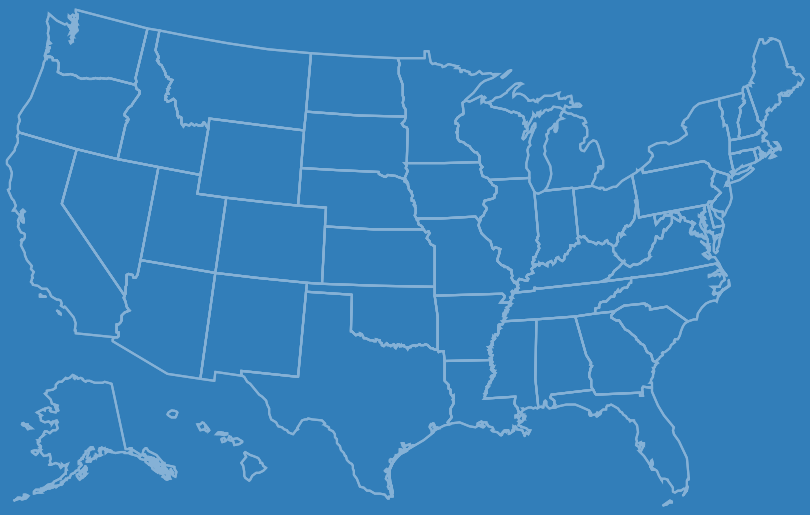
The Medicaid Analytic eXtract 2008 Encounter Data Chartbook



MAX

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Medicaid Analytic eXtract
2008 Encounter Data Chartbook

Rosemary Borck, Ashley Zlatinov, and Susan Williams

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1. Introduction

A. The MAX 2008 Encounter Data Chartbook

Medicaid agencies in many states rely on managed care plans to provide health care services to enrollees. Researchers and policymakers have a growing interest in collecting individual-level data on the use of managed care services—particularly in Medicaid—to assess quality of care and to conduct comparative effectiveness research, which highlights the need for more information about the availability of these data. The Medicaid Analytic Extract (MAX) 2008 Encounter Data chartbook describes the data available in MAX 2008 for this purpose.

The MAX 2008 Encounter Data chartbook is the fourth in a series of MAX chartbooks. The first chartbook showed the types of research on Medicaid enrollment and service utilization that could be conducted using MAX 2002 data (Wenzlow et al. 2007). It provided national and state-level statistics on enrollment patterns among all Medicaid enrollees, including demographic characteristics and managed care enrollment patterns, as well as information about enrollees dually eligible for Medicare and Medicaid (called dual eligibles). The MAX 2002 chartbook also described service utilization and Medicaid expenditures for the enrollees covered on a fee-for-service (FFS) basis. The MAX 2004 and 2008 chartbooks updated and supplemented information from the first chartbook by similarly describing Medicaid enrollment and utilization patterns during 2004 and 2008, respectively, and by documenting key changes over time (Perez et al. 2008; Borck et al. 2012). The MAX 2008 chartbook also presented new analysis based on expanded Medicaid waiver information that became available in MAX starting in 2005. This Encounter Data chartbook expands on the analysis of MAX 2008 data that was presented in the MAX 2008 chartbook by focusing on the records (called encounter records, or encounters) that show service utilization of Medicaid enrollees in prepaid managed care plans.[1] These records were excluded from the analyses of Medicaid service utilization in previous MAX chartbooks, which, as noted, were limited to enrollees covered on a FFS basis.

Encounter Data in MAX

For Medicaid enrollees in managed care plans, MAX includes two types of records: encounter records and claims for the monthly capitated payments that states make to managed care organizations. Encounter records in MAX report the specific services provided to the enrollee under the managed care contract, but they do not include information about the related expenditures for these services. Information on payments to managed care plans in MAX is limited to the capitation claims, which include no information

[1] Encounter records are also commonly referred to as encounter claims.

on the services provided in exchange. By comparison, expenditures and service utilization for Medicaid enrollees covered on a FFS basis are reported together in MAX FFS claims.

Limited information about the quality and completeness of encounter data has long been a barrier to using MAX data for research on the service utilization of managed care enrollees. The Centers for Medicare & Medicaid Services (CMS) instructs states to collect from managed care plans the encounter records that reflect individual-level utilization of services provided under managed care contracts. To ensure managed care enrollees receive the same level and quality of services as FFS enrollees, some states perform comprehensive checks on the encounter data that they receive (Byrd and Verdier 2011). Historically, however, encounter data have not been subjected to the same systematic data quality review undergone by enrollment data and FFS claims in MAX data production. Thus, less has been known about the availability and reliability of these data, and these data were not analyzed in the previous MAX chartbooks.

Recently, analyses of the quality and completeness of encounter data have shown that, in many states, the data may indeed be sufficiently reliable for use in research studies. However, the availability, quality, and reliability of these data have been found to vary across Medicaid eligibility groups (including child enrollees, adult enrollees, aged enrollees, and enrollees with disabilities), by type of MAX claims file (inpatient, long-term care, prescription drugs, and other services), and over time (Byrd et al. 2012; Dodd et al. 2012).[2] For example, a study of encounter data for selected inpatient, prescription drug, and other services in MAX 2008 concluded that many states that used comprehensive managed care plans to cover Medicaid enrollees reported encounter data for these services (Byrd et al. 2012). Moreover, the authors found that more states submitted encounter data in 2008 than in 2007, an increase driven by a rise in the percentage of enrollees in managed care as well as in the reporting of encounter data for existing managed care plans. Most of the encounter data were complete and of comparable quality to FFS data, though their usability varied somewhat by type of service and eligibility group within and across states.

This chartbook supplements the in-depth usability analyses of specific types of encounter data in two ways: (1) by providing an overview of the availability of encounter data in MAX 2008 from state to state by type of managed care plan and (2) by describing the enrollees for whom the encounter data were submitted and the services they received. Chapter 2 describes the role of Medicaid managed care in 2008, providing context for the availability of encounter data across states and enrollee populations. Chapter 3 presents the availability of encounter data for enrollees in comprehensive managed care plans, presenting the percentages of managed care enrollees with any encounter data across states, along with other enrollment characteristics. Chapter 4 describes the types of services for which encounter data were submitted for comprehensive managed care enrollees. Chapter 5 describes the encounter data included in MAX for other populations of managed care enrollees. A glossary of terms is available at the end of the chartbook. Tables that provide more detailed information about Medicaid managed care enrollment and encounter data at the state level are available in an appendix to this chartbook.

Readers should note that this chartbook reflects the Medicaid program as it existed in 2008. In particular, it reflects a baseline of Medicaid enrollment and

[2] Two additional issue briefs analyzing the usability of MAX encounter data are forthcoming. Byrd and Dodd examined the usability of encounter data for inpatient, prescription drug, and selected "other" services in MAX 2007 to 2009. Nysenbaum, Bouchery, and Malsberger examined the usability of encounter data submitted for behavioral health plans in MAX 2009.

utilization established *before* the implementation of the Children's Health Insurance Program Reauthorization Act (CHIPRA) of 2009 and the Affordable Care Act (ACA) of 2010. Both laws have authorized states to expand Medicaid coverage in ways that may be resulting in substantial shifts in their Medicaid populations and their use of Medicaid managed care. Authorized changes include large enrollment shifts, such as ACA-authorized Medicaid expansions to cover all individuals up to 133 percent of the federal poverty level (FPL), including non-disabled adults without dependents. Among smaller changes are the coverage by states of pregnant women through the Children's Health Insurance Program (CHIP), authorized by CHIPRA, and shifts resulting from the option to cover lawfully residing immigrant children and pregnant women in Medicaid and CHIP without a five-year waiting period. This chartbook also reflects a baseline of MAX encounter data before 2010, when CMS and Mathematica Policy Research set out to support states' efforts to improve the quality and completeness of encounter data. Reviews of encounter data from later years may show improvements in reporting among states receiving this technical assistance.

B. The MAX Data Set

The MAX data set contains extensive information about Medicaid enrollees and the Medicaid-financed health services they use during a calendar year. CMS produces MAX data from the Medicaid Statistical Information System (MSIS) data that states submit quarterly to CMS. MAX data contain annual, person-level information about enrollee characteristics and service utilization and expenditures that are more amenable to research than the quarterly MSIS files, which contain enrollment and claims information separately. Specifically, MAX contains individual-level information for all Medicaid enrollees on age, monthly enrollment status, eligibility group, managed care and waiver enrollment, and use and costs of services during each calendar year. MAX also includes claims-level records that can be used for detailed analysis of patterns of service utilization among Medicaid enrollees.

Annual MAX data include eligibility and claims data for all Medicaid enrollees in the 50 states and the District of Columbia. They do not include information about enrollees in Puerto Rico or other U.S. territories. All enrollees in Medicaid-expansion CHIPs are included in MAX, but information for separate CHIP enrollees is limited.[3] Medicaid-expansion CHIP enrollees, but not separate CHIP enrollees, are included in the figures and tables of this chartbook.

The 2008 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 annual service utilization and expenditures data for each person enrolled in Medicaid in the state during the year. The four claims files—inpatient (IP), institutional long-term care (ILTC, or LT), prescription drug (RX), and other services (OT)—contain claim-level information that includes dates of service, expenditures for utilized services, associated diagnostic information, and provider and procedure type for all individual-level Medicaid paid services during the year.

States independently collect and report MSIS data to CMS. Due to differences in their data reporting systems and capabilities, MAX data contain some state-specific anomalous and possibly incomplete or incorrect data elements. When possible, known MSIS data quality issues are corrected in MAX data production, but some remain each year. Data anomalies

[3] States have the option of reporting separate CHIP enrollees in MSIS. In MAX 2008, 25 of the 44 states with separate CHIPs did so. Even for these states, however, information about S-CHIP enrollees in MSIS is limited, and no claims for them are included in MAX data.

and quality issues differ by state and over time. Users should consult MAX anomaly tables, available on the MAX website, for information that may explain unusual patterns in each state's data. (See the MAX resources web links at the end of this chapter.)

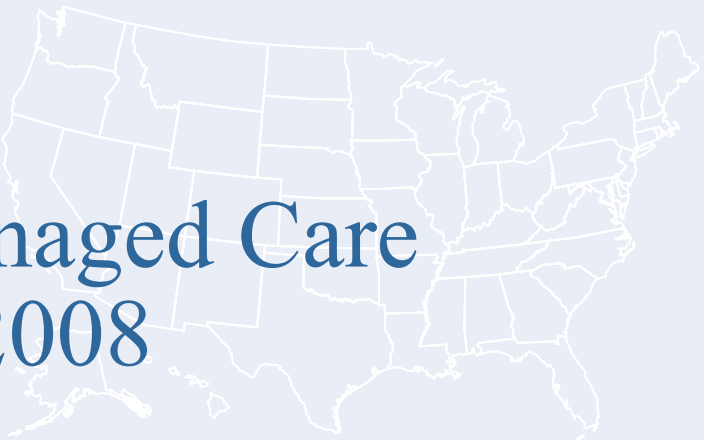
C. MAX Resources

The primary source data for this Encounter Data chartbook are the MAX 2008 PS and claims files. Some of the statistics presented can be found in the summary tables (called validation tables) created by CMS to validate MAX data each year. All of the validation tables and related variable construction documentation are available on the MAX website.

At the time of this writing, MAX data were available for all states for calendar years 1999 through 2008,[4] and for 44 jurisdictions (43 states and the District of Columbia) for 2009. MAX data are protected under the Privacy Act of 1974 and require a data use agreement with CMS to access them. Documentation for MAX and information about accessing the data for research purposes are available at these websites:

- MAX website: [http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/MAXGeneralInformation.html]
- MAX chartbooks: [http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/MAX_Chartbooks.html]
- Technical Assistance for Reporting Managed Care Encounter Data in MSIS: [http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/TechnicalAssistance.html]
- Research Data Assistance Center (ResDAC) (contains information about how to obtain CMS data): [http://www.resdac.org]
- Information on CMS privacy-protected data: [http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/Privacy/index.html]

[4] Maine was unable to report its MSIS inpatient, long-term care, and other claims accurately because it did not have a fully functional data system, so the MAX 2005–2009 files contain only the person-summary (PS) and prescription drug information for the state. Maine PS data are reported throughout the chartbook, but Maine data are excluded from calculations that use claims files.



2. Medicaid Managed Care Coverage in 2008

This chapter describes Medicaid managed care in 2008. As discussed below, state Medicaid programs varied in their use of managed care. As a result, the nature and extent of encounter data available in MAX 2008 can be expected to vary across states and by enrollee populations.

A. Medicaid in 2008

Medicaid is a means-tested entitlement program that provides health care coverage to many of the most vulnerable populations in the United States, including low-income children and their parents and low-income individuals who are aged or have disabilities. Medicaid was enacted in 1965 by Title XIX of the Social Security Act and has become the third largest source of health care spending in the United States, after Medicare and employer-provided health insurance (CMS 2009). In 2008, Medicaid covered almost 62 million people, insuring just over 20 percent of the U.S. population during the year and accounting for about 14 percent of total U.S. health expenditures (CMS 2009). States reported expenditures of almost $300 billion on Medicaid services for enrollees in MAX 2008 (Borck et al. 2012).

States administer Medicaid under guidelines established by the federal government, and the program is financed jointly by federal and state funds. The federal government financed nearly 60 percent of Medicaid outlays in 2008 (CMS 2009), reimbursing states between 50 and 76 percent for services used by Medicaid enrollees and at an even higher rate for children enrolled in Medicaid via CHIP.[5]

To receive federal matching funds, a state's Medicaid program must cover basic health services for all individuals in certain mandatory eligibility groups, including low-income children, low-income parents and pregnant women (known as Section 1931 enrollees), Supplemental Security Income (SSI) recipients, and low-income Medicare beneficiaries (called dual eligibles).[6] States may also extend coverage to several optional groups of enrollees, including "medically needy" individuals whose health care costs have caused them to "spend down" to Medicaid eligibility levels, institutionalized individuals who are aged or have disabilities, participants in Section 1115 waiver demonstrations,[7] and children and pregnant women whose incomes exceed the federal minimum eligibility level (called poverty-related enrollees), as well as a variety of other low-income groups. Within broad federal guidelines, states can choose whether to cover all Medicaid enrollees through managed care plans, on a FFS basis, or through a combination of these approaches.

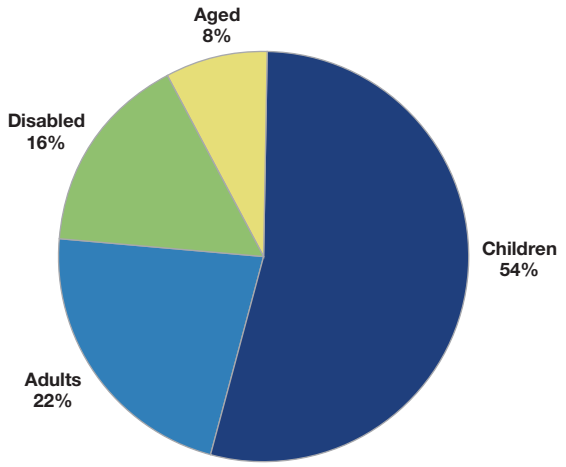
[5] Federal match rates for Medicaid-expansion CHIP enrollees in fiscal year 2008 ranged from 65 percent of expenditures in higher-income states to 83 percent of expenditures in lower-income states (U.S. DHHS 2006).

[6] For more information about Medicaid eligibility requirements and covered populations in 2008, see Borck et al. 2012.

[7] Section 1115 waivers enable states to test new and innovative approaches for providing Medicaid services. States can use 1115 waivers to implement delivery system changes and to expand Medicaid coverage to otherwise ineligible individuals. States must receive approval from CMS for all Section 1115 waivers.

Most Medicaid enrollees qualify for the full range of benefits provided in their states. They can be categorized into four basic eligibility groups: children, adults, individuals with disabilities, and aged individuals. Children, generally including enrollees under age 19, accounted for just over half of all full-benefit Medicaid enrollees in 2008 (Figure 2.1). Adults, primarily pregnant women and caretaker relatives in families with dependent (minor) children, were the next largest group, accounting for about 22 percent.[8] Enrollees eligible on the basis of disabilities (that is, those who were unable to engage in substantial gainful activity due to a medically determinable physical or mental impairment) represented about 16 percent,[9] and enrollees ages 65 and older (aged enrollees)—the smallest group—comprised about 8 percent.

Figure 2.1
Medicaid Enrollment Among Full-Benefit Medicaid Enrollees in 2008, by Basis of Eligibility



Source: Medicaid Analytic Extract, 2008.

[8] In 2008, working-age adults who were not disabled and had no dependent children typically did not qualify for Medicaid. The exceptions were states that obtained Section 1115 Medicaid waivers to cover low-income adults.

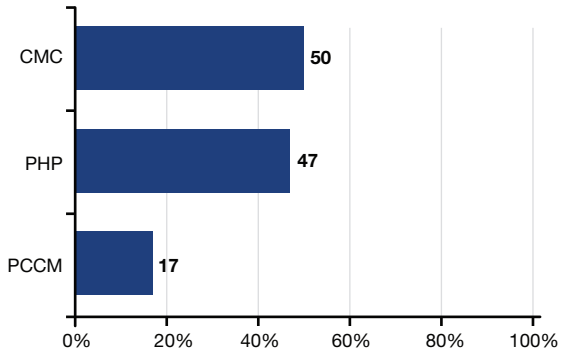
[9] The impairment is defined by whether it can be expected to result in death or whether it has lasted or can be expected to last for a continuous period of at least 12 months.

Some individuals, called "restricted-benefit" enrollees, receive only limited coverage. These include (1) aliens eligible for emergency services only, (2) dual eligibles, who receive Medicaid coverage only for Medicare premiums and co-payments, (3) individuals, primarily women, who receive only family-planning services, and (4) individuals who receive only assistance with the purchase of private insurance. These groups accounted for about 11 percent of Medicaid enrollees in 2008 (Borck et al. 2012). This chartbook excludes restricted-benefit enrollees from all analyses because they are generally not eligible for managed care coverage and because their service-use patterns are distinct from those of full-benefit Medicaid enrollees. Including them could distort average per capita estimates of service utilization, particularly in states with relatively large restricted-benefit populations.

B. Medicaid Managed Care

In 2008, many states used managed care arrangements to provide health care services to full-benefit Medicaid enrollees. Medicaid managed care plans provide a defined bundle of health services in return for a fixed, prepaid, monthly capitation payment from the state Medicaid program. MAX shows enrollment in three types of managed care plans: comprehensive managed care (CMC) plans, prepaid health plans (PHPs), and primary care case management (PCCM) plans. Nationally, half of all full-benefit Medicaid enrollees (50 percent) were in CMC plans at some point in 2008. Almost the same proportion of enrollees (47 percent) were enrolled in PHPs during the year. About 17 percent were in PCCM coverage (Figure 2.2). These plan types differ greatly in the depth and breadth of services that they cover and, thus, in the types of encounter data enrollees can be expected to have.

Figure 2.2
Percentage of Full-Benefit Medicaid Enrollees in Managed Care in 2008, by Type of Plan



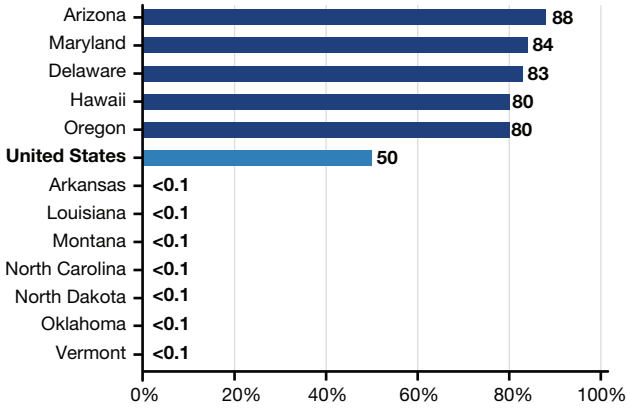
Source: Medicaid Analytic Extract, 2008.
Note: Includes all individuals ever enrolled in managed care plan types during 2008. Individuals may be enrolled in more than one type of managed care plan at a time.
CMC = comprehensive managed care (HMO/HIO or PACE); PHP = prepaid health plan; PCCM = primary care case management.

Types of Medicaid Managed Care Plans in MAX

CMC plans include health maintenance organizations (HMOs), health insuring organizations (HIOs), and Programs of All-Inclusive Care for the Elderly (PACE). For the most part, CMC plans cover enrollees' full range of acute health services. In MAX 2008, 37 states reported enrollment in Medicaid HMOs and HIOs, varying from less than 2 percent of enrollees in Alabama and Iowa to 88 percent of enrollees in Arizona. Twenty-nine states reported enrollment in PACE plans, but PACE enrollment was very limited nationally, covering no more than 1.1 percent of Medicaid enrollees in any state (Table 2.1). Figure 2.3 shows the states with the highest and lowest percentages of full-benefit Medicaid enrollees in CMC plans among the 43 states with enrollment in these plans in 2008. Given the breadth and depth of CMC coverage, enrollees in these plans could be expected to have encounter records for a variety of services each year.

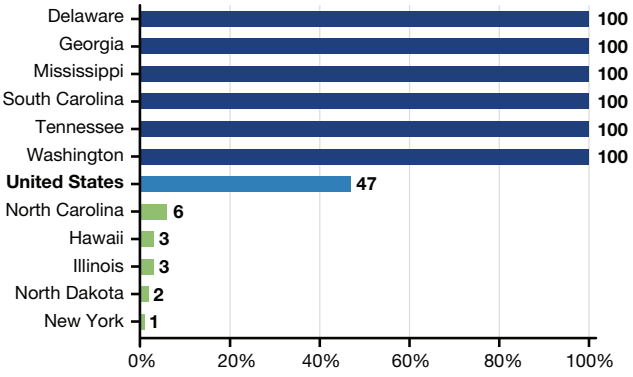
PHPs typically provide more limited services than CMC plans, usually covering defined types of specialty services, such as behavioral health care, dental care, or long-term care. PHP coverage varied considerably by plan type and by state in 2008.

Figure 2.3
Percentage of Full-Benefit Medicaid Enrollees in Comprehensive Managed Care in 2008, Top and Bottom States



Source: Medicaid Analytic Extract, 2008.
Note: Excludes states with no comprehensive managed care enrollment in 2008.

Figure 2.4
Percentage of Full-Benefit Medicaid Enrollees in Prepaid Health Plans in 2008, Top and Bottom States



Source: Medicaid Analytic Extract, 2008.
Note: Excludes states with no enrollment in Prepaid Health Plans in 2008.

