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Enrollment-Driven Expenditure Growth: Medicaid Spending during the Economic Downturn, FY 2007-2011

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Executive Summary

We have experienced and are now recovering from what many consider to be the worst recession since the Great Depression. Additionally, the age demographics of this country are beginning to shift as the baby-boomer generation turns 65. These are circumstances that drive Medicaid enrollment growth. Throughout its history, the Medicaid program's spending patterns have nearly always tracked enrollment growth,[1] and the past few years are no exception. During the FY 2007-2011 period, Medicaid enrollment rose from 42.3 million to 52.6 million and spending on medical services (that is, excluding administrative and other non-service spending) rose from $292.7 billion in FY 2007 to $381.5 billion in FY 2011– an average annual increase of 6.9 percent.

In this paper, we use CMS administrative data to track Medicaid spending by service or category from FY 2007 through FY 2011[2] and provide possible explanations for the spending trends. We then use enrollment data to calculate the spending per enrollee growth by service during this period. Finally, we calculate spending by eligibility group over this period, and in the process deconstruct spending growth into enrollment growth and spending per enrollee growth. Details on the methodology are available in the "Data Sources and Methods" section of this brief and Appendix A.

Our analysis finds that increases in Medicaid spending growth from 2007 to 2011 were largely due to enrollment growth. This enrollment growth occurred primarily because of the deepening recession, federal protections against eligibility restrictions, and decisions to expand Medicaid eligibility in some states, as well as the changing demographic composition of enrollees, such as aging baby boomers. Non-disabled adults and children, which we will refer to as "families," comprised the majority of the Medicaid enrollment growth during the 2007-2011 period.

Growing at 8.7 percent on average per year, acute care spending outpaced long-term care spending, which grew at 3.5 percent on average per year from 2007 to 2011. Managed care spending comprises a large portion of acute care. Each year and over the period as a whole, Medicaid spending on managed care was one of the fastest-growing categories of spending, growing at an average of 13.8 percent per

year. The fast growth in managed care spending is likely due to both increased Medicaid enrollment as well as state policy-makers expanding the use of managed care in the Medicaid programs in both the number and type of enrollees.

Spending on prescription drugs net rebates dropped from $15.0 billion in 2007 to $14.7 billion in 2011. The Medicaid Drug Rebate Program contributed in large part to this drop in drug spending over the period, as spending on prescription drugs before rebates increased at an average annual rate of 7.5 percent, from $22.4 billion in 2007 to $29.8 billion in 2011.

Medicaid medical service spending per enrollee grew by 2.3 percent per year on average during the 2007-2011 period. Acute care spending per enrollee grew by 3.5 percent per year on average, while long-term care spending per enrollee grew by only 0.1 percent per year. This low growth in long-term care spending per enrollee likely reflects states' efforts to "rebalance" their long-term care programs from heavily relying on institutional care to incorporating more community-based alternatives.

Over the 2007-2011 period, Medicaid spending on services for families grew much faster than Medicaid spending on services for the aged and individuals with disabilities. Medicaid spending on services for families grew rapidly from 2008 to 2010, due to high enrollment levels. As the enrollment growth rate for families approached a pre-recession level in 2011 due to improving economic conditions, the total spending growth rate for families also approached a pre-recession level. Spending per enrollee for families remained fairly constant over the 2007-2011 period. The Medicaid spending growth rate on services for the aged and individuals with disabilities fluctuated year to year, with the enrollment growth rate slowly increasing or remaining stable each year over the 2007-2011 period. This is attributed to the aging baby-boomer population; an increased ability to diagnose and treat chronic health issues, such as mental health conditions; and the effects of the recession.

