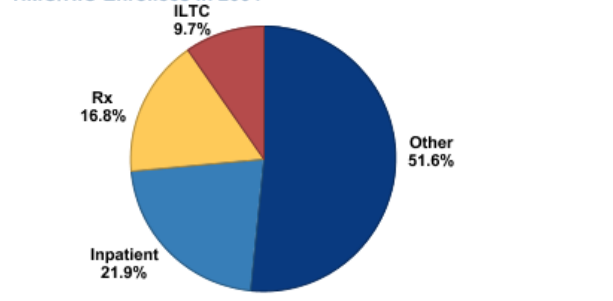


Source: Medicaid Analytic Extract, 2004.
FFS = fee-for-service.
HMO/HIO = health maintenance organization or health insuring organization.

On average, about $831 was spent in FFS payments for each HMO/HIO enrollee in 2004. The FFS services used most by HMO/HIO enrollees were "other" (OT) services, including home- and community-based long-term care, ambulatory and physician services, lab, X-ray, and other services. These services accounted for over half of all FFS expenditures among HMO/HIO enrollees (Figure 4.4). Another 21.9 percent of their FFS costs were for inpatient care, 16.8 percent were for prescription drugs, and 9.7 percent were for institutional long-term care.

Figure 4.4

Composition of Fee-for-Service Expenditures Among HMO/HIO Enrollees in 2004

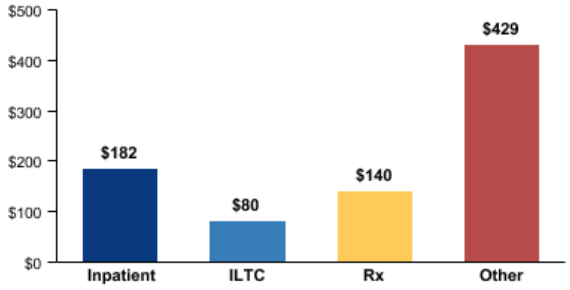


Source: Medicaid Analytic Extract, 2004.
HMO/HIO = health maintenance organization or health insuring organization;
ILTC = institutional long-term care; Rx = prescription drugs.

FFS expenditures per enrollee in an HMO or HIO were correspondingly highest for OT services ($429), followed by inpatient ($182), long-term care ($80), and prescription drugs ($140) (Figure 4.5). This pattern of expenditures by type of services was evident in most States with managed care enrollment, which suggests that some OT services were often not covered under HMO/HIO plans. Alternatively, people enrolled in HMOs/HIOs at some point in the year may have had months of non-managed care enrollment when these services were used.

Figure 4.5

Per-Enrollee Fee-for-Service Expenditures Among HMO/HIO Enrollees in 2004, by Type of Service



Source: Medicaid Analytic Extract, 2004.
HMO/HIO = health maintenance organization or health insuring organization;
ILTC = institutional long-term care; Rx = prescription drugs.

Fee-for-service expenditure on institutional long-term care per HMO/HIO enrollee dropped sharply from $137 in 2002 to $80 in 2004. This reduction is surely due in part to the decline in enrollment of dual eligibles in HMOs/HIOs over the period. (See Chapter 5.) Most States do not include long-term care in the set of services covered by Medicaid capitation payments, preferring to use other arrangements for payment. Because duals are disproportionate users of institutional long-term care, any decline in dual enrollment in HMO/HIO plans could be expected to lead to a decline in FFS spending for HMO/HIO enrollees as a whole.

Additional information about FFS payments by State for Medicaid enrollees in HMO/HIO plans is available in Appendix Table A4.3. Readers can find additional summary statistics in the Medicaid Managed Care Enrollment Report, which is published June 30 of each year and can be accessed at the following website: http://www.cms.hhs.gov/MedicaidDataSourcesGenInfo/04_MdManCrEnrllRep.asp.

5. Special Topic: Dual Enrollees

Dual enrollees are aged and disabled Medicaid enrollees who qualify for health insurance benefits through both Medicare and Medicaid. Duals are among the most vulnerable populations served by Medicare and Medicaid and among the costliest users of health care in the United States (MedPac 2004). Average health care costs for duals are double those of other Medicare beneficiaries and approximately eight times higher than those of low-income children covered by Medicaid (Kaiser Commission on Medicaid and the Uninsured 2004). The availability of monthly Medicare enrollment information in the MAX data system enables researchers to conduct in-depth analyses of Medicaid service use among this costly subgroup of enrollees.

In recent years, state Medicaid programs have become increasingly concerned about the growing cost of serving duals. Medicaid expenditures for duals have been rising partly due to the shift in medical use away from Medicare-covered hospitalizations to greater reliance on prescription drug therapies, which Medicaid covered for duals prior to 2006 (Ku 2003). This pattern may change now that the responsibility of providing drug coverage for duals has shifted in 2006 from Medicaid to Medicare under the Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003 (CMS 2004). Data presented here are from 2004, when Medicaid still covered prescription drug services for duals.

Dual enrollees must satisfy the eligibility requirements of both the Medicare and the Medicaid programs. Generally, Medicare provides basic health insurance coverage for the vast majority of aged persons, as well as disabled persons under age 65 who have received Social Security or Railroad Retirement disability benefits for at least two years. Medicare benefits are provided to these two groups, regardless of their income or assets. However, there are substantial out-of-pocket costs for Medicare beneficiaries, including premiums and cost-sharing payments, plus some uncovered services. As a result, many low-income aged and disabled Medicare beneficiaries turn to the Medicaid program to help with these expenses. In contrast to Medicare, Medicaid is a means-tested program. Aged and disabled persons can only qualify for Medicaid benefits if they meet federal and state income and resource criteria. The intersection of aged and disabled individuals eligible for both Medicare and Medicaid are called “dual enrollees” or “duals”.

Most duals qualify for full Medicaid benefits. For these enrollees, Medicare serves as the primary payer for services covered by both programs while Medicaid provides "wraparound" coverage for services not covered through Medicare (such as institutional long-term care, some home health services, home- and community-based waiver services, and before 2006, prescription drugs). Services covered by Medicare Part A include inpatient hospital stays, hospice care, skilled nursing facility services, and some care by home health agencies. Medicare Part B enrollment is voluntary and requires a premium, which is covered by Medicaid. Among other things, Part B usually covers physician services, inpatient and outpatient medical services, laboratory services, and some medical equipment.

For services that are covered only by Medicaid, Medicaid claim records in MAX should reflect all services delivered, and Medicaid paid amounts can be interpreted like those for other beneficiaries. For services that are covered by both Medicaid and Medicare, Medicaid payment amounts appearing in MAX claim records will reflect only coinsurance and deductible amounts paid by Medicaid after Medicare has made payments up to its coverage limits.[19] For this reason, expenditures drawn from MAX for Medicare-covered services provided to duals will substantially understate the total cost of care for those services. They will, however, reflect the Medicaid payments made for such service.

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

A smaller population of "restricted benefit" duals does not receive the full range of Medicaid benefits. Generally, duals who qualify only for restricted Medicaid benefits have higher income and/or assets than those duals who qualify for full Medicaid benefits. For some restricted benefit duals, Medicaid pays Part B (and Part A if necessary) Medicare premiums as well as any coinsurance and deductibles for Medicare services. However, services such as institutional long-term care, that are covered by Medicaid and not Medicare, are not covered for restricted-benefit duals. For certain other restricted benefit duals, only the Part B premium is covered.

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 that are presented in this chapter on dual enrollees. MAX data anomaly reports provide additional detail regarding the completeness and limitations of MAX data records for duals. The anomaly reports are available at the MAX website (see end of Chapter 1 for web link).