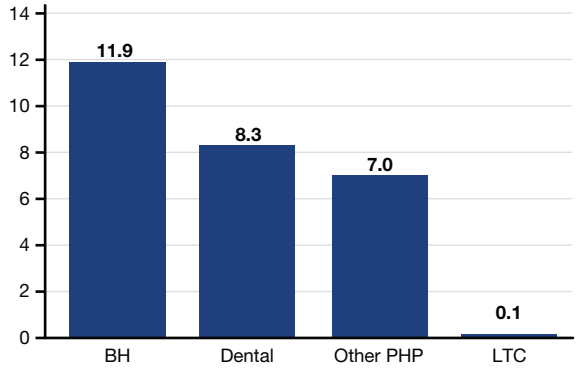
Figure 2.4 shows the states with the highest and lowest percentages of Medicaid full-benefit enrollees in PHPs. Nationally, enrollment ranged from a low of about 100,000 full-benefit individuals in long-term care PHPs to almost 12 million in behavioral health (BH) PHPs (Figure 2.5). As Table 2.1 shows, after BH plans, the most frequently reported types of PHPs in 2008 were identified by states as "other PHPs" (reported in 19 states). Large other PHPs primarily included plans that provided only non-emergency

Table 2.1
Percentage of Full-Benefit Medicaid Enrollees in Managed Care Plans in 2008, by Type of Plan

	Comprehensive Managed Care (CMC)			Prepaid Health Plan (PHP)				
	Any CMC	HMO/ HIO	PACE	Any PHP	BH	Dental	LTC	Other (Description)
Total Number of States	43	37	29	34	20	6	6	19
Total Percentage of Enrollees	50.0	50.0	0.1	46.8	21.6	15.1	0.2	12.8
Alabama	1.6	1.6	0.0	81.5	0.0	0.0	0.0	81.5 (Inpatient PHP)
Alaska	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Arizona	88.0	88.0	0.0	91.8	88.8	0.0	3.7	1.3 (Children's Rehab Services)
Arkansas	<0.1	0.0	<0.1	87.9	0.0	0.0	0.0	87.9 (Transportation)
California	58.7	58.6	<0.1	95.7	0.0	95.7	0.0	<0.1 (Hybrid PCCM)
Colorado	11.4	11.1	0.3	97.9	97.9	0.0	0.0	0.0
Connecticut	30.1	30.1	0.0	0.0	0.0	0.0	0.0	0.0
Delaware	83.4	83.4	0.0	99.9	0.0	0.0	0.0	99.9 (Transportation)
District of Columbia	68.5	68.5	0.0	28.7	0.0	0.0	0.0	28.7 (Transportation)
Florida	43.8	43.8	<0.1	31.8	26.4	9.5	0.0	2.0 (Disease Management)
Georgia	72.4	72.4	0.0	99.9	0.1	0.0	0.0	99.9 (Transportation)
Hawaii	79.6	79.6	<0.1	2.6	2.6	0.0	0.0	0.0
Idaho	0.0	0.0	0.0	74.7	0.0	74.0	0.0	0.6 (Medicaid-Medicare Coordinated PHP)
Illinois	7.1	7.1	<0.1	2.8	0.0	0.0	0.0	2.8 (Primary Health Providers & Community Networks)
Indiana	74.2	74.2	0.0	0.0	0.0	0.0	0.0	0.0
Iowa	1.6	1.6	<0.1	83.5	83.5	0.0	0.0	0.0
Kansas	57.2	57.1	0.1	94.8	94.8	0.0	0.0	0.0
Kentucky	21.9	21.9	0.0	97.8	0.0	0.0	0.0	97.8 (Transportation)
Louisiana	<0.1	0.0	<0.1	0.0	0.0	0.0	0.0	0.0
Maine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maryland	83.8	83.8	<0.1	0.0	0.0	0.0	0.0	0.0
Massachusetts	41.4	40.3	1.1	30.7	30.7	0.0	0.0	0.0
Michigan	71.1	71.1	<0.1	95.5	95.5	19.0	0.0	0.0
Minnesota	71.6	71.6	0.0	0.0	0.0	0.0	0.0	0.0
Mississippi	0.0	0.0	0.0	99.9	0.0	0.0	0.0	99.9 (Transportation)
Missouri	48.7	48.6	<0.1	0.0	0.0	0.0	0.0	0.0
Montana	<0.1	<0.1	<0.1	0.0	0.0	0.0	0.0	0.0
Nebraska	17.4	17.4	0.0	87.5	87.5	0.0	0.0	0.0
Nevada	58.1	58.1	0.0	93.2	0.0	0.0	0.0	93.2 (Transportation)
New Hampshire	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Jersey	75.9	75.9	0.0	0.0	0.0	0.0	0.0	0.0
New Mexico	76.2	76.2	0.1	72.4	69.0	0.0	4.0	0.0
New York	69.7	69.6	0.1	0.5	0.0	0.0	0.5	0.0
North Carolina	<0.1	0.0	<0.1	5.7	5.7	0.0	0.0	0.0
North Dakota	<0.1	0.0	<0.1	1.5	0.0	0.0	0.0	1.5 (Disease Management)
Ohio	78.4	78.4	0.0	0.0	0.0	0.0	0.0	0.0
Oklahoma	<0.1	0.0	<0.1	92.5	0.0	0.0	0.0	92.5 (Hybrid PCCM and Transportation)
Oregon	79.5	79.3	0.2	97.0	94.3	92.9	0.0	0.0
Pennsylvania	63.4	63.3	0.1	93.0	92.7	0.0	<0.1	19.8 (Transportation)
Rhode Island	69.7	69.7	0.1	18.7	0.0	18.7	0.0	0.0
South Carolina	39.2	39.1	0.1	99.9	0.0	0.0	0.0	99.9 (Transportation)
South Dakota	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tennessee	56.2	56.2	<0.1	99.7	99.7	0.0	0.0	0.0
Texas	52.2	52.1	<0.1	11.5	11.5	0.0	0.0	0.0
Utah	0.0	0.0	0.0	89.7	87.7	0.0	<0.1	79.3 (Transportation)
Vermont	<0.1	0.0	<0.1	0.0	0.0	0.0	0.0	0.0
Virginia	65.0	64.9	<0.1	0.0	0.0	0.0	0.0	0.0
Washington	64.7	64.7	<0.1	100.0	100.0	0.0	0.0	0.0
West Virginia	53.6	53.6	0.0	0.0	0.0	0.0	0.0	0.0
Wisconsin	64.7	64.6	0.1	5.7	0.1	0.0	2.2	3.4 (Independent Care PHP)
Wyoming	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Medicaid Analytic Extract, 2008.
Note: Includes all individuals ever enrolled in managed care plan types during 2008. Individuals may be enrolled in more than one type of managed care plan at a time.
CMC = (HMO/HIO or PACE); BH = behavioral health plan; LTC = long-term care plan; PCCM = primary care case management.

Figure 2.5
Number of Full-Benefit Medicaid Enrollees in Prepaid Health Plans in 2008, by Type of Plan (in Millions)



Source: Medicaid Analytic Extract, 2008.
Notes: Includes all individuals ever enrolled in managed care plan types during 2008. Individuals may be enrolled in more than one type of managed care plan at a time.
"Other PHP" includes enrollment in PHPs designated as "other PHPs" by states in MSIS.
BH = behavioral health; PHP = prepaid health plan; LTC = long-term care.

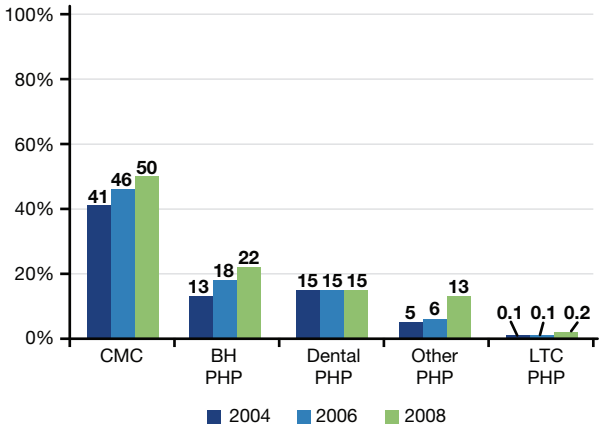
transportation services.[10] Smaller plans also identified as other PHPs varied across states, including plans covering children's rehabilitation services (Arizona), hybrid PCCM services (California), disease management (Florida and North Dakota), independent care for seniors (Wisconsin), coordinated care for dual eligibles (Idaho), and primary health provider and community network services (Illinois). Only six states reported enrollment in dental PHPs, but in a few (including California) these plans covered almost all Medicaid enrollees, resulting in a relatively high national dental PHP enrollment of about 7 million in 2008. Conversely, long-term care plans were also reported by six states, but these plans had the lowest enrollment nationally, with no more than 4 percent of Medicaid enrollees in any state. Because of the targeted nature of the coverage, enrollment in PHPs could generally be expected to result in encounter records for only the narrowly defined types of services covered by most of these plans.

[10] Exceptions were Alabama and Oklahoma. Both states maintained large, non-emergency transportation other PHPs. Alabama's PHP provided inpatient coverage for a variety of Medicaid enrollees. In addition to a transportation PHP, Oklahoma offered a large hybrid PCCM program, which provided a monthly capitation payment to primary care providers to cover a fixed set of primary and preventive care services.

PCCM plans provide only case management services and are the least comprehensive type of managed care plan in MAX. States generally make small, capitated administrative payments to these plans, often only a few dollars a month, with all other services provided on a FFS basis. Because of this, information on service utilization and expenditures for PCCM enrollees is available in the MAX FFS claims data. As PCCM enrollees generally will not have encounter data, enrollment in these programs is treated as FFS enrollment throughout this chartbook.

Nationally, Medicaid managed care enrollment has increased notably in recent years. In particular, CMC enrollment increased 22 percent between 2004 and 2008, from 41 to 50 percent of all Medicaid enrollees (Figure 2.6). Among PHPs, BH enrollment increased from 13 to 22 percent of Medicaid enrollees during the same period, and enrollment in other PHPs increased from 5 to 13 percent. Enrollment in dental PHPs remained stable, at around 15 percent of enrollees.

Figure 2.6
Percentage of Full-Benefit Medicaid Enrollees in Comprehensive Managed Care or Prepaid Health Plan in 2004–2008, by Type of Plan

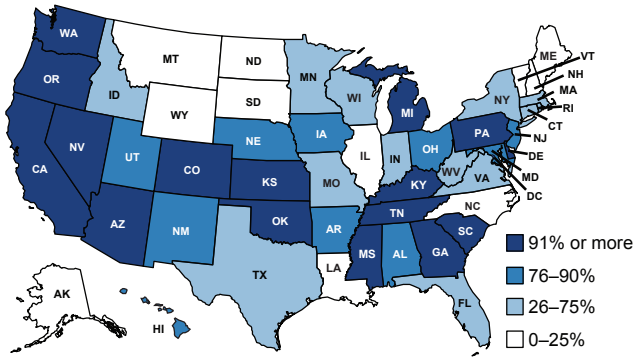


Source: Medicaid Analytic Extract, 2004, 2006, 2008.
Notes: Includes all individuals ever enrolled in managed care plan types during 2004–2008. Individuals may be enrolled in more than one type of managed care plan at a time.
Figure does not include primary care case management enrollment because these enrollees generally are not expected to have encounter records.
CMC = comprehensive managed care (HMO/HIO or PACE); BH = behavioral health; PHP = prepaid health plan; Other PHP = plans designated as other types of prepaid health plans by the state; LTC = long-term care.

The diversity of managed care plan types and differences in the composition of managed care enrollee populations across states resulted in considerable variation in the depth and breadth of services covered under managed care across states in 2008. In 17 states, at least 91 percent of full-benefit Medicaid enrollees were covered by PHP or CMC plans, whereas 5 states (Alaska, Maine, New Hampshire, South Dakota, and Wyoming) reported no CMC or PHP enrollment during the year (Figure 2.7).[11]

Nationally, Medicaid paid $68.7 billion in capitated payments to managed care plans in 2008, although this figure may be somewhat of an underestimate because the completeness of capitation payment data in MAX varies by state and managed care plan.[12]

Figure 2.7
Percentage of Full-Benefit Medicaid Enrollees in Comprehensive Managed Care or Prepaid Health Plans in 2008



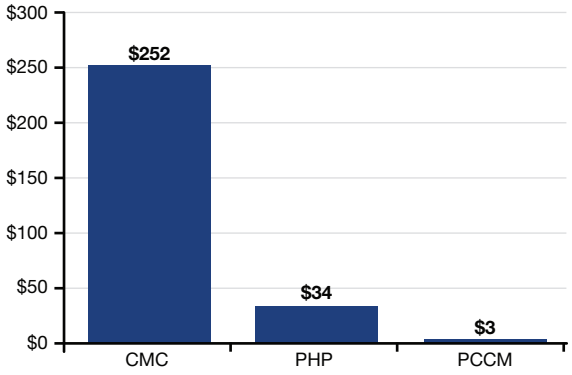
Source: Medicaid Analytic Extract, 2008.
Notes: Includes all individuals ever enrolled in managed care plan types during 2008. Individuals may be enrolled in more than one type of managed care plan at a time.
Figure does not include primary care case management enrollment because these enrollees generally are not expected to have encounter claims.

[11] In 2008, New Hampshire had an active disease management PHP that was not reported in MSIS. This plan does not appear in MAX.

[12] Although data on capitation payments were generally complete in MAX 2008, 6 of the 34 states with PHP enrollees did not report them for PHP plans in 2008. These included Mississippi (transportation PHP), Nebraska (BH PHP), New York (long-term care PHP), North Dakota (disease management PHP), Rhode Island (dental PHP), and Washington (BH PHP). Of the 43 states with CMC enrollment, 38 reported at least some capitation payments to these plans.

Nearly 88 percent of this amount comprised payments to CMC plans, 12 percent was for PHP plans, and less than 1 percent was spent on premiums for PCCM. The distribution of payments reflects the costs and services typically covered by each type of plan. Average monthly payments per plan enrollee in 2008 were $252 for CMC, $34 for PHPs, and $3 for PCCM plans (Figure 2.8). The size of these capitation payments support the assumptions, first, that the number and extent of services provided by CMC plans greatly exceeded those provided through PHPs, and, second, that PCCM plans provided few or no services (other than coordination services) to most Medicaid enrollees in 2008.

Figure 2.8
Average Capitated Payments per Person per Month in Medicaid Managed Care in 2008, by Type of Plan



Source: Medicaid Analytic Extract, 2008.
CMC = comprehensive managed care (HMO/HIO or PACE);
PHP = prepaid health plan; PCCM = primary care case management.

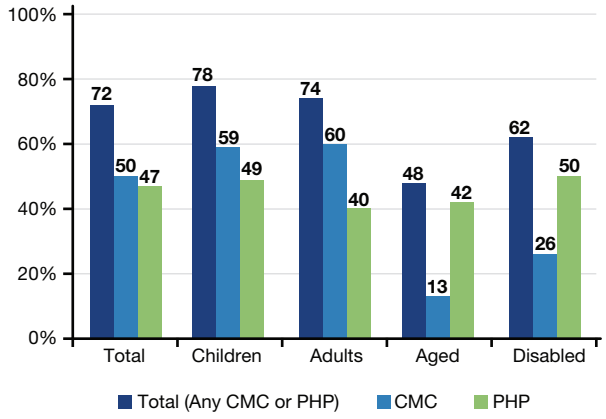
Populations Enrolled in Medicaid Managed Care

Medicaid Eligibility Groups

Among the four primary Medicaid eligibility groups (children, adults, aged, and people with disabilities), enrollment in Medicaid managed care was generally highest among children and adults; states less frequently enrolled individuals who were aged or had disabilities in managed care, particularly in CMC.

Nationally, about 78 percent of Medicaid children and 74 percent of adults were enrolled in CMC or PHP coverage in 2008, with about 60 percent of these enrollees in CMC plans (Figure 2.9). By comparison, about 48 percent of aged enrollees and about 62 percent of enrollees with disabilities were in CMC or PHPs. Managed care enrollment among these groups, however, was primarily limited to PHP coverage, with only 13 percent of aged enrollees and 26 percent of enrollees with disabilities in CMC plans (Figure 2.9).

Figure 2.9
Percentage of Full-Benefit Medicaid Enrollees in Comprehensive Managed Care and Prepaid Health Plans in 2008, by Basis of Eligibility



Source: Medicaid Analytic Extract, 2008.
Notes: Includes all individuals ever enrolled in managed care plan types during 2008. Individuals may be enrolled in more than one type of managed care plan at a time.
Figure does not include primary care case management enrollment because these enrollees generally are not expected to have encounter records.
CMC = comprehensive managed care (HMO/HIO or PACE); PHP = prepaid health plan.

Managed care enrollment in many states mirrored this national pattern. Hawaii and Rhode Island, for example, covered more than 90 percent of Medicaid children and adults in CMC plans, but enrolled few individuals who were aged or had disabilities in this type of coverage (see Appendix Tables A2.1–A2.5). Among the few states that differed from this pattern was Arizona, which covered most enrollees in all eligibility groups in CMC plans, including about 61 percent of aged enrollees and about 72 percent of enrollees with disabilities. Minnesota covered about 65 percent of aged enrollees in CMC plans that specifically targeted the health care needs of this population. These differences indicate that the nature and scope of encounter data may be expected to vary with the composition of the managed care population in each state. For this reason, this chartbook often presents separately the availability of encounter data for each of the four Medicaid eligibility groups.

As noted above, the population of Medicaid enrollees within each eligibility group includes individuals with diverse pathways to Medicaid eligibility and health care needs. The population of children, for example, can include Section 1931 cash assistance recipients, medically needy enrollees, low-income "poverty-related" enrollees covered under state poverty-level expansions, Section 1115 waiver demonstration enrollees, and enrollees who qualified under a mixture of "other" criteria, including foster care children and enrollees eligible for transitional medical assistance.[13] In 2008, there did not appear to be a notable relationship between eligibility pathway and managed care enrollment (Figures 2.10 and 2.11). Moreover, state reporting of encounter data would not be expected to vary across eligibility pathways. For these reasons, analyses shown in this chartbook do not disaggregate the four primary eligibility groups by eligibility pathway.

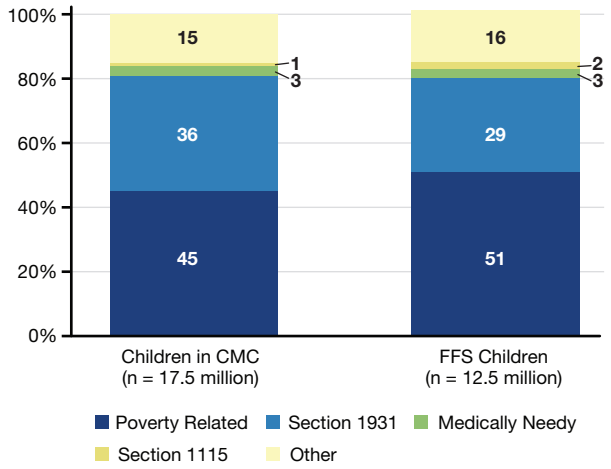
Full-Benefit Medicaid-Medicare Dual Eligibles

Within the population of 55.2 million full-benefit Medicaid enrollees who were aged or had disabilities in 2008 was a subpopulation of about 7.3 million enrollees (about 13 percent) who were dually enrolled

[13] For more detailed information about eligibility rules and enrollment according to the five financial eligibility criteria in MAX 2008, see Borck et al. 2012.

Figure 2.10

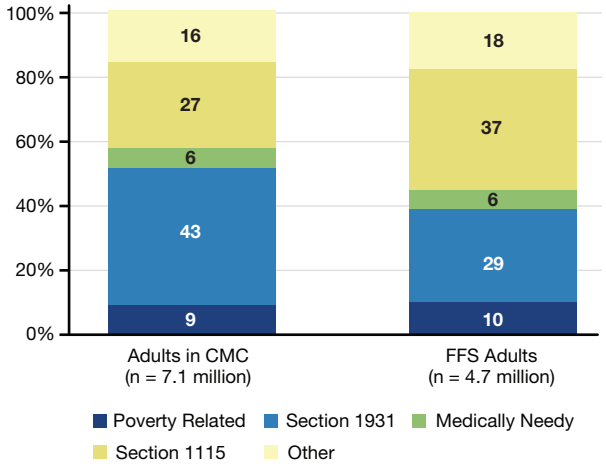
Full-Benefit Children Enrolled in Comprehensive Managed Care Compared to Fee-for-Service Children in 2008, by Pathway to Eligibility



Source: Medicaid Analytic Extract, 2008.
Notes: CMC population includes states reporting at least 5 percent of full-benefit children in comprehensive managed care.
FFS population includes all states.
Number in parentheses indicates total enrollees in each population of children. Total for FFS children adds to 101 percent due to rounding.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service; Section 1931 = enrollees who would have qualified under pre-welfare reform rules; Section 1115 = state demonstration waiver to extend Medicaid coverage to groups that would otherwise not be covered; Medically Needy = enrollees receiving coverage on basis of medical need and who have incurred sufficiently high medical costs to bring net income below state-determined level; Poverty Related = enrollees qualifying through any poverty-related Medicaid expansion since 1988; Other = mixture of mandatory and optional coverage groups not reported under other categories.

Figure 2.11

Full-Benefit Adults Enrolled in Comprehensive Managed Care Compared to Fee-for-Service Adults in 2008, by Pathway to Eligibility



Source: Medicaid Analytic Extract, 2008.
Notes: CMC population includes states reporting at least 5 percent of full-benefit adults in comprehensive managed care.
FFS population includes all states.
Number in parentheses indicates total enrollees in each population of adults. Total for CMC adults adds to 101 percent due to rounding.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service; Section 1931 = enrollees who would have qualified under pre-welfare reform rules; Section 1115 = state demonstration waiver to extend Medicaid coverage to groups that would otherwise not be covered; Medically Needy = enrollees receiving coverage on basis of medical need and who have incurred sufficiently high medical costs to bring net income below state-determined level; Poverty Related = enrollees qualifying through any poverty-related Medicaid expansion since 1988; Other = mixture of mandatory and optional coverage groups not reported under other categories.

in Medicare (dual eligibles).[14] As noted above, enrollees who were aged or had disabilities had generally low rates of CMC enrollment, and the dually-eligible population has historically represented especially low rates of CMC enrollment. Health coverage for dual eligibles can be fragmented across Medicare and Medicaid. As first payer of overlapping services, Medicare is responsible for covering most basic and acute health services (including inpatient and ambulatory services), while Medicaid covers some benefits that Medicare does not, such as long-term care and dental care.[15] Medicare, for example, would cover most inpatient hospital care or outpatient physician visits, with Medicaid covering only co-payments or coinsurance fees on these services for duals. This fragmented coverage is one reason states have historically excluded dual eligibles from coverage in Medicaid managed care: Medicare covers many of the acute care services typically covered under these types of plans. Thus, when dual eligibles are enrolled in Medicaid CMC plans, the content of encounter data for dual eligibles may be expected to differ from that of nonduals. (State-level enrollment for dual eligibles and aged and disabled nonduals in managed care are in Appendix Tables A2.6 and A2.7, respectively.)

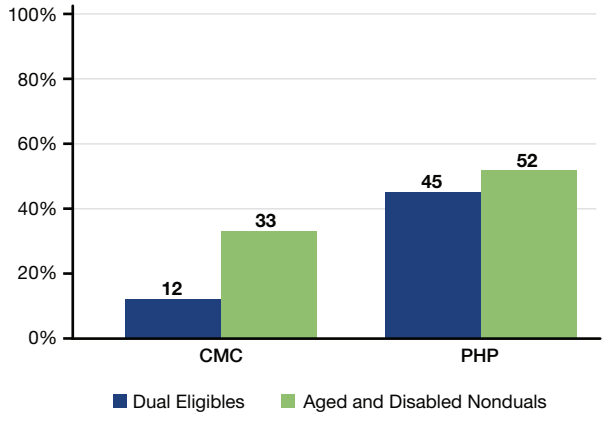
[14] Dual eligibles are Medicaid enrollees who are also enrolled in Medicare on the basis of being aged or disabled. Most aged Medicaid enrollees are dually eligible for Medicare, although those who are not citizens or permanent residents or who did not work long enough in a job where Medicare taxes were paid may not be. The population of dual eligibles in this chartbook includes individuals who were enrolled in Medicare during their entire period of Medicaid enrollment in 2008, omitting the few who were duals for only part of the year to sharpen the focus on the experiences of people with dual enrollment.

[15] For more information about dual eligibles in MAX 2008, see Borck et al. 2012.

In 2008, about 90 percent of full-benefit dual eligibles (about 6.6 of the 7.3 million) were dually enrolled for their entire period of Medicaid enrollment that year. Nationally, only about 12 percent of those who were always dual eligibles were enrolled in CMC, compared to about 33 percent of aged and those with disabilities who were never dually enrolled (nonduals) that year (Figure 2.12). Despite the generally low national rate, some states did enroll substantial numbers of dual eligibles in these plans. Texas, for example, included them in its STAR+ waiver program, which integrates the delivery of acute and long-term care services through the managed care system to Medicaid enrollees living in the community who are aged or have disabilities. As Figure 2.13 shows, 13 states enrolled at least 5 percent of dual eligibles in CMC in 2008; 3 of these (Arizona, Oregon, and Tennessee) enrolled over 50 percent.

