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Report to Congressional Requesters

May 2015

MEDICAID

A Small Share of Enrollees Consistently Accounted for a Large Share of Expenditures

GAO-15-460

GAO Highlights

Highlights of GAO-15-460, a report to congressional requesters

May 2015

MEDICAID

A Small Share of Enrollees Consistently Accounted for a Large Share of Expenditures

Why GAO Did This Study

Studies on healthcare spending generally find that a small percentage of individuals account for a large proportion of expenditures, and Medicaid—a federal-state health financing program for low-income and medically needy individuals—is no exception. Medicaid expenditures for fiscal year 2013 totaled about $460 billion, covering about 72 million enrollees, some of whom were also eligible for Medicare. More information about Medicaid enrollees who are not also eligible for Medicare (i.e., Medicaid-only enrollees) and who account for a high proportion of expenditures could enhance efforts to manage expenditures and facilitate improvements to care.

GAO was asked to provide information about the characteristics of high-expenditure Medicaid-only enrollees and their expenditures. GAO (1) examined the distribution of expenditures among Medicaid-only enrollees, (2) determined whether the proportions of high-expenditure Medicaid-only enrollees in selected categories changed or remained consistent from year to year, and (3) determined whether the distribution of high-expenditure Medicaid-only enrollees' expenditures among selected categories of service varied across states.

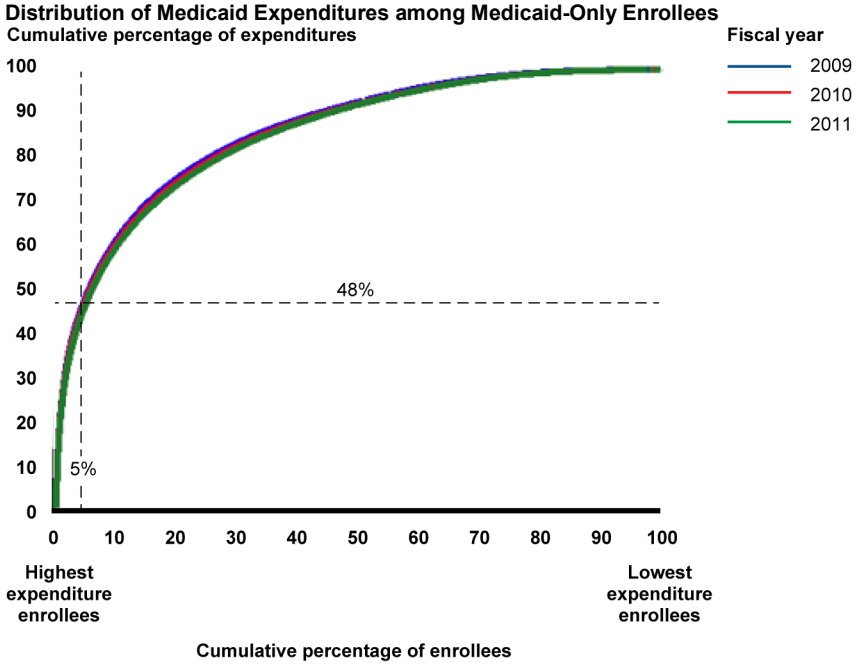
GAO analyzed data from the Medicaid Statistical Information System Annual Person Summary File for fiscal years 2009, 2010, and 2011, the most recent years for which data from almost all states were available.

View GAO-15-460. For more information, contact Carolyn L. Yocom at (202) 512-7114 or yocomc@gao.gov.

What GAO Found

A small percentage of Medicaid-only enrollees—that is, those who were not also eligible for Medicare—consistently accounted for a large percentage of total Medicaid expenditures for Medicaid-only enrollees. In each fiscal year from 2009 through 2011, the most expensive 5 percent of Medicaid-only enrollees accounted for almost half of the expenditures for all Medicaid-only enrollees. In contrast, the least expensive 50 percent of Medicaid-only enrollees accounted for less than 8 percent of the expenditures for these enrollees.

Distribution of Medicaid Expenditures among Medicaid-Only Enrollees



Source: GAO analysis of data from the Centers for Medicare & Medicaid Services. | GAO-15-460

Notes: Data were from all states and the District of Columbia, but excluded Idaho in fiscal year 2010, as well as Florida and Maine in fiscal year 2011, as GAO determined these data were either unreliable or unavailable. The dashed lines in the figure show that the 5 percent of Medicaid-only enrollees with the highest expenditures nationwide accounted for 48 percent of total Medicaid expenditures for Medicaid-only enrollees in fiscal year 2011.

Of the Medicaid-only enrollees who were among the 5 percent with the highest expenditures within each state, the nationwide proportions of these enrollees in different eligibility groups (such as the disabled or children) and with certain conditions (such as asthma) or services (such as childbirth or delivery) were also consistent from fiscal years 2009 through 2011.

The distribution of high-expenditure Medicaid-only enrollees' expenditures among categories of service in fiscal year 2011 varied widely across states. Expenditures for managed care and premium assistance varied most widely (from 0 to 75 percent).

The Department of Health and Human Services provided technical comments on a draft of this report, which were incorporated as appropriate.

Contents

Tables

Figures

Abbreviations

CHIP	Children's Health Insurance Program
CMS	Centers for Medicare & Medicaid Services
FPL	federal poverty level
HCERA	Health Care and Education Reconciliation Act of 2010
HHS	Department of Health and Human Services
HIV/AIDS	human immunodeficiency virus/acquired immunodeficiency syndrome
MSIS	Medicaid Statistical Information System
PPACA	Patient Protection and Affordable Care Act

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May 8, 2015

The Honorable Orrin G. Hatch
Chairman
The Honorable Ron Wyden
Ranking Member
Committee on Finance
United States Senate

The Honorable Charles E. Grassley
United States Senate

Studies on healthcare spending generally find that a small percentage of individuals account for a large portion of expenditures, and Medicaid—a federal-state health financing program for low-income and medically needy individuals—is no exception.[1] Financing coverage for children, adults, individuals aged 65 and older, and those with disabilities, Medicaid had approximately 72 million enrollees and expenditures totaling about $460 billion in fiscal year 2013. At the federal level, the Centers for Medicare & Medicaid Services (CMS), within the Department of Health and Human Services (HHS), is responsible for overseeing the design and operation of states' Medicaid programs, and states administer their respective Medicaid programs' day-to-day operations.

In 2014, we reported that a small share of enrollees in each state collectively accounted for a disproportionately large share of total Medicaid expenditures, whether looking at those enrolled in Medicaid only or those dually eligible (that is, individuals enrolled in both Medicaid and

[1]See, for example, Congressional Budget Office, *High-Cost Medicare Beneficiaries* (Washington, D.C.: May 2005), A. Sommers and M. Cohen, *Medicaid's High Cost Enrollees: How Much Do They Drive Program Spending?* (Washington, D.C.: Kaiser Family Foundation, 2006), and National Institute for Health Care Management, *The Concentration of Health Care Spending* (Washington, D.C.: July 2012).

Medicare).[2] Medicaid enrollment and expenditures are expected to increase in states that choose to expand eligibility in response to the Patient Protection and Affordable Care Act (PPACA), and may increase in other states as well.[3] The Congressional Budget Office projected that, as a result of PPACA, about 8 million additional people could be enrolled in Medicaid and the Children's Health Insurance Program (CHIP) by 2016 compared with 2012.[4] As Medicaid enrollment increases, more extensive information about high expenditure enrollees who are not dually eligible for Medicare—that is, Medicaid-only enrollees—could enhance efforts to manage expenditures and facilitate improvements to care.

You asked us to provide additional information about the characteristics of high-expenditure Medicaid-only enrollees and their expenditures. We (1) examined the distribution of expenditures among Medicaid-only enrollees, (2) determined whether the proportions of high-expenditure Medicaid-only enrollees in selected categories changed or remained consistent from year to year, and (3) determined whether the distribution

[2]See GAO, *Medicaid: Demographics and Service Usage of Certain High-Expenditure Beneficiaries*, GAO-14-176 (Washington, D.C.: Feb. 19, 2014), which reported findings based on 2009 data. We also reported that being disabled, having human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), residing in a long-term care facility, and childbirth significantly increased the probability of being a high-expenditure Medicaid-only enrollee. Medicare is the federally financed health insurance program for persons aged 65 and over, certain individuals with disabilities, and individuals with end-stage renal disease.

[3]Pub. L. No. 111-148, 124 Stat. 119 (2010), as amended by the Health Care and Education Reconciliation Act of 2010 (HCERA), Pub. L. No. 111-152, 124 Stat. 1029 (2010). For purposes of this report, references to PPACA include the amendments made by HCERA. Starting in 2014 (or as early as April 1, 2010, subject to certain requirements), PPACA authorized states to expand Medicaid coverage under their state plans to previously ineligible categories such as childless adults with incomes at or below 138 percent of the federal poverty level (FPL). PPACA established 133 percent of the FPL as the income limit for expanded Medicaid eligibility; however, it also specified that an income disregard in the amount of 5 percent of the FPL be deducted from an individual's income when determining Medicaid eligibility, which effectively raised the eligibility limit for newly eligible Medicaid recipients to 138 percent of the FPL.

[4]CHIP is an insurance program for certain low-income, uninsured children whose family income is too high for Medicaid. The Congressional Budget Office had predicted in 2012 an increase of 10 million Medicaid enrollees, but lowered that estimate in 2015. See Congressional Budget Office, *Estimates for the Insurance Coverage Provisions of the Affordable Care Act Updated for the Recent Supreme Court Decision* (Washington, D.C.: July 2012) and *Updated Budget Projections: 2015 to 2025* (Washington, D.C.: March 2015).

of high-expenditure Medicaid-only enrollees' expenditures among selected categories of service varied across states.

To address these objectives, we used the Medicaid Statistical Information System (MSIS) Annual Person Summary File, which provides enrollee-specific data on expenditures and payment arrangements, as well as such enrollee characteristics as basis of eligibility for Medicaid, status of eligibility for Medicare, and demographics. We obtained from CMS the data for three fiscal years—2009, 2010, and 2011, the most recent years for which data from almost all states were available as of December 2014. For fiscal year 2011, data on expenditures and enrollee characteristics were not available from Maine, and data on expenditures were not available from Florida. We assessed the reliability of these data by performing appropriate electronic data checks and reviewing relevant documentation, and we made several changes to ensure that the data were sufficiently reliable for our purposes; these changes are detailed in appendix I. We determined that the data from Idaho for 2010 were not sufficiently reliable for our purposes and therefore excluded them.[5] We determined that the remaining data were sufficiently reliable for our purposes. Because our objectives focused on Medicaid-only enrollees, we excluded those who were dually eligible for both Medicaid and Medicare—about 13 percent of each year's records.[6] We previously reported that dually eligible enrollees accounted for about 35 percent of total Medicaid expenditures in fiscal year 2009.[7] We retained about 85 percent of the original records in the summary file, and these records represent just under 65 percent of total Medicaid expenditures.