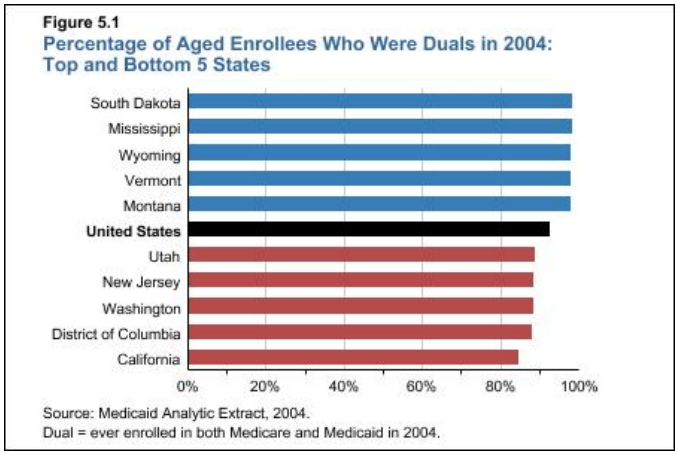
Enrollment Characteristics of Dual Enrollees

There were more than 8.6 million dual enrollees in 2004—15 percent of all Medicaid enrollees were duals. As shown in Table 5.1, there was significant variability across States in the percentage of enrollees who were duals in 2004, ranging from 9.0 percent in Arizona to 21.3 percent in Wisconsin.

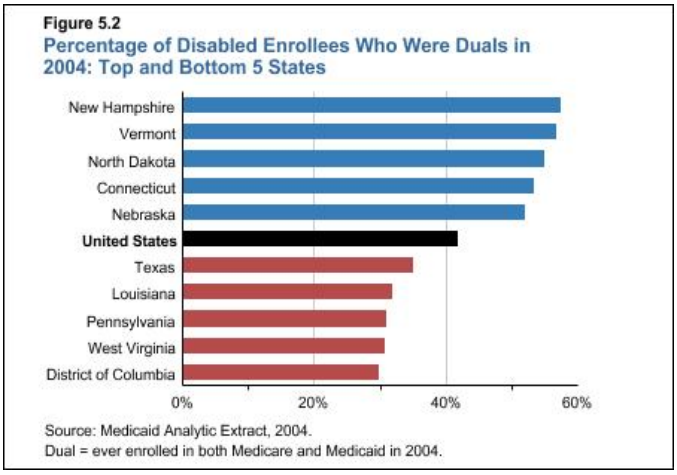
Aged enrollees were more likely than disabled enrollees to be duals in 2004. Nationally, 92.9 percent of aged and 41.8 percent of disabled enrollees were dually enrolled in both Medicare

and Medicaid during the year. This pattern was evident in every State—most aged enrollees and 30 to 60 percent of disabled enrollees in each State were duals.

Variation in dual enrollment by basis of eligibility was more evident among disabled than aged enrollees. In all but seven states, at least 90 percent of aged enrollees were dually enrolled in Medicare and Medicaid in 2004. The percent of aged who were duals was lowest in California (84.6 percent) (Figure 5.1).



Among disabled enrollees, the percentage who were duals varied more widely; it ranged from 29.8 percent in the District of Columbia to 57.6 percent in New Hampshire (Figure 5.2).



Nearly 57 percent of all dual eligibles were classified as aged; 42 percent of dual eligibles were disabled (Table 5.2). This difference in the composition of duals may at first appear smaller than expected, because over 90 percent of aged were duals while just under 42 percent of disabled enrollees were duals in 2004. However, disabled enrollees represented a larger share of Medicaid enrollees (15.0 percent compared with 9.1 percent for the aged), which explains why the number of duals by basis of eligibility is only slightly weighted towards the aged.

Table 5.1. Dual Enrollment in Medicare and Medicaid in 2004, by Basis of Eligibility

	Percentage of All Enrollees Who Were Duals			Number of Dual Enrollees			Percentage of Duals	
	Total	Aged	Disabled	Total	Aged	Disabled	Aged	Disabled
United States	14.8	92.9	41.8	8,647,661	4,911,414	3,615,235	56.8	41.8
Alabama	20.6	98.0	44.9	191,109	99,440	90,585	52.0	47.4
Alaska	9.7	90.3	43.5	12,533	6,347	6,064	50.6	48.4
Arizona	9.0	91.1	39.2	128,314	66,794	50,796	52.1	39.6
Arkansas	13.5	90.3	35.7	95,454	56,922	37,323	59.6	39.1
California	10.3	84.6	42.2	1,095,839	619,073	460,508	56.5	42.0
Colorado	14.0	89.7	38.1	75,025	45,102	29,338	60.1	39.1
Connecticut	18.7	94.8	53.5	97,770	61,693	34,087	63.1	34.9
Delaware	12.4	97.7	42.1	20,961	11,499	8,374	54.9	40.0
District of Columbia	12.1	88.1	29.8	19,778	9,104	9,768	46.0	49.4
Florida	18.3	92.9	42.3	526,463	305,976	218,168	58.1	41.4
Georgia	14.6	94.4	43.7	257,061	130,803	125,344	50.9	48.8
Hawaii	13.6	93.1	39.7	30,722	20,506	9,889	66.7	32.2
Idaho	11.2	97.3	38.9	25,082	13,041	11,882	52.0	47.4
Illinois	20.3	94.2	45.5	468,042	314,277	148,004	67.1	31.6
Indiana	14.1	96.4	44.4	139,839	76,678	61,925	54.8	44.3
Iowa	18.1	96.1	50.5	71,676	37,388	33,795	52.2	47.1
Kansas	16.8	96.3	45.0	57,719	31,990	25,442	55.4	44.1
Kentucky	19.0	97.0	40.0	158,628	67,487	90,207	42.5	56.9
Louisiana	14.4	96.7	32.0	168,452	105,548	62,373	62.7	37.0
Maine	19.2	94.3	49.5	59,677	31,948	23,942	53.5	40.1
Maryland	13.8	91.8	36.1	115,954	62,578	48,334	54.0	41.7
Massachusetts	19.6	90.8	42.2	228,212	127,787	98,288	56.0	43.1
Michigan	13.3	94.4	42.9	238,835	100,286	134,394	42.0	56.3
Minnesota	18.3	94.9	46.9	136,960	85,261	49,495	62.3	36.1
Mississippi	19.7	98.4	42.9	155,910	84,110	71,265	53.9	45.7
Missouri	14.9	95.4	45.0	182,583	96,075	83,673	52.6	45.8
Montana	16.2	98.1	41.0	18,595	9,629	7,749	51.8	41.7
Nebraska	15.0	94.7	52.1	39,529	22,194	17,099	56.1	43.3
Nevada	14.7	95.9	40.7	38,298	22,007	15,956	57.5	41.7
New Hampshire	18.5	93.7	57.6	25,149	13,288	10,823	52.8	43.0
New Jersey	19.1	88.6	46.9	193,672	101,849	90,710	52.6	46.8
New Mexico	9.5	96.8	40.6	49,360	24,123	24,589	48.9	49.8
New York	13.3	89.1	39.5	659,132	359,131	284,102	54.5	43.1
North Carolina	19.0	97.8	43.1	294,459	175,646	116,162	59.7	39.4
North Dakota	20.0	96.3	55.1	15,046	9,326	5,642	62.0	37.5
Ohio	13.1	92.4	35.8	268,188	148,251	115,048	55.3	42.9
Oklahoma	14.8	97.3	45.0	102,512	59,061	42,728	57.6	41.7
Oregon	14.4	97.9	46.3	83,499	47,139	34,679	56.5	41.5
Pennsylvania	18.1	93.2	31.0	348,303	208,072	138,368	59.7	39.7
Rhode Island	17.9	94.8	41.7	38,772	19,716	17,545	50.9	45.3
South Carolina	19.1	92.0	43.7	191,729	125,207	64,958	65.3	33.9
South Dakota	15.2	98.4	51.3	19,202	10,029	9,045	52.2	47.1
Tennessee	19.1	97.4	49.1	311,067	129,063	174,248	41.5	56.0
Texas	14.2	97.6	35.0	562,925	399,169	162,084	70.9	28.8
Utah	8.9	88.9	43.7	26,898	12,026	14,305	44.7	53.2
Vermont	19.3	98.1	56.8	31,478	19,093	11,748	60.7	37.3
Virginia	18.5	90.5	43.3	154,216	88,963	64,679	57.7	41.9
Washington	11.2	88.5	37.0	135,092	74,525	59,471	55.2	44.0
West Virginia	16.5	98.0	30.7	62,667	30,359	31,691	48.4	50.6
Wisconsin	21.3	97.8	49.5	209,870	130,568	74,484	62.2	35.5
Wyoming	12.0	98.1	45.0	9,405	5,267	4,059	56.0	43.2