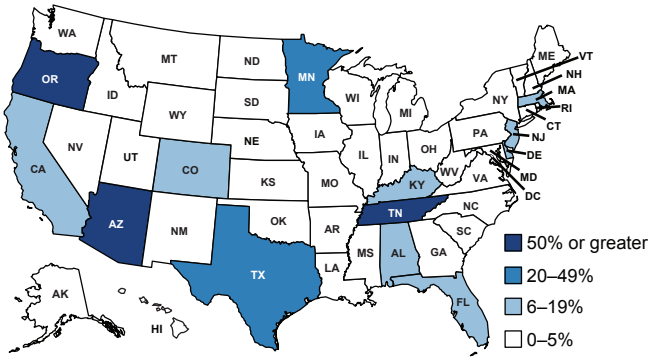
Enrollment in PHPs among dual eligibles was more similar to that for nonduals who were aged or had disabilities—about 45 percent versus about 52 percent, nationally. States generally clustered at the ends of the spectrum, either enrolling few or the majority in PHPs (Figure 2.14). For example, the non-emergency transportation PHPs in Delaware, Georgia, Mississippi, and Washington covered all full-benefit Medicaid enrollees, including dual eligibles. By comparison, Texas enrolled less than 10 percent of dual eligibles in a BH PHP. Seventeen states reported 90 percent or more duals with PHP coverage, while 27 reported less than 10 percent.

Figure 2.12
Percentage of Aged and Disabled Enrollees in Medicaid Managed Care in 2008, by Dual-Eligibility Status and by Plan Type



Source: Medicaid Analytic Extract, 2008.
Notes: The dual-eligible population includes individuals who were enrolled in Medicare for the entire duration of their Medicaid enrollment in 2008. The population of aged and disabled nonduals includes full-benefit aged and disabled enrollees who were never dually enrolled in Medicare in 2008. Includes individuals who were ever enrolled in managed care in 2008. Individuals may be enrolled in more than one type of managed care plan at a time.
CMC = comprehensive managed care (HMO/HIO or PACE); PHP = prepaid health plan; PCCM = primary care case management.

Figure 2.13
Percentage of Dual Eligibles Enrolled in Comprehensive Managed Care in 2008, by State

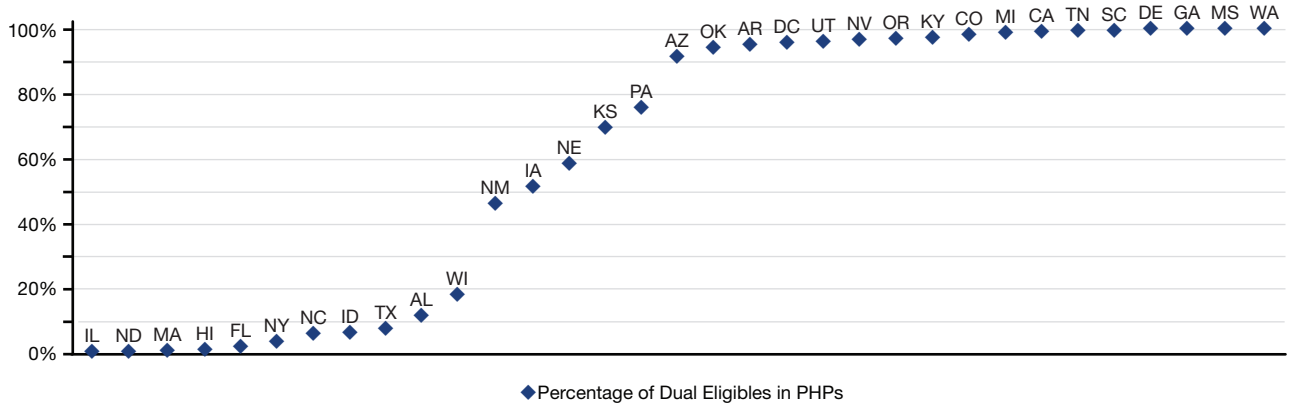


Source: Medicaid Analytic Extract, 2008.
Notes: Dual-eligible population includes individuals who were enrolled in Medicare for the entire duration of their Medicaid enrollment in 2008. Comprehensive managed care = HMO/HIO or PACE.

Managed Care Plan Combinations

Medicaid enrollees can be in more than one type of managed care plan at a time. For example, some services, such as BH care or dental coverage, may be "carved out" of (that is, excluded from) CMC coverage. Enrollees in these CMC plans may also be enrolled in PHPs that provide BH or dental services. Alternatively, a state may choose to provide most Medicaid services on a FFS basis but contract with a BH or non-emergency transportation plan to provide these specialty services. A state may also choose to enroll only some Medicaid populations in CMC (such as children or adults) but include all enrollees in a BH plan, resulting in various combinations of managed

Figure 2.14
Percentage of Dual Eligibles Enrolled in Prepaid Health Plans in 2008, by State

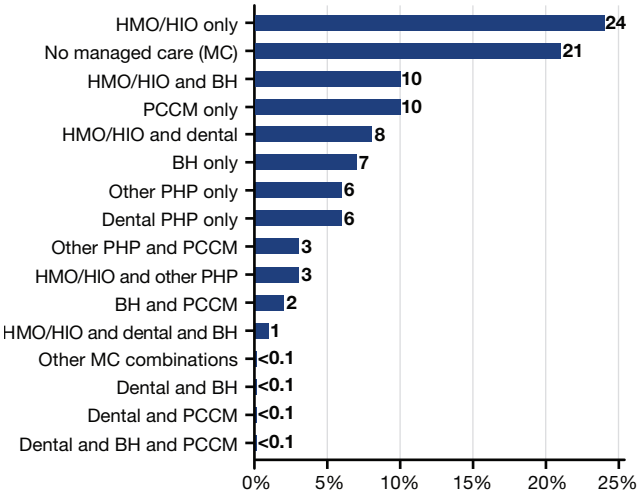


Source: Medicaid Analytic Extract, 2008.
Notes: Dual-eligible population includes individuals who were enrolled in Medicare for the entire duration of their Medicaid enrollment in 2008. Alaska, Connecticut, Indiana, Louisiana, Maine, Maryland, Minnesota, Missouri, Montana, New Hampshire, New Jersey, Ohio, Rhode Island, South Dakota, Vermont, Virginia, West Virginia, and Wyoming did not enroll any dual eligibles in PHPs in 2008 and are excluded from the figure.

care plans within the state Medicaid population. The nature of encounter data for each enrollee could be expected to vary depending on his or her combination of managed care plans during the year. Moreover, an enrollee's combination of managed care plans could also be expected to affect the types of services that would be covered on a FFS basis.

Figure 2.15 shows the percentages of Medicaid enrollees with different combinations of managed care plans in June 2008. The most common enrollment status, by a considerable margin, provided coverage in only an HMO/HIO plan to about 24 percent of Medicaid enrollees. As the figure shows, some HMO/HIO enrollees also had coverage from PHPs, including those with BH coverage (10 percent of Medicaid enrollees), dental coverage (8 percent), and, less frequently, other PHP coverage (3 percent). Nationally, about 7 percent of enrollees had managed care enrollment limited to BH coverage, with 6 percent covered by dental plans or other PHPs. Managed care coverage for about 10 percent of enrollees was limited to PCCM plans, while about 21 percent of enrollees had no managed care enrollment that month. (See Appendix Table A2.8 for state-level managed care combinations in June 2008.)

Figure 2.15
Percentage of Full-Benefit Medicaid Enrollees in June 2008, by Combination of Managed Care Plans



Source: Medicaid Analytic Extract, 2008.
Notes: Includes all full-benefit enrollees in June 2008, which is slightly lower than the percentage of full-benefit Medicaid enrollees with any managed care enrollment during the year. All enrollees are assigned to one managed care combination. HMO/HIO = health maintenance organization/ health insuring organization; BH = behavioral health; PCCM = primary care case management; Other PHP = plans designated as other prepaid health plans by the state in MSIS.

Because CMC coverage includes the broadest range of services, the next two chapters focus on all CMC enrollees, regardless of their enrollment in PHPs during 2008. Chapter 3 examines the extent to which CMC enrollees had any encounter data in 2008. Chapter 4 describes the types of services for which encounter data were submitted.

3. Encounter Data for Comprehensive Managed Care Enrollees

This chapter describes the extent to which any encounter data were available in MAX 2008 for enrollees in Medicaid CMC plans. Service utilization patterns varied considerably among enrollees by eligibility group and by the benefit package for CMC coverage in each state, but this chapter offers basic information about the availability of encounter data in MAX 2008. Moreover, this analysis enables some broad comparisons of the availability of encounter data across states, including identifying which states submitted little or no encounter data for CMC enrollees in MAX 2008.

A. Population Included in Encounter Data Analysis

In the course of providing technical support to improve reporting of encounter data in MSIS, Mathematica and CMS have documented the difficulty states can face in collecting these data from managed care plans and uniformly reporting them. First, numerous entities are involved in the collection, production, and use of encounter data, including providers, managed care organizations, contractors, and other state agencies, and the relationships between the entities involved vary across states (Byrd and Verdier 2011).[16] Based on the complexity of reporting these data and the instability of estimates based on very small numbers of enrollees, analyses of encounter data in this chartbook focus on states that covered a minimum of 5 percent of full-benefit Medicaid enrollees in managed care in 2008. Meeting this minimum threshold signifies that enrollment in a specific type of managed care plan or within a specific population was sufficiently meaningful during 2008 to allow assessment of the availability and content of encounter data for these enrollees. For example, for Chapters 3 and 4, a state that covered at least 5 percent of all full-benefit enrollees in CMC plans was included in analysis of the availability of encounter data for CMC plans. A state that covered less than 5 percent of aged enrollees in CMC plans was excluded from analysis of the availability of encounter data for CMC plans among aged enrollees. Similarly, in Chapter 5, a state that covered less than 5 percent of enrollees in PHPs was excluded from analysis of encounter data for PHPs.

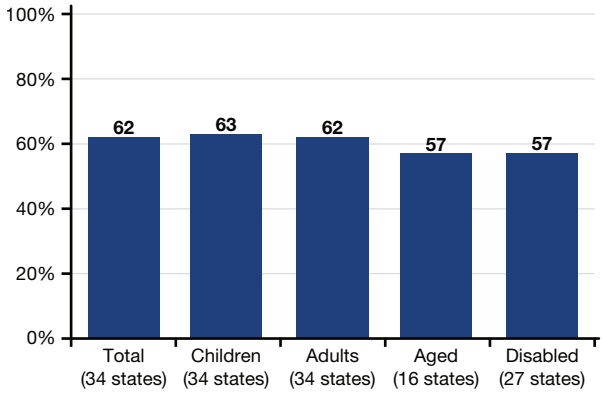
B. Encounter Data for CMC Enrollees in 2008

In 2008, 34 states covered at least 5 percent of full-benefit Medicaid enrollees in CMC plans. An initial indicator of the availability of encounter data is the proportion of CMC enrollees who had any such data during the year. As Figure 3.1 shows, about 62 percent of CMC enrollees had any encounter data in MAX 2008. (Appendix Table A3.1 shows state-level reporting of encounter data.)

[16] Many entities also provide services to FFS enrollees, but since the state is the only payer, collection and processing are less complex for these claims.

As discussed in Chapter 2, children and adults were the populations most frequently enrolled in CMC plans, and the percentage of those enrollees with encounter data mirrored the total CMC rate of 62 percent (63 percent of children and 62 percent of adults). In 2008, 16 states covered at least 5 percent of aged enrollees in CMC plans; of these enrollees, about 57 percent had encounter data during the year. Similarly, 27 states covered at least 5 percent of enrollees with disabilities in CMC plans; 57 percent of these enrollees had encounter data in 2008 (Figure 3.1). Although service utilization varies across enrollees, most Medicaid enrollees could be expected to use at least one Medicaid-covered service during the year.

Figure 3.1
Percentage of Comprehensive Managed Care Enrollees with Any Encounter Data in 2008, by Basis of Eligibility

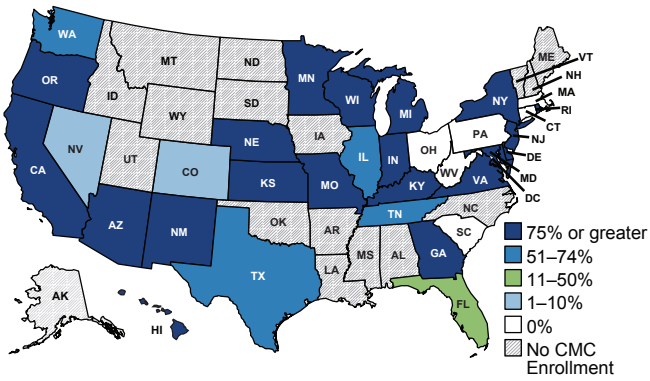


Source: Medicaid Analytic Extract, 2008.
Note: Includes states that enrolled at least 5 percent of full-benefit Medicaid enrollees in comprehensive managed care (HMO/HIO or PACE) in 2008.

Though differences in state CMC populations suggest a need for caution in making broad, cross-state comparisons, Figure 3.2 highlights the considerable variation among states in their reporting of any encounter data. One clear pattern emerges. In 2008, states tended to submit encounter data for either very few or a large majority of CMC enrollees. Of the 34 states that enrolled less than 5 percent of enrollees in CMC plans 7 submitted no encounter data in MAX 2008.[17] Two additional states (Nevada and Colorado) submitted encounter data for less than 10 percent of CMC enrollees. Limited encounter data reporting in these states may have numerous causes. For example, some states, such as South Carolina, have historically separated their encounter data and FFS claims, storing the data in different systems, using different coding schemes, including different levels of detail in the two types of records, and giving oversight responsibility to different groups within the state Medicaid agency (Byrd and Verdier 2011). In these states, combining the two types of data and standardizing them represents a considerable undertaking. Other states may not have received encounter data from managed care organizations in 2008 because the organizations were not contractually required to submit the data (Byrd and Verdier 2011). By comparison, in 20 of the 34 CMC states, at least 75 percent of enrollees had encounter data. National estimates of the percentage of CMC enrollees with encounter data are considerably reduced when the 7 states with no encounter data are included. As the map indicates, in many states the percentage of CMC enrollees with encounter data was much greater than the national average of 62 percent suggests.

[17] The seven states were Connecticut, the District of Columbia, Massachusetts, Ohio, Pennsylvania, South Carolina, and West Virginia.

Figure 3.2
Percentage of Comprehensive Managed Care Enrollees with Any Encounter Data in 2008, by State



Source: Medicaid Analytic Extract, 2008.
Notes: Connecticut, District of Columbia, Massachusetts, Ohio, Pennsylvania, South Carolina, and West Virginia did not report any encounter data for comprehensive managed care enrollees in 2008.
CMC = comprehensive managed care (HMO/HIO or PACE); No CMC = Less than 5 percent of full-benefit Medicaid enrollees were in CMC in 2008.

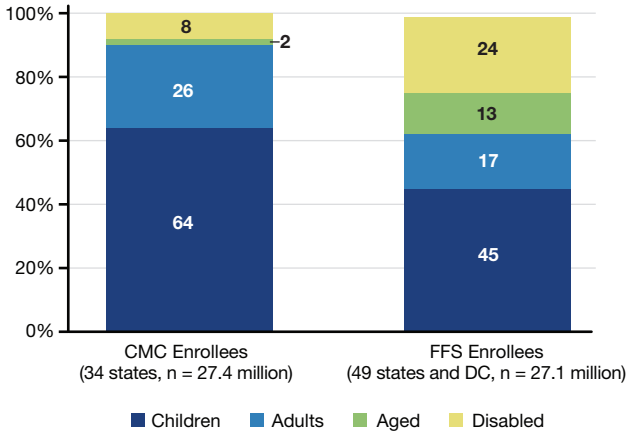
Comparisons to Fee-for-Service Claims in MAX 2008

Broad comparisons to FFS claims for the full-benefit Medicaid enrollees who were never covered by CMC in 2008 (hereafter called FFS enrollees) offer context for the percentage of CMC enrollees with encounter data. FFS claims undergo detailed quality review during the MAX production process. Though there are known data anomalies and variations in FFS claims across states, at a national level these data provide a unique benchmark for encounter data in MAX.[18]

Substantial differences between the populations enrolled in CMC and those covered on a FFS basis should be considered when comparing encounter and FFS data. Figure 3.3 compares the national FFS population in 2008 with the CMC population in the 34 states that have 5 percent of enrollees in CMC plans. As the figure shows, children and adults accounted for greater portions of the CMC population (representing a combined 90 percent of the CMC population and about 62 percent of the FFS population). They generally use fewer and different types of Medicaid services than enrollees who were aged or had disabilities, and this difference should be considered when comparing claims across the two populations.[19]

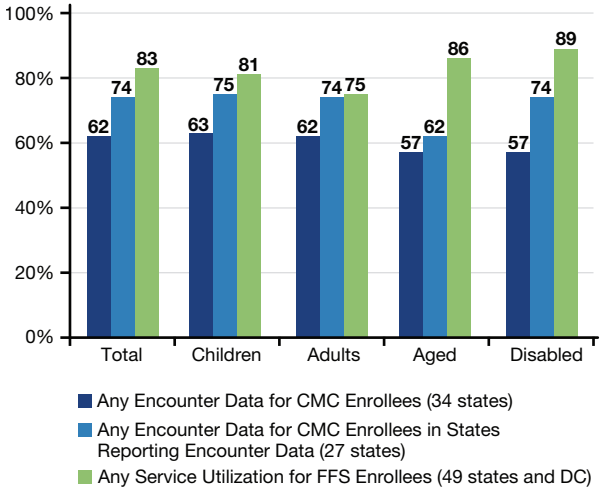
Figure 3.4 compares reporting for three groups of Medicaid enrollees in 2008: encounter data for CMC enrollees in the 34 states with CMC enrollment,

Figure 3.3
Percentage of Comprehensive Managed Care and Fee-for-Service Enrollees in 2008, by Basis of Eligibility



Source: Medicaid Analytic Extract, 2008.
Notes: Comprehensive managed care population includes 34 states that enrolled at least 5 percent of full-benefit Medicaid enrollees in CMC in 2008. Total for FFS Enrollees adds to 99 percent due to rounding.
FFS population includes full-benefit Medicaid enrollees with no CMC enrollment during 2008.
Maine was unable to report its claims for inpatient, long-term care, and other services accurately, as it did not have a fully functional MMIS. It is excluded from all FFS estimates.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service.

Figure 3.4
Percentage of Comprehensive Managed Care Enrollees with Any Encounter Data, Compared to Fee-for-Service Enrollees with Any Fee-for-Service Claims in 2008



Source: Medicaid Analytic Extract, 2008.
Notes: Comprehensive managed care population includes 34 states that enrolled at least 5 percent of full-benefit Medicaid enrollees in CMC in 2008. Of these, 27 reported encounter claims in 2008.
FFS population includes full-benefit Medicaid enrollees with no CMC enrollment during 2008.
Maine was unable to report its data for inpatient, long-term care, and other services accurately, as it did not have a fully functional MMIS. It is excluded from all FFS estimates.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service.

[18] Within a state, the enrollees in CMC and those covered on a FFS basis may differ in ways that preclude direct comparisons. For example, a state may cover only specific populations of children in CMC, such as relatively higher-income and CHIP expansion children, whose health care needs could differ from those of the children remaining in FFS, such as children who are in foster care or eligible under medically needy provisions.

[19] For more information about service utilization among FFS enrollees in MAX 2008, see the MAX 2008 chartbook (Borck et al. 2012).

encounter data in the 27 states that reported any encounter data in MAX 2008, and FFS claims reported nationally for all FFS enrollees. About 83 percent of FFS enrollees had FFS claims in 2008. As a whole, the 34 states with CMC reported encounter data for only 62 percent of CMC enrollees—a substantially smaller percentage. When the 7 states that reported no encounter data were excluded, however, the percentage of CMC enrollees with encounter data—74 percent—became more comparable to national FFS rates.

The pattern was generally consistent across all eligibility groups, except that the percentages of children and adults in CMC plans with encounter data were more similar to rates of FFS claims than were the percentages for CMC enrollees who were aged or had disabilities. One reason for the different pattern among enrollees who were aged or had disabilities is that these enrollees may use more of the services that are excluded from CMC coverage and provided on a FFS basis.[20]

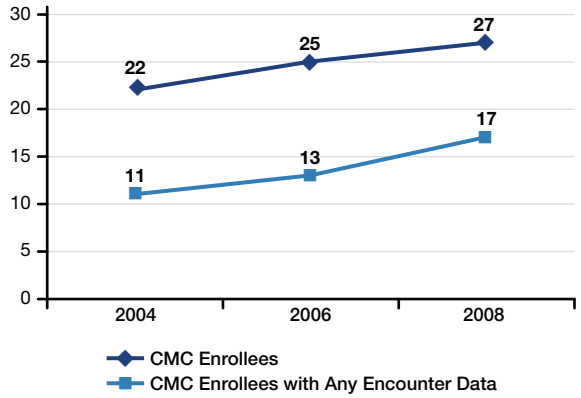
Variation in the Availability of Encounter Data

The following sections of this chapter investigate patterns in encounter data reporting across states and within states by subpopulations of enrollees. The analyses below describe factors related to differences in the percentages of CMC enrollees with any encounter data in 2008.

More Encounter Data over Time

From 2004 to 2008, the percentage of CMC enrollees with any encounter data increased at a greater rate than enrollment in CMC (Figure 3.5), rising about 54 percent nationally, from about 11 million to about 17 million enrollees. In 2004, the 33 states with CMC reported encounter data for about half of the CMC enrollees (49 percent, or about 11 million enrollees). By 2008, the 34 states with CMC reported encounter data for about 62 percent (or about 17 million enrollees), representing an increase of just over 60 percent from 2004. This pattern suggests encounter data in MAX is increasing over time. (Appendix Table A3.2 shows state-level reporting of encounter data over time.)

Figure 3.5
Number of Comprehensive Managed Care Enrollees with Encounter Data in 2004–2008 (in Millions)



Source: Medicaid Analytic Extract, 2004, 2006, 2008.
Note: Includes 34 states that enrolled at least 5 percent of full-benefit Medicaid enrollees in comprehensive managed care.
CMC = comprehensive managed care (HMO/HIO or PACE).

The increase in the percentage of enrollees with encounter data between 2004 and 2008 was largely driven by changes in a few states (Table 3.1). Four states (Colorado, Florida, Michigan, and Texas) started reporting encounter data for their CMC enrollees during this period.[21] Moreover, Georgia added CMC coverage in June 2006, and, by 2008,

[20] Within the population of enrollees who are aged or have disabilities, dual eligibles have fewer Medicaid claims than nondual enrollees because Medicare covers many acute care services for dual eligibles. Dual eligibles are included in this analysis but they represent a greater proportion of the FFS population than the CMC enrollee population, and do not explain the lower overall percentage of encounters as compared to FFS claims among enrollees who were aged or had disabilities.

[21] From 2004 to 2008, the proportion of Medicaid enrollees in CMC plans in Colorado decreased somewhat, from about 19 percent to about 11 percent. In the other three states, the percentages of enrollees with CMC coverage remained generally stable (in Florida and Michigan) or increased (in Texas).

Table 3.1
Summary of Changes in Number of States Reporting Encounter Data in 2004–2008

	2004	2006	2008
States enrolling at least 5 percent of full-benefit Medicaid enrollees in CMC	33	33	34
States reporting any encounter data for CMC enrollees	22	23	27
States reporting encounter data for at least 50 percent of CMC enrollees	20	20	24

Source: Medicaid Analytic Extract, 2004, 2006, 2008.
CMC = comprehensive managed care (HMO/HIO or PACE).