Ultimately, we find that although Medicaid spending on medical services grew more quickly than the medical care consumer price index and national health expenditures, Medicaid spending per enrollee on medical services grew more slowly than the underlying medical care inflation, national health expenditures per capita, and the growth in private health insurance spending per enrollee. Reflecting increasing enrollment due to the recession, Medicaid spending, both on medical services and overall, rose faster than growth in national health expenditures and gross domestic product (GDP) from 2007 to 2011. On a *per enrollee* basis, however, growth in Medicaid service spending during the economic downturn was slower than both growth in national health expenditures per capita and growth in private health insurance spending per enrollee (Figure 1). Although average Medicaid service spending per enrollee rose faster than average per capita growth in GDP during this period (which was 0.8%), other health indicators also show a much higher rate of increase compared to GDP per capita. Further, the growth in Medicaid service spending per enrollee was below the growth in the medical care consumer price index (CPI), an indicator of the change in prices of medical care.

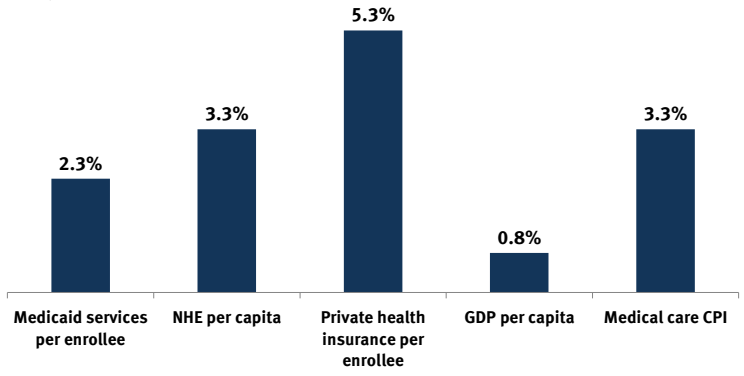
Thus, the increase in Medicaid service spending may be reflective of it being a purchaser of relatively costly goods (i.e., health services), but it has been able to keep cost increases below that of other

sectors of the health system. To a large degree, the Medicaid Drug Rebate Program and the slow growth rate in long-term care spending, partially attributed to expansion of home health and community-based services, explain the slower growth rate of the cost of Medicaid services compared to other health care indicators. The states have implemented an array of aggressive cost containment policies, which also include lower fee-for-service payment rates and the expansion of Medicaid managed care programs.

Despite the program's success in holding down per enrollee cost growth relative to other segments of the health care system, in FY 2011 states continued to grapple with budgetary constraints. Even as of 2012, some state revenues were still below pre-recession levels, while the additional federal funding available to states under the American Recovery and Reinvestment Act of 2009 (ARRA) expired in FY 2011. While states report that Medicaid enrollment and spending growth began to taper in 2012 and 2013, they also report ongoing pressure to contain costs.[3] As policymakers continue to explore deficit reduction options involving Medicaid at the federal level and spending reductions at the state level, it is important to recognize that many cost containment measures have already been taken, and further cuts could have adverse effects on access and health care quality for the sickest and poorest residents.

Figure 1

Average Annual Medicaid Spending on Medical Services Growth Versus Growth in Various Benchmarks, 2007-2011



SOURCE: Medicaid estimates from Urban Institute analysis of data from the Medicaid Statistical Information System (MSIS), Medicaid Financial Management Reports (CMS Form 64), and Kaiser Commission and Health Management Associates data. NHE and private health insurance data from Centers for Medicare & Medicaid Services Office of the Actuary, National Health Statistics Group. GDP data from Bureau of Economic Analysis. Medical care CPI from the Bureau of Labor Statistics, Consumer Price Index Detail Report Tables.