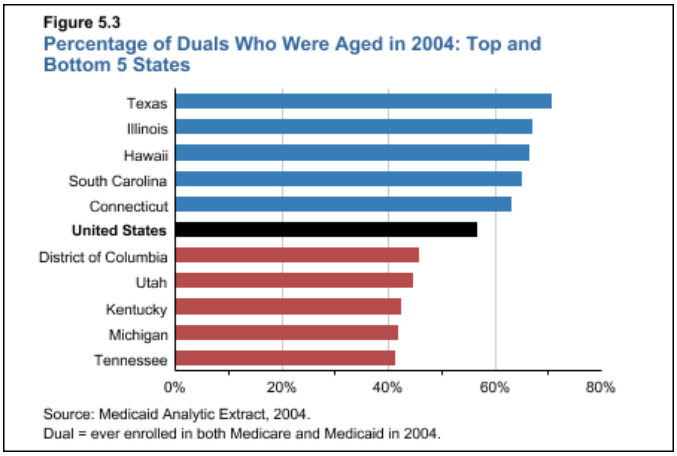
Source: Medicaid Analytic Extract, 2004.

Table 5.2. Enrollment Characteristics of Individuals Ever Enrolled In Both Medicare And Medicaid In 2004

	Number	Percentage of All Duals
Total	**8,647,661**	**100.0**
Basis of Eligibility		
Aged	4,911,414	56.8
Disabled	3,615,235	41.8
Other[20]	121,012	1.4
Full Benefit Status		
Full benefits	7,359,840	85.1
Restricted benefits	1,287,821	14.9

Source: Medicaid Analytic Extract, 2004.

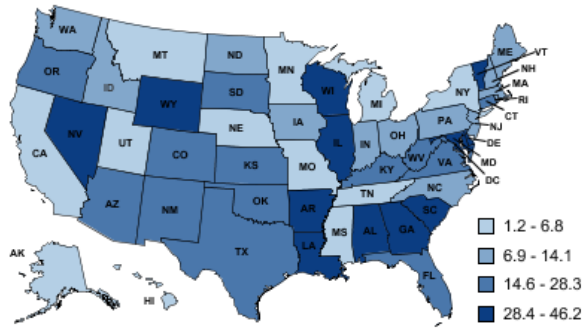
The composition of duals by basis of eligibility varied significantly across States (Figure 5.3 and Table 5.1). In Texas, over 70 percent of duals were aged in 2004. In Utah, Kentucky, Michigan, and Tennessee, however, less than 45 percent of duals were aged. Because the criteria for Medicare enrollment is the same for everyone, these differences in the makeup of the dual-enrolled population by State must necessarily be due to differences in the composition of the population by State and to differences in State Medicaid eligibility policy.



About 15 percent of all people dually enrolled in Medicare and Medicaid did not qualify for full Medicaid benefits at any time during 2004. The percentage that were restricted-benefit duals ranged from 1.2 percent in New York and 1.3 in California to 46.2 percent in Illinois (Figure 5.4). In 14 States, more than a quarter of duals had restricted benefits. (See Appendix Table A5.1 for details.) 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 its dual population. Alternatively, a high Federal matching rate may enable states to cover a greater number of enrollees with full Medicaid benefits. Other political and economic factors may also limit the availability of full benefits to dual enrollees.

[20] Enrollees with "other" as basis of eligibility are typically aged or disabled people that were classified as adults in Medicaid because they were caretaker relatives for dependent children.

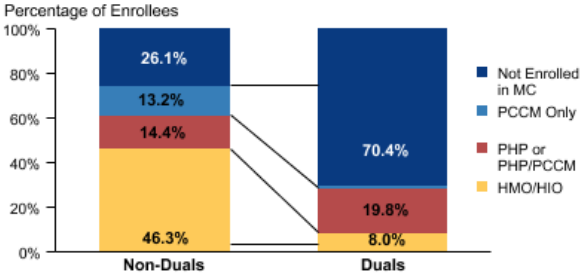
Figure 5.4
Percentage of Dual Enrollees (in Quartiles) With Restricted Medicaid Benefits in 2004



Source: Medicaid Analytic Extract, 2004.
Dual = ever enrolled in both Medicare and Medicaid in 2004.

Nationally, dual enrollees eligible for full Medicaid benefits were less likely to be enrolled in Medicaid managed care than non-dual enrollees: only 30 percent of full-benefit duals were enrolled in any type of managed care compared with 74 percent of full-benefit non-dual enrollees (Figure 5.5). Lower rates of managed care participation among duals relative to non-duals may reflect the difficulty of establishing risk-adjusted capitation rates for duals.

Figure 5.5
A Comparison of Managed Care (MC) Enrollment Between Dual and Non-Dual Full-Benefit Medicaid Enrollees in 2004



Source: Medicaid Analytic Extract, 2004.
Dual = ever enrolled in both Medicare and Medicaid in 2004.
HMO/HIO = health maintenance organization or health insuring organization.
PCCM = primary care case management.
PHP = prepaid health plan.

There was wide variability across states in managed care enrollment among duals. In some states, no duals were enrolled in managed care, while in a few states, nearly all duals were enrolled in some type of managed care (Tables 5.3a – 5.3c).

Table 5.3a. Percentage of Full-Benefit Duals Ever Enrolled in HMO/HIO in 2004, Top Ten States

Ever Enrolled in HMO/HIO	
State	**Percentage**
Arizona	67.8
Pennsylvania	51.8
Oregon	49.0
Minnesota	38.1
Delaware	16.3
California	16.0
Kentucky	13.1
Colorado	12.5
Florida	10.0
New Mexico	9.4
United States	**9.6**

Source: Medicaid Analytic Extract, 2004.

Table 5.3b. Percentage of Full-Benefit Duals Ever Enrolled in PHP Only or PHP/PCCM Only in 2004, Top Ten States

Ever Enrolled in PHP Only or PHP/ PCCM Only	
State	**Percentage**
South Dakota	100.0
Washington	99.3
Oklahoma	95.6
Nevada	93.8
Utah	93.1
Michigan	90.6
Kentucky	86.9
Colorado	85.0
California	84.0
Delaware	83.5
United States	**23.8**

Source: Medicaid Analytic Extract, 2004.

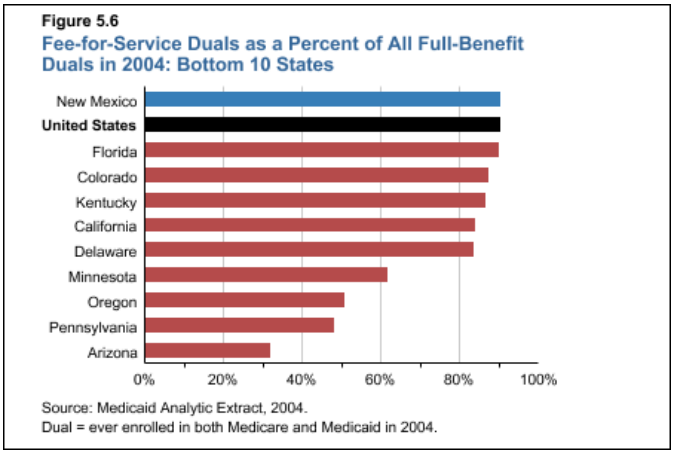
Table 5.3c. Percentage of Full-Benefit Duals Ever Enrolled in PCCM Only in 2004, Top Ten States

	Ever Enrolled in PCCM Only
State	**Percentage**
Idaho	69.0
Indiana	30.1
North Carolina	19.3
Vermont	13.8
Georgia	12.2
Arkansas	8.6
Louisiana	5.0
Montana	4.6
Kansas	3.6
Maine	3.5
United States	**2.2**

Source: Medicaid Analytic Extract, 2004.