Table 3.2
Percentage of Comprehensive Managed Care Enrollees with Any Encounter Data in 2008, by Percentage of Full-Benefit Medicaid Enrollees in States with Comprehensive Managed Care

	34 States with CMC		27 States Reporting Encounter Data	
CMC Penetration	Number of States	Median Percentage of CMC Enrollees with Encounter Data	Number of States	Median Percentage of CMC Enrollees with Encounter Data
5–50% of enrollees in CMC	9	27.4	6	65.7
50–70% of enrollees in CMC	13	72.6	10	75.8
At least 70% of enrollees in CMC	12	81.2	11	82.0

Source: Medicaid Analytic Extract, 2008.
Note: Includes 34 states that enrolled at least 5 percent of full-benefit Medicaid enrollees in CMC. Of these, 27 reported encounter data for CMC enrollees.
CMC = comprehensive managed care (HMO/HIO or PACE).

the state reported encounter data for about 82 percent of CMC enrollees. Also of note, none of the states that reported encounter data in 2004 eliminated this reporting in 2008, though the percentage of CMC enrollees with data declined notably in Nevada (from about 56 percent in 2006 to less than 1 percent in 2008).[22]

More Encounter Data with Higher Rates of CMC Penetration

Differing levels of experience among states in providing Medicaid coverage through CMC plans may relate to differences among them in the reporting of encounter data. As discussed in Chapter 2, states varied considerably in the percentage of full-benefit enrollees who were covered by CMC plans in 2008. The percentage of CMC enrollees in a state corresponded to the percentage of enrollees with encounter data, so that states that covered greater percentages of enrollees in CMC plans reported encounter data for more CMC enrollees. Table 3.2 shows, first, encounter data reporting for all 34 states with CMC in 2008. Across the 9 states that covered less than half of full-benefit Medicaid enrollees in CMC, a median of 27 percent of CMC enrollees had encounter data. The median of CMC enrollees with encounter data increased to 73 percent of enrollees in the 13 states that covered between 50 and 70 percent of enrollees in CMC. It increased even more, to about 81 percent, among the 12 states that covered more than 70 percent of enrollees in CMC. One reason median reporting was so low in the states that enrolled less than half of full-benefit enrollees in CMC is that 3 of the 7 that reported no encounter data were in this group; only one state that enrolled over 70 percent of enrollees reported no encounter data. When the analysis was restricted to the 27 states that reported encounter data in 2008, the difference across the groups of states narrowed, but the pattern remained.

[22] In 2004, Iowa covered about 21 percent of full-benefit enrollees in CMC plans and reported encounter data for about 60 percent of these enrollees. By 2008, however, the state covered less than 2 percent of full-benefit enrollees in CMC plans, so encounter data reporting was not assessed.

Limited Encounter Data for PACE Enrollees

The CMC category includes two types of managed care plans: HMO/HIOs and PACE plans. Although both offer comprehensive coverage, they provide quite different types of care. States generally use HMOs/HIOs to cover acute care services for large populations of enrollees, primarily children and adults. In comparison, PACE provides coordinated acute and long-term care to aged enrollees, including dual eligibles. In 2008, PACE plans covered a small percentage of Medicaid enrollees nationally (about 0.1 percent of all full-benefit enrollees), as well as within the states that

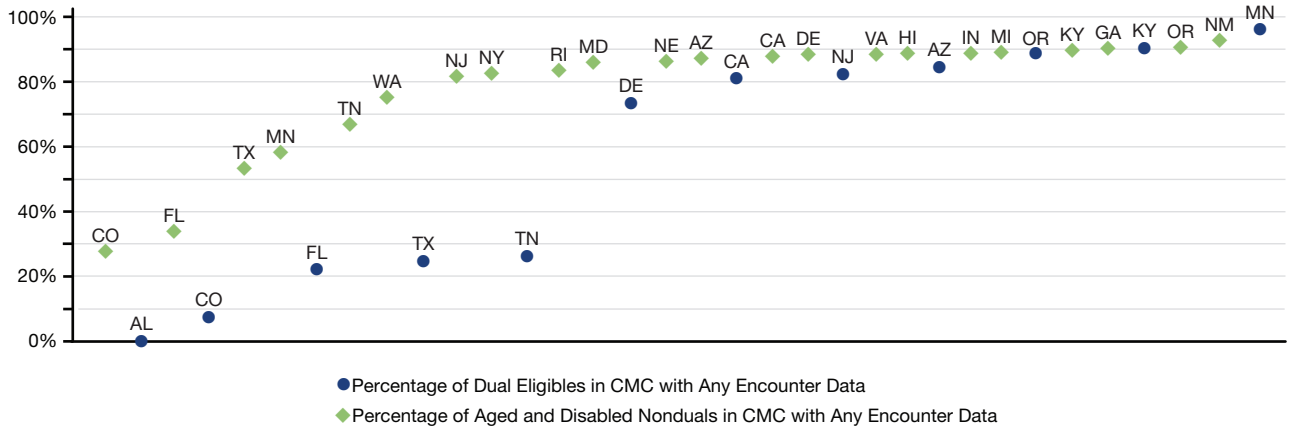
Table 3.3
PACE Enrollees with Any Encounter Data in 2008, by State

	PACE Enrollment	Number of PACE Enrollees with Encounter Data	Percentage of PACE Enrollees with Encounter Data	Percentage of All CMC Enrollees with Encounter Data
United States	**31,150**	**3,823**	**12.3**	**62.3**
Arkansas	<11	<11	0.0	NA
California	2,569	100	3.9	78.5
Colorado	1,597	<11	0.1	7.1
Florida	244	<11	1.2	27.4
Hawaii	<11	<11	16.7	79.6
Illinois	318	0	0.0	53.5
Iowa	18	<11	22.2	NA
Kansas	276	<11	1.1	80.8
Louisiana	91	0	0.0	NA
Maryland	169	<11	1.2	82.4
Massachusetts	14,610	0	0.0	0.0
Michigan	388	16	4.1	82.0
Missouri	237	<11	1.3	80.9
Montana	<11	<11	0.0	NA
New Mexico	386	27	7.0	86.5
New York	3,640	3,489	95.9	76.5
North Carolina	15	0	0.0	NA
North Dakota	<11	<11	0.0	NA
Oklahoma	11	0	0.0	NA
Oregon	851	61	7.2	79.8
Pennsylvania	1,738	0	0.0	0.0
Rhode Island	165	0	0.0	86.1
South Carolina	449	0	0.0	0.0
Tennessee	390	<11	1.8	58.0
Texas	928	0	0.0	72.6
Vermont	56	0	0.0	NA
Virginia	303	54	17.8	80.2
Washington	381	<11	0.3	66.6
Wisconsin	1,296	50	3.9	75.1

Source: Medicaid Analytic Extract, 2008.
Note: Includes all states with PACE enrollment in MAX 2008.
CMC= comprehensive managed care (HMO/HIO or PACE).
NA = State enrolled less than 5 percent of full-benefit enrollees in CMC. All states enrolled less than 5 percent of enrollees in PACE plans.
<11 = State reported enrollment or data for fewer than 11 enrollees. Exact counts are not shown to protect privacy.

Figure 3.6

Percentage of Dual Eligibles in Comprehensive Managed Care with Any Encounter Data in 2008 Versus the Percentage of Aged and Disabled Nonduals, by State



Source: Medicaid Analytic Extract, 2008.
Notes: Dual-eligible population includes individuals who were enrolled in Medicare for the entire duration of their Medicaid enrollment in 2008. The population of aged and disabled nonduals includes full-benefit aged and disabled enrollees who were never dually enrolled in Medicare in 2008.
CMC = comprehensive managed care (HMO/HIO or PACE).

reported this coverage (see Table 2.1). None of the 29 states with PACE enrollment in MAX 2008 included more than 1.1 percent of full-benefit enrollees in this coverage, often covering well under 100 enrollees during the year. Nationally, states reported encounter data for few PACE enrollees (Table 3.3); only New York reported encounter data for most (96 percent). Several other states that reported encounter data for the majority of CMC enrollees reported these data for few or no PACE enrollees; the most notable (for example, California, Oregon, Texas, and Wisconsin) had relatively large PACE populations of over 500 enrollees. (Appendix Table A3.3 shows state-level reporting of encounter data for PACE enrollees.)

Less Encounter Data for Full-Benefit Dual Eligibles

As discussed in Chapter 2, dual eligibles were less likely to be enrolled in Medicaid CMC plans in 2008 than nonduals who were aged or had disabilities. Moreover, dual eligibles in Medicaid CMC plans could be expected to have fewer encounter records than nonduals because Medicare covers many acute care services for them. A lower rate of encounter records for dual eligibles may have contributed to the lower overall percentages of CMC enrollees with encounter data who were aged or eligible on the basis of disabilities, as described above.

Twelve states enrolled at least 5 percent of full-benefit dual eligibles in Medicaid CMC plans and reported encounter data in 2008,[23] and about 60 percent of duals in CMC plans across these states had encounter data. The pattern of reporting for CMC dual eligibles in these states was similar to that of states overall in 2008: they were split between reporting encounter data for very few or almost all enrollees (Figure 3.6). Five states reported encounter data for less than one-third of dual eligibles in CMC plans, and seven reported encounter data for at least 70 percent. (Appendix Table A3.4 shows state-level encounter data reporting for dual eligibles and aged and disabled nonduals.)

The number of states with sizeable enrollments of dual eligibles in CMCs was small, limiting examination of encounter data reporting for this population. To provide context, one general comparison that could be made is the percentage of nondual CMC enrollees who were

[23] Massachusetts enrolled at least 5 percent of full-benefit dual eligibles in CMC plans, but the state reported no encounter data in MAX 2008.

aged or had disabilities with encounter data. Twenty-two states covered at least 5 percent of this population in CMC plans and reported encounter data in 2008. Across these states, about 77 percent of nondual CMC enrollees had encounter data in 2008, notably higher than the 60 percent of dual-eligible enrollees with encounters. Instead of the bimodal distribution seen with reporting for dual eligibles, the percentages of nonduals with encounter data in individual states were more clustered around the national rate, although the range was relatively large, from only 28 percent in Colorado to 93 percent in New Mexico (Figure 3.6).

With different states enrolling dual eligibles and nonduals in CMC, one possibility is that the difference in the encounter data reporting for these groups was caused by differences across states rather than true differences between the two groups of enrollees. Eleven states enrolled at least 5 percent of both dual eligibles and nondual enrollees who were aged or had disabilities in Medicaid CMC plans.[24] Any pattern of differences within these states of encounter data reporting for duals and nonduals was less clear than the pattern described above. Five of the 11 (Colorado, Delaware, Florida, Tennessee, and Texas) were consistent with the above pattern, reporting encounter data for substantially lower percentages of dual eligibles than nonduals, from 11 percent fewer dual eligibles with data in Florida to 41 percent fewer in Tennessee. Reporting in the other six states, however, differed from the national pattern. Five (Arizona, California, Kentucky, New Jersey, and Oregon) reported similar percentages of enrollees with encounter data for the two groups, all within 6 percentage points. In Minnesota, about 97 percent of dual-eligible CMC enrollees had encounter data, compared to about 58 percent of nonduals. Reporting within these 11 states suggests that the substantial overall difference between the percentages of duals and nonduals with encounter data may have been, in part, an artifact of the small number of states enrolling dual eligibles in CMC plans, and caution therefore may be warranted in generalizing from these results.

More Encounter Data with Longer CMC Enrollment

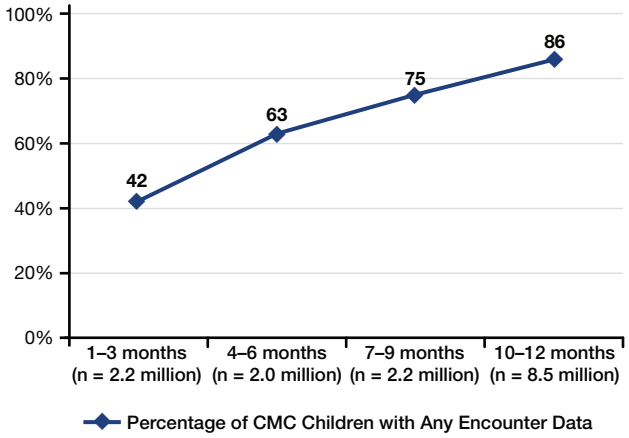
Medicaid enrollees varied in the duration of their CMC enrollment in 2008. For the two largest groups of CMC enrollees (children and adults), the percentage with any encounter data increased, as might be expected, with the length of CMC enrollment (Figures 3.7 and 3.8). Among children in CMC in the 27 states that reported encounter data, the percentage with any encounter data increased from 42 percent of those with one to 3 months of CMC enrollment to about 86 percent of those with 10 to 12 months of CMC enrollment that year. Among adults, the increase was similar, from 47 percent of enrollees with one to 3 months of CMC coverage to 86 percent of those with 10 to 12 months. At the high end of this range, 11 states reported encounter data for at least 90 percent of children enrolled in CMC coverage for 10 to 12 months in 2008 (Figure 3.9). Similarly, 17 states reported encounter data for at least 90 percent of adults enrolled in CMC coverage for 10 to 12 months. Conversely, Connecticut, one of the states that reported no encounter data in 2008, had no enrollees with more than 6 months of CMC enrollment during the year.[25] (Appendix Tables A3.5 and A3.6 show state-level encounter data reporting by length of CMC enrollment for children and adults, respectively.) Overall, the finding that the percentage of enrollees using services increases with length of enrollment may not be surprising, but for users of encounter data it is encouraging to note that, in most states, most of the children and adults in CMC plans for the full year had at least one encounter record during the year.

[24] Massachusetts also covered at least 5 percent of both dual eligibles and nondual enrollees who were aged or had disabilities in Medicaid CMC plans, but the state did not report any encounter data in 2008.

[25] After a short period with no CMC plan coverage in Connecticut, the state resumed enrollment in Medicaid CMC plans in September 2008.

Figure 3.7

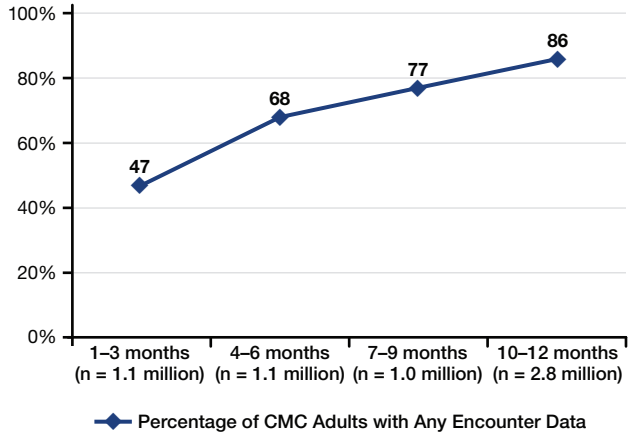
Percentage of Children in Comprehensive Managed Care Plans with Any Encounter Data, by Months of Comprehensive Managed Care Enrollment in 2008



Source: Medicaid Analytic Extract, 2008.
Notes: Number in parentheses is the number of children with specified months of comprehensive managed care enrollment in 2008. CMC enrollment was not necessarily continuous.
Includes 27 states that enrolled at least 5 percent of children in CMC in 2008 and reported encounter data for them.
CMC = comprehensive managed care (HMO/HIO or PACE).

Figure 3.8

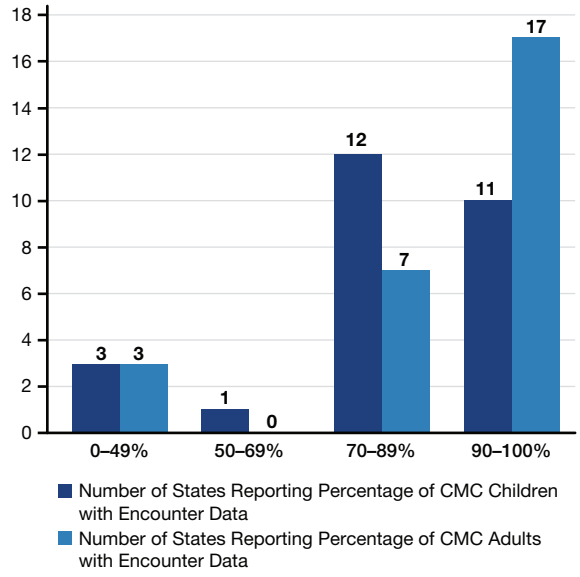
Percentage of Adults in Comprehensive Managed Care Plans with Any Encounter Data, by Months of Comprehensive Managed Care Enrollment in 2008



Source: Medicaid Analytic Extract, 2008.
Notes: Number in parentheses is the number of adults with specified months of CMC enrollment in 2008. CMC enrollment was not necessarily continuous.
Includes 27 states that enrolled at least 5 percent of adults in CMC in 2008 and reported encounter data for them.
CMC = comprehensive managed care (HMO/HIO or PACE).

Figure 3.9

Percentage of Children and Adults Enrolled in Comprehensive Managed Care for 10 to 12 Months and Who Had Encounter Data in 2008, by Number of States



Source: Medicaid Analytic Extract, 2008.
Note: Includes 27 states that enrolled at least 5 percent of children and adults in comprehensive managed care and reported encounter data for them.
CMC = comprehensive managed care (HMO/HIO or PACE).

4. Service Utilization for Comprehensive Managed Care Enrollees

Chapter 3 described the extent to which states reported any encounter data for CMC enrollees. Researchers can also use MAX data for more detailed analyses of the services reported in encounter data. This chapter describes the types of services provided to Medicaid enrollees in CMC plans, as reported by states in encounter data in MAX 2008.

A. Service Utilization Information in MAX Claims

MAX FFS claims and encounter data contain nationally uniform "Type of Service" codes that identify 30 types of Medicaid-covered services.[26] The codes can be grouped into six service classes that generally correspond to the four types of MAX claims files. Analysis by service class highlights variation nationally and across states in the types of services that were reported in encounter data. The six service classes include the following:

1. Institutional long-term care (ILTC, submitted in the LT claims file): all ILTC services, including inpatient psychiatric services for people under age 21 and services provided in nursing facilities, institutional care facilities for the mentally retarded (ICF/MR), and mental hospitals for the aged. ILTC claims can include an array of bundled services, such as physical therapy and oxygen.
2. Inpatient (IP claims file): inpatient hospital services, which may include some bundled services, such as lab tests or prescription drugs filled during an inpatient stay.
3. Prescription drugs (RX claims file): all Medicaid prescriptions filled, except those bundled with inpatient, nursing home, or other services.
4. Home- and community-based services (HCBS, submitted in the OT claims file): residential care, home health, personal care services, adult day care, private-duty nursing, and hospice care.
5. Physician and other ambulatory services (OT claims file): physician, outpatient hospital, clinic, dental, nurse practitioner, other practitioner, physical therapy or occupational therapy, rehabilitation, and psychiatric services.
6. Wraparound and other services (OT claims file): lab and x-ray, durable medical equipment, transportation, targeted case management, and other services.

Although states vary in the specific services covered under CMC contracts, these six classes represent basic types of Medicaid services, and all state Medicaid programs cover services in each of them.

The following sections describe the percentages of CMC enrollees with encounter data by service class in 2008 and, for context, compare them to the percentages of Medicaid FFS enrollees with FFS claims for these services. Service utilization is then disaggregated into records for specific services within the most

[26] FFS claims also include the expenditures associated with the service in the claim. Encounter data do not include expenditure information.

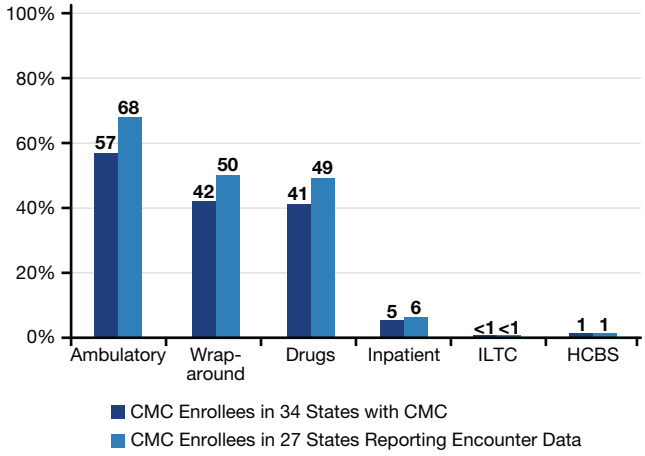
commonly reported service classes. The chapter concludes by analyzing the average number of encounters for common services per person-year of enrollment.

B. Percentage of CMC Enrollees with Encounter Data by Service Class

In 2008, the most commonly reported services in encounter data for CMC enrollees were for physician and other ambulatory services (ambulatory, collectively), followed by wraparound and other services (wraparound), and prescription drugs (Figure 4.1). As shown in Chapter 3, assessments that included the 7 states that reported no encounter data in 2008 notably underestimated the percentages of enrollees with encounters in states that did report data. For example, 68 percent of CMC enrollees in the 27 states reporting CMC encounter data had encounters for ambulatory services in MAX 2008. Including in the assessment the 7 states that did not report encounter data lowered this to 57 percent. To examine better the content of the encounter data that were submitted in MAX 2008, this chapter uses data from only the 27 states that reported these data, unless otherwise noted. (Appendix Table A4.1 shows state-level encounter data reporting by service class.)

Similar to the national pattern, encounter data for ambulatory services, prescription drugs, and wraparound services accounted for most encounter data in most states in 2008. Table 4.1 gives the percentage of CMC enrollees with encounters in each state by service class. Ten states reported encounter data for only some service classes, with the fewest reporting encounters for ILTC services and HCBS. Nevada only reported encounters for wraparound services (and reported them for less than 1 percent of CMC enrollees). Seventeen states reported at least some enrollees with encounters in all service classes. This analysis highlights the importance of assessing the availability of encounter data by the type of service rather than for an entire state.

Figure 4.1
Percentage of Comprehensive Managed Care Enrollees with Encounter Data in 2008, by Service Class



Source: Medicaid Analytic Extract, 2008.
Note: Includes 34 states that enrolled at least 5 percent of full-benefit Medicaid enrollees in comprehensive managed care. Of these, 27 reported encounter data for them.
CMC = comprehensive managed care (HMO/HIO or PACE); ILTC = institutional long-term care; HCBS = home- and community-based services.

Researchers interested in studying encounter data for a specific subpopulation of enrollees may want to replicate this analysis by Medicaid eligibility group. As Figure 4.2 shows, the most commonly reported services were generally consistent across all eligibility groups, with some slight differences for aged CMC enrollees and those with disabilities. These individuals had slightly lower rates of encounters for prescription drugs, ambulatory services, and wraparound services, partly because Medicare often covers these services for dual eligibles.[27] (Appendix Tables A4.2–A4.5 show state-level encounter data by service class and eligibility group.)

[27] As discussed in Chapter 3, dually eligible enrollees had lower overall rates of encounters in 2008 than nonduals who were aged or had disabilities. The types of services reported for these two populations were similar, with the difference that, overall, encounters of each type were fewer for dual eligibles. Because the aged and those with disabilities accounted for relatively small portions of the CMC population in 2008, service utilization for these populations is examined in less detail in this chapter. Researchers interested in examining service utilization of aged or disabled CMC enrollees may want to separate dual eligibles and nonduals in their analyses.