[5]Preliminary analyses indicated that nearly 80 percent of the records for Idaho in fiscal year 2010 contained Social Security numbers or state-assigned identifiers that duplicated the identifying numbers in other records, even though there should have been only one record for each number. Consequently, we questioned the reliability of these records. We then concluded that the resulting subset of only 20 percent of the state's records would not provide a sufficient basis for evaluation.

[6]We excluded Medicaid enrollees who were dually eligible for Medicare during any month of the year because our focus was on enrollees who were only eligible for Medicaid. We also excluded Medicaid enrollees for whom there were expenditures during the year and who were also enrolled in a separate, stand-alone CHIP program during at least one month of the year, because we could not determine which expenditures for these enrollees were Medicaid expenditures.

[7]GAO-14-176.

To determine the distribution of expenditures among Medicaid-only enrollees, we ordered Medicaid-only enrollees by their total Medicaid expenditures, from highest to lowest, and determined the cumulative percentage of expenditures attributable to enrollees as the percentage of ordered enrollees increased. We analyzed data from fiscal years 2009, 2010, and 2011 separately to determine whether the relationship was consistent across years.

To determine whether the proportions of high-expenditure Medicaid-only enrollees in selected categories changed or remained consistent from year to year, we defined high-expenditure Medicaid-only enrollees as the 5 percent with the highest expenditures within each state (as we had in our earlier work on high-expenditure Medicaid enrollees) and conducted two separate analyses based on two ways of categorizing enrollees. For one analysis, we categorized enrollees into five mutually exclusive eligibility groups—child, adult, aged, disabled, and unknown. For a second analysis, we examined the percentages of enrollees with any of the five chronic conditions and the two services that are recorded in the MSIS summary file. The five chronic conditions recorded in this file are asthma, diabetes, human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), mental health conditions, and substance abuse. The two services recorded in this file are delivery or childbirth, and long-term care residence.[8] Enrollees could have any of these seven conditions or services, any combination of them, or none of them. We analyzed data from fiscal years 2009, 2010, and 2011 to determine whether the relationship was consistent across years.

To determine whether the distribution of high-expenditure Medicaid-only enrollees' expenditures among selected categories of service varied across states, we again defined high-expenditure Medicaid-only enrollees as the 5 percent with the highest expenditures within each state. We examined fiscal year 2011 expenditures in eight categories of service—namely, three types of institutional care (hospital, long-term, and psychiatric facility); three types of non-institutional services (acute care; long term support; and other support services, such as targeted case management or rehabilitative services); prescription drugs; and managed

[8]Information in the MSIS summary data file on enrollees' diagnoses or health care needs is limited to these five chronic conditions (asthma, diabetes, HIV/AIDS, mental health conditions, and substance abuse) and these two services (delivery/childbirth and long-term care residence).

care and premium assistance.[9] We identified the distribution of high-expenditure enrollees' expenditures among these types of service within each state, and compared the distributions across states. For a more complete description of our methodology, see appendix I.

We conducted this performance audit from August 2014 through May 2015 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

As a comprehensive health benefit program for vulnerable populations, each state Medicaid program, by law, must cover certain categories of individuals and provide a broad array of benefits. Within these requirements, however, the Medicaid program allows for significant flexibility for states to design and implement their programs, resulting in more than 50 distinct state-based programs. These variations in design have implications for program eligibility and services offered, as well as how expenditures are reported and services are delivered.

Specifically, in administering their own programs, states make decisions regarding populations or health services to cover beyond what are mandated by law. States must cover certain groups of individuals, such as pregnant women with incomes at or below 133 percent of the federal poverty level (FPL), but may elect to cover them above this required minimum income level. For example, as of March 2011, some states covered pregnant women with incomes at or above 250 percent of the FPL. Similarly, while states' Medicaid programs generally must cover certain mandatory services—including inpatient and outpatient hospital services, physician services, laboratory and X-ray services, and nursing facility services for those age 21 and older—states may also elect to

[9]The MSIS summary file includes data on expenditures for 30 types of services. We consolidated 28 of these types of services into 8 categories. Expenditures for the remaining 2 types of services included in the MSIS summary file—(1) services provided in religious, non-medical health care institutions and (2) unknown services—are generally minimal. We included them in total expenditures, but not in any of the 8 categories of service we considered.

cover additional optional benefits and services. These optional benefits and services include prescription drugs, dental care, hospice care, home- and community-based services, and rehabilitative services. In addition, even among states that offer a particular benefit, the breadth of coverage (i.e., amount, duration, and scope) of that benefit can vary greatly. For example, most states cover some dental services, but some limit this benefit to trauma care and/or emergency treatment for pain relief and infection, while others also cover annual dental exams.

States also have flexibility, within general federal requirements, to determine how the services they cover will be delivered to Medicaid enrollees—whether on a fee-for-service basis or through managed care arrangements. For example, under some managed care arrangements, the state pays managed care organizations a fixed amount, known as a capitation payment, to provide a package of services. States vary in terms of the types of managed care arrangements used and the eligibility groups enrolled.[10] For example, while 12 states enrolled 50 percent or more of their disabled enrollees in comprehensive risk-based managed care in fiscal year 2011, 20 states enrolled fewer than 5 percent of disabled enrollees in such arrangements.[11] States may also operate premium assistance programs to subsidize the purchase of private health insurance—such as employer-sponsored insurance—for Medicaid enrollees. In 2009, 35 states reported using Medicaid funds to provide premium assistance.[12] These differences in covered services and delivery systems can affect the distribution of states' spending across categories of services. For example, states that rely heavily on managed care arrangements to provide hospital care and acute care services to their enrollees are likely to have a greater proportion of their expenditures

[10]States may contract with managed care organizations to provide the full range of covered Medicaid services or a limited set of services, such as dental care or behavioral health care. States may also use primary care case management programs, in which enrollees are assigned a primary care provider who is responsible for providing primary care services and for coordinating other needed health care services.

[11]Available data for one state (Vermont) do not permit determination of the percentage of disabled enrollees who were in comprehensive risk-based managed care in fiscal year 2011.

[12]GAO, *Medicaid and CHIP: Enrollment, Benefits, Expenditures, and Other Characteristics of State Premium Assistance Programs*, GAO-10-258R (Washington, D.C.: Jan. 19, 2010).

devoted to managed care, and a lower proportion to the covered services, than states that do not have such managed care arrangements.

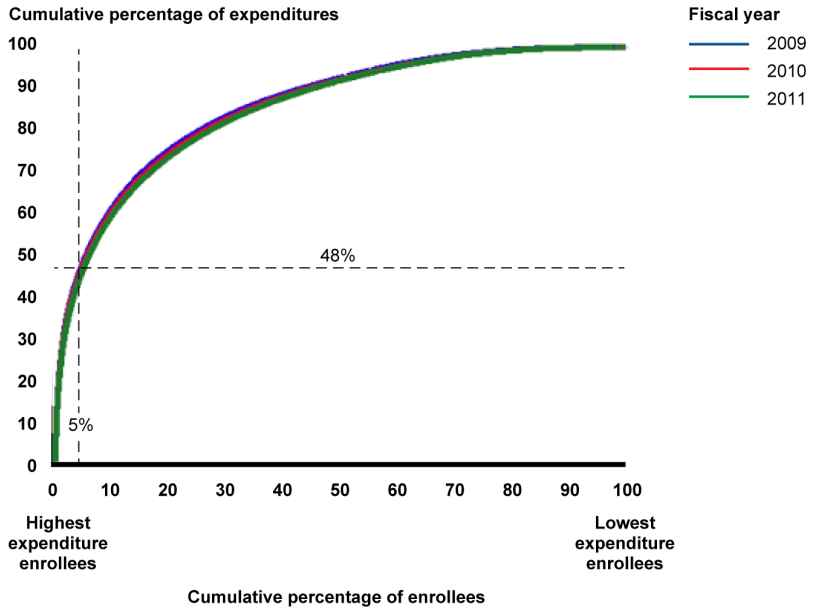
Among Medicaid-Only Enrollees, a Small Percentage Consistently Accounted for a Large Percentage of Expenditures

A small percentage of Medicaid-only enrollees consistently accounted for a large percentage of total Medicaid expenditures for Medicaid-only enrollees. As shown in figure 1, there was little variation across the years we examined. In each fiscal year from 2009 through 2011,

- the most expensive 1 percent of Medicaid-only enrollees in the nation accounted for about one-quarter of the expenditures for Medicaid-only enrollees;
- the most expensive 5 percent accounted for almost half of the expenditures;
- the most expensive 25 percent accounted for more than three-quarters of the expenditures;
- in contrast, the least expensive 50 percent accounted for less than 8 percent of the expenditures;[13] and
- about 12 percent of enrollees had no expenditures.

[13]For this analysis, the percentages of enrollees were defined based on their rank order from high to low in expenditures for Medicaid-only enrollees nationwide. Because states vary in their spending on Medicaid enrollees, the most expensive 5 percent of Medicaid-only enrollees defined nationally did not include 5 percent of each state's enrollees, but instead included a greater share of enrollees from some states with higher-expenditure enrollees than from other states. Thus, the most expensive 5 percent of enrollees nationwide account for a greater percentage of expenditures than the percentage of expenditures attributable to the group of enrollees defined by the most expensive 5 percent of enrollees within each state.

Figure 1: Distribution of Medicaid Expenditures among Medicaid-Only Enrollees



Source: GAO analysis of data from the Centers for Medicare & Medicaid Services. | GAO-15-460

Notes: Data were from all states and the District of Columbia, but excluded Idaho in fiscal year 2010 and Florida and Maine in fiscal year 2011. The dashed lines in the figure show that the 5 percent of Medicaid-only enrollees with the highest expenditures nationwide accounted for 48 percent of total Medicaid expenditures for Medicaid-only enrollees in fiscal year 2011.

These findings regarding Medicaid-only enrollees are similar to those that others have reported for all Medicaid enrollees, as well as for Medicare and personal healthcare spending in the United States.

- A Kaiser Family Foundation report found that in fiscal year 2001, the most expensive 1.1 percent of all Medicaid enrollees—including those dually eligible for Medicare—accounted for more than one-quarter of Medicaid expenditures, and the most expensive 3.6 percent accounted for nearly half.[14]
- The Congressional Budget Office reported that in 2001, the most expensive 5 percent of Medicare enrollees in fee-for-service plans

[14]A. Sommers and M. Cohen, *Medicaid's High Cost Enrollees: How Much Do They Drive Program Spending?* (Washington, D.C.: Kaiser Family Foundation, 2006).

accounted for 43 percent of Medicare expenditures, and the most expensive 25 percent accounted for 85 percent.[15]

- The National Institute for Health Care Management reported that in 2009, the most expensive 1 percent of the overall civilian U.S. population living in the community accounted for more than 20 percent of personal health care spending, with the most expensive 5 percent accounting for nearly half.[16]

We also found that in each state, a similarly small percentage of high-expenditure Medicaid–only enrollees was responsible for a disproportionately large share of expenditures for Medicaid-only enrollees, although the magnitude of this effect varied widely across states. For example, the percentage of expenditures for the most expensive 5 percent of Medicaid-only enrollees ranged from 28.8 percent in Tennessee to 63.2 percent in California. For additional state-by-state information about the distribution of expenditures among Medicaid-only enrollees in fiscal year 2011, see appendix II.