Nearly ten percent of duals with full benefits were enrolled in HMOs or HIOs in 2004, down from 13 percent in 2002, as shown in Table 5.3a. (See also the 2002 *Chartbook*, p. 48.) This decline was caused largely by the demise of TennCare as a risk-bearing entity. In 2002, HMO/HIO enrollment in Tennessee (267,000) accounted for 30 percent of all HMO/HIO enrollment by full-benefit duals in the U.S. By 2004, no full-benefit duals in Tennessee were in an HMO/HIO. Consequently, the overall proportion of duals enrolled in HMOs/HIOs fell despite significant increases in HMO/HIO enrollment by full-benefit duals in California, Florida, and New York. More than 80 percent of duals were in FFS in all but four States (Figure 5.6). Dual eligibles are more likely to be enrolled in a PHP and less likely to be enrolled in PCCM only than are Medicaid enrollees in general. (Compare Tables 5.3b and 5.3c with Tables 3.3b and 3.3c.)

Over 40 percent of full-benefit duals were enrolled in managed care in Arizona (68 percent), Pennsylvania (52 percent) and Oregon (49 percent) in 2004. Some states had few duals enrolled in HMO/HIO plans, but had high enrollment in prepaid health plans (PHP) such as dental or behavioral health plans; these include South Dakota (100 percent), Washington (99 percent), Oklahoma (96 percent), Nevada (94 percent), and Utah (93 percent). (See Appendix Table A5.5 for details.) Because most PHP plans only cover a limited set of services, dual enrollees in these states typically receive managed care benefits concurrently with fee-for-service benefits and are included in the subset of "fee-for-service duals" examined below.[21]



For States with low FFS enrollment among full-benefit duals, particularly Arizona, expenditures by type of service should be interpreted with particular caution. Service cost information is only available in MAX for FFS enrollees. Because high-cost users may self-select themselves into either FFS or managed care,

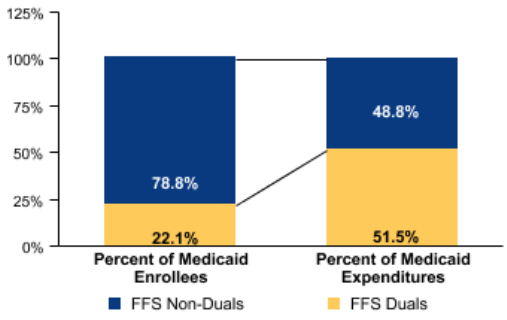
[21] We define fee-for-service duals (FFS duals) as duals with full Medicaid benefits who were never enrolled in comprehensive managed care plans (HMOs/HIOs) in 2004.

average FFS expenditures may greatly understate or overstate the true average cost of duals in these States. Meanwhile, total FFS expenditures in these States will severely understate the total cost of care for duals.

Medicaid FFS Utilization and Expenditures Among FFS Duals

The total fee-for-service (FFS) expenditures for FFS duals in 2004 was $96.8 billion. Duals represented 22 percent of all FFS Medicaid enrollees but accounted for almost 52 percent of Medicaid FFS expenditures in 2004 (Figure 5.7). This is consistent with research suggesting that duals require extensive and costly medical care.

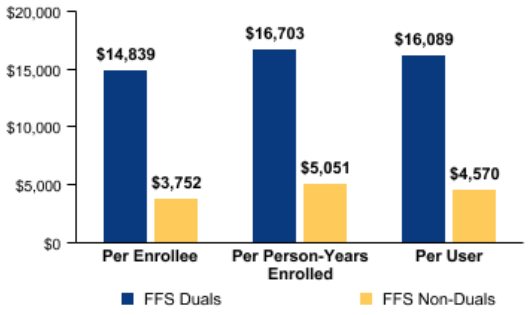
Figure 5.7
Medicaid Enrollment and Fee-for-Service (FFS) Expenditures Among Dual and Non-Dual FFS Enrollees in 2004



Source: Medicaid Analytic Extract, 2004.
FFS enrollees = full-benefit enrollees not enrolled in HMOs/HIOs in 2004.

A comparison of per-enrollee expenditures between dual and non-dual FFS enrollees in Figure 5.8 indicates that the average cost for duals ($14,839) was almost four times higher than costs for non-duals ($3,752). This pattern is also evident when comparing average costs between duals and non-duals per person-years enrolled ($16,703 for duals compared to $5,051 for non-duals) and per user ($16,089 for duals and $4,570 for non-duals).

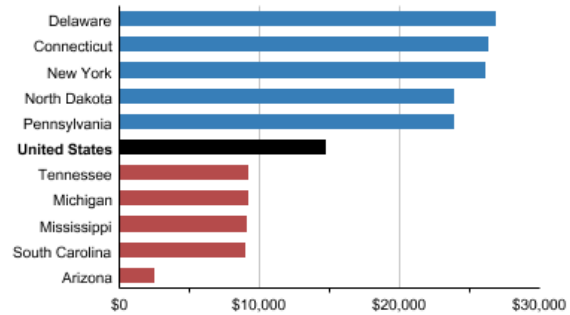
Figure 5.8
A Comparison of Medicaid Fee-for-Service (FFS) Expenditures Between FFS Duals and Non-Duals in 2004



Source: Medicaid Analytic Extract, 2004.
FFS enrollees = full-benefit enrollees not enrolled in HMOs/HIOs in 2004.

Medicaid expenditures per dual enrollee varied significantly across States (Figure 5.9). States with the highest average costs paid over $25,000 per dual, as observed in Delaware ($26,864), Connecticut ($26,333), and New York ($26,119). Arizona, the state with the highest managed care enrollment among duals, had the lowest per-enrollee FFS expenditures ($2,553). At the same time, Pennsylvania, with the second-highest managed-care enrollment, had one of the highest per-enrollee FFS expenditures ($23,955). (See Appendix Table A5.6 for details.)

Figure 5.9
Per-Enrollee Fee-for-Service (FFS) Expenditures Among FFS Duals in 2004: Top and Bottom 5 States



Source: Medicaid Analytic Extract, 2004.
FFS duals = full-benefit duals not enrolled in HMOs/HIOs in 2004.

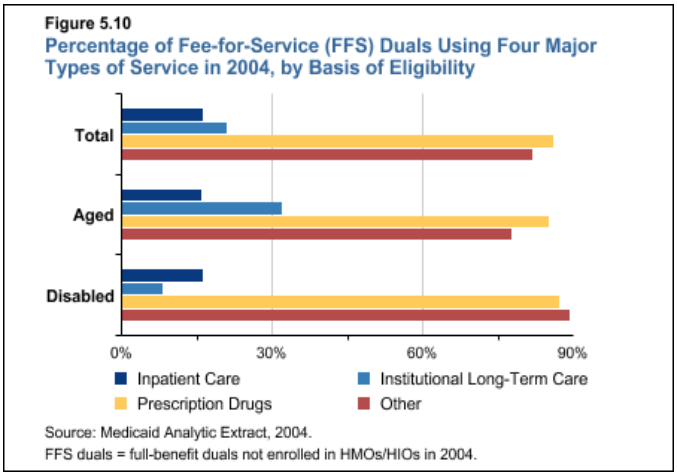
Several factors may account for these differences in expenditures. High-expenditure states may

have more generous benefits under Medicaid (as, for example, in Connecticut). Low-expenditure states may have less stringent enrollment criteria resulting in a higher number of less expensive enrollees (Mississippi) or may not extend Medicaid coverage to relatively costly services such as personal care (Tennessee).

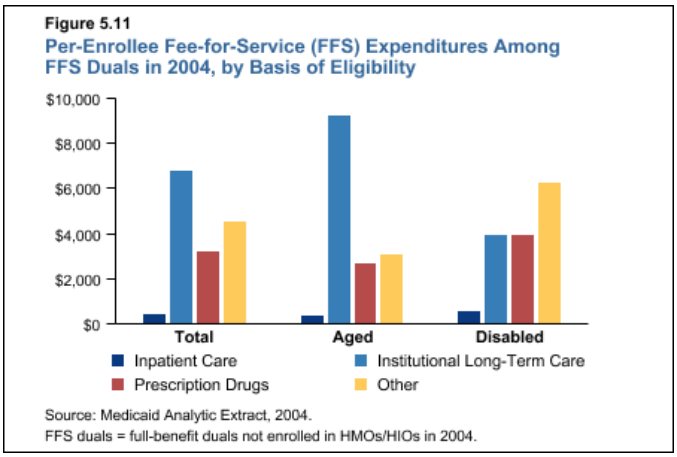
There was only a small difference in per-enrollee expenditures between FFS duals who were aged ($15,233) compared with those who were disabled ($14,567) in 2004 (Appendix Table A5.7). However, because there are more aged than disabled duals, aged duals accounted for a larger portion (55.7 percent) of all FFS dual expenditures than disabled duals (43.9 percent).