Introduction

The recent recession officially ended in June 2009, and although it has been slow, the economy is recovering. By most measures, this was the worst economic downturn affecting the United States since the Great Depression. Employment grew more slowly in the ten months following the recession than it had following any other downturn since 1948. It was not until June 2010 that the unemployment rate fell below the unemployment rate at the end of the recession of 9.5 percent.[4] As millions of Americans lost income and health benefits due to job losses during this period, many turned to the Medicaid program to provide health coverage for themselves and their families. However, as the economy has begun to recover, with GDP rising and the unemployment rate decreasing, the rate of Medicaid enrollment has slowed. Over the 2007 to 2011 period, Medicaid enrollment increased by 5.6 percent on average per year, with a high between 2008 and 2009 of 7.8 percent. In this paper, we use CMS administrative data to track Medicaid spending from 2007 through 2011, providing possible explanations for the spending trends. We then use enrollment data to calculate the spending per enrollee growth by service during this period, spending by eligibility group over this period, and deconstruct spending growth into enrollment growth and spending per enrollee growth. We find that Medicaid spending over the 2007 to 2011 period tracks enrollment, which is largely explained by economic circumstances and, to smaller degrees, decisions to expand Medicaid in some states and shifting age demographics. Although the spending growth rate is high, we find that spending *per enrollee* grew relatively slowly when compared to private health insurance per capita and the underlying inflation in the cost of medical care.

Data Sources and Methods

Because no existing Medicaid data source includes current spending data, current enrollment data, and detailed data on spending per enrollee, we combine data from three sources for this analysis. The main source for spending data is the Medicaid Financial Management Reports (Form 64) from the Center for Medicare and Medicaid Services (CMS) for federal fiscal years 2007 to 2011, which are used to obtain aggregate spending. These CMS-64 data are available by state and by spending category, but are not available by eligibility group.

Data on enrollment come from a survey of all 50 states and the District of Columbia conducted by Health Management Associates (HMA) for the Kaiser Commission on Medicaid and the Uninsured (KCMU). These data provide point in time enrollment for June of each year. Aged/disabled and total enrollment data were reported for all states and the District of Columbia. Child, parent, and other non-aged, non-disabled adult enrollment (throughout the report referred to simply as "family enrollment") was calculated as the residual enrollment by state.

A third data source, the Medicaid Statistical Information System (MSIS), provides detailed, individual level spending and enrollment data stratified by service type and eligibility group. Data from the 2009 MSIS[5]—the most recent year available at the time of this analysis— are used to estimate spending growth by eligibility group. Simply dividing total change in spending by total change in enrollment

would bias the estimate of the growth in spending per enrollee. Specifically, spending would be biased downward because of the faster enrollment among less expensive family beneficiaries relative to the aged and individuals with disabilities. MSIS enables us to estimate adjusted per enrollee spending growth rates in a way that accounts for differences in service use across eligibility groups. The MSIS data are similarly used to deconstruct total spending growth over time into increases in enrollment and spending per enrollee by eligibility group. Appendix A provides more methodological details on how the MSIS is incorporated into this analysis.

Beginning with FY 2010 data, the CMS-64 used new spending categories, which aim both to capture additional spending categories (e.g., those related to provisions under health reform) and to increase consistency across states in how certain types of spending (e.g., "other practitioner") are classified. To compare the FY 2010 data to previous years, we relied on an updated crosswalk of spending categories from CMS to map the new categories to the previous years' categories. This crosswalk allows us to examine trends over time, but it is possible that some services shifted categories in some states as a result of this change. Further, some categories in the FY 2010 and 2011 CMS-64 data may include expenditures that have not been reported previously in the CMS-64 (such as supplemental payments), leading to possible differences between the analysis of the FY 2010-2011 data and previous years.

The net expenditure for prescription drugs in Medicaid reflects both the cost of the drug/dispensing fee as well as the rebate received from the drug manufacturer. Drug manufacturers are required to pay these rebates to the federal and state governments for outpatient prescription drugs as a condition of Medicaid coverage for the drug. In most cases, we report net drug expenditures (that is, outlays after accounting for rebates), which represent total program spending for prescription drugs. The rebates effectively lower the price that Medicaid pays for prescription drugs. In some cases, specified in the text, we also report spending for prescription drugs excluding rebates, which indicates expenditures to pharmacies and more accurately indicates the level of prescription drug utilization (in terms of dollars) by beneficiaries.