The Proportions of High-Expenditure Medicaid-Only Enrollees in Selected Eligibility and Other Categories Were Consistent from 2009 through 2011

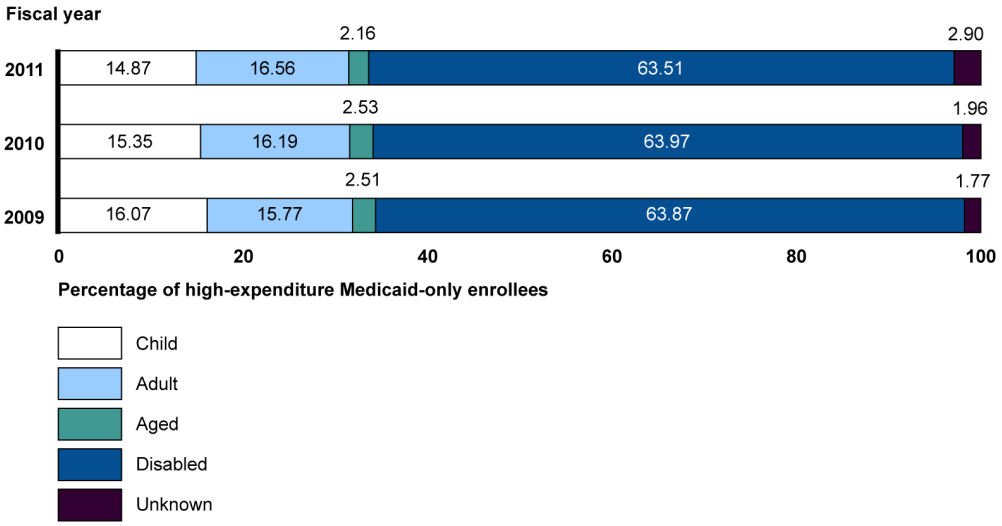
The proportions of high-expenditure Medicaid-only enrollees in different eligibility groups were consistent from fiscal year 2009 through 2011, as shown in figure 2.[17] Although only a small proportion of Medicaid-only enrollees were disabled (less than 10 percent), disabled enrollees were disproportionately represented in the high-expenditure group, consistently constituting about 64 percent of those with the highest expenditures. Conversely, although children were the largest group of Medicaid-only enrollees (about 50 percent), they consistently constituted about 16 percent of the high-expenditure group.

[15]Congressional Budget Office, *High-Cost Medicare Beneficiaries* (Washington, D.C.: May 2005).

[16]National Institute for Health Care Management, *The Concentration of Health Care Spending* (Washington, D.C.: July 2012). This analysis excluded care provided to residents of institutions, such as long-term care facilities and penitentiaries.

[17]These proportions could change in the future as adults who became eligible for Medicaid under PPACA enroll and as others who had been eligible, but had not enrolled, enroll.

Figure 2: Percentage of High-Expenditure Medicaid-Only Enrollees within Different Eligibility Groups, Fiscal Years 2009 through 2011



Source: GAO analysis of data from the Centers for Medicare & Medicaid Services. | GAO-15-460

Notes: High-expenditure Medicaid-only enrollees were identified as the 5 percent with the highest expenditures within each state. Those identified as having an unknown basis of eligibility include those for whom data did not include a known basis of eligibility during any month or included contradictory information, such as an enrollee identified as "aged," but with a recorded age that would be too young to qualify as aged. Data were from all states and the District of Columbia, but excluded Idaho in fiscal year 2010, and Florida and Maine in fiscal year 2011.

State-level data indicate that there was considerable variation across the states, although in each state, the greatest percentage of high-expenditure Medicaid-only enrollees were disabled and the lowest percentage in a known eligibility group were aged. For example, the percentage of high-expenditure Medicaid-only enrollees who were disabled ranged from 39 percent in Connecticut to 95 percent in Tennessee. For additional state-by-state information about the percentage of high-expenditure Medicaid-only enrollees in different eligibility groups in fiscal year 2011, see appendix III.

As shown in table 1, the percentages of high-expenditure Medicaid-only enrollees with the specific conditions or services that are recorded in the MSIS summary file were also consistent from fiscal year 2009 through 2011. For example, in each year, about 14 percent of high-expenditure Medicaid-only enrollees had asthma and about 8 percent of these enrollees were in a long-term care residence. Similarly, in each year, almost one-fourth of high-expenditure Medicaid-only enrollees did not have any of the conditions or services that are recorded in the MSIS summary file. However, the file provides no indication of whether the

enrollees had other potentially expensive conditions, such as cancer or heart disease.

Table 1: Percentage of High-Expenditure and All Medicaid-Only Enrollees with Certain Conditions or Services, Fiscal Years 2009 through 2011

Fiscal year	Asthma	Diabetes	HIV/AIDS	Mental health conditions	Substance abuse	Delivery or childbirth	Long-term care residence	None of these conditions or services
Percentage of high-expenditure Medicaid-only enrollees								
2011	14.20	18.79	3.10	52.64	19.87	9.95	8.35	22.23
2010	14.42	18.50	3.27	51.13	19.21	10.45	8.15	22.65
2009	14.08	18.13	3.24	50.13	18.48	10.79	8.48	23.49
Percentage of all Medicaid-only enrollees								
2011	5.74	2.98	0.27	13.61	4.02	6.16	1.01	73.13
2010	5.88	2.86	0.29	12.72	3.72	6.26	0.86	73.88
2009	5.41	2.81	0.29	12.00	3.50	6.52	1.07	74.60

Source: GAO analysis of data from the Centers for Medicare & Medicaid Services. | GAO-15-460

Notes: High-expenditure Medicaid-only enrollees were defined as the 5 percent with the highest expenditures within each state. Data were from all states and the District of Columbia, but excluded Idaho in fiscal year 2010, and Florida and Maine in fiscal year 2011.

Differences between the high-expenditure Medicaid-only enrollees and the larger group of all Medicaid-enrollees were also consistent across years: In each year, the percentage of high-expenditure Medicaid-only enrollees who had any one of these conditions or services was greater than the percentage of all Medicaid-only enrollees who had that same condition or service. For example, less than 15 percent of all Medicaid-only enrollees had mental health conditions, while enrollees with mental health conditions consistently constituted about half of the high-expenditure group in each year. As another example, about 3 percent of all Medicaid-only enrollees had diabetes, while enrollees with diabetes consistently constituted nearly 20 percent of the high-expenditure group in each year. And in each year, while less than one-fourth of high-expenditure Medicaid-only enrollees had none of these conditions or services, nearly three-fourths of all Medicaid-only enrollees had none of them.

Among high-expenditure Medicaid-only enrollees, some, but not all, conditions or services frequently co-occurred with others in fiscal year 2011. (See table 2.) For example, about 71 percent of high-expenditure Medicaid-only enrollees with a substance-abuse condition also had one or more mental health conditions. In comparison, about 50 percent of all

Medicaid-only enrollees with a substance abuse condition also had one or more mental health conditions.[18] We found a similar pattern for long-term care residence: About 75 percent of high-expenditure Medicaid-only enrollees with a long-term care residence also had one or more mental health conditions,[19] whereas about 55 percent of all Medicaid-only enrollees with a long-term care residence also had one or more mental health conditions. In contrast, delivery or childbirth typically did not frequently co-occur with other conditions or services in either group.

[18]Of the high-expenditure Medicaid-only enrollees with both substance abuse and a mental health condition in fiscal year 2011, nearly half had none of the other conditions or services. Of these enrollees, 23 percent also had asthma and about 22 percent also had diabetes.

[19]Of the high-expenditure Medicaid-only enrollees with both a long-term care residence and a mental health condition in fiscal year 2011, 45 percent had none of the other conditions or services. Of these enrollees, about 28 percent also had diabetes and about 28 percent also had substance abuse.

Table 2: Percentage of High-Expenditure and All Medicaid-Only Enrollees with Certain Co-Occurring Conditions or Services in Fiscal Year 2011

Condition or service	Asthma	Diabetes	HIV/AIDS	Mental health conditions	Substance abuse	Delivery or childbirth	Long-term care residence	None of the other conditions or services
	Percentage of high-expenditure Medicaid-only enrollees with this condition or service who also had . . .							
Asthma	—	24.46	3.90	65.11	29.14	6.50	7.37	17.05
Diabetes	18.49	—	2.57	52.41	23.86	3.15	12.70	29.67
HIV/AIDS	17.89	15.57	—	48.13	39.43	2.12	7.52	28.95
Mental health conditions	17.57	18.71	2.83	—	26.73	4.02	11.85	42.94
Substance abuse	20.84	22.57	6.14	70.83	—	4.52	10.23	15.56
Delivery or childbirth	9.28	5.94	0.66	21.29	9.03	—	0.48	66.04
Long-term care residence	12.53	28.59	2.79	74.71	24.35	0.57	—	14.14
	Percentage of all Medicaid-only enrollees with this condition or service who also had . . .							
	Asthma	Diabetes	HIV/AIDS	Mental health conditions	Substance abuse	Delivery or childbirth	Long-term care residence	None of the other conditions or services
Asthma	—	6.08	0.67	28.28	9.04	5.69	1.32	61.37
Diabetes	11.69	—	1.10	32.06	14.13	3.82	6.28	51.95
HIV/AIDS	14.35	12.31	—	38.77	31.97	3.39	6.10	37.76
Mental health conditions	11.92	7.03	0.76	—	15.20	3.81	4.06	65.92
Substance abuse	12.90	10.48	2.12	51.41	—	5.14	3.83	37.35
Delivery or childbirth	5.30	1.85	0.15	8.41	3.36	—	0.10	84.47
Long-term care residence	7.48	18.58	1.61	54.75	15.27	0.64	—	35.24

Source: GAO analysis of data from the Centers for Medicare & Medicaid Services. | GAO-15-460

Notes: High-expenditure Medicaid-only enrollees were defined as the 5 percent with the highest expenditures within each state. Data were from all states and the District of Columbia, except Florida and Maine.

Across the states, there was considerable variation in conditions and services, although mental health conditions were the most common of the conditions and services among high-expenditure Medicaid-only enrollees in each state. For example, the percentage of high-expenditure Medicaid-only enrollees who had mental health conditions ranged from about 16 percent in Pennsylvania to about 73 percent in Vermont. For additional

state-by-state information about the percentage of high-expenditure Medicaid-only enrollees with certain conditions or services in fiscal year 2011, see appendix IV.