As in the overall Medicaid FFS population (see Figure 2.19), aged duals were more likely to have prescription drug or "other" service use than inpatient or long-term care service use (Figure 5.10).[22] Because Medicare Part A covers inpatient care for duals, their Medicaid utilization and expenditures for inpatient care are low compared to utilization and costs for other services.

[22] Other services include community long-term care services; physician and other ambulatory services; and lab, X-ray, supplies, and other wraparound services. See Chapter 6 for details.



Institutional long-term care was clearly the greatest expenditure among FFS dual enrollees, accounting for nearly half of their per-enrollee expenditures in 2004 (Figure 5.11). As might be expected, institutional long-term care expenditures were much higher among aged duals relative to their disabled counterparts. (See appendix tables A5.7 through A5.13 and tables A6.9 through A6.16 for state-level detail on dual service utilization and expenditures by basis of eligibility and by type of service.)



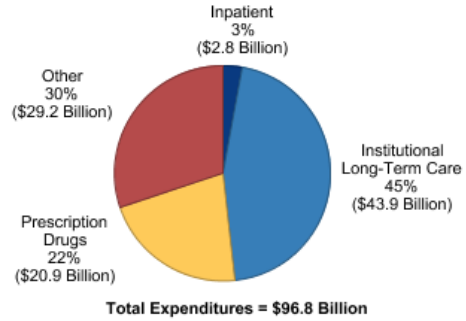
Although the composition of expenditures in Figure 5.11 is quite different for aged and disabled duals, the sum of per-enrollee spending

for institutional long-term care and "other" services for the two groups differs by only about 20 percent. The highest shares of "other" FFS expenditure among duals were for residential care, personal care services, and adult day care. Hence, it is possible that overall long-term care costs—including institutional and community-based services—may be similar for aged and disabled duals. Further examination of the differential patterns of service use by aged and disabled duals is possible with MAX data and is discussed in more depth in Chapter 6 (see also appendix tables A6.9 through A6.16).

Prescription drugs accounted for only 22 percent of FFS expenditures among FFS dual enrollees, but summed to nearly 21 billion dollars in 2004 (Figure 5.12). As described earlier in this chapter, coverage of prescription drugs for duals transferred from Medicaid to Medicare as of January 1, 2006. The 22 billion dollars spent on prescription drugs for these duals thus represent the expenditures that will largely be covered by Medicare for this subgroup in future years.[23] The MAX data system will allow researchers to explore patterns of Medicaid expenditures associated with this change in policy as duals enroll in Medicare Part D.

Figure 5.12

Medicaid Fee-For-Service (FFS) Expenditures Among FFS Duals in 2004, by Type of Service



Total Expenditures = $96.8 Billion

Source: Medicaid Analytic Extract, 2004.
FFS duals = full-benefit duals not enrolled in HMOs/HIOs in 2004.

[23] While coverage of prescription drugs for duals has shifted from Medicaid to Medicare, state Medicaid programs will finance a significant share of this expense by paying Medicare through a so-called "clawback" provision. Also, State Medicaid programs continue to provide duals coverage for prescription drugs that are not coverable by Medicare plans as long as the drugs are covered in the State for other Medicaid populations.

6. Special Topic: Utilization and Expenditures by Detailed Type of Service

As discussed in Chapter 1, Federal law requires States to cover certain mandatory services such as inpatient hospital stays, nursing-home care, and physician visits, for those who are categorically eligible for Medicaid. States have the option to cover a variety of additional services if they desire. The MAX data system allows researchers to analyze Medicaid FFS utilization and expenditure by type of service at the enrollee level.[24] This chapter summarizes Medicaid service utilization and expenditure in 2004 by detailed type of service for all FFS enrollees who were eligible for full Medicaid benefits and, separately, for FFS dual-eligible enrollees.

In prior chapters, we categorized Medicaid services using the four types of claim files available in MAX: Long-Term Care, Inpatient Care, Prescription Drugs, and Other Services. The MAX data actually permit more detailed disaggregation of service using provider codes, service codes, and other fields available in claims records. MAX records also contain a type-of-service (TOS) code for the 30 service categories shown in Table 6.1. Information about utilization and FFS expenditures incurred during the year for each of the 30 services is included for each enrollee in the MAX person summary file. In this chapter, we provide an overview of utilization and expenditures by these detailed type of service categories, focusing on services grouped within the Long-Term Care and Other Services categories. (Inpatient and Prescription Drugs form their own service categories and were presented in chapters 2 and 3.)

It is important to note that type of service information presented in this chartbook reflects full-benefit FFS enrollees and their FFS utilization only. As discussed in Chapter 2, FFS enrollees exclude two important groups: enrollees receiving only restricted Medicaid benefits in 2004 and people ever enrolled in HMOs/HIOs in 2004. FFS expenditures exclude any capitated payments for PHP and PCCM plans in which FFS enrollees may be enrolled.

[24] MAX contains extensive Medicaid FFS utilization and payment information and monthly premium but limited utilization information from Medicaid managed care plans. See Chapter 1 for more detail about the availability of managed care information in MAX.

Table 6.1. Type-Of-Service (TOS) Codes In Max 2004, By File Type

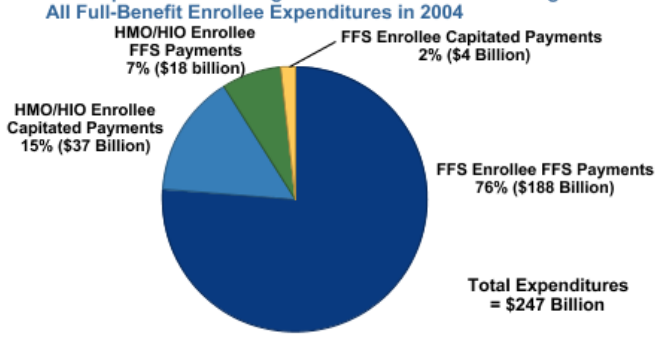
Type of Service	TOS Code
Inpatient (IP) File	
Inpatient hospital	01
Institutional Long-Term Care (LT) File	
Mental hospital services for the aged	02
Inpatient psychiatric facility services for individuals under age 21	04
Intermediate care facility services for the mentally retarded (ICF/MR)	05
Nursing 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
Sterilization*	24
Abortions*	25
Transportation	26
Personal care services	30
Targeted case management	31
Rehabilitation	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.

The expenditures presented in this chapter account for 76 percent ($188 billion) of total Medicaid payments for full-benefit enrollees and almost all expenditures for FFS enrollees, as shown in Figure 6.1. (The $4 billion in capitation payments for PHP and PCCM enrollment is the only excluded amount for FFS enrollees). The distribution of expenditure in 2004 is nearly identical to the distribution in 2002.

Figure 6.1

FFS Expenditures Among FFS Enrollees as a Percentage of All Full-Benefit Enrollee Expenditures in 2004



Source: Medicaid Analytic Extract, 2004.
HMO/HIO = health maintenance organization or health insuring organization.
FFS enrollees = full-benefit enrollees not enrolled in HMOs/HIOs in 2004.