Table 4.1

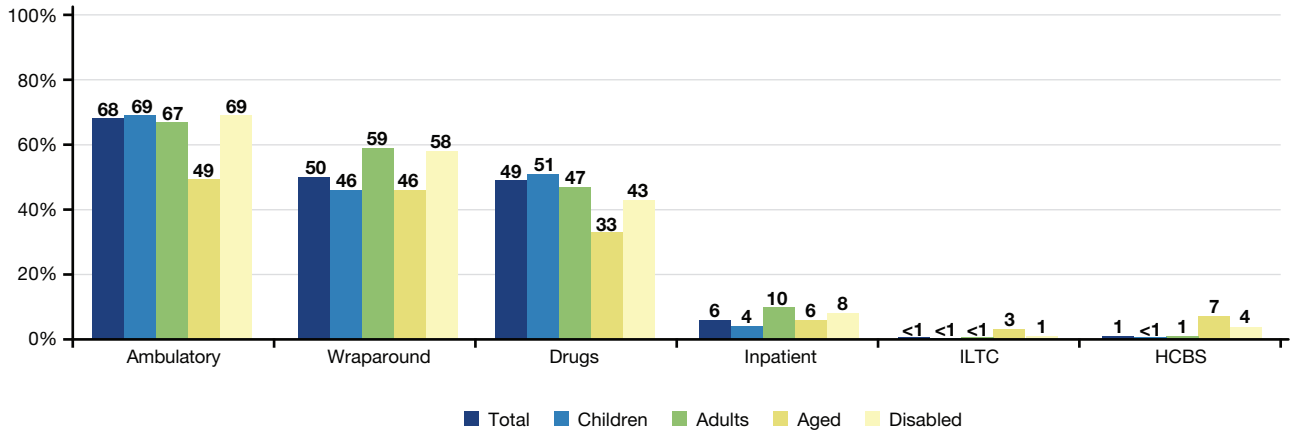
Percentage of Comprehensive Managed Care Enrollees with Encounter Data in 2008, by Service Class

	Reported Encounter Data in All Service Classes	Reported No Encounter Data	Percentage of CMC Enrollees with Encounters					
			Ambulatory	Wraparound	Drugs	Inpatient	ILTC	HCBS
Total percentage of CMC enrollees with encounter data			57.0	42.2	40.9	4.8	0.2	0.8
Number of states reporting encounter data	17	7	26	27	26	25	19	22
Arizona	X		73.9	59.3	63.2	11.9	0.4	0.7
California	X		72.6	49.9	60.5	3.4	0.3	0.4
Colorado			6.8	2.5	0.2	1.4	0.0	0.1
Connecticut		X	0.0	0.0	0.0	0.0	0.0	0.0
Delaware	X		77.1	61.5	22.7	1.3	0.3	2.3
District of Columbia		X	0.0	0.0	0.0	0.0	0.0	0.0
Florida			24.5	18.8	12.4	0.2	0.0	0.0
Georgia			77.3	53.5	68.6	0.0	<0.1	0.1
Hawaii	X		72.8	51.3	61.6	3.7	<0.1	1.2
Illinois			42.2	40.1	12.1	1.0	<0.1	0.0
Indiana	X		71.2	56.1	65.5	7.8	0.1	0.2
Kansas	X		73.3	49.3	65.9	10.2	<0.1	0.6
Kentucky	X		84.1	68.9	73.9	8.3	<0.1	1.3
Maryland	X		75.8	22.1	61.6	9.4	0.2	0.3
Massachusetts		X	0.0	0.0	0.0	0.0	0.0	0.0
Michigan	X		78.8	59.6	68.4	1.3	0.6	2.1
Minnesota	X		78.3	53.9	65.8	5.2	0.4	10.9
Missouri			74.7	63.3	61.6	9.7	0.0	0.0
Nebraska			70.3	60.0	30.8	9.0	0.0	0.4
Nevada			0.0	0.7	0.0	0.0	0.0	0.0
New Jersey			77.6	61.3	67.7	5.1	0.0	0.3
New Mexico	X		82.0	57.7	72.0	7.3	0.9	0.7
New York	X		73.6	57.3	29.8	8.9	0.1	1.7
Ohio		X	0.0	0.0	0.0	0.0	0.0	0.0
Oregon	X		76.6	48.3	37.9	8.4	0.2	0.4
Pennsylvania		X	0.0	0.0	0.0	0.0	0.0	0.0
Rhode Island			72.8	74.3	71.8	13.1	0.0	0.8
South Carolina		X	0.0	0.0	0.0	0.0	0.0	0.0
Tennessee	X		54.8	42.0	7.5	3.7	0.1	0.8
Texas	X		70.4	47.1	29.3	8.5	0.7	0.6
Virginia	X		75.3	53.7	67.5	6.1	0.2	0.8
Washington			3.0	41.7	58.2	5.0	0.0	0.0
West Virginia		X	0.0	0.0	0.0	0.0	0.0	0.0
Wisconsin	X		72.4	53.1	39.2	6.6	0.1	0.5

Source: Medicaid Analytic Extract, 2008.
Note: Includes 34 states that enrolled at least 5 percent of full-benefit Medicaid enrollees in comprehensive managed care.
CMC = comprehensive managed care (HMO/HIO or PACE); ILTC = institutional long-term care; HCBS = home- and community-based services.

Figure 4.2

Percentage of Comprehensive Managed Care Enrollees with Encounter Data in 2008, by Service Class and Basis of Eligibility



Source: Medicaid Analytic Extract, 2008.
Note: Includes 27 states that enrolled at least 5 percent of enrollees in comprehensive managed care during 2008 and reported encounter data for them.
CMC = comprehensive managed care (HMO/HIO or PACE); ILTC = institutional long-term care; HCBS = home- and community-based services.

States reported particularly low rates of encounters for ILTC and HCBS use, but this was expected. In general, small percentages of Medicaid enrollees use these services each year, and they are not services that are typically covered under CMC contracts. Similarly, states reported inpatient encounters for only a small percentage of CMC enrollees in 2008. Although most CMC contracts in 2008 included at least some coverage for inpatient hospital care, states reported inpatient encounters for only about 6 percent of CMC enrollees, ranging from about 4 percent of children to about 10 percent of adults.

Variations in the frequency of encounters by service class may represent differences in service utilization, as well as in the ability of CMC plans to collect and provide more complete encounter data for some services than for others. The following sections examine some possible explanations for differences in reported encounters by service class. The analysis provides more detailed descriptions of encounter data reporting for the most commonly reported service classes and includes comparisons of state-level encounter rates with national FFS estimates for the two largest populations of CMC enrollees (children and non-disabled adults). It highlights again the variation in completeness and reliability of encounter data by state and service class.

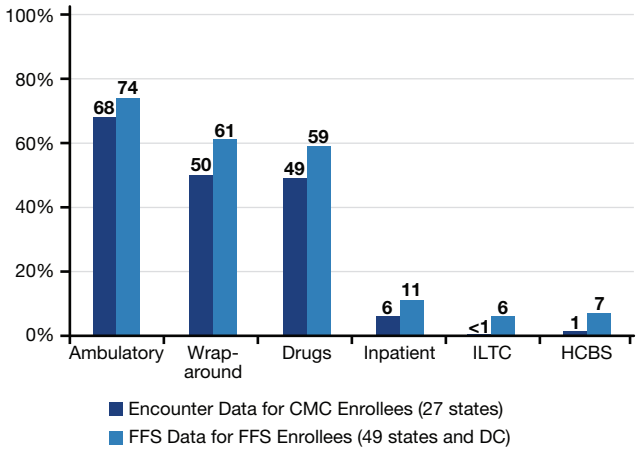
Comparison to FFS Claims for FFS Enrollees

Low rates of service use in some service classes may not indicate incomplete encounter data. Conversely, relatively large percentages of enrollees with encounters may not indicate complete and reliable encounter data reporting. Thus, additional context for service utilization patterns is important in assessing encounter data in MAX. As discussed in Chapter 3, the MAX FFS claims reported for FFS enrollees provide a unique comparison group for encounter data.

As Figure 4.3 indicates, encounter data for CMC enrollees showed notably lower rates of service utilization than were reported in FFS claims for FFS enrollees for all service classes. For example, about 68 percent of CMC enrollees had encounters for ambulatory services, compared to 74 percent of FFS enrollees with FFS claims for these services.

Figure 4.3

Percentage of Comprehensive Managed Care Enrollees with Encounter Data Versus Fee-for-Service Enrollees with Fee-for-Service Claims in 2008, by Service Class



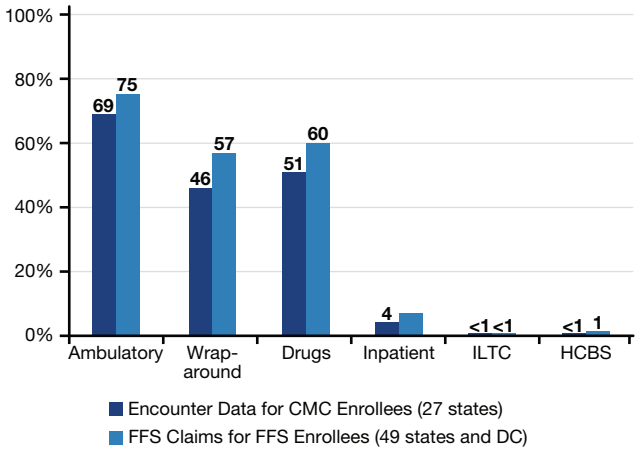
Source: Medicaid Analytic Extract, 2008.
Notes: Population of comprehensive managed care enrollees includes 27 states that enrolled at least 5 percent of enrollees in CMC and reported encounter data for them.
Population of FFS enrollees includes all states except Maine. Maine was unable to report its claims for inpatient, long-term care, and other services accurately, as it did not have a fully functional MMIS. It is excluded from estimates that include these claims.
CMC = comprehensive managed care (HMO/HIO and PACE); FFS = fee-for-service; ILTC = institutional long-term care; HCBS = home- and community-based services.

Low rates of encounters for ILTC, HCBS, and even inpatient services are generally consistent with low utilization of these services in FFS claims.

Because CMC enrollment varies by eligibility group, comparisons of FFS claims and encounters are most appropriate by eligibility group. Figures 4.4 through 4.7 make these comparisons for FFS and CMC enrollees in 2008. Consistent with the comparison for all enrollees, encounters were fewer than FFS claims for almost all service classes for all eligibility groups. The magnitude of the differences varied across groups, however. Among children, for example, about 69 percent of CMC enrollees had encounters for ambulatory services, compared to about 75 percent of FFS enrollees—a difference of 6 percentage points. Among adults the pattern reversed, with 67 percent of CMC enrollees having encounters for ambulatory services versus 64 percent of FFS enrollees with claims.

Figure 4.4

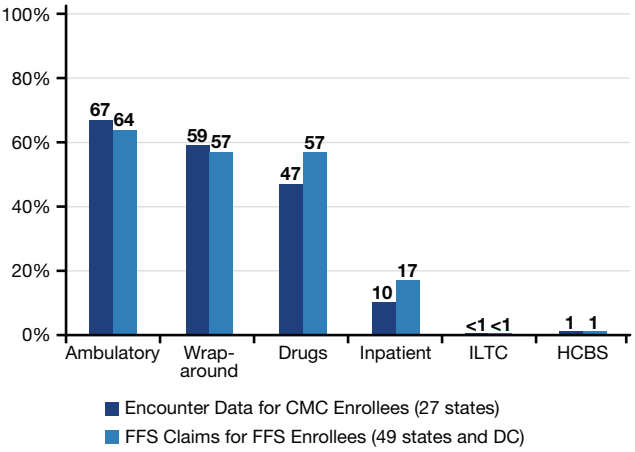
Percentage of Children Enrolled in Comprehensive Managed Care with Encounter Data Versus Fee-for-Service Children with Fee-for-Service Claims in 2008, by Service Class



Source: Medicaid Analytic Extract, 2008.
Notes: Population of comprehensive managed care enrollees includes 27 states that enrolled at least 5 percent of children in CMC and reported encounter data for them.
Population of FFS enrollees includes all states except Maine. Maine was unable to report its claims for inpatient, long-term care, and other services accurately, as it did not have a fully functional MMIS. It is excluded from estimates that include these claims.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service; ILTC = institutional long-term care; HCBS = home- and community-based services.

Figure 4.5

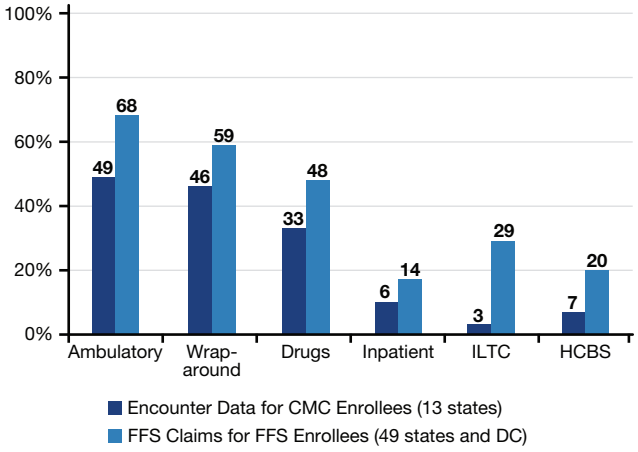
Percentage of Adults Enrolled in Comprehensive Managed Care with Encounter Data Versus Fee-for-Service Adults with Fee-for-Service Claims in 2008, by Service Class



Source: Medicaid Analytic Extract, 2008.
Notes: Population of comprehensive managed care enrollees includes 27 states that enrolled at least 5 percent of adults in CMC and reported encounter data for them.
Population of FFS enrollees includes all states except Maine. Maine was unable to report its claims for inpatient, long-term care, and other services accurately, as it did not have a fully functional MMIS. It is excluded from estimates that include these claims.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service; ILTC = institutional long-term care; HCBS = home- and community-based services.

Figure 4.6

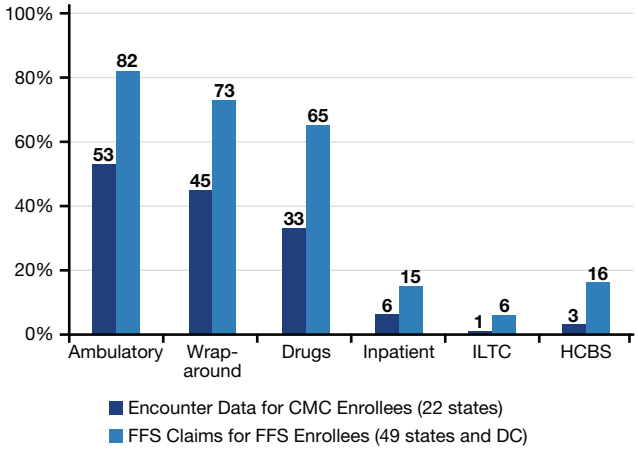
Percentage of Aged Enrolled in Comprehensive Managed Care with Encounter Data Versus Fee-for-Service Aged with Fee-for-Service Claims in 2008, by Service Class



Source: Medicaid Analytic Extract 2008.
Notes: Population of CMC enrollees includes 13 states that enrolled at least 5 percent of aged in comprehensive managed care and reported encounter data for them.
Population of FFS enrollees includes all states except Maine. Maine was unable to report its claims for inpatient, long-term care, and other services claims accurately, as it did not have a fully functional MMIS. It is excluded from estimates that include these claims.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service; ILTC = institutional long-term care; HCBS = home- and community-based services.

Figure 4.7

Percentage of Enrollees with Disabilities in Comprehensive Managed Care with Encounter Data Versus Fee-for-Service Disabled with Fee-for-Service Claims in 2008, by Service Class



Source: Medicaid Analytic Extract, 2008.
Notes: Population of comprehensive managed care enrollees includes 22 states that enrolled at least 5 percent of disabled in CMC and reported encounter data for them.
Population of FFS enrollees includes all states except Maine. Maine was unable to report its claims for inpatient, long-term care, and other services accurately, as it did not have a fully functional MMIS. It is excluded from estimates that include these claims.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service; ILTC = institutional long-term care; HCBS = home- and community-based services.

Carve-Outs from CMC Coverage

One reason a state may not report encounter data for specific services for CMC enrollees is that the state "carved out" those services from CMC coverage and provided them on a FFS basis. Services commonly carved out from CMC contracts include BH care, dental care, non-emergency transportation, vision, and prescription drugs.

Specific services carved out of CMC contracts vary over time and across and within states and cannot be easily summarized nationally. Prescription drug carve-outs in 2008 illustrate the implications of carve-outs for MAX encounter data. Table 4.2 shows the percentages of CMC enrollees with encounters for prescription drugs in MAX 2008 for the 26 states reporting encounter data for these services. Eight of these states removed most prescription drug coverage from CMC contracts, and provided them on a FFS basis. As the table shows, these states reported lower percentages of CMC enrollees with encounters for prescription drugs than states that covered them through CMC.[28] The table also shows, however, that even states that carved out prescription drugs still covered some prescription drugs through CMC plans. The prescription drugs that remained in CMC coverage varied by state. For example, a state may carve out some classes of drugs, such as mental health drugs, or more expensive specialty drugs, such as antiretroviral drugs, and provide these drugs on a FFS basis, but they may provide some generic prescription drugs through capitation. Another example of this type of partial carve-out was Rhode Island's approach to dental services in 2008. The state provided dental coverage to children through a PHP or on a FFS basis, depending on the age of the child.

[28] Connecticut and West Virginia also carved out prescription drug coverage, but these states reported no encounter data in MAX 2008 and are excluded from this example.

Table 4.2
Percentage of Comprehensive Managed Care Enrollees with Encounter Data for Prescription Drugs in 2008

	Prescription Drugs Carved Out of CMC Contracts*	Percentage of CMC Enrollees with Prescription Drug Encounters		
		All CMC Enrollees	Children	Adults
Colorado		0.2	0.0	0.1
Tennessee	X	7.5	9.6	5.3
Illinois	X	12.1	15.4	2.1
Florida		12.4	14.4	6.3
Delaware	X	22.7	32.3	10.8
Texas	X	29.3	37.0	3.6
New York	X	29.8	33.5	28.0
Nebraska	X	30.8	35.9	14.0
Oregon	X	37.9	39.2	33.9
Wisconsin	X	39.2	43.6	32.1
Washington		58.2	57.0	62.1
California		60.5	58.8	63.1
Hawaii		61.6	63.1	59.4
Maryland		61.6	58.3	65.6
Missouri		61.6	61.6	61.9
Arizona		63.2	63.8	62.9
Indiana		65.5	66.8	60.1
Minnesota		65.8	59.9	72.0
Kansas		65.9	64.3	72.0
Virginia		67.5	64.1	72.4
New Jersey		67.7	74.9	70.5
Michigan		68.4	65.1	71.8
Georgia		68.6	68.2	69.6
Rhode Island		71.8	68.9	77.4
New Mexico		72.0	71.3	69.1
Kentucky		73.9	73.1	76.0

Sources: Medicaid Analytic Extract, 2008, and Bagchi et al. 2012.
Notes: Includes 26 states that reported encounter data for prescription drugs in 2008. States are sorted based on the percentage of CMC enrollees with encounters for prescription drugs.
* State carved most prescription drugs out of CMC contracts in 2008.
CMC = comprehensive managed care (HMO/HIO or PACE).

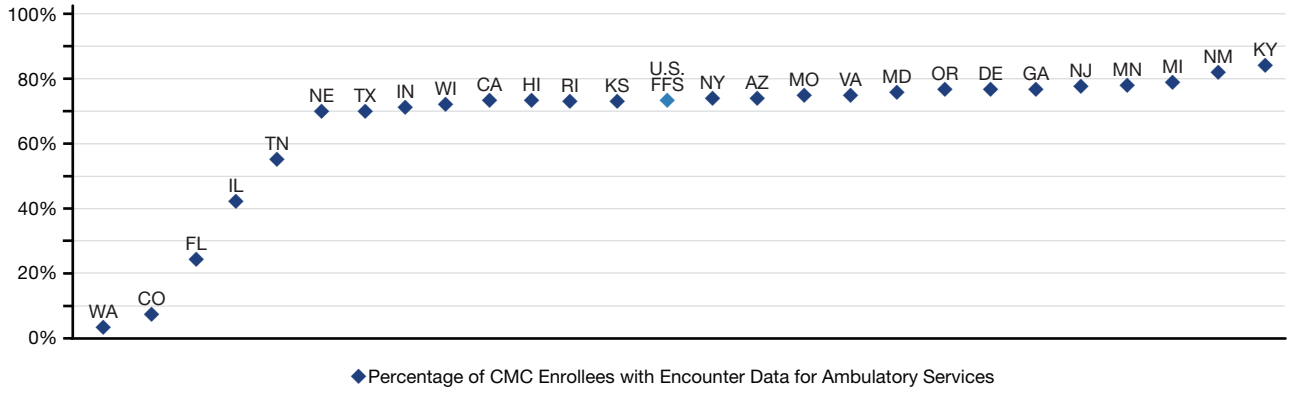
Although the exact impact of carve-outs on encounter data reporting appears to be inconsistent across states, they should generally result in fewer encounters for these services. Researchers interested in studying encounter data for specific services should examine the details of coverage for them in CMC contracts in each state.

Encounter Data for the Most Commonly Reported Service Classes

Despite the lower overall rate of encounters as compared to FFS claims, individual states frequently reported rates of service utilization in encounter data that were consistent with or exceeded the national FFS rate.

Figure 4.8

Percentage of Comprehensive Managed Care Enrollees with Encounter Data for Ambulatory Services in 2008



Source: Medicaid Analytic Extract, 2008.
Note: Includes 26 states that enrolled at least 5 percent of full-benefit enrollees in comprehensive managed care and reported encounter data for ambulatory services for them.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service.

Physician and Other Ambulatory Services

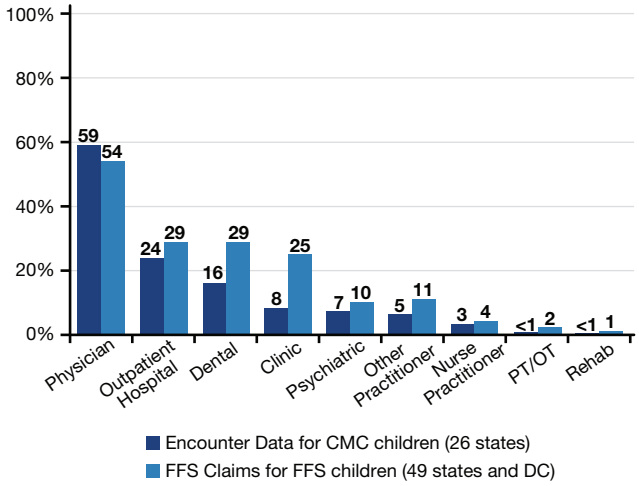
By a notable margin, ambulatory services were the most commonly reported services in encounter data in 2008, with about 68 percent of CMC enrollees having such an encounter. The percentage varied from a low of 3 percent of CMC enrollees in Washington state to 84 percent of enrollees in Kentucky (Figure 4.8).[29] This wide range, however, obscures how consistent rates in many states were with the national FFS rate. Of the 26 states reporting any ambulatory encounters, 21 reported encounters for these services for at least 70 percent of CMC enrollees, consistent with the national FFS rate of 74 percent.

Figures 4.9 and 4.10 show the services most commonly reported in encounter data for children and adults, respectively, in Medicaid CMC plans in the ambulatory service class. Similar to service utilization rates among FFS enrollees, these included physician services (almost 60 percent of children and 60 percent of adults) and outpatient hospital services (about 24 percent of children and about 32 percent of adults). Of particular note, among both children and adults, the percentages of CMC enrollees with encounters for physician services were slightly higher than those of FFS enrollees using these services. Claims for outpatient hospital, clinic, and other practitioner services, however, were reported for a smaller proportion of CMC than FFS enrollees. Among children, a substantially smaller proportion of CMC enrollees had encounters for dental services than FFS enrollees (16 percent versus 29 percent). One explanation for this pattern may be dental carve-outs in some states. Among adults, however, CMC enrollees had slightly higher rates of dental service utilization than FFS enrollees (14 percent versus 11 percent), which is not explained by dental carve-outs. Lower rates of claims among CMC enrollees for specific service types may reflect lower utilization of services, differences in service type coding in encounter data, or the ability of the state or CMC plan to collect encounter data across different provider types. (Appendix Tables A4.6 and A4.7 show state-level encounter data for ambulatory and wraparound services for children and adults, respectively.)

[29] Within the ambulatory service class, Washington only reported psychiatric service encounter data for CMC enrollees, explaining the relatively low percentage of CMC enrollees with any ambulatory encounters in this state in 2008.