For High-Expenditure Medicaid-Only Enrollees, the Distribution of Expenditures among Service Categories Varied Widely across States

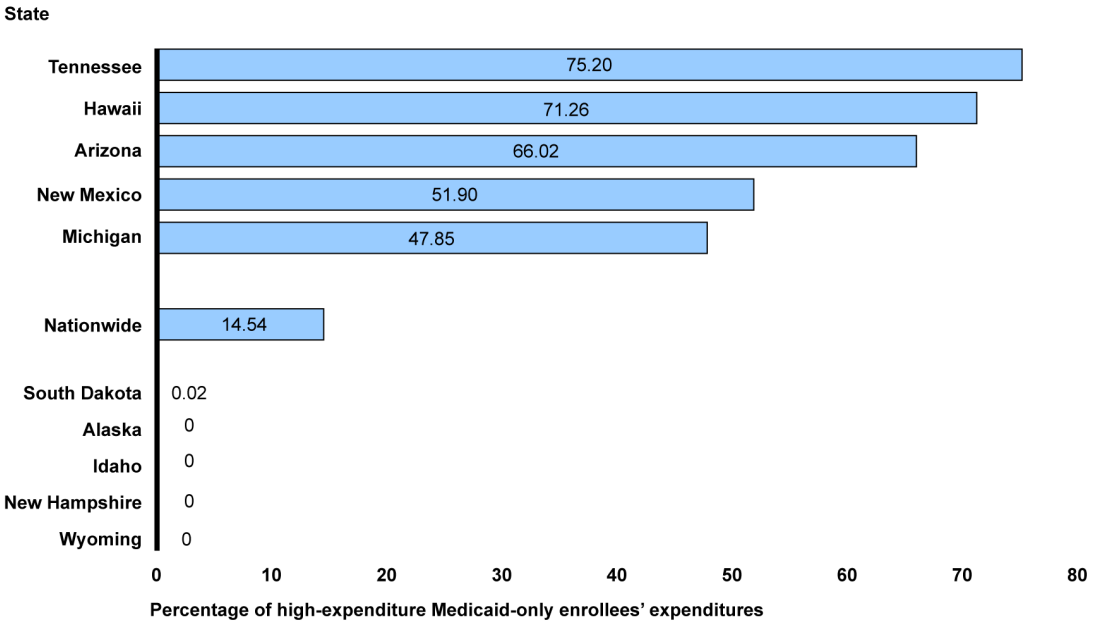
The distribution of high-expenditure Medicaid-only enrollees' expenditures among selected categories of service in fiscal year 2011 varied widely across states. As noted above, managed care arrangements can affect the distribution of expenditures for covered services. For some states, such as Tennessee and Hawaii, a high percentage of expenditures were for managed care or premium assistance, and correspondingly low percentages were for expenditures such as hospital care or acute care services. For other states, such as Idaho and Oklahoma, a low percentage of expenditures were for managed care or premium assistance, and correspondingly higher percentages were for hospital care or acute care services. States' reliance on managed care plans to provide certain services limits what can be learned from the MSIS summary data regarding the services received by enrollees, because the data show the per-enrollee payments made by state Medicaid programs to plans, not the payments the plans made to providers for the services for which the plans are responsible. In a state such as Tennessee, for example, in which all Medicaid enrollees are in managed care plans that are responsible for providing hospital care and a broad array of acute care services, the state's low percentages of expenditures in those service categories reflect the delivery system structure of the state Medicaid program, not enrollees' utilization of services.

The greatest variation among states in their expenditures for specific service categories was for managed care and premium assistance.[20] As shown in figure 3, four states reported that 0 percent of their expenditures were for managed care or premium assistance. For states that did report expenditures in this category, the percentage ranged from less than 1 percent to 75 percent. Nationwide, about 15 percent of expenditures for high-expenditure Medicaid-only enrollees were in this category. The variation among states in the percentages of expenditures in this service category reflects the wide variation among states in their reliance on

[20]Managed care and premium assistance include capitated payments to health maintenance organizations, health insuring organizations, or Program for All-Inclusive Care for the Elderly plans; capitated payments to prepaid health plans; and capitated payments for primary care case management.

managed care arrangements to provide services to enrollees, and particularly disabled enrollees, who constituted almost two-thirds of high-expenditure Medicaid-only enrollees. In the five states with the highest percentage of expenditures for managed care and premium assistance, the percentage of disabled enrollees in comprehensive risk-based managed care plans ranged from 44 percent in New Mexico to more than 90 percent in Hawaii and Tennessee, compared with 0 percent in the five states with the lowest percentages of expenditures in this service category.[21]

Figure 3: Percentage of High-Expenditure Medicaid-Only Enrollees' Expenditures for Managed Care and Premium Assistance, Highest and Lowest Five States, Fiscal Year 2011



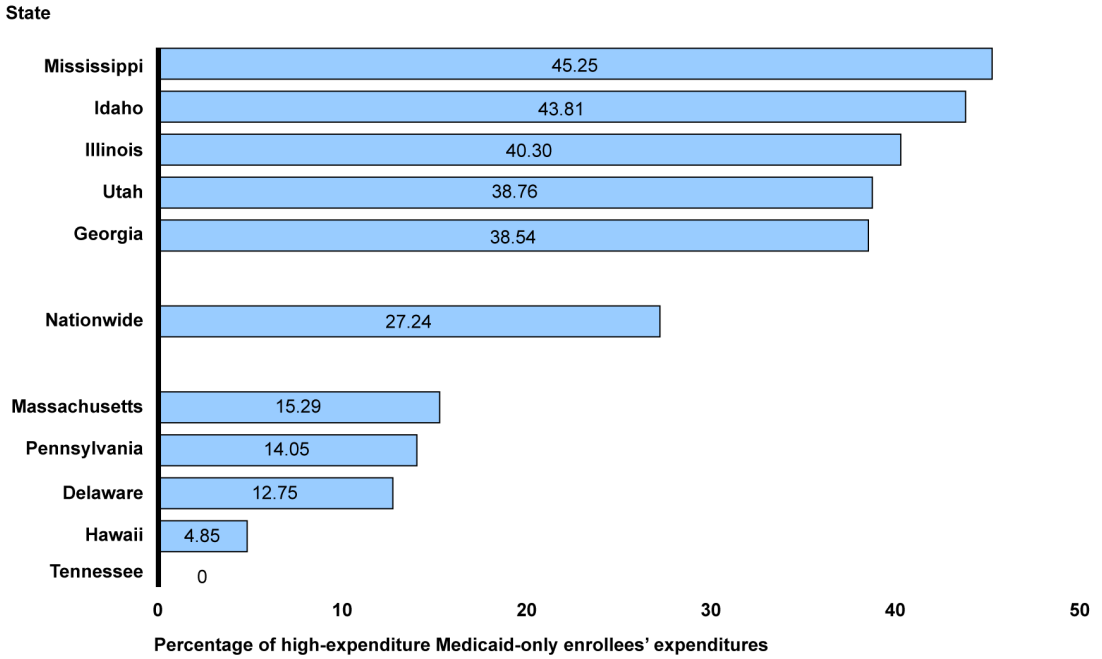
Source: GAO analysis of data from the Centers for Medicare & Medicaid Services. | GAO-15-460

Notes: High-expenditure Medicaid-only enrollees were defined as the 5 percent with the highest expenditures within each state. Managed care and premium assistance include capitated payments to health maintenance organizations, health insuring organizations, or Program for All-Inclusive Care for the Elderly plans; capitated payments to prepaid health plans; and capitated payments for primary care case management. Data for two states—Florida and Maine—were not available for 2011.

[21]Medicaid and CHIP Payment and Access Commission, *Report to the Congress on Medicaid and CHIP* (Washington, D.C.: June 2014); and Kaiser Commission on Medicaid and the Uninsured, *A Profile of Medicaid Managed Care Programs in 2010: Findings from a 50-State Survey* (Washington, D.C.: September 2011).

States also varied widely—from 0 to about 45 percent—in the percentages of high-expenditure Medicaid-only enrollees' expenditures for hospital care (inpatient and outpatient). About 27 percent of nationwide expenditures for high-expenditure Medicaid-only enrollees were in this category. (See fig. 4.)

Figure 4: Percentage of High-Expenditure Medicaid-Only Enrollees' Expenditures for Hospital Care, Highest and Lowest Five States, Fiscal Year 2011

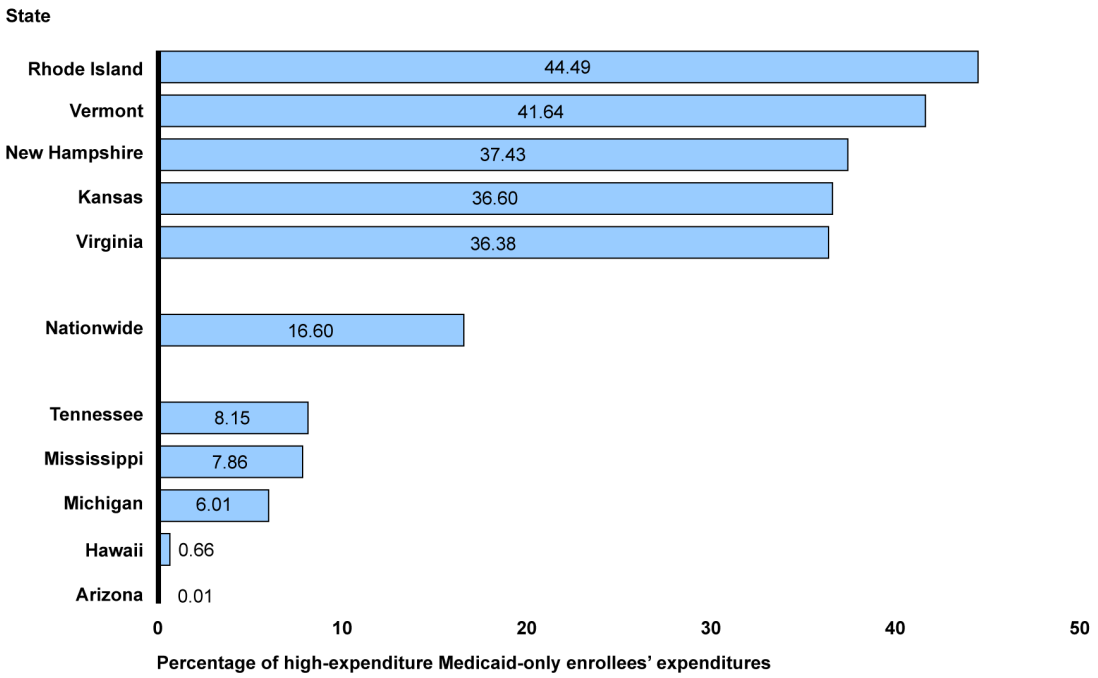


Source: GAO analysis of data from the Centers for Medicare & Medicaid Services. | GAO-15-460

Notes: High-expenditure Medicaid-only enrollees were defined as the 5 percent with the highest expenditures within each state. Hospital care includes inpatient and outpatient hospital services. Data for two states—Florida and Maine—were not available for 2011. These expenditures for hospital care do not include payments for hospital care that were made by managed care plans. As a result, the percentage of expenditures does not necessarily reflect enrollees' utilization of these services.

Similarly, states varied widely—from nearly 0 to about 45 percent—in the percentages of high-expenditure Medicaid-only enrollees' expenditures that were for non-institutional support services other than acute or long-term support services. These other support services include hospice benefits, private duty nursing, rehabilitative services, and targeted case management. About 17 percent of nationwide expenditures were for enrollees in this category. (See fig. 5.)