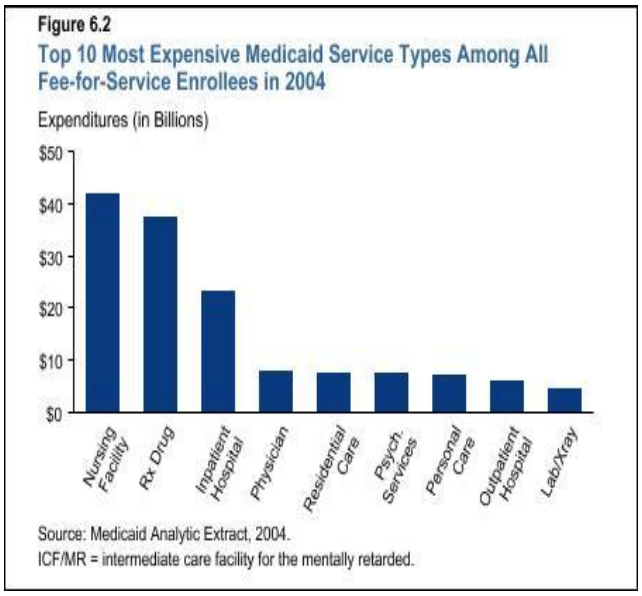
Because there is significant variation across States in managed care enrollment, the statistics presented in this chapter represent a varying share of total expenditures across States. Each of the appendix tables for this chapter (Tables A6.1 through A6.16), identifies those States in which more than 50 percent or more than 75 percent of the Medicaid population is enrolled in comprehensive managed care (HMO or HIO). Chapters 3 and 4 provide additional managed care enrollment detail by type of plan by State.

Observed differences in utilization and expenditures between States may also be due to differences in the structure of States' Medicaid programs and reimbursement rates, demographic composition, enrollment in PHPs, or other utilization or cost-driving factors. Such differences must be taken into account when interpreting the cross-State variation in

utilization and expenditures presented in this and other chapters of the chartbook.

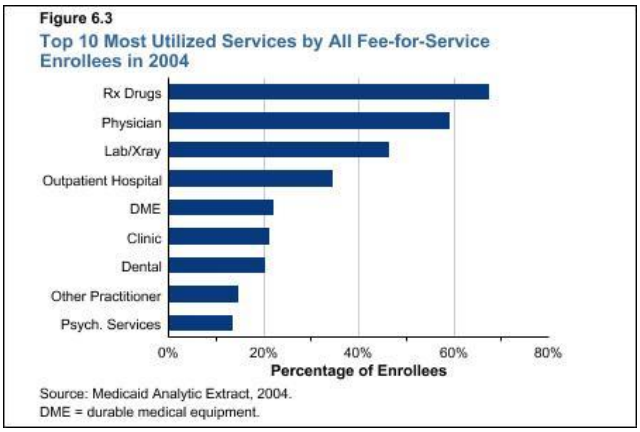
Most Expensive and Most Utilized Services Among Medicaid FFS Enrollees

Nationally, FFS expenditures for FFS enrollees cost over $188 billion in 2004. The top two most costly services (of the 30 service types) accounted for more than 40 percent of these expenditures. The top ten most costly services accounted for more than 80 percent of these expenditures. Nursing facility services were the largest share ($41.7 billion) of this population's FFS cost in 2004, followed by prescription drugs ($37.3 billion), and inpatient hospital use ($23.2 billion) (Figure 6.2). The increase in prescription drug spending since 2002 was particularly striking. Expenditures for prescription drugs were nearly 41 percent higher than the $26.5 billion reported in the 2002 *Chartbook.*

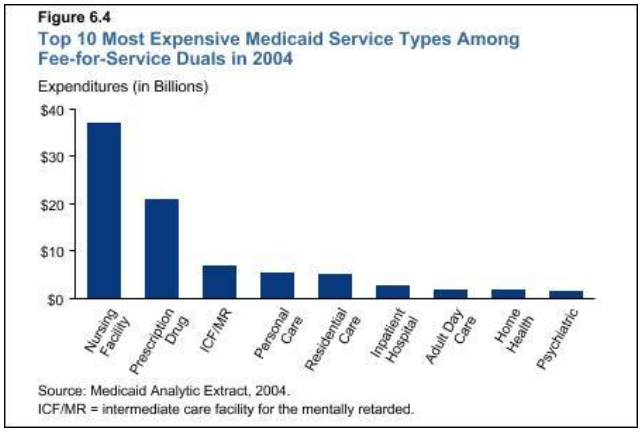


High expenditures may result from a high number of users, high per-user cost, or both.

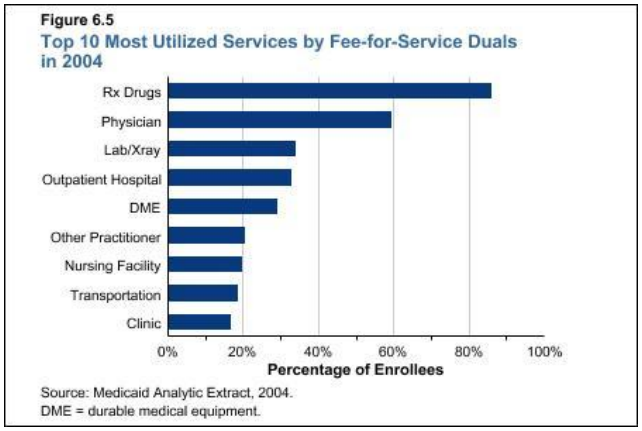
Two-thirds of enrollees used prescription drugs in 2004, making it the most frequently used service (Figure 6.3). On the other hand, two high-expenditure services—nursing facilities and ICFs/MR—were used by relatively few FFS enrollees (4.7 and 5.8 percent, respectively).



Those FFS enrollees who were dually enrolled in Medicare and Medicaid incurred a total of $96.8 billion in FFS Medicaid expenditures and accounted for more than half of the FFS expenditures of all FFS enrollees. Over $36 billion was spent on nursing facility services for duals (Figure 6.4), accounting for 88 percent of all FFS nursing home expenditures in 2004. Other high cost services for duals included prescription drugs ($20.9 billion) and ICF/MR care ($6.8 billion).



Because nearly all duals are over age 64 or disabled, they are more likely than other enrollees to use Medicaid services. Almost twenty percent of FFS duals used nursing facility services in 2004 (Figure 6.5), compared with only 4.7 percent among all FFS enrollees. Dually eligible enrollees were more likely to use nearly every service than were nondual enrollees. (See appendix tables A6.1 to A6.16.)



Composition of FFS Expenditures

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

- *Institutional long-term care (ILTC):* all long-term care services in the LT claims files, including psychiatric services for individuals under age 21 and services provided in nursing facilities, intermediate care facilities for the mentally retarded, and mental hospitals for the aged. Institutional long-term care may include an array of bundled services such as physical therapy and oxygen.
- *Inpatient hospital:* inpatient hospital services; may include some bundled services such as lab tests or prescription drugs filled during a stay.
- *Prescription drugs:* all Medicaid prescriptions filled, except those bundled with inpatient, nursing home, or other services.

We group all other services into three classes:

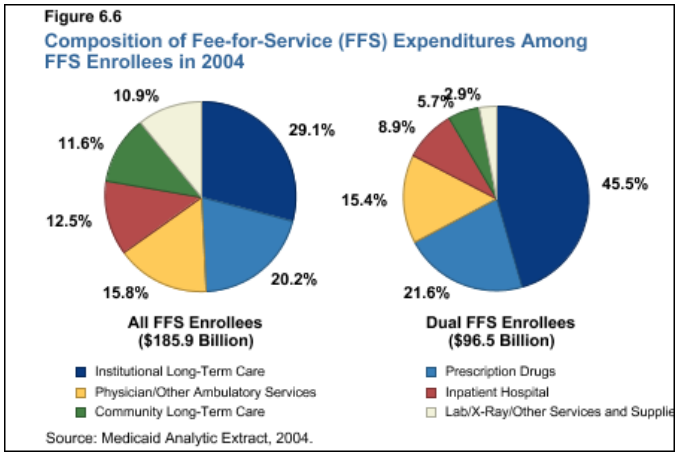
- *Community long-term care*: residential care, home health, personal care services, adult day care, and hospice care.[25]
- *Physician and other ambulatory services*: physician, outpatient hospital, clinic, dental, other practitioners,

[25] Some services commonly regarded as community long-term care are not included in the community long-term care service class. Psychiatric residential care may be classified with psychiatric services under physician and other professional services. Community long-term care provided under Section 1915(c) waivers may be unclassified and grouped under "other services." Transportation, targeted case management, and durable medical equipment—sometimes used for long-term care—are not included.

physical therapy or occupational therapy (PT/OT), rehabilitation, and psychiatric services.