Figure 4.9

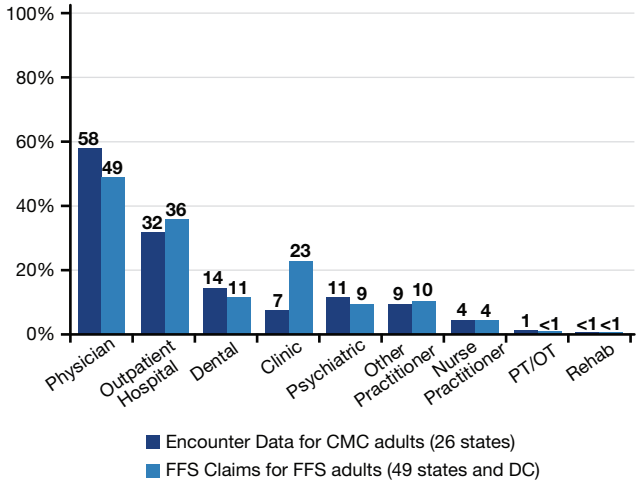
Percentage of Children in Comprehensive Managed Care with Encounter Data for Ambulatory Services in 2008 Versus Fee-for-Service Children with Fee-for-Service Claims



Source: Medicaid Analytic Extract, 2008.
Notes: Population of comprehensive managed care enrollees includes 26 states that enrolled at least 5 percent of children in CMC and reported encounter data for ambulatory services.
Population of FFS enrollees includes all states except Maine. Maine was unable to report its claims for inpatient, long-term care, and other services accurately, as it did not have a fully functional MMIS. It is excluded from estimates that include these claims.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service; PT/OT = physical therapy/occupational therapy; Rehab = rehabilitation services.

Figure 4.10

Percentage of Adults in Comprehensive Managed Care with Encounter Data for Ambulatory Services in 2008 Versus Fee-for-Service Adults with Fee-for-Service Claims



Source: Medicaid Analytic Extract, 2008.
Notes: Population of comprehensive managed care enrollees includes 26 states that enrolled at least 5 percent of adults in CMC and reported encounter data for ambulatory services for them.
Population of FFS enrollees includes all states except Maine. Maine was unable to report its claims for inpatient, long-term care, and other services accurately, as it did not have a fully functional MMIS. It is excluded from estimates that include these claims.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service; PT/OT = physical therapy/occupational therapy; Rehab = rehabilitation services.

Wraparound and Other Services

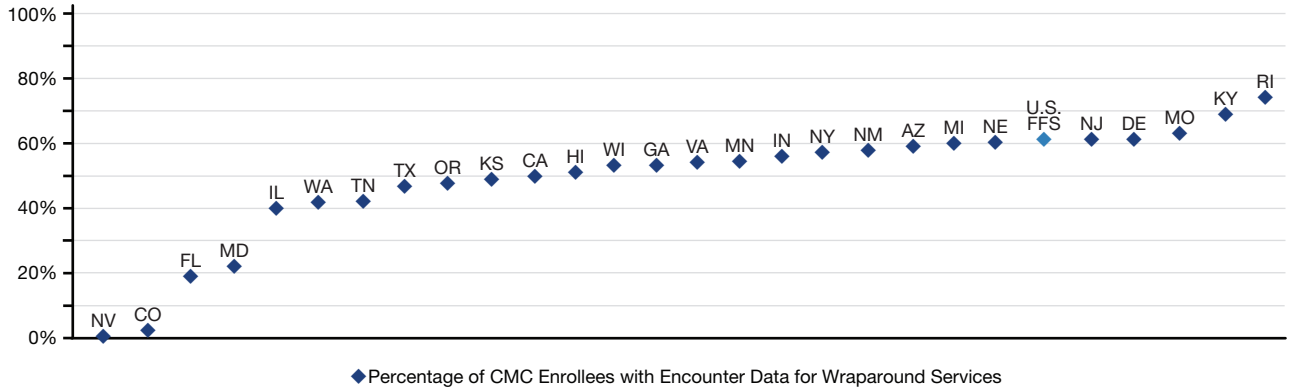
Wraparound services represented a substantial portion of encounter data for CMC enrollees in 2008; about half (50 percent) had encounters for these services. Among states reporting encounters for wraparound services, this rate varied from less than 1 percent of all CMC enrollees in Nevada to about 74 percent in Rhode Island (Figure 4.11). Reporting in many states was consistent with the FFS national rate.

Figures 4.12 and 4.13 show that the percentages of CMC children and adults with encounters for wraparound services were generally consistent with those of FFS enrollees with FFS claims for these services. The wraparound services most commonly reported in encounter data were lab and x-ray services (for 40 percent of children and 56 percent of adults), durable medical equipment services (12 percent of children and 19 percent of adults), and other services (7 percent of children and 8 percent of adults).

Prescription Drugs

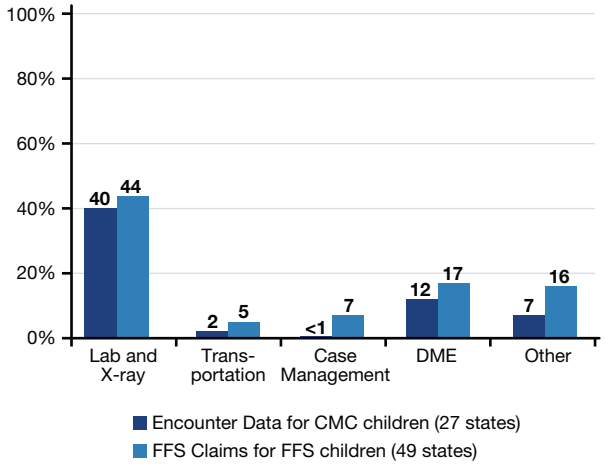
About 49 percent of CMC enrollees had encounters for prescription drugs in 2008. As with other service classes, states that reported encounters for prescription drugs often reported them at rates similar to national FFS utilization (Figure 4.14). The exceptions were states that carved out most coverage of prescription drugs from CMC contracts that year.

Figure 4.11
Percentage of Comprehensive Managed Care Enrollees with Encounter Data for Wraparound Services in 2008



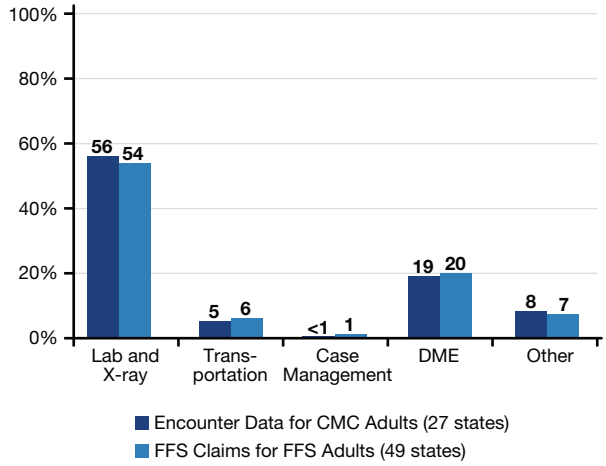
Source: Medicaid Analytic Extract, 2008.
Notes: Includes 27 states that enrolled at least 5 percent of full-benefit enrollees in comprehensive managed care and reported encounter data for wraparound services for them.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service.

Figure 4.12
Percentage of Children in Comprehensive Managed Care with Encounter Data for Wraparound Services in 2008 Versus Fee-for-Service Children with Fee-for-Service Claims



Source: Medicaid Analytic Extract, 2008.
Notes: Population of CMC enrollees includes 27 states that enrolled at least 5 percent of children in comprehensive managed care and reported encounter data for wraparound services for them.
Population of FFS enrollees includes all states except Maine. Maine was unable to report its claims for inpatient, long-term care, and other services accurately, as it did not have a fully functional MMIS. It is excluded from estimates that include these claims.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service; DME = durable medical equipment.

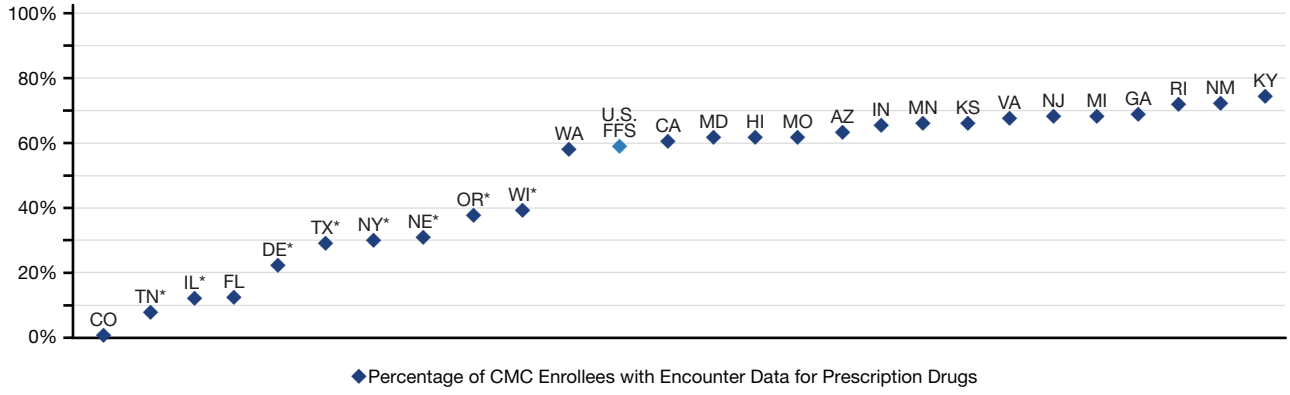
Figure 4.13
Percentage of Adults in Comprehensive Managed Care with Encounter Data for Wraparound Services in 2008 Versus Fee-for-Service Adults with Fee-for-Service Claims



Source: Medicaid Analytic Extract, 2008.
Notes: Population of comprehensive managed care enrollees includes 27 states that enrolled at least 5 percent of adults in CMC and reported encounter data for wraparound services for them.
Population of FFS enrollees includes all states except Maine. Maine was unable to report its claims for inpatient, long-term care, and other services accurately, as it did not have a fully functional MMIS. It is excluded from estimates that include these claims.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service; DME = durable medical equipment.

Figure 4.14

Percentage of Comprehensive Managed Care Enrollees with Encounter Data for Prescription Drugs in 2008



Source: Medicaid Analytic Extract, 2008.
Note: Includes 26 states that enrolled at least 5 percent of full-benefit enrollees in comprehensive managed care and reported encounter data for prescription drugs for them.
* State carved out most prescription drugs from CMC contracts.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service.

C. Average Number of Encounters per Person-Year of CMC Enrollment

Another measure of encounter data in MAX 2008 is the average number of encounters per CMC enrollee. This type of analysis may highlight whether encounters were reported differently than FFS claims for some services. Assessments of only the percentages of enrollees with encounters, for example, could mask differences in the number of services reported per enrollee as compared to reporting for FFS claims. As service utilization and the number of encounters per CMC enrollee can be expected to vary with length of CMC coverage, estimates of the average number of encounters per CMC enrollee in MAX 2008 should control for this variable. The following analysis controlled for length of CMC enrollment by identifying the average number of encounters per person-year of enrollment.

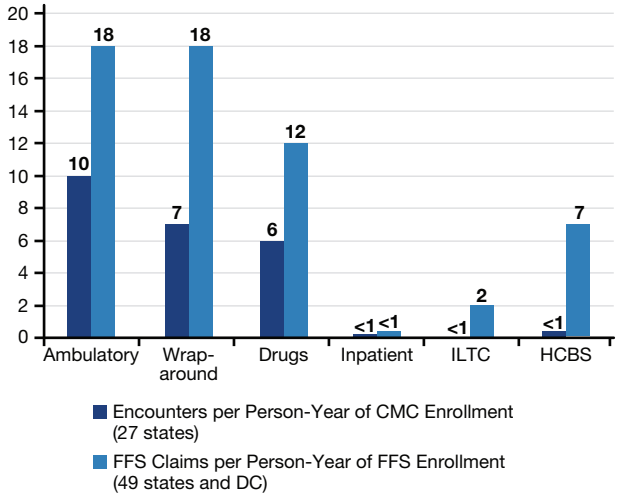
Encounters per Person-Year of CMC Enrollment

The service classes with the most encounters per person-year of CMC enrollment were consistent with the services reported for the most CMC enrollees: ambulatory services, wraparound services, and prescription drugs had the highest average number of encounters per person-year. Figure 4.15 compares the average number of encounters per person-year of CMC enrollment with that of FFS claims per person-year of FFS enrollment by service class. As in previous such comparisons to FFS claims, encounters in each service class were fewer than FFS claims. In total, there were more than twice as many claims per person-year of FFS enrollment than there were of CMC enrollment (57 FFS claims and 24 encounters). One possible explanation for the higher averages among FFS enrollees was the greater proportion in the FFS population of aged enrollees and enrollees with disabilities, who tend to use more services than children and adults; however, results were similar when this analysis was disaggregated by eligibility group (data not shown in figures). At a general level, Figure 4.15 suggests that the differences described above between the percentages of CMC and FFS enrollees with claims also extends to differences in the number of claims.

As with percentages of CMC enrollees with encounters, the average number of encounters by service class varied considerably by state. Despite the lower

Figure 4.15

Average Number of Encounters per Person-Year of Comprehensive Managed Care, Compared with Fee-for-Service Claims per Person-Year of Fee-for-Service Enrollment in 2008, by Service Class



Source: Medicaid Analytic Extract, 2008.
Notes: Population of comprehensive managed care enrollees includes 27 states that enrolled at least 5 percent of enrollees in CMC and reported encounter data for them.
Population of FFS enrollees includes all states except Maine. Maine was unable to report its claims for inpatient, long-term care, and other services accurately, as it did not have a fully functional MMIS. It is excluded from estimates that include these claims.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service; ILTC = institutional long-term care; HCBS = home- and community-based services.

national average number of encounters per person-year of CMC enrollment, rates in some states were similar to national FFS averages. (Appendix Table A4.8 shows the state-level reporting for the average number of encounters by service class.)

The broad comparisons for all CMC enrollees above showed that FFS claims for the average person-year of enrollment exceeded encounters per year of CMC enrollment in 2008. Given that methods for measuring and reporting service utilization might have varied across states and by type of service, a more detailed analysis for specific services was appropriate to provide more information about the source of the broader differences in average numbers of encounters and FFS claims; because service utilization often varies across eligibility groups, further investigation of this pattern was most appropriate by eligibility group. Thus, further analyses disaggregated the average number of claims for commonly reported service classes into specific types of services for children and adults (the two largest populations of CMC enrollees), as shown in Figures 4.16 through 4.19.

Figures 4.16 and 4.17 show the average number of encounters for ambulatory services per person-year of enrollment in the states that reported encounter data in 2008, compared with national FFS rates. These figures highlight that, within the child and adult Medicaid populations, FFS enrollees had, on average, more FFS claims for most types of physician and ambulatory services than CMC enrollees had encounters. The one notable exception was physician services, the most commonly reported ambulatory service; MAX 2008 included more physician encounters per person-year than FFS claims. These figures also highlight the greater average number of encounters per person-year of CMC enrollment for adults than for children. (Appendix Tables A4.9, A4.11, and A4.13 show state-level reporting for the average number of ambulatory service encounters for all CMC enrollees, children, and adults, respectively.)

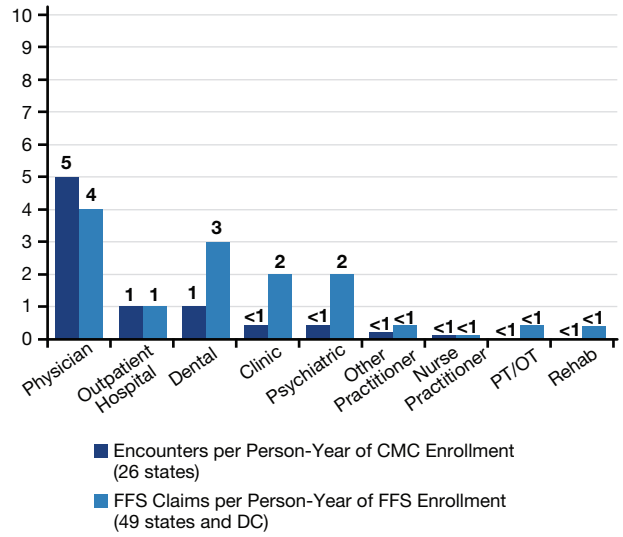
Figures 4.18 and 4.19 compare the average number of encounters and FFS claims for wraparound services per person-year of enrollment in 2008. Similar to the pattern for ambulatory services, FFS wraparound claims per person-year outnumbered encounters for all services in this category for both children and adults. (Appendix Tables A4.10, A4.12, and A4.14 show state-level reporting for the average number of wrap-around service encounters for all CMC enrollees, children, and adults, respectively.)

FFS Claims per Person-Year of CMC Enrollment

As discussed previously, CMC plans generally provide most, but not all, of the services Medicaid covers. Encounters for CMC enrollees may have been fewer than FFS claims for FFS enrollees in 2008 in

Figure 4.16

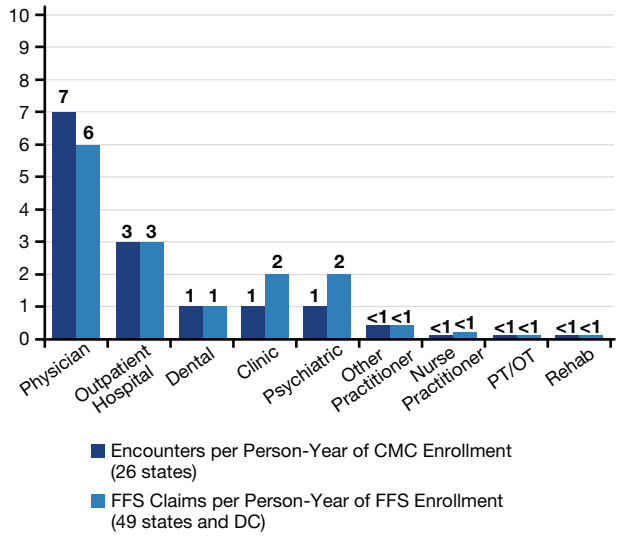
Average Number of Ambulatory Service Encounters per Person-Year of Comprehensive Managed Care Enrollment, Compared with Fee-for-Service Claims for Fee-for-Service Enrollees in 2008, Among Children



Source: Medicaid Analytic Extract, 2008.
Notes: Population of comprehensive managed care enrollees includes 26 states that enrolled at least 5 percent of children in CMC and reported encounter data for ambulatory services for them.
Population of FFS enrollees includes all states except Maine. Maine was unable to report its claims for inpatient, long-term care, and other services accurately, as it did not have a fully functional MMIS. It is excluded from estimates that include these claims.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service; PT/OT = physical therapy/occupational therapy; Rehab = rehabilitation services.

Figure 4.17

Average Number of Ambulatory Service Encounters per Person-Year of Comprehensive Managed Care Enrollment, Compared with Fee-for-Service Claims for Fee-for-Service Enrollees in 2008, Among Adults



Source: Medicaid Analytic Extract, 2008.
Notes: Population of comprehensive managed care enrollees includes 26 states that enrolled at least 5 percent of adults in CMC and reported encounter data for ambulatory services for them.
Population of FFS enrollees includes all states except Maine. Maine was unable to report its claims for inpatient, long-term care, and other services accurately, as it did not have a fully functional MMIS. It is excluded from estimates that include these claims.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service; PT/OT = physical therapy/occupational therapy; Rehab = rehabilitation services.

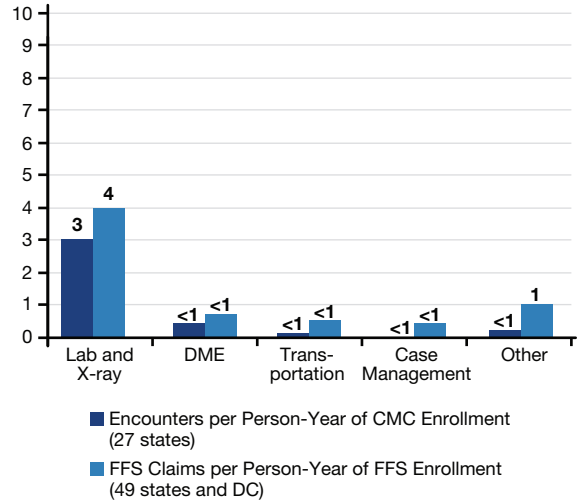
part because some services were provided to CMC enrollees on a FFS basis, including those not generally provided through CMC and those that were specifically carved out. Across states, the types and extent of services provided on a FFS basis to CMC enrollees varied depending on the state's contract with CMC plans and the composition of its CMC population. Assessments of the types of services provided on a FFS basis during periods of CMC enrollment yielded additional insights into service utilization reporting for CMC enrollees in MAX. As many CMC enrollees could be expected to have at least one FFS claim during a year, analysis of the average number received while enrolled in a CMC plan better describes the extent of CMC enrollees' FFS coverage.

Figures 4.20 and 4.21 compare the average number of encounters and FFS claims for common service classes per person-year of CMC enrollment for children and adults in 2008 to the average number of FFS claims for FFS enrollees.[30] Ambulatory and prescription drug services accounted for the most FFS claims for

[30] Previously, this chapter reported the small percentage of CMC enrollees with encounters for ILTC and HCBS in 2008. Similarly, these CMC enrollees had few FFS claims for these services. Children and adults would not generally be expected to use HCBS or ILTC services. When this analysis was conducted for all CMC enrollees (including aged and those with disabilities), the estimates for FFS HCBS and ILTC use remained quite low. On average, there were 0.7 HCBS claims per person-year of CMC enrollment (0.5 FFS claims and 0.2 encounters) and less than 0.1 ILTC FFS claims and encounters. Because these services are rarely covered under CMC plans, the latter finding suggests that these long-term care services were rarely used during periods of CMC enrollment, possibly because people who needed them were less likely to be in CMC plans.

Figure 4.18

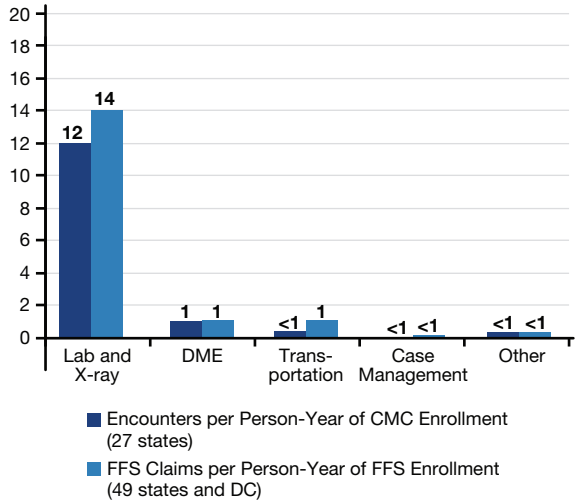
Average Number of Wraparound Service Encounters per Person-Year of Comprehensive Managed Care Enrollment, Compared with Fee-for-Service Claims for Fee-for-Service Enrollees in 2008, Among Children



Source: Medicaid Analytic Extract, 2008.
Notes: Population of comprehensive managed care enrollees includes 27 states that enrolled at least 5 percent of children in CMC and reported encounter data for wraparound services for them.
Population of FFS enrollees includes all states except Maine. Maine was unable to report its claims for inpatient, long-term care, and other services accurately, as it did not have a fully functional MMIS. It is excluded from estimates that include these claims.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service; DME = durable medical equipment.

Figure 4.19

Average Number of Wraparound Service Encounters per Person-Year of Comprehensive Managed Care Enrollment, Compared with Fee-for-Service Claims for Fee-for-Service Enrollees in 2008, Among Adults



Source: Medicaid Analytic Extract, 2008.
Notes: Population of comprehensive managed care enrollees includes 27 states that enrolled at least 5 percent of adults in CMC and reported encounter data for wraparound services for them.
Population of FFS enrollees includes all states except Maine. Maine was unable to report its claims for inpatient, long-term care, and other services accurately, as it did not have a fully functional MMIS. It is excluded from estimates that include these claims.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service; DME = durable medical equipment.