Figure 5: Percentage of High-Expenditure Medicaid-Only Enrollees' Expenditures for Non-Institutional Services Other than Acute Care or Long-Term Support Services, Highest and Lowest Five States, Fiscal Year 2011



Source: GAO analysis of data from the Centers for Medicare & Medicaid Services. | GAO-15-460

Notes: High-expenditure Medicaid-only enrollees were defined as the 5 percent with the highest expenditures within each state. Non-institutional support services other than acute care or long-term support services include hospice benefits, private duty nursing, rehabilitative services, and targeted case management. Data for two states—Florida and Maine—were not available for 2011. These expenditures for non-institutional support services other than acute care or long-term support services do not include payments that were made by managed care plans. As a result, the percentage of expenditures does not necessarily reflect enrollees' utilization of these services.

States also varied in the percentages of high-expenditure Medicaid-only enrollees' expenditures in other categories, if not as widely. States varied least—from 0 to 11 percent—in the percentage of expenditures for high-expenditure Medicaid-only enrollees that were for psychiatric facility care,[22] which accounted for about 2 percent of nationwide expenditures

[22]Psychiatric facility institutional care includes inpatient psychiatric facility services for individuals age 21 years and under and mental hospital services for the aged.

for high-expenditure Medicaid-only enrollees. The percentage of a state's expenditures for high-expenditure Medicaid-only enrollees varied in other categories from

- 0 to 33 percent for acute care services,[23] which accounted for 11 percent of nationwide expenditures;
- 0 to 25 percent for prescription drugs, which accounted for 14 percent of nationwide expenditures;
- 0 to about 23 percent for long-term non-institutional support services,[24] which accounted for about 6 percent of nationwide expenditures; and
- 0 to 22 percent for long-term institutional care,[25] which accounted for 9 percent of nationwide expenditures.

Although our analyses do not permit conclusions about the reasons for the differences among states in the distribution of expenditures across service categories, in general, this variation may reflect differences not only in the eligibility groups enrolled in managed care plans, but also in the scope of Medicaid benefits and other factors.[26] For example, not all states covered personal care services—one of the two services in the category of long-term support services—as of August 2010. Although most states in our analysis (33 of 49) did cover these services as of August 2010, 7 of the 10 states with the lowest percentage of expenditures for long-term support services (less than 1 percent) did not. Whether states that contract with managed care plans include or exclude certain services from these arrangements may also influence the distribution of expenditures across categories of service. For example, the

[23]Acute non-institutional care services include physicians, dentists, nurse midwives, nurse practitioners, and other practitioners and clinic services; labs and X-rays; sterilizations; abortions; physical, occupational, speech, hearing, or language therapy; and transportation services.

[24]Long-term non-institutional support services include home health care and personal care.

[25]Long-term institutional care includes nursing facilities and intermediate care facilities for individuals with intellectual disabilities.

[26]See GAO, *Medicaid: Assessment of Variation among States in Per-Enrollee Spending*, GAO-14-456 (Washington, D.C.: June 16, 2014), and GAO, *Medicaid: Alternative Measures Could Be Used to Allocate Funding More Equitably*, GAO-13-434 (Washington, D.C.: May 10, 2013).

percentage of expenditures reported in the MSIS summary file that was attributable to prescription drugs was lower on average in states that included some or all drugs in the package of services provided by managed care plans than in states that paid for all drugs on a fee-for-service basis, and the three states in which the share of expenditures that went to drugs was lowest—Arizona, Hawaii, and New Mexico—included all drugs in their managed care packages.[27]

States vary widely in the distribution of their expenditures among service categories; for state-by-state information about the percentage of high-expenditure Medicaid-only enrollees' expenditures for selected categories of services in fiscal year 2011, see appendix V.

Agency Comments

HHS reviewed a draft of this report and provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the Secretary of HHS and other interested parties. The report also will be available at no charge on the GAO website at http://www.gao.gov.

If you or your staffs have any questions about this report, please contact me at (202) 512-7114 or YocomC@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix VI.

Carolyn L. Yocom
Director, Health Care

[27]Of the 50 states that responded to a survey conducted by the HHS Office of Inspector General, 22 reported that their fixed monthly payments to managed care organizations included the cost of some or all prescription drugs throughout the period from March 23, 2010 through October 1, 2011. See HHS Office of Inspector General, *States' Collection of Rebates for Drugs Paid Through Medicaid Managed Care Organizations*, OEI-03-11-00480 (Washington, D.C.: September 2012).

Appendix I: Objectives, Scope, and Methodology

This appendix describes the methodology for addressing our three objectives regarding high-expenditure Medicaid enrollees who are not also enrolled in Medicare, that is, Medicaid-only enrollees. These objectives were to: (1) examine the distribution of expenditures among Medicaid-only enrollees, (2) determine whether the proportions of high-expenditure Medicaid-only enrollees in selected categories changed or remained consistent from year to year, and (3) determine whether the distribution of high-expenditure Medicaid-only enrollees' expenditures among selected categories of service varied across states.

We analyzed data from the Medicaid Statistical Information System (MSIS) Annual Person Summary File.[1] This summary file consolidates individual enrollees' claims for a single fiscal year, including data on their enrollment and expenditures. The file includes enrollee-specific information regarding enrollment categories, expenditures,[2] dual eligibility status, age, gender, payment arrangements—including fee-for-service payments and capitated payments made to managed care organizations—and indicators for five chronic conditions and two service categories. The five chronic condition indicators are for asthma, diabetes, human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), mental health conditions, and substance abuse. The two service category indicators are for delivery or childbirth (which may include costs attributed to a mother during delivery or the child soon after birth) and long-term care residence. The summary file does not provide information on other conditions that may affect enrollees' expenditures.[3]

We used data from fiscal years 2009, 2010, and 2011—the most recent years for which data from almost all states were available. As of December 2014, the summary file did not include expenditure or enrollment data from Maine for fiscal year 2011. We made several

[1]MSIS summary file data provide a summary of expenditures for Medicaid and the Children's Health Insurance Program (CHIP) linked to specific enrollees on the basis of their medical claims for care. These data exclude other aspects of the Medicaid program that are not tied to specific enrollees. For example, the MSIS data generally do not contain supplemental payments to providers that are separate from standard Medicaid payments for services.

[2]The summary file excludes some details included in the full claims files, such as individual cost per encounter.

[3]The summary file indicators for the five conditions and for delivery or childbirth are based on ICD-9 diagnosis codes from the full claims file.

changes to limit our analyses to Medicaid-only enrollees and ensure that the data were sufficiently reliable for our purposes. For example, because our objectives focused on Medicaid-only enrollees, we excluded those who were dually eligible for both Medicaid and Medicare. Specifically, we made the following adjustments to the data:

- If an individual's enrollment category was listed as child, adult, or aged,[4] and the recorded age or other information was inconsistent with that category, we re-defined the enrollment category as unknown.
- We reset all negative expenditures (which can indicate adjustments to expenditures recorded in prior years) to 0.[5]

In addition, as shown in table 3, we excluded the following records:

- Records associated with duplicate MSIS identifiers (which are unique identifiers assigned by states) or Social Security numbers within a state.[6]
- Records of expenditures that were not associated with specific enrollees, such as lump-sum payments to hospitals.
- Records of individuals who were not identified as eligible for Medicaid at all during the year.
- Records of individuals who were dually eligible for Medicare during any month of the year, which accounted for nearly 13 percent of all exclusions.
- Records of individuals for whom expenditures were recorded, but who were enrolled in a separate, stand-alone Children's Health Insurance Program during at least one month of the year. We excluded these

[4]We initially defined the individual's enrollment category using the last month of the fiscal year for which a valid (not unknown, not ineligible) category was identified in the summary file.

[5]Generally, states may report adjustments to their Medicaid expenditures for up to two years. To the extent that negative expenditures reflect adjustments to prior year expenditures, retaining them would result in an underestimate of expenditures for any specific year.

[6]We did not eliminate records with the same Social Security numbers from different states. Thus, individuals who moved from one state to another could be included in the data from both states.

records because we could not determine which expenditures for these enrollees were Medicaid expenditures.

Table 3: Records Excluded from GAO Analyses, Fiscal Years 2009 through 2011

	Fiscal year					
	2009		2010		2011	
Reason for exclusion	Number of records	Percentage of total records	Number of records	Percentage of total records	Number of records	Percentage of total records
Duplicate record	277,363	0.39	710,716	0.94	370,625	0.47
Expenditure was not for a specific enrollee	235,283	0.33	102,471	0.14	105,767	0.13
Individual was not eligible for Medicaid	627,123	0.88	720,841	0.96	737,682	0.94
Individual was dually eligible for Medicare	9,423,060	13.16	9,797,128	13.00	10,170,748	12.98
Individual was in a separate Children's Health Insurance Program and expenditures were greater than 0	800,584	1.12	854,980	1.13	1,230,891	1.57
Total exclusions	**11,218,665**	**15.66**	**11,953,722**	**15.86**	**12,219,606**	**15.59**

Source: GAO analysis of data from the Centers for Medicare & Medicaid Services. | GAO-15-460

Notes: Numbers and percentages do not sum to totals because some records met multiple criteria for exclusion. For example, some individuals who were not identified as eligible for Medicaid were in a separate, stand-alone Children's Health Insurance Program. Data from Maine for fiscal year 2011 were not available.

After making these changes, we retained about 85 percent of the original records in the summary file for each fiscal year, counting the records from all states and the District of Columbia (but not counting records from Maine in 2011, which were unavailable). These records represent just under 65 percent of total Medicaid expenditures in these years. (We previously reported that dual-eligible enrollees—whom we excluded from our analyses—accounted for about 35 percent of total Medicaid expenditures in fiscal year 2009.)[7] As of December 2014, the summary file did not include fiscal year 2011 expenditure data from Florida, and so we excluded Florida from all further analyses of 2011 data. We assessed the reliability of these data by performing appropriate electronic data checks and reviewing relevant documentation, and determined that the

[7]GAO, *Medicaid: Demographics and Service Usage of Certain High-Expenditure Beneficiaries*, GAO-14-176 (Washington, D.C.: Feb. 19, 2014).