This paper presents data on changes in Medicaid's enrollment and spending per enrollee between FY 2007 and FY 2011 and examines various reasons for the growth in Medicaid spending over the period. It is beyond the scope of this paper to definitively assign causality. We speculate on likely causes of changes in spending growth rates, relying considerably on existing surveys of state Medicaid offices conducted by Health Management Associates for the Kaiser Commission on Medicaid and the Uninsured. These are, however, hypotheses, and actual reasons for changes in spending growth in specific categories and in specific states may differ.

Economic Conditions and Medicaid Growth, 2007-2011

While the recession which began in December 2007 officially ended in June 2009, families are still feeling its effects. After dropping 2.2 percent in 2009, US GDP increased in both 2010 and 2011 (Table 1). For the first year since the 2007-2009 recession, the annual unemployment rate declined in 2011, although at 8.9 percent, it still remained much higher than the pre-recession unemployment rate of 4.6

percent in 2007. Both real median income and real per capita incomes remained below pre-recession and recession levels.

Table 1: National Economic Data 2007-2011

	2007	2008	2009	2010	2011
GDP[a]					
in billions	14,029	14,292	13,974	14,499	15,076
% change	4.9%	1.9%	-2.2%	3.8%	4.0%
Unemployment Rate[b]	4.6%	5.8%	9.3%	9.6%	8.9%
Income (in 2011 dollars)[c]					
Real Median Household	54,489	52,546	52,195	50,831	50,054
Real Per Capita [d]	29,075	28,166	27,819	27,396	27,554

[a] Bureau of Economic Analysis: National Economic Accounts. U.S. Department of Commerce. www.bea.gov

[b] Bureau of Labor Statistics: Current Population Survey: Labor Force Statistics. U.S. Department of Labor. www.bls.gov/data

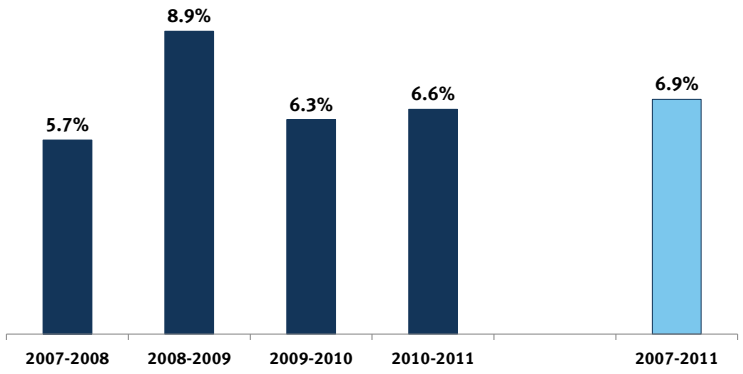
[c] Income measurements are from U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements.

[d] The per capita income data presented are not directly comparable with estimates of personal per capita income prepared by the Bureau of Economic Analysis, U.S. Department of Commerce. The lack of correspondence stems from the differences in income definition and coverage. For further details, see <www.census.gov/hhes/www/income/compare1.html>

Growth in Medicaid spending generally tracks the rate of growth in the economy, rising when the economy falls and slowing when the economy rises. This is because, during periods of economic downturn, people lose employment and income and are more likely to qualify for Medicaid; thus, program enrollment increases more rapidly as economic conditions worsen. As shown in Figure 2, spending on medical services increased by an average annual rate of 6.9 percent over the 2007-2011 period. This rate of growth was higher than the average annual rate of growth between 2004 and 2007 (data not shown), the brief period of economic recovery preceding the 2007-2009 recession.[6] Annual Medicaid spending growth was highest at the peak of the recession, 2008-2009, and slowed somewhat as economic conditions slowly improved.

Figure 2

Annual Growth in Medicaid Spending on Medical Services, 2007-2011



SOURCE: Urban Institute estimates based on data from Medicaid Financial Management Reports (CMS Form 64). Reflects spending for federal fiscal year.

Medicaid Enrollment Growth, 2007-2011

Table 2 shows national monthly Medicaid enrollment and average annual enrollment growth rates between 2007 and 2011. During this period, Medicaid enrollment increased by more than 10 million, from 42.3 million in 2007 to 52.6 million in 2011.