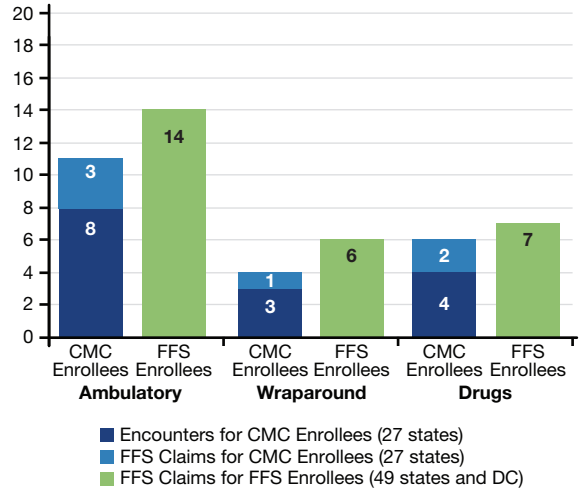
CMC enrollees in MAX 2008. In particular, about one in 3 prescription drug claims for the average person-year of CMC enrollment were FFS claims (2 out of 6 for children and 4 out of 12 for adults). In other words, analysis of prescription drug claims for CMC enrollees that relied exclusively on encounter data would miss almost one-third of the drug claims for CMC enrollees. As these figures show, when the average CMC enrollee's FFS claims and encounters are combined, service utilization appears more comparable to that of FFS enrollees. (Appendix Tables A4.15–A4.17 show state-level reporting for the average number of FFS claims incurred during periods of CMC enrollment among all enrollees, children, and adults, respectively.)

In some states, the average number of FFS claims per person-year of CMC enrollment was greater than the average number of encounters (Figure 4.22). This was true for all seven states that reported no encounter data in 2008, as well as some (Colorado, Illinois, Nebraska, and Nevada) that reported few encounters. Even in states that submitted relatively large numbers of encounters per person-year of CMC enrollment, FFS claims often represented a sizeable portion of total claims. Oregon, for example, submitted an average of 24 encounters per person-year of CMC enrollment as well as an average of 10 FFS claims. Such examples highlight the importance of identifying the services covered by FFS claims during periods of CMC enrollment before limiting analysis of service utilization of CMC enrollees to encounter data.

The average numbers of encounters and FFS claims per person-year of CMC enrollment can also be used

Figure 4.20

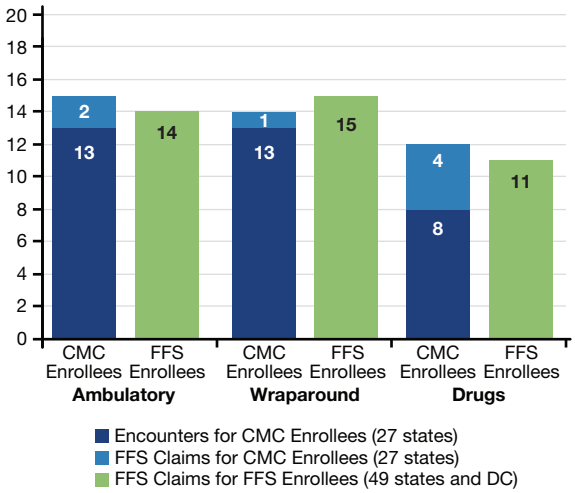
Average Number of Fee-for-Service Claims and Encounters for Selected Service Classes per Person-Year of Comprehensive Managed Care Enrollment in 2008, Among Children



Source: Medicaid Analytic Extract, 2008.
Notes: Estimates of encounters and FFS claims for CMC enrollees include the 27 states that enrolled at least 5 percent of children in comprehensive managed care (HMO/HIO or PACE) and reported encounter data for them. FFS claims and encounters shown in figure were for services provided during periods of CMC enrollment.
Three service classes are not shown. There were 0.05 home- and community-based service claims per person-year of CMC enrollment (0.01 FFS claims and 0.04 encounters), 0.08 inpatient claims (0.02 FFS claims and 0.06 encounters), and 0.0 institutional long-term care service claims.
Comprehensive managed care = HMO/HIO or PACE; FFS = fee-for-service; Ambulatory = physician and other ambulatory claims.

Figure 4.21

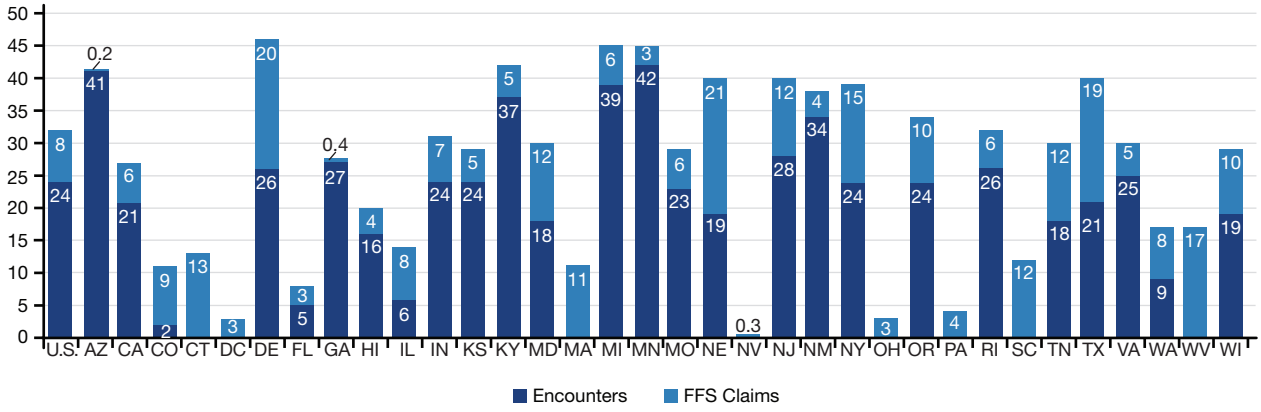
Average Number of Fee-for-Service Claims and Encounters for Selected Service Classes per Person-Year of Comprehensive Managed Care Enrollment in 2008, Among Adults



Source: Medicaid Analytic Extract, 2008.
Notes: Estimates of encounters and FFS claims for CMC enrollees include the 27 states that enrolled at least 5 percent of children in comprehensive managed care (HMO/HIO or PACE) and reported encounter data for them. FFS claims and encounters shown in figure were for services provided during periods of CMC enrollment.
Three service classes are not shown. There were 0.1 home- and community-based service claims per person-year of CMC enrollment (0.06 FFS claims and 0.04 encounters), 0.2 inpatient claims (0.2 FFS claims and 0.05 encounters), and 0.0 institutional long-term care service claims.

Figure 4.22

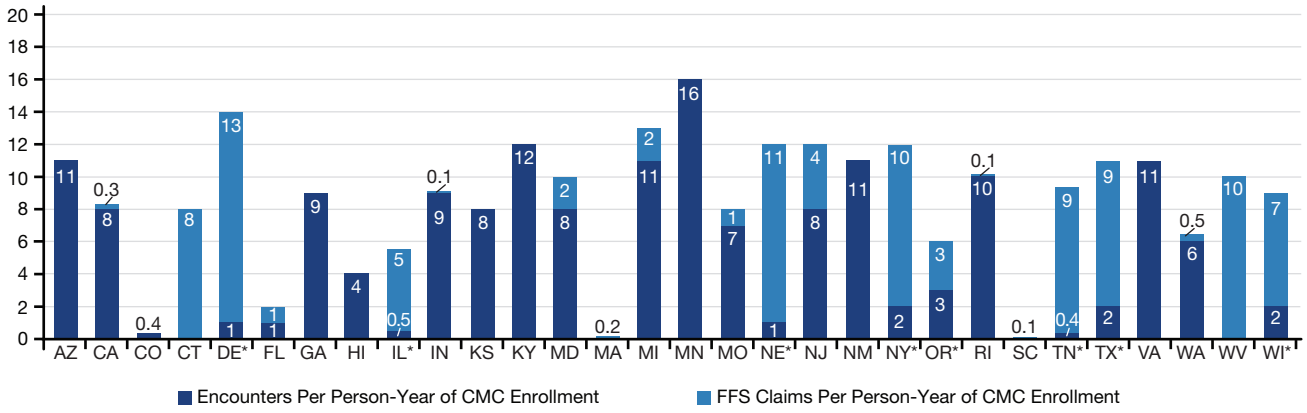
Average Number of Fee-for-Service Claims and Encounters per Person-Year of Comprehensive Managed Care Enrollment in 2008, by State



Source: Medicaid Analytic Extract, 2008.
Notes: Includes 34 states that enrolled at least 5 percent of full-benefit enrollees in comprehensive managed care.
FFS claims and encounters shown in figure were for services provided during periods of CMC enrollment.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service.

Figure 4.23

Average Number of Fee-for-Service Claims and Encounters for Prescription Drugs per Person-Year of Comprehensive Managed Care Enrollment in 2008



Source: Medicaid Analytic Extract, 2008.
Notes: Includes 30 states that enrolled at least 5 percent of full-benefit enrollees in comprehensive managed care and reported encounters or FFS claims for these enrollees.
FFS claims and encounters shown in figure were for services provided during periods of CMC enrollment.
* State carved most prescription drugs out of CMC contracts in 2008.
CMC = comprehensive managed care (HMO/HIO or PACE); FFS = fee-for-service.

to identify specific services that were carved out of CMC contracts. Figure 4.23 shows these averages for prescription drugs. In states with prescription drug carve-outs, FFS claims for drugs often outnumbered encounters. For example, Delaware, which carved out most prescription drugs from CMC coverage in 2008, reported an average of 13 FFS drug claims per person-year of enrollment compared to one encounter.

Overall, states reported substantial numbers of FFS claims for CMC enrollees during periods of CMC enrollment. When studying utilization of specific services by CMC enrollees, researchers may want to consider the extent to which they were provided on a FFS basis across states. Large numbers of FFS claims for CMC enrollees may indicate services that were not covered by CMC plans or, in some states, could suggest issues with data quality.[31]

[31] Moreover, optional services for which there are no encounters or FFS claims could indicate services that a state chose not to cover.

5. Variation in Encounter Data, by Managed Care Analysis Group

Chapters 3 and 4 described the encounter data available in MAX 2008 for CMC enrollees. Medicaid enrollees may also be covered by PHPs, as stand-alone programs or in combination with CMC coverage, and states may also report encounter data for services covered by these plans. This chapter describes how the percentages of enrollees with encounter data varied across managed care plan enrollment combinations in 2008.

A. Methods for Analyzing Encounter Data for Enrollees in Multiple Managed Care Plans: Managed Care Analysis Groups

In MAX 2008, encounter data from most states included insufficient information to identify the specific managed care plan, or even the type of managed care plan, that provided a service. The data could, however, be linked to the enrollee who received the service. Thus, the analyses of encounter data in this chartbook were based on the individual Medicaid enrollees for whom encounter data were submitted. For some who were enrolled in multiple CMC and PHP plans during 2008, it is unclear from which plan a given encounter was submitted. Because of this limitation, Medicaid enrollees with CMC or PHP coverage in 2008 were categorized into five mutually exclusive managed care analysis groups based on the plans in which they were enrolled.

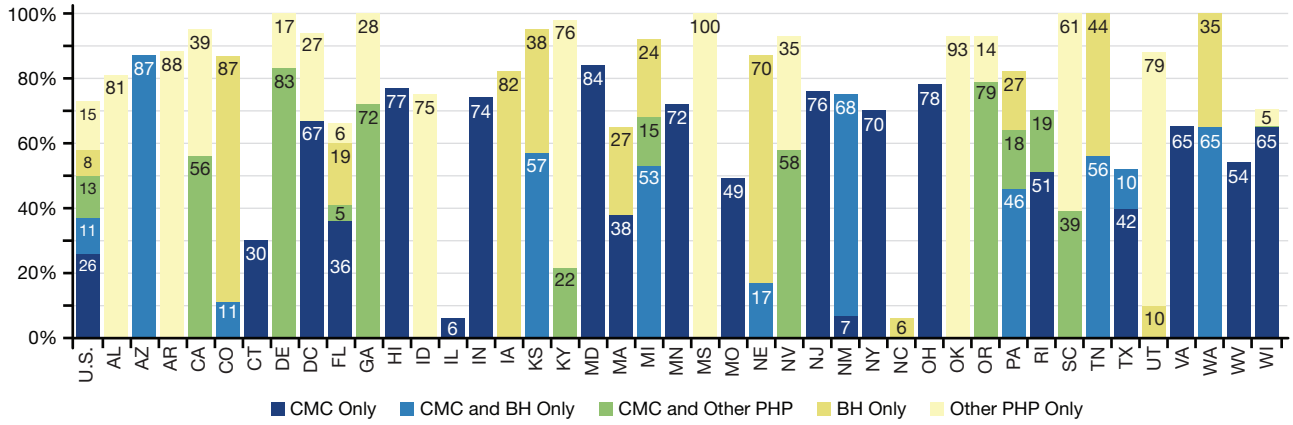
The five analysis groups were created with the goal of identifying a limited number of nationally meaningful categories of managed care enrollment. Initial analyses found the percentage of managed care enrollees with encounter data varied considerably by state. For this reason, the groups were designed so each would include enrollees from at least 10 states.[32]

As discussed in Chapter 2, managed care enrollees in 2008 were covered by a range of combinations of CMC and different types of PHPs. The types of PHPs reported by the most states in MAX 2008 were BH and other PHPs (see Table 2.1 in Chapter 2). BH plans represent a distinct type of managed care coverage, but the other PHP category is diverse. Transportation PHPs, the most dominant type of other PHP in 2008, offer a narrow range of services and do not warrant a unique analytical category. No other common type of other PHP could be identified across states. Dental and long-term care PHPs represent interesting analytical groups, but few states reported enrollment in them in 2008. For these reasons, the managed care analysis groups highlight BH enrollment separately and group together dental, long-term care, and other PHP enrollment under the "other PHP" designation. Readers interested in learning more about encounter data in a specific state should consult Table 2.1 when reviewing this chapter to clarify the types of other PHP enrollment in that

[32] Because PCCM services are covered on a FFS basis, these plans are not generally expected to submit encounter data. PCCM enrollment was not, therefore, considered in creating the managed care enrollment combinations. PCCM enrollees may be in any of the five categories.

Figure 5.1

Percentage of Full-Benefit Medicaid Enrollees in Managed Care Analysis Groups in 2008, by State



Source: Medicaid Analytic Extract, 2008.
Notes: If the percentage of full-benefit Medicare enrollees in managed care analysis group is less than 5 percent, then enrollment is not shown in figure. Each full-benefit Medicaid enrollee with enrollment in a CMC or PHP during 2008 is assigned to one managed care analysis group.
Alaska, Louisiana, Maine, Montana, New Hampshire, North Dakota, South Dakota, Vermont, and Wyoming did not enroll 5 percent of enrollees in any of the managed care analysis groups and are not included in the figure.
CMC = comprehensive managed care; BH = behavioral health; PHP = prepaid health plan; Other PHP = plans designated as other types of prepaid health plans by the state in MSIS; CMC Only = CMC enrollment but no PHP enrollment; BH Only = BH enrollment but no CMC or other PHP enrollment; Other PHP Only = enrollment in one or more PHPs during the year, but no enrollment in CMC.

state in 2008. The five mutually exclusive managed care analysis groups comprise the following:[33]

1. CMC Only: CMC enrollees who had no PHP enrollment during the year. This group included about 26 percent of Medicaid enrollees nationally, with 19 states enrolling at least 5 percent of enrollees in this group (see Figure 5.1).
2. CMC and BH Only: enrollees in both CMC and BH plans during 2008 who were not enrolled in any other PHPs. This group represented 11 percent of Medicaid enrollees nationally, with 10 states enrolling at least 5 percent of enrollees in this group.
3. CMC and other PHP: CMC enrollees who were also enrolled in a dental, long-term care, or other PHP (including enrollees in a CMC, BH, and other PHP). This group represented 13 percent of Medicaid enrollees nationally, with 11 states enrolling at least 5 percent of enrollees in this group.
4. BH Only: enrollees in BH plans who were not enrolled in CMC or in any other PHPs during 2008. This group represented 8 percent of Medicaid enrollees nationally, with 12 states enrolling at least 5 percent of enrollees in this group.[34]
5. Other PHP Only: enrollees who were in a dental, long-term care, or other PHP but never enrolled in CMC during 2008 (including BH enrollees who were also enrolled in an other PHP). This group represented 15 percent of enrollees nationally, with 16 states enrolling at least 5 percent of enrollees in this group.

In total, the managed care analysis groups included about 73 percent of all full-benefit Medicaid enrollees. Forty-two states enrolled at least 5 percent of Medicaid enrollees in one of these groups. As Figure 5.1 shows, the states varied in the percentage of Medicaid enrollees in each group, with some states reporting most managed care enrollees in only one group. Maryland,

[33] None of the seven states that reported no encounters for CMC enrollees reported them for PHP enrollees. In addition, Nebraska and North Carolina reported no encounter data for BH-only enrollees. Arkansas and Idaho reported no encounter data for other PHP-only enrollees.

[34] Some BH PHP enrollees are also covered by other PHPs. Encounter records for these enrollees cannot be definitively identified as services provided by the BH PHP. For that reason, these enrollees are assigned to the Other PHP managed care analysis group.

for example, enrolled about 84 percent of enrollees in CMCs and did not use any PHP coverage in 2008. Other states distributed enrollees across more than one group. Colorado, for example, covered most Medicaid enrollees (87 percent) with only BH plans, but about 11 percent were in both CMC and BH plans. Nine states had no sizeable enrollment in any group. They either enrolled no full-benefit Medicaid enrollees (Alaska, Maine, New Hampshire, South Dakota, Wyoming) or less than 1 percent of them (Louisiana, Montana, North Dakota, and Vermont) in each of these managed care groups. (Appendix Table A5.1 shows state-level enrollment in the managed care analysis groups.)

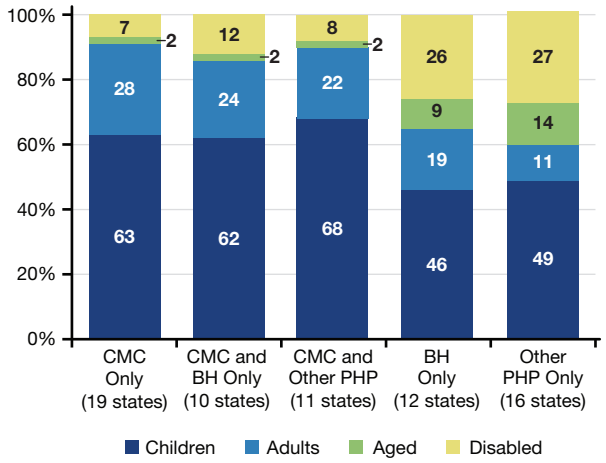
Nationally, enrollment in the five managed care analysis groups varied across Medicaid eligibility groups. As discussed previously, children and adults were more frequently enrolled in CMC plans than the aged and enrollees with disabilities. For this reason, they represented greater percentages of the analysis groups that included CMC enrollment, while the aged and those with disabilities represented relatively larger percentages of the BH-only and other PHP-only groups (Figure 5.2). Enrollment by eligibility group across the three analysis groups of CMC enrollees was generally consistent, except that the CMC and BH-only group had slightly more enrollees who were aged or had disabilities than the CMC-only and CMC and other PHP groups. (Appendix Tables A5.2–A5.5 show state-level enrollment in the managed care analysis groups by eligibility group.)

B. Variation in Reporting of Encounter Data, by Managed Care Analysis Group

Encounter Data for CMC Enrollees, by Managed Care Analysis Group

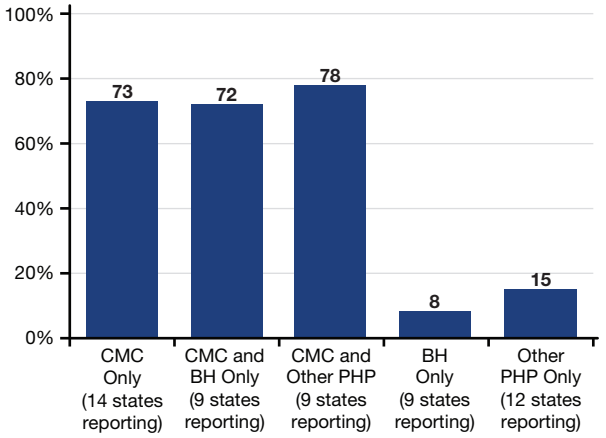
Enrollees in the three managed care analysis groups with CMC coverage were the most likely to have

Figure 5.2
Composition of Managed Care Analysis Groups in 2008, by Basis of Eligibility



Source: Medicaid Analytic Extract, 2008.
Notes: Each full-benefit Medicaid enrollee with enrollment in a comprehensive managed care or prepaid health plan during 2008 is assigned to one managed care analysis group.
Includes states that enrolled at least 5 percent of full-benefit enrollees in managed care analysis groups.
CMC = comprehensive managed care; BH = behavioral health; PHP = prepaid health plan; Other PHP = plans designated as other types of prepaid health plans by the state in MSIS; CMC Only = CMC enrollment but no PHP enrollment; BH Only = BH enrollment but no CMC or other PHP enrollment; Other PHP Only = enrollment in one or more PHPs during the year, but no enrollment in CMC.

Figure 5.3
Percentage of Managed Care Enrollees with Encounter Data, by Managed Care Analysis Group



Source: Medicaid Analytic Extract, 2008.
Notes: Includes states that enrolled at least 5 percent of full-benefit enrollees in a managed care analysis group and reported encounter data for these enrollees. Number in parentheses indicates number of states in each analysis group that reported any encounter data in 2008.
CMC = comprehensive managed care; BH = behavioral health; Other PHP = plans designated as other types of prepaid health plans by the state in MSIS; CMC Only = CMC enrollment but no PHP enrollment; BH Only = BH enrollment but no CMC or other PHP enrollment; Other PHP Only = enrollment in one or more PHPs during the year, but no enrollment in CMC.

Table 5.1

Percentage of Managed Care Enrollees with Any Encounter Data in 2008, by Managed Care Analysis Group and State

	Percentage of Enrollees with Encounter Data				
	CMC Only	CMC and BH Only	CMC and Other PHP	BH Only	Other PHP Only
Number of states	**19**	**10**	**11**	**12**	**16**
Alabama					8.9
Arizona		77.5			
Arkansas					0.0
California			79.1		24.4
Colorado		7.2		1.4	
Connecticut	0.0				
Delaware			80.3		14.5
Dist. of Columbia	0.0				0.0
Florida	27.1		31.7	0.1	0.3
Georgia			82.4		0.9
Hawaii	79.1				
Idaho					0.0
Illinois	53.1				
Indiana	78.3				
Iowa				16.7	
Kansas		80.9		21.7	
Kentucky			88.1		5.0
Maryland	82.4				
Massachusetts	0.0			0.0	
Michigan		81.6	85.5	14.7	
Minnesota	84.1				
Mississippi					0.3
Missouri	80.9				
Nebraska		77.9		<0.1	
Nevada			0.7		7.5
New Jersey	83.9				
New Mexico	78.4	87.3			
New York	76.5				
North Carolina				0.0	
Ohio	0.0				
Oklahoma					37.6
Oregon			80.0		29.8
Pennsylvania		0.0	0.0	0.0	
Rhode Island	83.3		93.8		
South Carolina			0.0		0.0
Tennessee		58.1		12.1	
Texas	74.5	65.1			
Utah				19.4	27.7
Virginia	80.2				
Washington		66.6		0.3	
West Virginia	0.0				
Wisconsin	75.1				51.4

Source: Medicaid Analytic Extract, 2008.
Note: Includes states that enrolled at least 5 percent of full-benefit enrollees in one or more managed care analysis groups in 2008. Alaska, Louisiana, Maine, Montana, New Hampshire, North Dakota, South Dakota, Vermont, and Wyoming are excluded because they enrolled less than 5 percent of enrollees in all of the managed care analysis groups.
CMC = comprehensive managed care (HMO/HIO or PACE); BH = behavioral health plan; PHP = prepaid health plan; Other PHP = plans designated as other types of prepaid health plans by the state in MSIS; CMC Only = CMC enrollment but no PHP enrollment; BH Only = BH enrollment but no CMC or other PHP enrollment; Other PHP Only = enrollment in one or more PHPs during the year, but no enrollment in CMC.

encounter data in 2008 (Figure 5.3). The percentages of enrollees with any encounter data across the three groups of CMC enrollees were generally similar in 2008, ranging from 72 percent of CMC and BH-only enrollees to 78 percent of CMC and other PHP enrollees. (Appendix Table A5.6 shows state-level encounter data reporting by managed care analysis group. Appendix Tables A5.7–A5.10 show this reporting by eligibility group.)