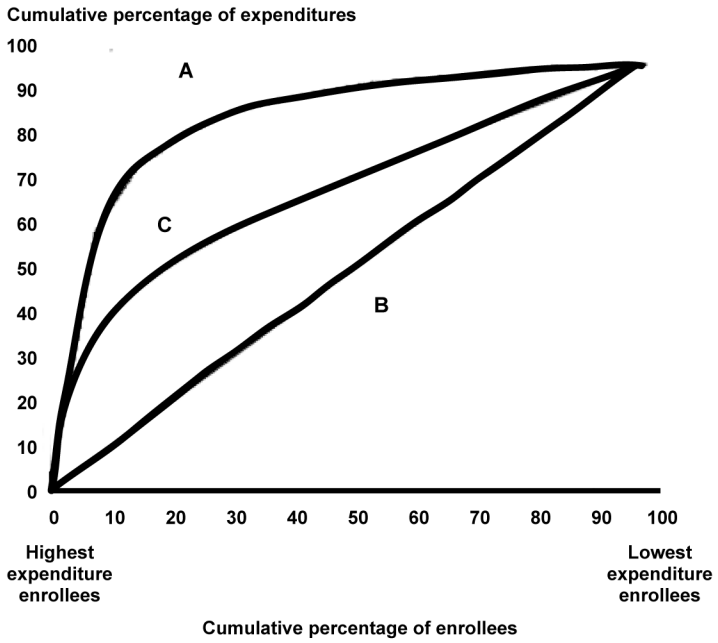
data from Idaho for 2010 were not sufficiently reliable for our purposes.[8] We determined that the remaining data were sufficiently reliable for our purposes. Our analyses were thus based on data from all states and the District of Columbia, but excluded Idaho in fiscal year 2010, and excluded Florida and Maine in fiscal year 2011.[9]

To determine the distribution of expenditures among Medicaid-only enrollees, we calculated the cumulative frequency distribution of expenditures for enrollees. That is, we placed all Medicaid-only enrollees nationwide in rank order by their total Medicaid expenditures, from highest to lowest, and determined the cumulative percentage of nationwide expenditures for Medicaid-only enrollees attributable to enrollees as the percentage of ordered enrollees increased. We analyzed data from 3 years—fiscal years 2009, 2010, and 2011—separately to determine whether the relationship was similar or different across years. To facilitate interpretation of these frequency distributions, we also computed a mathematical coefficient that provides information about the relationship between the percentage of Medicaid-only enrollees and the percentage of total Medicaid expenditures for these enrollees—the Gini coefficient. This coefficient indicates the degree of inequality, that is, the extent to which the frequency distribution differs from one in which expenditures are equal for all enrollees. Figure 6 illustrates the difference between frequency distributions with differing Gini coefficients.

[8]Preliminary analyses indicated that nearly 80 percent of the records for Idaho in fiscal year 2010 contained Social Security numbers or state-assigned identifiers that duplicated the identifying numbers in other records, even though there should have been only one record for each number. Consequently, we questioned the reliability of these records. We then concluded that the resulting subset of only 20 percent of the state's records would not provide a sufficient basis for evaluation.

[9]We conducted a parallel set of analyses in which we excluded Florida, Idaho, and Maine from the data for all three fiscal years. Results were not substantively different.

Figure 6: Frequency Distributions with Differing Gini Coefficients



Source: GAO. | GAO-15-460

Note: Line A is a hypothetical cumulative frequency distribution showing the percentage of total Medicaid expenditures for Medicaid-only enrollees as a function of the percentage of Medicaid-only enrollees ordered from highest to lowest Medicaid expenditures. Line B—the straight line—shows the distribution if expenditures were equal for all enrollees. Possible cumulative frequency distributions vary in how much they deviate from equality, with line A being further from equality (line B) than line C. The extent of inequality is indicated by a statistic called the Gini coefficient, which ranges from 0 (perfect equality) to 1 (perfect inequality).

To determine whether the proportions of high-expenditure Medicaid-only enrollees in selected categories changed or remained consistent from year to year, we conducted two separate analyses. For both, we defined high-expenditure Medicaid-only enrollees as the 5 percent with the highest expenditures within each state, as we had in our earlier work on high-expenditure Medicaid enrollees. For one analysis, we examined the percentage of high-expenditure Medicaid-only enrollees in five mutually exclusive eligibility groups (child, adult, aged, disabled, or unknown). For another analysis, we examined the percentage of high-expenditure Medicaid-only enrollees identified as having any one of the five chronic conditions recorded in the summary file (asthma, diabetes, HIV/AIDS, mental health conditions, or substance abuse) or either of the two services (delivery or childbirth, and long-term care residence) recorded in the summary file. Enrollees could have any of these seven conditions or services, any combination of them, or none of them. We compared the

proportions of high-expenditure enrollees in each of these sets of categories in fiscal years 2009, 2010, and 2011.

To determine whether the distribution of high-expenditure Medicaid-only enrollees' expenditures among selected categories of service varied across states, we again defined high-expenditure Medicaid-only enrollees as the 5 percent with the highest expenditures within each state and examined expenditures for fiscal year 2011 in eight categories of service.[10] These categories were three types of institutional care—hospital, long-term, and psychiatric facility; three types of non-institutional services—acute care; long-term support; and other support services, such as targeted case management or rehabilitative services; prescription drugs; and managed care and premium assistance. We identified the distribution of expenditures for high-expenditure enrollees among these types of service within each state in fiscal year 2011 and compared the distributions across states.

[10]The MSIS summary file includes data on expenditures for 30 types of services. We consolidated 28 of these types of services into eight categories. Expenditures for the remaining 2 types of service included in the MSIS summary file—(1) services provided in religious, non-medical health care institutions and (2) unknown services—are generally minimal. For example, in 2011, no state reported that it incurred expenditures for services provided in religious, non-medical health care institutions for high-expenditure Medicaid-only enrollees, and the percentage of total expenditures for high-expenditure Medicaid-only enrollees that were for unknown services ranged from 0 to 1.74 percent, with only four states reporting percentages that exceeded 0.25 percent. We included totals for unknown expenditures in total expenditures, but not in any of the eight categories of service we considered.

Appendix II: Distribution of Expenditures among Medicaid-Only Enrollees, Fiscal Year 2011

Table 4 provides information about the distribution of expenditures among Medicaid-only enrollees nationally and in each state and the District of Columbia in fiscal year 2011, including

- the percentages of expenditures for Medicaid-only enrollees that were attributable to the most expensive 1, 5, 10, and 25 percent of these enrollees;
- the percentage of expenditures for Medicaid-only enrollees that were attributable to the least expensive 50 percent of these enrollees (including those with 0 expenditures); and
- the Gini coefficient, which indicates the degree of inequality; that is, the extent to which the frequency distribution differs from one in which expenditures are equal for all enrollees.

These state-by-state data illustrate that states differ widely in the degree to which their distribution of expenditures varied across enrollees, but in each state, a small percentage of high-expenditure Medicaid–only enrollees was responsible for a disproportionately large share of the expenditures for Medicaid-only enrollees.

Table 4: Selected Statistics Regarding the Distribution of Expenditures among Medicaid-Only Enrollees, Fiscal Year 2011

	Percentage of total expenditures for Medicaid-only enrollees attributable to the …					
State	Highest 1 percent	Highest 5 percent	Highest 10 percent	Highest 25 percent	Lowest 50 percent	Gini coefficient[a]
Alabama	28.83	54.49	67.40	85.00	4.41	0.7791
Alaska	25.57	55.72	69.59	87.37	2.92	0.8015
Arizona	21.97	36.97	48.36	70.24	10.82	0.6269
Arkansas	26.37	55.67	69.62	86.67	3.79	0.7927
California	**36.45**	**63.21**	73.30	85.61	2.73	0.8124
Colorado	29.51	54.89	67.63	84.53	4.67	0.7765
Connecticut	24.82	46.72	57.45	74.70	9.20	0.6787
Delaware	16.64	31.81	44.33	67.22	12.52	0.5861
District of Columbia	26.39	53.31	64.77	80.11	8.50	0.7208
Florida[b]	28.06	51.25	65.06	82.29	5.67	0.7537
Georgia	21.03	39.32	50.62	70.68	13.40	0.6154
Hawaii	13.22	33.79	46.24	67.16	13.52	0.5821
Idaho	26.61	57.22	73.06	**90.97**	**1.91**	**0.8302**
Illinois	35.21	62.07	**73.48**	87.72	3.50	0.8163
Indiana	28.97	51.00	61.22	78.53	8.30	0.7132
Iowa	31.46	59.09	72.03	88.37	2.79	0.8168
Kansas	27.48	57.06	68.63	84.63	4.55	0.7830
Kentucky	21.73	43.74	57.79	79.63	5.35	0.7217
Louisiana	30.04	56.81	69.24	85.97	3.72	0.7936
Maine[c]	36.71	65.84	78.26	92.85	0.94	0.8650
Maryland	24.79	48.48	62.50	79.83	7.13	0.7253
Massachusetts	19.18	39.58	52.46	69.71	9.99	0.6390
Michigan	17.10	37.92	54.82	76.81	8.61	0.6778
Minnesota	23.47	45.98	54.32	70.39	10.74	0.6502
Mississippi	25.15	49.74	62.95	84.20	3.95	0.7647
Missouri	23.93	50.99	63.49	80.45	7.05	0.7325
Montana	24.90	53.80	68.62	87.32	2.95	0.7975
Nebraska	26.94	51.66	65.52	82.91	5.99	0.7543
Nevada	30.90	56.79	65.79	79.83	7.43	0.7312
New Hampshire	26.13	55.76	70.31	88.13	2.85	0.8064
New Jersey	26.38	48.96	62.69	78.56	7.48	0.7115
New Mexico	14.52	29.28	**41.85**	65.30	9.21	0.5517
New York	29.50	51.90	63.50	80.65	5.83	0.7469
North Carolina	25.56	53.54	66.88	84.72	4.49	0.7737

State	Percentage of total expenditures for Medicaid-only enrollees attributable to the …					
	Highest 1 percent	Highest 5 percent	Highest 10 percent	Highest 25 percent	Lowest 50 percent	Gini coefficient[a]
North Dakota	32.31	59.71	71.98	88.39	2.57	0.8184
Ohio	22.60	43.23	56.14	75.49	9.38	0.6722
Oklahoma	29.12	53.81	67.12	85.85	3.42	0.7881
Oregon	15.91	33.67	48.97	72.34	9.75	0.6382
Pennsylvania	15.98	32.20	46.97	74.51	9.22	0.6442
Rhode Island	24.65	45.02	56.90	73.83	10.30	0.6700
South Carolina	22.80	41.54	54.74	75.96	9.57	0.6722
South Dakota	31.93	59.20	71.12	87.14	3.39	0.8062
Tennessee	**11.96**	**28.80**	41.98	**64.25**	**15.51**	**0.5411**
Texas	25.21	46.59	58.14	76.63	7.74	0.7009
Utah	31.39	55.73	68.12	85.92	3.69	0.7910
Vermont	24.49	52.31	67.61	87.54	2.63	0.7972
Virginia	23.73	46.25	60.31	79.72	7.21	0.7182
Washington	27.32	49.11	60.26	77.53	8.80	0.7026
West Virginia	22.21	47.35	60.14	78.92	7.49	0.7113
Wisconsin	25.67	48.89	60.39	77.50	8.12	0.7055
Wyoming	27.04	55.17	69.45	87.58	2.85	0.8032
Nationwide[d]	**25.54**	**48.02**	**60.35**	**78.61**	**7.20**	**0.7405**
Highest	**36.45**	**63.21**	**73.48**	**90.97**	**15.51**	**0.8302**
Lowest	**11.96**	**28.80**	**41.85**	**64.25**	**1.91**	**0.5411**

Source: GAO analysis of data from the Centers for Medicare & Medicaid Services. | GAO-15-460

Notes: High-expenditure Medicaid-only enrollees were the 5 percent with the highest expenditures within each state. The highest and lowest values within each column for fiscal year 2011 appear in bolded text. For the purposes of this table, we refer to the District of Columbia as a state.