Table 2: Monthly Medicaid Enrollment, 2007 - 2011

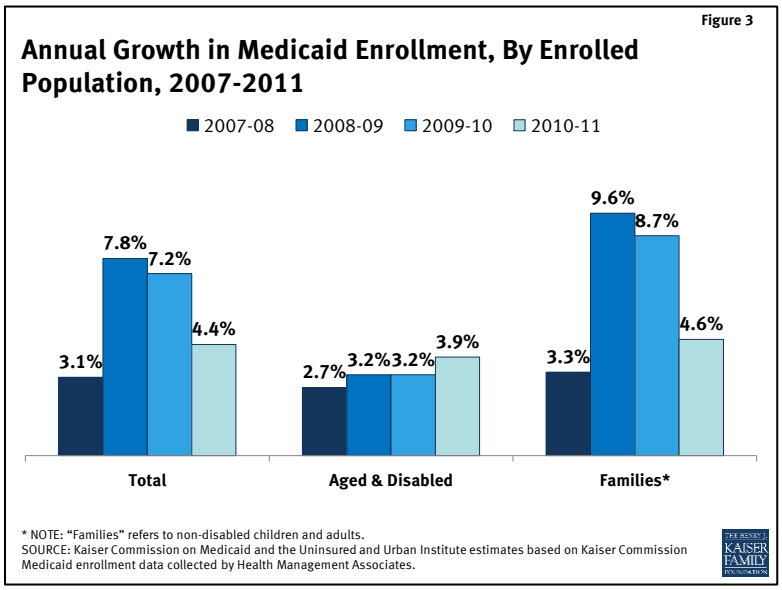
Population	Enrollment (in millions)					Average Annual Growth Rate				
	June 2007	June 2008	June 2009	June 2010	June 2011	2007-2008	2008-2009	2009-2010	2010-2011	2007-2011
Total	**42.3**	**43.6**	**47.0**	**50.4**	**52.6**	**3.1%**	**7.8%**	**7.2%**	**4.4%**	**5.6%**
Aged & Disabled	12.3	12.6	13.0	13.4	14.0	2.7%	3.2%	3.2%	3.9%	3.3%
Families[1]	30.0	31.0	34.0	37.0	38.7	3.3%	9.6%	8.7%	4.6%	6.5%

SOURCE: Kaiser Commission on Medicaid and the Uninsured and Urban Institute estimates based on KCMU Medicaid enrollment data collected by Health Management Associates. Aged and disabled and total enrollment data were reported for all states and DC and were used to calculate family enrollment figures for all states.

1. The term "families" is used to refer to non-disabled children and adults.

With an average annual growth rate of 6.5 percent, family enrollment comprised the majority of the enrollment growth between 2007 and 2011. In contrast, average annual growth in the number of family enrollees was fairly flat between 2004 and 2007 (0.4%) when the economy was more stable (data not shown). Once the recession began, family enrollment growth jumped from 3.3 percent at the early part

of the period to over 9 percent as the recession deepened. As economic conditions began to improve between 2010 and 2011, the family enrollment growth rate fell to 4.6 percent (Figure 3).



The driving force in family need for Medicaid was the loss in real household income associated with the widespread unemployment and underemployment caused by the 2007-2009 recession and its aftermath. Research shows that after controlling for eligibility thresholds among other factors, a 1 percentage point increase in the unemployment rate causes the share of Medicaid/CHIP coverage among non-disabled children to increase by .79 percentage points, and the share of Medicaid coverage among non-disabled adults to increase by .2 percentage points.[7] During the recession, states were required by federal rules to maintain eligibility levels. This requirement was based in the American Recovery and Reinvestment Act, passed in February 2009, which provided states with increased federal match rates, and the Affordable Care Act (ACA), passed March 23, 2010, which extended these maintenance of eligibility provisions through 2014 for adults and 2019 for children.[8] Since it was signed in 2010, the ACA has also permitted states to extend Medicaid coverage to all non-Medicare eligible individuals under age 65 with income up to 138 percent[9] of the Federal Poverty Level, with the exception of undocumented immigrants. Additionally, through the Children's Health Insurance Program Reauthorization Act of 2009, states are now permitted to extend Medicaid and CHIP coverage to legal immigrant children and pregnant women during their first five years of residency. As the economy has begun to recover, more states are extending Medicaid coverage to previously ineligible populations. Although eligibility for parents and other adults is still more restricted in Medicaid compared to children's eligibility for public insurance, a significant increase in Medicaid coverage for both adults and children between 2007 and 2011 is apparent in Current Population Survey (CPS) data.[10]