- *Lab, X-ray, supplies, and other wraparound services:* durable medical equipment (DME), transportation, targeted services, personal services, and other services.

Of these six service classes, institutional long-term care accounted for the largest share of FFS Medicaid expenditures among all FFS enrollees (29.2 percent) and among dually enrolled FFS enrollees (45.5 percent) (Figure 6.6). These shares have declined somewhat from their corresponding values in 2002—31.4 percent for all enrollees and 48.8 percent for duals. Spending for prescription drugs increased from 17.0 percent of expenditures in 2002 to 20.2 percent in 2004.



Institutional long-term care expenditures substantially exceeded community-based long-term care expenditures. Among all FFS enrollees, community long-term care services accounted for 11.6 percent ($21.6 billion) of FFS costs, compared with 29.2 percent ($54.3 billion) for institutional long-term care. It is important to bear in mind, however, that most community long-term care services are not mandatory as nursing-facility services are, but rather are covered at State option.[26]

Among FFS duals, almost 46 percent of FFS expenditures ($43.9 billion) were for institutional long-term care, compared with 15.4 percent ($14.8 billion) for community-based services. Because Medicare covers most acute care services for duals, it is expected that Medicaid long-term care and other non-acute care costs would account for a larger portion of expenditures than inpatient care among FFS duals. Use of institutional and community long-term care by FFS duals accounted for more than 77 percent of all FFS long-term care costs incurred by Medicaid FFS enrollees.

The combined totals for institutional and community-based long-term care services accounted for 40.7 percent of all FFS enrollee costs and 60.9 percent of such costs among the subgroup of duals. Because the combined long-term care services represented a substantial portion of Medicaid FFS expenditures for this population, they are explored in more detail below.

[26] As noted earlier, some services not included in this categorization of community long-term care may be used for home- and community-based long-term care support. The most important omission is community care provided under Section 1915(c) waivers, which is categorized as "other services." As a result, this estimate may understate total community long-term care expenditures.

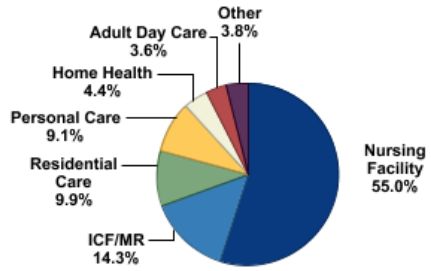
Prescription drugs, inpatient hospital, and outpatient services together accounted for nearly half of total expenditure among Medicaid FFS enrollees in 2004. Because Medicare is first payer for outpatient and inpatient hospital services, these services made up a smaller percentage of overall expenditure among dual FFS enrollees.

Below, we present long-term care utilization and expenditure information by type of service for all FFS enrollees and only supplementary information for FFS duals. See Chapter 5 and appendix tables A6.9 through A6.12 for more detail about FFS long-term care utilization and costs among FFS duals.

Institutional and Community Long-Term Care Services by Type of Service

Nursing facilities accounted for 55.0 percent ($41.7 of $75.9 billion dollars) of all FFS long-term care expenditures for FFS enrollees in 2004 (Figure 6.7). Among duals, nursing facility services accounted for 62.8 percent ($36.9 of $58.8 billion dollars) of FFS long-term care expenditures (data not shown). Other services representing a high percentage of long-term care costs for all FFS enrollees were ICFs/MR (14.3 percent), residential care (9.9 percent), and personal care services (9.1 percent). Combined expenditure for nursing facility and ICF/MR care declined as a share of total long-term care expenditure from 72.8 percent in 2002 to 69.1 percent in 2004. Expenditure for personal care increased from 5.7 percent of long-term care expenditures in 2002 to 9.1 percent in 2004.

Figure 6.7
Composition of Institutional and Community-Based FFS Long-Term Care Expenditures Among FFS Enrollees in 2004

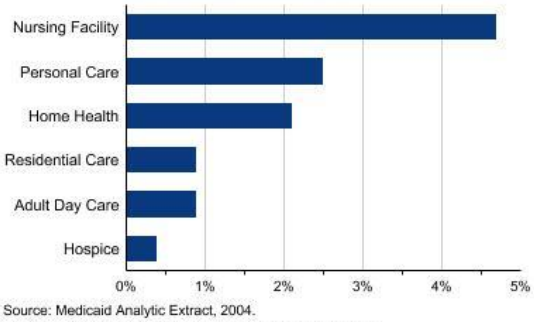


Total Expenditures = $75.9 Billion

Source: Medicaid Analytic Extract, 2004.
ICF/MR = intermediate care facility for the mentally retarded.

Long-term care services were used by a small percentage of Medicaid FFS enrollees. Nursing facility services were the most utilized long-term care service (4.7 percent), followed by personal care (2.5 percent), home health (2.1 percent), residential care and adult day care (both 0.9 percent) (Figure 6.8). FFS duals were more frequent users of long-term care services; Nearly 20 percent used nursing facilities, 8.7 percent used personal care, 4.7 percent used home health services, and 2.8 percent used residential and adult day care (appendix tables A6.9 and A6.11).

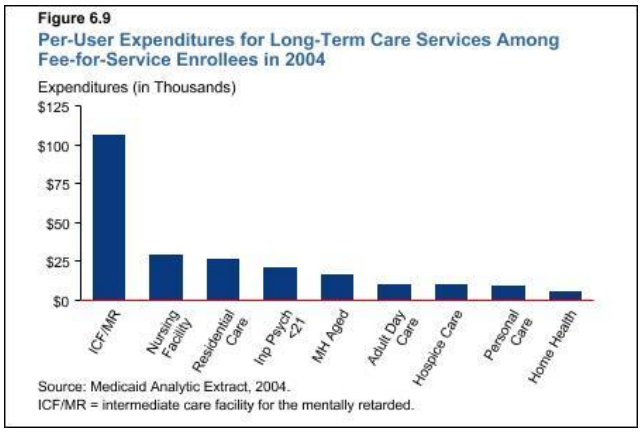
Figure 6.8
Percentage of Fee-for-Service Enrollees Who Used Select Long-Term Care Services in 2004



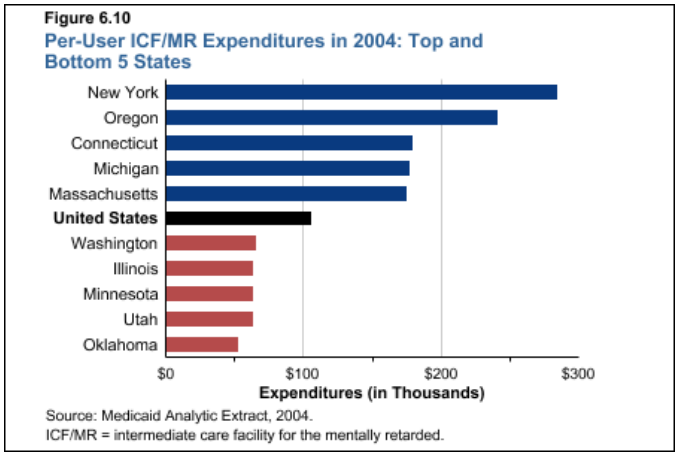
Source: Medicaid Analytic Extract, 2004.
ICF/MR = intermediate care facilty for the mentally retarded.

Expenditures per user were much higher for ICF/MR care than for any other service; average Medicaid expenditures were $105,638 per

enrollee who received services in an ICF/MR in 2004 (Figure 6.9). Other services with high annual per-user costs included nursing facility services ($28,729), residential care ($26,406), and inpatient psychiatric care for those under age 21 ($20,863).



Among States with any FFS ICF-MR utilization, expenditures per user varied greatly; non-zero amounts ranged from $53,484 in Oklahoma to $284,484 in New York (Figure 6.10). MAX data may understate expenditures for ICF/MR in some States. In Washington, for example, Form 64 reports much higher ICF/MR spending than appears in MAX.