[a]The Gini coefficient indicates the extent to which the frequency distribution of Medicaid expenditures for Medicaid-only enrollees differs from one in which expenditures are equal for all of these enrollees. The Gini coefficient ranges from 0 (perfect equality) to 1 (perfect inequality).

[b]Because data from fiscal year 2011 were not available for Florida, the data presented here are from fiscal year 2010.

[c]Because data from fiscal year 2011 were not available for Maine, the data presented here are from fiscal year 2010.

[d]These nationwide entries are based on fiscal year 2011 data and therefore exclude Florida and Maine.

Appendix III: High-Expenditure Medicaid-Only Enrollees in Different Eligibility Groups, Fiscal Year 2011

Table 5 provides information about the percentage of high-expenditure Medicaid-only enrollees in five mutually exclusive eligibility groups (child, adult, aged, disabled, or unknown) nationally and in each state and the District of Columbia in fiscal year 2011. These data indicate that while there was considerable variation across the states, in each state, the greatest percentage of high-expenditure Medicaid-only enrollees were disabled and the lowest percentage in a known eligibility group were aged.

Table 5: Percentage of High-Expenditure Medicaid-Only Enrollees in Different Eligibility Groups, Fiscal Year 2011

	Percentage of high-expenditure Medicaid-only enrollees				
State	**Child**	**Adult**	**Aged**	**Disabled**	**Unknown**
Alabama	24.84	12.47	0.23	61.61	0.86
Alaska	31.02	15.67	4.76	45.90	2.65
Arizona	11.67	15.17	1.76	44.81	26.58
Arkansas	31.82	3.54	2.57	60.41	1.66
California	14.98	21.10	3.61	57.88	2.43
Colorado	16.73	16.77	2.35	63.31	0.83
Connecticut	17.44	37.93	3.93	**39.13**	1.57
Delaware	10.48	28.86	0.84	59.53	0.29
District of Columbia	7.16	6.86	3.30	80.98	1.70
Florida[a]	13.88	16.00	4.64	62.25	3.23
Georgia	8.40	26.88	0.83	61.71	2.18
Hawaii	2.55	10.43	**4.99**	81.54	0.49
Idaho	20.40	13.66	1.54	62.73	1.67
Illinois	24.85	22.80	2.19	48.43	1.74
Indiana	17.59	14.25	1.69	65.41	1.06
Iowa	21.27	19.61	0.29	58.18	0.65
Kansas	10.14	**2.62**	1.66	51.46	**34.12**
Kentucky	20.00	13.44	0.26	63.62	2.69
Louisiana	19.50	13.03	0.76	65.09	1.62
Maine[b]	24.14	16.24	1.04	57.18	1.40
Maryland	13.33	16.19	2.02	66.55	1.92
Massachusetts	3.75	8.87	2.55	74.68	10.16
Michigan	4.66	4.19	2.20	87.99	0.97
Minnesota	12.57	13.08	3.69	70.19	0.47
Mississippi	22.61	15.61	0.27	60.87	0.64
Missouri	18.06	5.81	2.85	72.18	1.10
Montana	32.17	12.07	0.16	54.00	1.61
Nebraska	21.89	14.33	4.69	57.97	1.11
Nevada	26.75	8.12	1.68	61.03	2.43
New Hampshire	**42.79**	6.35	3.69	46.90	0.27
New Jersey	11.41	27.68	2.72	55.80	2.38
New Mexico	19.08	6.17	0.17	74.19	0.39
New York	8.72	29.99	2.79	56.37	2.13
North Carolina	20.09	14.33	0.15	64.96	0.47

	Percentage of high-expenditure Medicaid-only enrollees				
State	**Child**	**Adult**	**Aged**	**Disabled**	**Unknown**
North Dakota	30.06	18.48	1.09	48.90	1.47
Ohio	8.23	7.25	4.43	76.42	3.67
Oklahoma	31.77	19.07	1.37	45.75	2.04
Oregon	5.09	**38.39**	0.94	55.08	0.50
Pennsylvania	2.80	3.70	1.43	90.88	1.20
Rhode Island	18.12	26.82	1.22	50.92	2.92
South Carolina	14.61	25.58	0.00	58.86	0.96
South Dakota	31.54	18.02	0.30	49.32	0.82
Tennessee	**1.29**	2.91	0.40	**95.33**	**0.08**
Texas	25.75	5.85	1.07	66.22	1.11
Utah	23.70	22.36	0.43	52.02	1.50
Vermont	23.53	31.54	0.63	43.46	0.84
Virginia	22.05	5.33	3.28	68.37	0.98
Washington	9.00	21.78	1.05	66.46	1.70
West Virginia	10.90	5.54	0.61	82.42	0.54
Wisconsin	10.83	23.74	1.03	63.31	1.09
Wyoming	28.00	19.01	0.23	51.54	1.23
Nationwide[c]	**14.87**	**16.56**	**2.16**	**63.51**	**2.90**
Highest	**42.79**	**38.39**	**4.99**	**95.33**	**34.12**
Lowest	**1.29**	**2.62**	**0.00**	**39.13**	**0.08**

Source: GAO analysis of data from the Centers for Medicare & Medicaid Services. | GAO-15-460

Notes: High-expenditure Medicaid-only enrollees were the 5 percent with the highest expenditures within each state. In general, we defined the individual's enrollment category using the last month of the fiscal year for which a valid (not unknown, not ineligible) category was identified in the summary file. Those identified as having an unknown enrollment category include those for whom the data file did not include a known basis of eligibility during any month or included contradictory information, such as an enrollee identified as "aged," but with a recorded age that would be too young to qualify as aged. The highest and lowest values within each column for fiscal year 2011 appear in bolded text. For the purposes of this table, we refer to the District of Columbia as a state.

[a]Because data from fiscal year 2011 were not available for Florida, the data presented here are from fiscal year 2010.

[b]Because data from fiscal year 2011 were not available for Maine, the data presented here are from fiscal year 2010.

[c]These nationwide entries are based on fiscal year 2011 data and therefore exclude Florida and Maine.

Appendix IV: High-Expenditure Medicaid-Only Enrollees with Certain Conditions or Services, Fiscal Year 2011

Table 6 provides information about the percentage of high-expenditure Medicaid-only enrollees with certain conditions or services nationally and in each state and the District of Columbia in fiscal year 2011. The conditions are five chronic conditions recorded in the Medicaid Statistical Information System Annual Person Summary File—asthma, diabetes, human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), mental health conditions, or substance abuse. The services are two services—delivery or childbirth, and long-term care residence—recorded in the summary file. Enrollees could have any of these conditions or services, any combination of them, or none of them. These data indicate considerable variation across states, although the majority of these enrollees in each state except Pennsylvania had at least one of these conditions or services, and within each state, mental health conditions were the most common of these conditions and services.

Table 6: Percentage of High-Expenditure Medicaid-Only Enrollees with Certain Conditions or Services, Fiscal Year 2011

	Percentage of high-expenditure Medicaid-only enrollees							
State	Asthma	Diabetes	HIV/AIDS	Mental health conditions	Substance abuse	Delivery or childbirth	Long-term care residence	None of these
Alabama	17.96	21.56	2.21	55.09	26.55	17.06	9.63	13.36
Alaska	10.93	13.24	0.96	60.19	20.00	8.81	16.74	19.37
Arizona	12.26	13.66	0.40	39.23	14.07	11.59	5.42	33.95
Arkansas	11.38	11.42	0.87	65.23	7.84	5.52	**18.27**	18.47
California	10.49	17.32	1.92	42.94	11.72	14.68	3.78	26.72
Colorado	14.66	15.43	0.94	51.66	21.06	10.80	4.12	25.19
Connecticut	20.84	23.04	6.66	69.03	**40.74**	1.77	12.94	11.31
Delaware	14.71	17.42	6.00	55.51	18.46	6.06	4.77	19.19
District of Columbia	19.58	26.80	**12.33**	58.92	34.67	2.22	15.46	13.63
Florida[a]	16.22	19.76	6.17	43.32	20.95	13.51	0.74	25.07
Georgia	14.06	20.34	3.88	46.09	19.98	20.78	3.72	18.07
Hawaii	15.46	20.06	1.01	51.95	20.71	**0.91**	**1.01**	28.66
Idaho	13.13	14.71	0.48	71.03	21.91	11.34	3.91	11.80
Illinois	18.13	22.70	3.15	57.64	22.29	10.72	14.86	14.54
Indiana	15.67	24.18	1.62	61.41	24.58	3.90	10.49	17.77
Iowa	13.82	14.96	0.53	61.12	17.00	12.72	9.67	17.23
Kansas	12.05	20.96	0.73	65.25	18.72	4.20	17.53	17.11
Kentucky	18.24	25.12	0.62	71.39	37.36	9.22	13.49	**8.02**
Louisiana	14.83	21.53	3.74	46.87	16.64	13.76	16.62	18.62
Maine[b]	13.01	15.93	1.25	68.63	26.11	5.88	9.25	13.00
Maryland	17.10	18.03	8.61	67.04	27.64	12.00	11.48	9.09
Massachusetts	10.29	13.47	3.53	36.35	16.72	4.03	12.73	46.21
Michigan	15.42	21.25	2.23	53.70	23.88	3.38	6.57	23.42
Minnesota	13.93	15.57	1.24	69.60	26.74	3.29	6.36	16.89
Mississippi	14.20	18.22	2.03	53.05	21.88	17.99	14.30	14.91
Missouri	13.88	24.24	2.25	63.89	27.02	2.92	8.17	15.72
Montana	14.10	15.78	0.71	72.19	25.21	7.68	11.39	10.65
Nebraska	14.37	18.82	0.95	59.91	21.79	12.62	13.51	17.43
Nevada	15.97	16.44	2.31	64.97	20.64	6.49	12.14	13.94
New Hampshire	14.80	12.56	1.13	71.43	20.24	3.96	8.30	16.82
New Jersey	18.96	18.36	5.94	48.78	18.11	21.02	9.22	16.81
New Mexico	11.58	11.15	0.54	56.13	14.71	6.70	3.13	26.87
New York	**21.33**	24.36	11.98	60.98	31.66	8.47	11.57	11.89
North Carolina	16.24	20.28	3.35	67.59	27.06	6.14	7.70	11.46