Medicaid enrollment of the aged and individuals with disabilities grew at a fairly steady rate between 2.7 percent and 3.9 percent over the 2007 to 2011 period. While this rate of growth is below that for families, enrollment growth among the aged and individuals with disabilities has exceeded the rate of growth of the overall US population.

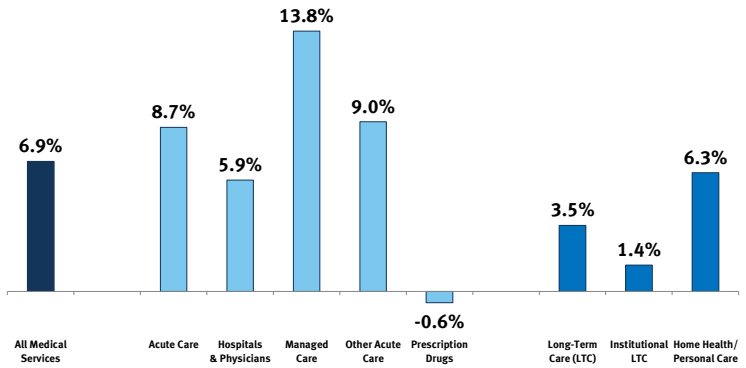
There are several possible reasons why Medicaid enrollment growth of the aged and individuals with disabilities is faster than overall population growth. First is the aging of the population: in 2011, many "baby boomers" entered the 55-65 age range, when the likelihood of disability increases. In addition, new medical technologies and advances in pharmaceuticals save, improve, and lengthen lives for many—and increase the number of people living with disabilities, many of whom rely on Medicaid to pay for their care. There has also been an increased ability to recognize and treat chronic conditions, particularly mental health problems, which may contribute to enrollment growth among the disabled. Last, there is evidence that during the recent recession, individuals with disabilities were more likely to become unemployed sooner and apply for disability benefits.[11]

Medicaid Spending Growth by Service Category, 2007-2011

Table 3 and Figure 4 show levels of Medicaid spending and average annual growth rates in spending by service category. Total spending grew from $330.3 billion in 2007 to $425.5 billion in 2011. Focusing on only medical services (i.e., excluding payments to Medicare, disproportionate share hospital (DSH), adjustments, and administrative expenses), spending increased from $292.7 billion in 2007 to $381.5 billion in 2011. Average annual growth in medical service spending over this period was 6.9 percent.

Figure 4

Average Annual Growth in Medicaid Expenditures by Medical Service, 2007-2011



NOTE: Figure for prescription drug spending includes rebates. Before rebates, average annual growth in prescription drug spending was 7.5%. All spending under managed care plans is captured in the "managed care" category; hospital, physician, other acute, and prescription drug spending is fee-for-service only.
SOURCE: Urban Institute estimates based on data from Medicaid Financial Management Reports (CMS Form 64). Reflects spending for federal fiscal year.