Table 5.1 shows the percentage of enrollees with encounter data in each managed care analysis group in each state. The most notable pattern in Table 5.1 is the greater likelihood within each state of enrollees with any CMC coverage to have encounter data than enrollees with only PHP coverage. For example, in 2008, Nebraska had CMC and BH managed care plans. About 78 percent of Nebraska enrollees with enrollment in both types of plan had encounter data, compared to BH-only enrollees, who had none. Similarly, California, Delaware, Georgia, Kentucky, and Oregon reported relatively large percentages of enrollees in CMC and other PHPs with encounter data, but low percentages among those with only other PHP coverage. The lone exception to this pattern was Nevada, where a small percentage of enrollees in the state's non-emergency transportation PHP had encounter data, while almost no enrollees in both CMC and the transportation plan had encounter data. As discussed previously, PHPs are expected to have more limited encounter data than CMC plans because they cover fewer services and, in some cases, because fewer enrollees may need these specialized services. Across states, however, the considerably low percentage of PHP-only enrollees with encounter data in many states as compared to relatively high percentages of CMC enrollees in those states may also suggest that the availability of encounter data within a state varies by type of Medicaid managed care plan.

BH-Only Enrollees

Only about 8 percent of BH-only enrollees had encounter data in 2008—the lowest rate among the managed care analysis groups (Figure 5.3). Table 5.2 shows the percentage of BH-only enrollees with encounter data by state. Interpretation of these percentages is complex because BH plan coverage and contracts differ considerably across states. First, BH benefit packages vary and may include some combination of inpatient care, outpatient care, outpatient substance abuse treatment, and inpatient detoxification. These differences in the depth and breadth of covered services across states may explain some of the variation in the percentages of enrollees with encounter data for services received under these plans. Next, most states contract with BH plans to enroll all or almost all full-benefit Medicaid enrollees in BH coverage, regardless of each enrollee's clinical

Table 5.2
Percentage of Behavioral Health-Only Enrollees with Any Encounter Data in 2008

	Percentage of Medicaid Enrollees with BH Only Enrollment	Percentage of BH Only Enrollees with Any Encounter Data
Colorado	86.6	1.4
Florida	18.6	0.1
Iowa	81.9	16.7
Kansas	37.6	21.7
Massachusetts	23.3	0.0
Michigan	23.7	14.7
Nebraska	70.1	<0.1
North Carolina	5.7	0.0
Pennsylvania	27.4	0.0
Tennessee	43.5	12.1
Utah	10.4	19.4
Washington	35.3	0.3

Source: Medicaid Analytic Extract, 2008.
Note: Includes all 12 states that covered at least 5 percent of full-benefit enrollees with BH only managed care.
BH = behavioral health; BH Only = BH plan enrollment with no comprehensive managed care (HMO/HIO or PACE) or other prepaid health plan (PHP) coverage.

indication for these services. In states with this pattern of enrollment, such as Tennessee and Washington, it may be reasonable to expect a relatively small percentage of enrollees to need BH services during the year and have encounter data. Similarly, North Carolina targets BH coverage geographically within the state, thus enrolling a subpopulation of Medicaid enrollees who may not be expected to have particularly high rates of BH service use. In these states, relatively small percentages of BH enrollees with encounter data may not represent incomplete reporting. Other states target BH coverage to enrollees with indicated need for these services or to subpopulations whose need can be expected to be higher (such as enrollees with specified mental health diagnoses). BH enrollees in these states may be expected to have higher rates of BH service utilization. Because of these variations across states, encounter data availability among BH enrollees is not comparable without factoring in benefit plan and enrollee characteristics.[35]

Only six states submitted encounter data for at least 1 percent of BH-only enrollees in 2008. Although drawing generalizable conclusions based on reporting in six states was difficult, a couple of patterns did appear in the encounter data. First, the most commonly reported services in encounter data for BH-only enrollees were psychiatric services, ranging from 1 percent of BH-only enrollees in Colorado and Utah, respectively, to 20 percent in Kansas. The next most common were physician and clinic services. Encounters for other types of services were reported in notable numbers only by certain states. Utah, for example, reported relatively high percentages of BH-only enrollees with lab and x-ray service encounters (13 percent) and other services (10 percent). Michigan reported case management encounters for about 8 percent of BH-only enrollees. As with encounter data in general, the six states reported few or no encounters for ILTC, HCBS, or inpatient services for BH-only enrollees in MAX 2008.[36]

Other PHP-Only Enrollees

About 15 percent of enrollees in the other PHP-only analysis group had encounter data in 2008 (Figure 5.3). The other PHP-only group included a diverse population of Medicaid enrollees across 16 states that did not, as a group, represent a unique managed care experience. Table 5.3 groups together states with PHP-only enrollment based on the primary type of PHP enrollment in the state in 2008. In 8 of the 16 states with other PHP-only enrollment, this coverage was primarily limited to non-emergency transportation services.[37] In 7 of these states, less than 10 percent of enrollees had encounter data in 2008.[38]

C. Service Utilization Within the CMC Population, by Managed Care Analysis Group

Few clear differences in service utilization appeared in encounter data across the three groups of CMC enrollees in 2008. Consistent with the findings in Chapter 4, few CMC enrollees in any of the three groups had encounters for inpatient services, ILTC, or HCBS (Figure 5.4). Among the three more frequently reported service classes, only slight

[35] It is also important to note that differences in how states used CMC in 2008 will affect the population in the BH only group in each state. For example, a state that enrolls most enrollees in CMC and BH plans would have only a small percentage of enrollees in the BH only group. Conversely, BH plan enrollees in a state that did not use CMC plans would all fall into the BH only group. These differences limit comparisons across states.

[36] A forthcoming MAX issue brief examines encounter data for enrollees in BH plans in 2009 (Nysenbaum, Bouchery, and Malsberger, forthcoming).

[37] Utah has a large non-emergency transportation PHP but it is not included in this group because the other PHP-only group in Utah includes people who are in both the transportation PHP and a BH PHP. This coverage is more extensive than the very limited coverage of non-emergency transportation only.

[38] Encounter data were not separately analyzed for other PHP-only enrollees because, as a group, this population did not represent a unique, analytically distinct population of enrollees or type of managed care coverage.

Table 5.3
Percentage of Other PHP-Only Enrollees with Any Encounter Data in 2008, by Type of Plan

	Percentage of Enrollees in Other PHP-Only Analysis Group	Percentage of Other PHP-Only Enrollees with Any Encounter Data
Non-Emergency Transportation		
Arkansas	87.9	0.0
Delaware	16.5	14.5
District of Columbia	27.4	0.0
Georgia	27.5	0.9
Kentucky	76.1	5.0
Mississippi	99.9	0.3
Nevada	35.2	7.5
South Carolina	60.8	0.0
Dental		
California	39.4	24.4
Idaho	74.7	0.0
Inpatient PHP		
Alabama	81.4	8.9
Hybrid PCCM and Transportation		
Oklahoma	92.5	37.6
Long-Term Care		
Wisconsin	5.4	51.4
Other PHP and BH PHP		
Florida	5.9	0.3
Oregon	14.3	29.8
Utah	79.3	27.7

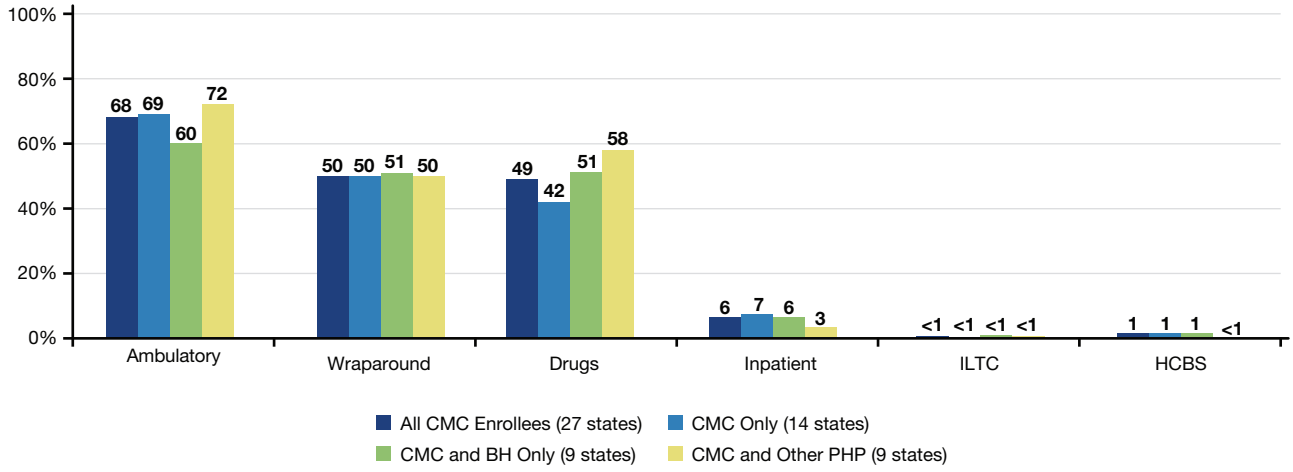
Source: Medicaid Analytic Extract, 2008.
Notes: Includes all 16 states that covered at least 5 percent of full-benefit enrollees with other PHP Only managed care.
States are categorized based on the predominant type of "other PHP" in the state in 2008.
PHP = prepaid health plan; BH = behavioral health; PCCM = primary care case management.

differences occurred in utilized services for CMC enrollees with additional PHP coverage. (Appendix Table A5.11 shows state-level encounter data reporting by service class for states with enrollment in the CMC only, CMC and BH only, and CMC and other PHP managed care analysis groups.)

Overall, the percentages of CMC enrollees with ambulatory service encounters were generally similar across the three managed care analysis groups, ranging from 60 percent of CMC and BH-only enrollees to 72 percent of CMC and other PHP enrollees. The relatively small number of states in each analysis group and the considerable influence on each group rate of a few large states suggests that variations across groups were determined by state-level differences in reporting rather than systematic differences by managed care enrollment status. Table 5.4 compares the percentage of enrollees with CMC and PHP coverage who had ambulatory service encounters in each state in 2008 with the overall rates for CMC-only enrollees. As the table shows, few systematic differences in utilization of specific services underlay the overall higher rate of ambulatory service utilization for enrollees in CMC and other PHPs and the lower rate for CMC and BH-only enrollees. First, very low reported rates of physician encounters in Colorado and Washington drove the lower rate for CMC and BH-only enrollees. Relatively high rates of dental service utilization among CMC and other PHP enrollees in several states contributed to the higher overall ambulatory service utilization rate for this group. In part, this was driven by dental encounters in states with dental PHPs, such as California, Michigan, and Oregon. Ability to attribute this difference to claims from dental PHPs, however, is limited, as Georgia, Kentucky, and New Mexico had similarly high percentages of enrollees with dental encounters but did not have dental PHPs in 2008, indicating this coverage may have been included in CMC plans in those states.

Figure 5.4

Percentage of Managed Care Enrollees with Encounter Data in 2008, by Service Class and Managed Care Analysis Group



Source: Medicaid Analytic Extract, 2008.
Notes: States may be included in more than one group if they enrolled at least 5 percent of enrollees in multiple managed care analysis groups.
Number in parentheses indicates the number of states with enrollment in the analysis group that reported encounter data in 2008.
CMC = comprehensive managed care (HMO/HIO or PACE); ILTC = institutional long-term care; HCBS = home- and community-based services; BH = behavioral health; Other PHP = plans designated as other types of prepaid health plans by the state in MSIS.

Similarly, in the CMC-only group, four states (Maryland, Minnesota, New Jersey, and New York) reported dental service encounters for at least 20 percent of enrollees.

CMC enrollees with PHP coverage also had higher rates of prescription drug encounters in 2008. As with ambulatory services, PHP coverage likely did not contribute to higher percentages of CMC and other PHP enrollees with prescription drug encounters—in this case, because few other PHPs in 2008 covered prescription drugs. Instead, this difference was likely driven by variations in encounter data for CMC coverage. For example, Georgia, Kentucky, and Rhode Island had the greatest percentages of CMC and other PHP enrollees with prescription drug encounters, but PHP coverage in these states was limited to non-emergency transportation (Georgia and Kentucky) and dental care (Rhode Island), suggesting that the prescription drug encounters for these enrollees were for services provided by the CMC plan and not the PHP. Moreover, Rhode Island enrolled about half of its full-benefit Medicaid enrollees in CMC-only coverage, and a similar percentage had prescription drug encounters in 2008.

The examples above suggest that, because of the limited availability of encounter data for PHP coverage and the limited scope of most PHP coverage in comparison to CMC plans, an examination of MAX encounter data for CMC enrollees is not affected noticeably by the inclusion of those who also have PHP coverage. The biggest contributors to differences across these groups in 2008 appear to be based on differences in levels of state reporting, likely for CMC enrollees, rather than on systematic differences in service utilization by managed care analysis groups. With the exception of coverage for a few specialty services, such as dental care, research using encounter data may not need to distinguish within the population of CMC enrollees based on PHP coverage.

Table 5.4
Percentage of Managed Care Enrollees with Encounter Data for Common Services in 2008, by Managed Care Analysis Group

	Prescription Drugs (Percentage of Enrollees)	Ambulatory Services (Percentage of Enrollees)						
		Physician	Dental	Other Practitioner	Outpatient Hospital	Clinic	Nurse Practitioner	Psychiatric
Total CMC Only (14 states)	**41.9**	**60.4**	**13.4**	**4.8**	**29.6**	**6.3**	**3.1**	**8.4**
Total CMC and BH Only	**51.1**	**54.9**	**2.9**	**8.2**	**26.8**	**6.2**	**4.4**	**12.5**
Arizona	63.0	68.2	0.0	14.5	36.2	10.4	8.5	16.4
Colorado	0.2	1.6	0.0	0.2	2.7	0.5	0.0	4.3
Kansas	66.0	60.0	0.2	8.6	30.8	18.2	6.8	13.3
Michigan	69.3	72.1	0.0	13.0	39.4	9.4	1.5	15.0
Nebraska	30.8	68.1	0.0	2.0	36.1	0.2	0.4	4.5
New Mexico	72.6	69.2	38.9	11.7	31.1	7.5	14.7	13.7
Tennessee	7.5	53.0	0.0	0.5	18.5	1.3	0.0	17.7
Texas	28.8	60.7	0.2	5.2	25.8	1.3	6.3	2.1
Washington	58.2	0.0	0.0	0.0	0.0	0.0	0.0	3.0
Total CMC and Other PHP	**58.5**	**58.3**	**29.1**	**9.2**	**23.2**	**11.4**	**3.4**	**7.9**
California	61.0	58.0	34.1	7.8	20.8	7.4	1.0	6.6
Delaware	22.7	74.0	0.0	10.7	6.5	3.7	0.5	16.2
Florida	15.3	27.3	0.0	0.1	0.5	0.7	0.1	2.9
Georgia	68.6	63.8	23.0	13.2	30.9	31.6	8.7	10.3
Kentucky	74.1	76.3	31.6	20.5	39.3	1.9	15.7	5.7
Michigan	66.6	67.1	33.5	18.1	34.9	11.1	2.2	10.8
Nevada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oregon	38.1	59.6	26.4	7.5	31.0	7.6	12.2	15.3
Rhode Island	78.2	51.7	0.0	10.9	46.9	31.1	0.0	12.0

Source: Medicaid Analytic Extract, 2008
Note: Includes states that enrolled at least 5 percent of all full-benefit Medicaid enrollees in CMC Only, CMC and BH Only, or in CMC and other PHP Only in 2008 and reported encounter data. Michigan is reported twice because the state enrolled at least 5 percent of enrollees in each of the managed care analysis groups.
CMC = comprehensive managed care (HMO/HIO or PACE); BH = behavioral health; PHP = prepaid health plan.

Glossary of Terms

1115 Waiver statutory authorization to extend Medicaid benefits to certain otherwise ineligible persons via a state 1115 demonstration waiver program. Some states provide only family planning benefits or other limited services to 1115 enrollees, although a few provide full Medicaid benefits. Many 1115 waivers also have other provisions, such as mandatory managed care coverage.

1931/Cash Assistance–Related a classification for aged and disabled individuals receiving Supplemental Security Income (SSI) benefits and children and adults who would have qualified for Medicaid coverage under the pre–welfare reform Aid to Families with Dependent Children (AFDC) rules.

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.

Alien an individual who is not a permanent resident or citizen of the United States. In Medicaid, all aliens who entered the United States after 1996 are considered "unqualified" for Medicaid coverage for 5 years from their date of entry. Unqualified aliens are eligible only for emergency hospital services.

Basis of Eligibility (BOE) an eligibility grouping traditionally used by the Centers for Medicare & Medicaid Services (CMS) to classify enrollees in Medicaid. BOE categories include children, adults, aged, and disabled (see other entries for descriptions of these categories).

Behavioral Health care that includes treatment for mental health issues (such as depression, bipolar disorder, or schizophrenia) and substance abuse. Behavioral health services under Medicaid are often provided through separate managed care or fee-for-service models.

Capitation or Capitated Payment a method of payment for health services in which a managed care 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.

Case Management services that assist enrollees with access to medical, social, educational, and other services. States may target case management services to specific classes of individuals or to individuals who reside in specific areas of the state. Case management does not include the underlying medical, social, educational, or other services themselves.

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

Children's Health Insurance Program (CHIP) a program authorized in 1997 to provide enhanced federal matching funds to help states expand health coverage to uninsured children. CHIP is financed jointly by federal and state governments and administered by states. States may administer CHIP through their Medicaid programs (referred to as M-CHIP) or as separate programs (referred to as S-CHIP). M-CHIP children are included in the MAX data and reported as poverty-related enrollees.

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

Disabled a basis of eligibility (BOE) group that includes individuals 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.

Dual Eligibles individuals dually enrolled in Medicare and Medicaid (sometimes referred to as duals or Medicare–Medicaid enrollees). In this chartbook, dual eligibles are defined as people in the Medicaid data files with matching records in the Medicare Enrollment Database indicating enrollment in both Medicare and Medicaid for at least one month in 2008.

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. These services are classified as wraparound services in this chartbook.

Encounter Records records for services utilized under managed care. Encounter records do not include payment information for services used.

Enrollees for the purposes of this chartbook, people enrolled in Medicaid for at least one day in 2008 (sometimes referred to as beneficiaries or eligibles). Most of this chartbook focuses on full-benefit enrollees (see definition).

Family Planning services and supplies that enable individuals and couples to anticipate and have the desired number of children and to space apart and choose the times of their births. CMS has provided guidance saying that states may cover counseling services, examination and treatment by medical professionals, pharmaceutical devices to prevent conception, and infertility services, and assist with access to primary care. States also maintain family planning waivers that provide only these services to enrollees who are otherwise ineligible for Medicaid.

Federal Fiscal Year (FFY) the year beginning on October 1 and ending on September 30 of the following year. FY 2008 runs from October 1, 2007, through September 30, 2008.

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 2008, 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.

Financial Eligibility Group eligibility grouping traditionally used by CMS to classify enrollees by the financial-related criteria by which they are eligible for Medicaid. Groups include cash assistance–related, medically needy, poverty–related, 1115 waiver, and other (see other entries for descriptions of these categories).

Home- and Community-Based Services (HCBS) long-term support services for people who are not institutionalized but require nursing or other support services typically provided in nursing homes or other institutions. In this chartbook, we include six MAX service types in HCBS: adult day care, home

health care, hospice care, personal care services, residential care, and private-duty nursing (sometimes referred to as community-based long-term care).

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

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

Institutional Long-Term Care (ILTC) institutional or inpatient long-term care services covered by Medicaid. ILTC includes 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 HCBS and can be found in the MAX OT file).

Managed Care (MC) systems and payment mechanisms used to manage or control the use of health care services that may include incentives to use certain providers and case management. A managed care organization (MCO) usually involves a system of providers who have 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 Management Information System (MMIS) the secure data system that each state uses to store electronic Medicaid data, including claims, services, billing, and processing information.

Medicaid Analytic Extract (MAX) is a set of person-level data files on Medicaid eligibility, service utilization, and payments. The MAX data are extracted from the MSIS.

Medicaid Statistical Information System (MSIS) the CMS data system containing 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) classification of individuals qualifying for Medicaid through the medically needy provision (a state option) that allows for a higher income threshold. 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.

Other Enrollees group of Medicaid enrollees consisting of a mixture of mandatory and optional coverage groups not reported under the other financial eligibility categories, including many institutionalized aged and disabled, individuals qualifying through hospice and home- and community-based care waivers, and aliens who qualify for emergency Medicaid benefits only.

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

Person-Years Enrollment (PYE) a measure of the actual amount of time that Medicaid enrollees were enrolled in Medicaid. This assigns a lower count for those who are not enrolled for a full year (for example, a person who is enrolled in Medicaid for six months of the year will have 0.5 PYE).

Poverty-Related classification of individuals qualifying through poverty-related Medicaid expansions enacted from 1988 on. This group

also includes dual eligibles who only qualify for Medicare cost sharing.

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

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

Primary Care Case Management (PCCM) a type of managed care plan that involves the payment of a small premium (often 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. Services are provided to PCCM enrollees on a FFS basis.

Program of All-Inclusive Care for the Elderly (PACE) a program states may offer to older Medicaid enrollees (age 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 providers. These plans represent one type of comprehensive managed care plan.

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, dual eligibles receiving only coverage for Medicare premiums and cost sharing, individuals receiving only family planning services, and individuals eligible only for assistance with the purchase of third-party insurance premiums. Restricted-benefit enrollees are not generally eligible for Medicaid managed care and are excluded from analysis of encounter data.

Service Utilization measure of use of services in MAX data based on the number or percentage of Medicaid enrollees with FFS or encounter claims for a specific Medicaid-covered service.

Supplemental Security Income (SSI) a federal entitlement program providing cash assistance to aged, blind, and disabled individuals with low incomes. People receiving SSI are eligible for Medicaid in all but Section 209(b) states, where more restrictive criteria may be used to determine 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 Section 1931 groups, after the section of the Social Security Act that specifies AFDC-related eligibility after welfare reform.

Type of Claim three distinct types of Medicaid claims: fee-for-service claims, capitated payments to managed care plans, and encounter records.

Type of Service thirty nationally uniform codes that indicate in MAX the type of medical services billed in claims.

User Medicaid enrollee with a claim for a specific service. Enrollees are typically users of multiple services.

Waiver statutory authorization for a state 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 who are not generally covered under Medicaid.

Acronyms and Abbreviations

1115 Section 1115 demonstration waiver

1931 Section 1931/Cash Assistance

ACA Affordable Care Act of 2010

AFDC Aid to Families with Dependent Children

BH behavioral health

BOE basis of eligibility

CHIP Children's Health Insurance Program

CHIPRA Children's Health Insurance Program Reauthorization Act of 2009

CMC comprehensive managed care

CMS Centers for Medicare & Medicaid Services

DME durable medical equipment

FFS fee-for-service

FFY federal fiscal year

FMAP federal medical assistance percentage

FPL federal poverty level

HCBS home- and community-based services

HMO health maintenance organization

HIO health insuring organization

ICF/MR intermediate care facility for the mentally retarded

ILTC institutional long-term care

IP inpatient hospital care; MAX inpatient claims file

LTC long-term care

LT MAX long-term care claims file

M-CHIP Medicaid expansion CHIP

MAX Medicaid Analytic Extract

MC managed care

MN medically needy

MSIS Medicaid Statistical Information System

MMIS Medicaid Management Information System

OT occupational therapy in the context of specific services; "other" services in the context of summary type of service; MAX other services 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

PYE person-years enrollment

RX prescription drugs; MAX prescription drug claims file

S-CHIP Separate Children's Health Insurance Program

SSI Supplemental Security Income

STAR+ State of Texas Access Reform

TANF Temporary Assistance to Needy Families

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MAX
CENTERS FOR MEDICARE
& MEDICAID SERVICES


CMS
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Policy Research