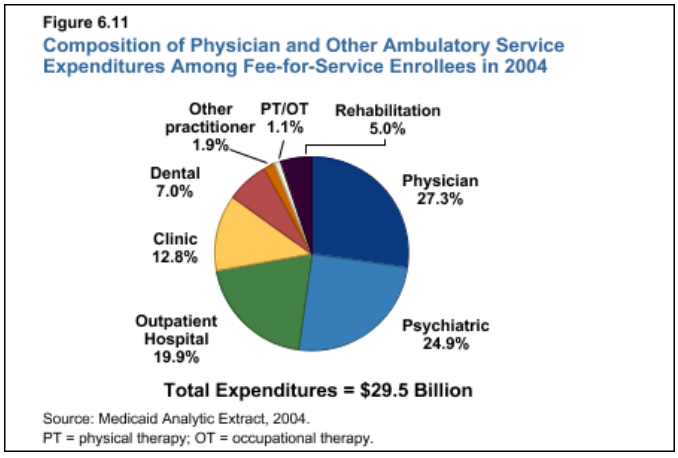


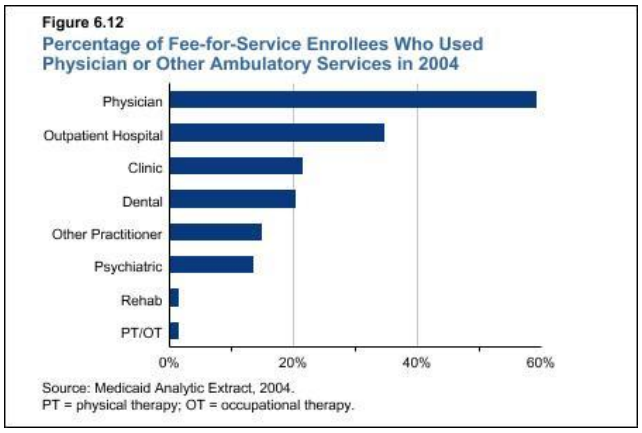
Because FFS duals make up a majority of long-term care users, the composition of their long-term care costs and per-user expenditures were similar to those of all FFS enrollees.

Physician and Other Ambulatory Services

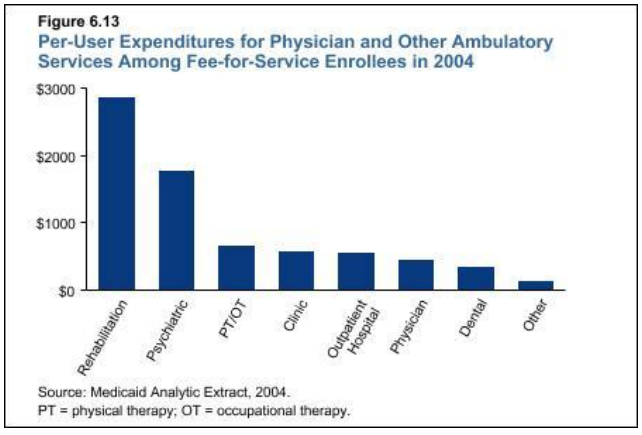
Physician and other ambulatory services accounted for 15.8 percent of FFS expenditures among FFS enrollees and were the most costly category of service after long-term care and prescription drugs.

Physician services were both the largest contributor to physician and other ambulatory service expenditures ($8.0 billion), and the most utilized such service by Medicaid FFS enrollees (59.3 percent) (figures 6.11 and 6.12). Also accounting for substantial shares of expenditure were psychiatric services ($7.3 billion), outpatient hospital services ($5.9 billion), clinic services ($3.8 billion), and dental services ($2.0 billion).





In comparison to other ambulatory services, costs per user were highest for rehabilitation services. Rehabilitation services were used by only 1.7 percent of Medicaid FFS enrollees but represented 5.0 percent of their physician and other ambulatory service expenditures. Figure 6.13 shows that expenditures for rehabilitation services were $2,859 per user in 2004, compared to $1,761 and $660 for psychiatric and PT/OT services, respectively.



Additional summary information about FFS physician and other ambulatory service use and expenditures in 2004 can be found in tables A6.5 and A6.6 for all FFS enrollees and in tables A6.13 and A6.14 for FFS duals.

The results presented here and in associated appendix tables represent 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 utilization and cost for identified subpopulations, for enrollees with particular diagnoses, or for specific geographic regions. It can also be used to construct episodes of Medicaid-funded care surrounding a hospital or nursing-home stay or prior to death. In this way, MAX data can be used to examine how changing patterns of utilization and expenditures are influenced by changing population demographics, State policies, and/or Medicaid coverage rules.

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.[1] 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.

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.

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

[1] Many 1115 waivers also have other provisions such as mandatory managed care coverage. However, the MAS 1115 waiver group only relates to the 1115 eligibility extensions.

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 U.S. legally after 1996 for 5 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).

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.

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.

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

Community-Based Long-Term Care = 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 five MAX service types in community-based long-term care: adult day care, home health, hospice care, personal care services, and residential care.

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 2002.

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 Claims = claims for services utilized under managed care. Encounter claims do not include payment information for services used; MAX encounter claims are believed to be incomplete.

Enrollee = for the purposes of this chartbook, people enrolled in Medicaid for at least one day in 2002 (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, and infertility services.

Federal Fiscal Year (FFY) = the federal fiscal year begins on October 1 and ends on September 30 of the following year; FY 2002 runs from October 1, 2001, through September 30, 2002.

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 2002, with higher matching allocated to states with lower per capita income.

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

Health Maintenance Organization/Health Insuring Organization (HMO/HIO) = health care plans that provide comprehensive medical services to people in return for a prepaid fee.

Inpatient Care = health care received when an individual is admitted to a hospital.

Institutional Long-Term Care (ILTC) = Medicaid covered institutional or inpatient long-term care services. ILTC includes the following four service types: nursing facility services, intermediate care facility services for the mentally retarded (ICF/MR), mental hospital services for the aged, and 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).

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 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 for 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 (MMA) of 2003 = amendment to Title XVIII of the Social Security Act that added Part D—the Medicare prescription drug benefit—to cover the costs of outpatient prescription drugs through prescription drug plans beginning in 2006.

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

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 0.5 person-years enrollment).

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.

Primary Care Case Management (PCCM) = a type of managed care plan that involves the payment of a small premium (often three dollars 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 (55 or older) 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.

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.

Recipient = Medicaid enrollees with any service use are called Medicaid recipients, sometimes referred to as "persons served." Medicaid recipients sometimes include people enrolled in comprehensive managed care.

Restricted-Benefit Enrollees = Medicaid enrollees who receive only limited health coverage. In this chartbook, restricted-benefit enrollees include "unqualified" 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 209(b) States = states that have elected to use more restrictive eligibility requirements 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, Illinois, Minnesota, New Hampshire, Ohio, Virginia, Hawaii, Indiana, Missouri, North Dakota, 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.

State Children's Health Insurance Program (SCHIP) = authorized in 1997, this program provides enhanced federal matching funds to help states expand health care coverage to the nation's uninsured children. SCHIP is jointly financed by federal and state governments and administered by states. States may administer SCHIP through their Medicaid program (referred to as M-SCHIP) or as a separate program (referred to as S-SCHIP); M-SCHIP children are included in the MAX data and reported under the poverty-related maintenance assistance status (MAS).

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

AFDC = Aid to Families with Dependent Children

BHO = behavioral health organization

BOE = basis of eligibility

DME = durable medical equipment

DSH = disproportionate share hospital

EDB = (Medicare) Enrollee DataBase

ESRD = end-stage renal disease

FFS = fee-for-service

FFY = federal fiscal year

FMAP = federal medical assistance percentage

FPL = federal poverty level

HH = home health

HMO/HIO = health maintenance organization/health insuring organization

ICF/MR = intermediate care facility for the mentally retarded

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

MMA = Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003

MN = medically needy

MSIS = Medicaid Statistical Information System

NF = nursing facility

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

PS = MAX person summary file

PT = physical therapy

PYE = person-years enrollment

QDWI = Qualified Disabled and Working Individual

QI = Qualified Individual

QMB = Qualified Medicare Beneficiary

RX = prescription drugs; MAX prescription drug claims file

SCHIP = State Children's Health Insurance Program

SLMB = Specified Low-Income Medicare Beneficiary

SSI = Supplemental Security Income

TANF = Temporary Assistance for Needy Families

UPL = upper payment limit

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