Table 3: US Medicaid Expenditures, by Spending Category and Year, FY 2007 - 2011

Expenditure Category	Expenditures (in billions)					Average Annual Growth Rate				
	2007	2008	2009	2010	2011	2007-2008	2008-2009	2009-2010	2010-2011	2007-2011
Total Spending	**330.3**	**350.9**	**377.4**	**400.1**	**425.5**	**6.3%**	**7.5%**	**6.0%**	**6.3%**	**6.5%**
Total Medical Services	292.7	309.3	336.7	357.8	381.5	5.7%	8.9%	6.3%	6.6%	6.9%
Acute Care[1]	**185.3**	**196.2**	**216.5**	**237.1**	**258.5**	**5.9%**	**10.3%**	**9.5%**	**9.0%**	**8.7%**
Hospitals & Physicians[2]	82.3	82.6	90.3	93.3	103.5	0.4%	9.3%	3.3%	11.0%	5.9%
Medicaid Managed Care[2]	60.7	70.1	80.5	90.5	101.8	15.4%	14.8%	12.5%	12.5%	13.8%
Other Acute Care[2,3]	26.3	27.2	28.8	36.2	37.1	3.3%	6.0%	25.5%	2.6%	9.0%
Prescription Drugs	15.0	15.3	15.7	15.8	14.7	1.7%	2.9%	0.7%	-7.2%	-0.6%
Prescribed Drugs Excluding Rebates	22.4	23.7	25.5	27.3	29.8	6.0%	7.5%	7.3%	9.1%	7.5%
Prescription Drug Rebates[2]	(7.3)	(8.4)	(9.8)	(11.5)	(15.1)	14.9%	15.8%	17.9%	31.6%	19.9%
Long-Term Care	**107.4**	**113.0**	**120.2**	**120.7**	**123.0**	**5.3%**	**6.3%**	**0.4%**	**1.9%**	**3.5%**
Institutional Long-Term Care[2]	64.3	66.0	68.2	66.6	68.1	2.7%	3.3%	-2.3%	2.2%	1.4%
Home Health/Personal Care[2,4]	43.1	47.0	52.0	54.1	55.0	9.2%	10.7%	3.9%	1.6%	6.3%
Medicare Payments[2,5]	**11.0**	**11.8**	**12.0**	**13.7**	**15.0**	**6.7%**	**2.1%**	**13.7%**	**9.9%**	**8.0%**
DSH	**15.4**	**17.7**	**17.7**	**17.6**	**17.3**	**14.9%**	**-0.2%**	**-0.7%**	**-1.6%**	**2.9%**
Inpatient Hospital - DSH	13.0	14.4	14.7	14.7	14.4	11.1%	1.9%	0.1%	-2.1%	2.6%
Mental Health Facility - DSH	2.5	3.3	3.0	2.9	2.9	34.2%	-9.2%	-4.2%	1.0%	4.2%
Adjustments[6]	**(5.3)**	**(5.5)**	**(7.4)**	**(6.8)**	**(7.7)**	**4.2%**	**34.3%**	**-7.7%**	**14.0%**	**10.2%**
Administration[7]	**16.4**	**17.6**	**18.3**	**17.9**	**19.4**	**7.5%**	**3.9%**	**-2.4%**	**8.8%**	**4.4%**

SOURCE: Urban Institute estimates based on data from Medicaid Financial Management Reports (HCFA/CMS Form 64). Annual expenditures reflect nominal spending for the federal fiscal year.
1. The "Acute Care" total here includes EPSDT screening spending, which amounted to 0.9B, 1.0B, 1.2B, 1.3B, and 1.3B in FY 2007, 2008, 2009, 2010, and 2011, respectively.
2. The CMS-64 was revised beginning with FY 2010 data and this FY 2010 and 2011 category may not be comparable to that of previous years.
3. Includes dental, other practitioners, abortion, sterilization, PACE programs, emergency services for undocumented aliens, and other care services.
4. Includes home health services, home- and community-based waiver services, personal care, and related services.
5. Includes premiums paid for those dually eligible for Medicaid and Medicare as well as Medicare deductibles and coinsurance for Qualified Medicare Beneficiaries (QMBs).
6. Includes collections for overpayments.
7. Includes immigration status verification system, preadmission screening, family planning, nurse aide training, external quality review, and enrollment broker costs.