	Percentage of high-expenditure Medicaid-only enrollees							
State	**Asthma**	**Diabetes**	**HIV/AIDS**	**Mental health conditions**	**Substance abuse**	**Delivery or childbirth**	**Long-term care residence**	**None of these**
North Dakota	14.00	16.61	0.33	63.44	26.69	11.04	15.38	14.35
Ohio	11.94	22.04	1.38	60.24	19.45	1.46	12.26	20.03
Oklahoma	15.74	16.94	1.04	63.98	25.31	14.75	12.67	11.94
Oregon	12.89	15.16	0.88	55.43	27.70	**29.12**	5.50	12.57
Pennsylvania	**3.20**	**5.88**	0.62	**15.75**	**7.63**	1.40	6.01	**74.40**
Rhode Island	11.72	8.06	0.88	60.08	14.02	20.89	7.45	19.06
South Carolina	10.64	13.89	2.11	52.45	16.66	7.95	4.89	25.05
South Dakota	13.86	15.44	1.01	56.07	22.44	14.31	16.50	17.28
Tennessee	13.18	24.94	2.09	52.99	24.20	1.10	4.12	25.99
Texas	16.42	19.33	2.16	53.90	12.30	9.59	8.13	19.68
Utah	10.47	12.40	0.61	55.14	17.55	16.06	6.74	19.94
Vermont	14.22	11.23	1.22	73.38	30.34	6.61	2.57	12.90
Virginia	14.37	19.90	1.69	65.34	18.04	3.35	8.88	16.33
Washington	13.41	17.95	1.55	52.77	30.93	16.80	8.26	19.17
West Virginia	17.02	**29.38**	1.11	69.66	30.41	1.16	14.10	11.71
Wisconsin	18.38	19.24	1.28	56.82	25.50	8.14	5.89	19.45
Wyoming	10.67	11.90	**0.33**	58.38	20.89	15.78	11.07	18.46
Nationwide[c]	**14.20**	**18.79**	**3.10**	**52.64**	**19.87**	**9.95**	**8.35**	**22.23**
Highest	**21.33**	**29.38**	**12.33**	**73.38**	**40.74**	**29.12**	**18.27**	**74.40**
Lowest	**3.20**	**5.88**	**0.33**	**15.75**	**7.63**	**0.91**	**1.01**	**8.02**

Source: GAO analysis of data from the Centers for Medicare & Medicaid Services. | GAO-15-460

Notes: High-expenditure Medicaid-only enrollees were the 5 percent with the highest expenditures within each state. The highest and lowest values within each column for fiscal year 2011 appear in bolded text. For the purposes of this table, we refer to the District of Columbia as a state. HIV/AIDS is the abbreviation for human immunodeficiency virus/acquired immune deficiency syndrome.

[a]Because data from fiscal year 2011 were not available for Florida, the data presented here are from fiscal year 2010.

[b]Because data from fiscal year 2011 were not available for Maine, the data presented here are from fiscal year 2010.

[c]These nationwide entries are based on fiscal year 2011 data and therefore exclude Florida and Maine.

Appendix V: High-Expenditure Medicaid-Only Enrollees' Expenditures in Different Service Categories, Fiscal Year 2011

Table 7 provides information about the percentage of high-expenditure Medicaid-only enrollees' expenditures in different categories of services nationally and in each state and the District of Columbia in fiscal year 2011, and illustrates that states vary widely in the distribution of their expenditures among service categories. These categories were three types of institutional care—hospital, long-term, and psychiatric facility; three types of non-institutional services—acute care; long-term support; and other support services, such as targeted case management or rehabilitative services; prescription drugs; and managed care and premium assistance. Expenditures for categories of service other than managed care and premium assistance do not include payments for those services that were made by managed care plans. As a result, the percentage of expenditures does not necessarily reflect enrollees' utilization of services.

Table 7: Percentage of High-Expenditure Medicaid-Only Enrollees' Expenditures in Different Categories of Service, Fiscal Year 2011

	Percentage of high-expenditure Medicaid-only enrollees' expenditures							
	Institutional care			Non-institutional services			Other	
State	Hospital care[a]	Long-term care[b]	Psychiatric facility care[c]	Acute care services[d]	Long-term support services[e]	Other support services[f]	Prescription drugs	Managed care and premium assistance[g]
Alabama	34.96	6.54	4.04	21.60	2.05	13.01	17.24	0.54
Alaska	26.02	3.63	9.40	26.94	7.95	18.07	7.99	**0.00**
Arizona	31.72	**0.35**	0.06	1.66	0.01	**0.01**	**0.18**	66.02
Arkansas	21.79	10.10	**11.06**	**32.90**	1.82	12.00	10.01	0.26
California	30.55	6.83	**0.00**	18.03	10.38	11.39	14.89	7.92
Colorado	28.40	5.43	0.19	11.86	9.71	23.29	14.31	6.81
Connecticut	29.61	12.35	1.73	10.66	6.72	17.44	19.98	1.52
Delaware	12.75	8.97	0.23	5.13	0.29	24.42	20.67	27.50
District of Columbia	33.83	13.68	0.71	8.26	6.47	22.06	7.04	7.94
Florida[h]	44.37	0.65	0.00	11.26	3.50	14.09	13.91	12.22
Georgia	38.54	4.93	**0.00**	14.04	0.18	16.72	14.53	11.05
Hawaii	4.85	0.96	**0.00**	7.48	14.59	0.66	0.20	71.26
Idaho	43.81	4.01	0.21	22.57	4.72	13.84	10.84	**0.00**
Illinois	40.30	10.89	2.38	11.86	3.79	13.56	16.40	0.82
Indiana	21.96	11.54	1.05	17.29	5.12	15.68	22.60	3.02
Iowa	28.11	14.86	2.69	24.91	3.53	10.76	12.80	2.32
Kansas	21.78	12.56	4.98	6.23	0.46	36.60	10.82	6.57
Kentucky	33.96	7.88	2.70	14.54	0.80	21.72	15.85	2.52
Louisiana	34.98	13.77	2.27	10.84	4.89	13.56	19.63	0.07
Maine[i]	17.96	4.98	0.97	11.55	1.03	46.39	17.12	0.00
Maryland	29.28	7.05	3.62	4.64	10.14	10.55	8.14	26.56
Massachusetts	15.29	13.72	0.96	8.52	10.58	15.56	9.29	26.07
Michigan	16.99	5.53	0.01	5.19	4.95	6.01	13.48	47.85
Minnesota	19.24	4.40	0.38	11.06	**22.69**	26.44	9.65	6.13
Mississippi	**45.25**	14.28	5.36	13.95	0.71	7.86	9.30	3.30
Missouri	32.83	6.58	0.22	8.47	5.39	20.52	**25.14**	0.84
Montana	30.07	5.62	4.62	17.17	4.34	23.56	14.57	0.05
Nebraska	27.27	7.69	4.96	10.60	2.49	21.77	16.47	8.64
Nevada	24.55	6.74	7.09	21.53	5.02	20.14	14.49	0.43
New Hampshire	15.90	5.55	1.04	22.84	3.31	37.43	13.93	**0.00**
New Jersey	20.24	12.97	3.88	3.73	3.58	18.65	13.91	23.04

	Percentage of high-expenditure Medicaid-only enrollees' expenditures							
	Institutional care			Non-institutional services			Other	
State	Hospital care[a]	Long-term care[b]	Psychiatric facility care[c]	Acute care services[d]	Long-term support services[e]	Other support services[f]	Prescription drugs	Managed care and premium assistance[g]
New Mexico	17.01	1.19	0.33	4.47	0.07	23.99	1.04	51.90
New York	28.12	17.16	2.14	5.70	4.22	17.78	16.32	8.56
North Carolina	28.30	7.03	3.38	10.46	4.20	27.69	17.14	1.80
North Dakota	26.69	**22.04**	2.92	13.80	1.65	22.96	8.92	0.15
Ohio	20.71	13.13	0.14	4.30	2.01	22.43	20.97	16.30
Oklahoma	38.32	6.98	4.42	21.63	2.19	11.44	13.40	0.42
Oregon	18.74	4.62	1.27	6.20	0.58	18.91	10.03	39.64
Pennsylvania	14.05	9.38	0.45	2.15	2.66	22.54	4.92	43.82
Rhode Island	18.89	12.74	1.29	2.45	1.81	**44.49**	2.98	15.35
South Carolina	37.76	5.13	3.63	19.54	4.57	8.30	10.78	10.28
South Dakota	38.05	7.54	10.23	12.94	1.03	20.84	9.19	0.02
Tennessee	**0.00**	2.49	**0.00**	**0.09**	**0.00**	8.15	14.07	**75.20**
Texas	25.01	7.30	0.63	13.33	10.00	16.74	16.92	10.07
Utah	38.76	7.90	2.42	10.67	1.80	16.17	15.96	6.10
Vermont	27.04	1.42	**0.00**	11.23	5.80	41.64	12.73	0.10
Virginia	21.03	10.16	0.15	6.70	2.80	36.38	6.83	15.94
Washington	36.67	2.74	1.69	13.80	7.45	20.51	13.02	4.11
West Virginia	23.85	7.89	6.80	13.37	2.13	27.88	17.73	0.35
Wisconsin	29.11	4.87	0.84	10.45	0.22	9.60	20.89	24.03
Wyoming	33.15	3.28	6.74	16.31	0.69	27.97	11.86	0.00
Nationwide[j]	**27.24**	**9.17**	**1.63**	**10.93**	**5.60**	**16.60**	**14.23**	**14.54**
Highest	**45.25**	**22.04**	**11.06**	**32.90**	**22.69**	**44.49**	**25.14**	**75.20**
Lowest	**0.00**	**0.35**	**0.00**	**0.09**	**0.00**	**0.01**	**0.18**	**0.00**

Source: GAO analysis of data from the Centers for Medicare & Medicaid Services. | GAO-15-460

Notes: High-expenditure Medicaid-only enrollees were the 5 percent with the highest expenditures within each state. The highest and lowest values within each column for fiscal year 2011 appear in bolded text. For the purposes of this table, we refer to the District of Columbia as a state. Expenditures for categories of service other than managed care and premium assistance do not include payments for those services that were made by managed care plans. As a result, the percentage of expenditures does not necessarily reflect enrollees' utilization of services.

[a]Hospital institutional care includes inpatient and outpatient hospital services.

[b]Long-term institutional care includes care in nursing facilities and intermediate care facilities for individuals with intellectual disabilities.

[c]Psychiatric facility institutional care includes inpatient psychiatric facility services for individuals age 21 years and under and mental hospital services for the aged.

[d]Acute non-institutional care services include services provided by physicians, dentists, nurse midwives, nurse practitioners, and other practitioners and clinic services; labs and X-rays;

sterilizations; abortions; physical, occupational, speech, hearing, or language therapy; and transportation services.

[e]Long-term non-institutional support services include home health care and personal care.

[f]Non-institutional support services other than acute or long-term support services include hospice benefits, private duty nursing, rehabilitative services, and targeted case management.

[g]Managed care and premium assistance include capitated payments to health maintenance organizations, health insuring organizations, or Program for All-Inclusive Care for the Elderly plans; capitated payments to prepaid health plans; and capitated payments for primary care case management.

[h]Because data from fiscal year 2011 were not available for Florida, the data presented here are from fiscal year 2010.

[i]Because data from fiscal year 2011 were not available for Maine, the data presented here are from fiscal year 2010.

[j]These nationwide entries are based on fiscal year 2011 data and therefore exclude Florida and Maine.

Appendix VI: GAO Contact and Staff Acknowledgments

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Staff Acknowledgments

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