During the economic downturn and its lingering effects, Medicaid spending on total acute care consistently grew faster than spending on total long-term care. Over the entire 2007 to 2011 period, total acute care spending grew by an average of 8.7 percent per year, while long-term care grew by less than half of that amount, an average of 3.5 percent per year (Figure 4). In each year and over the period as a whole, Medicaid spending on managed care has been one of the fastest-rising categories of spending, growing an average of 13.8 percent per year. In contrast, over the 2007-2011 period, spending on institutional long-term care has kept a low average annual growth rate, and spending on prescription drugs has had a negative average annual growth rate. This negative growth in prescription drugs (average of -0.6% a year) is due to the increasing share of drug expenditures recouped by rebates. Low growth in institutional long-term care is due to both relatively slow growth in the elderly population in Medicaid and the rebalancing of Medicaid from institutional to community-based long-term care.

Acute Care

Since low-income families are most likely to rely on Medicaid for acute care services than for other types of services, changes in their Medicaid enrollment impacts Medicaid acute care spending. Indeed, the growth rate in acute care spending peaked between 2008 and 2009, the same year that enrollment

growth peaked for families. As family enrollment has slowed, the growth in acute care spending slowed slightly but has still remained high through 2011.

Within acute care, the fastest-growing category of spending was Medicaid payments to managed care organizations, which increased from $60.7 billion in 2007 to $101.8 billion in 2011.[12] The average annual increase in payments to managed care organizations was 13.8 percent during this period. This category of spending includes capitated payments by Medicaid to managed care plans for the delivery of benefits to Medicaid enrollees. Plans include both comprehensive plans as well as limited benefit plans that provide just a subset of services such as behavioral health or dental care. Notably, this category captures payments that Medicaid makes to plans; in turn, these plans make payments to providers, but the data do not enable us to determine what specific services or providers were paid for with managed care payments. The growth in spending on managed care is due to both overall Medicaid enrollment growth and state decisions to expand the use of managed care in their Medicaid programs. For example, states are making policy changes such as expanding use of Medicaid managed care for disabled populations (who have greater health needs than non-disabled parents and children); expanding service areas for managed care; and instituting mandatory, rather than voluntary, enrollment of beneficiaries into managed care.[13] Thus, the double-digit growth in managed care spending throughout the period may be more reflective of the number and types of enrollees receiving services through managed care arrangements, rather than higher per capita spending growth in managed care as compared to fee-for-service Medicaid. Further analysis adjusting for differences in the underlying health risk of enrollees and differences in the benefit package would be required to explore whether spending for enrollees in capitated arrangements was rising at a higher or lower rate than for similar enrollees in fee-for-service Medicaid in the same state.

Spending on hospitals and physicians increased from $82.3 billion in 2007 to $103.5 billion in 2011, an average annual increase of 5.9 percent. Annual growth in spending for this category fluctuated over the period, but much of this pattern could be due to data issues. The slow growth in 2008 was likely due to very high levels of hospital spending in a select number of states in 2007, which skewed the national growth rate up for that year[14] and led to lower spending growth in 2008. Thus the 0.4 percent growth in 2008 may not be reflective of the experience in most states. Spending on hospitals and physicians then increased by 9.3 percent in 2009, increased more slowly by 3.3 percent in 2010, and then increased by 11 percent in 2011. Some of the fluctuation is likely attributable to methodology changes in the CMS-64 reporting data in 2010 that shifted some spending in this category to “other acute care.” Indeed, there was a steep increase in spending on “other acute care” in 2010. The combined total growth rate for hospitals and physicians and other acute care more closely mirrored overall acute care (and enrollment), with an initial low growth rate from 2007 to 2008 of 1.1 percent, a jump to 8.4 percent between 2008 and 2009, and a steady growth rate between 8 and 9 percent in 2010 and 2011. It is likely that the slowed spending in 2010 is also partially due to low real increases in fees, particularly those paid to physicians. It may also reflect the shift away from fee-for-service (and direct payment from Medicaid to providers) to managed care arrangements (with managed care plans paying providers). In addition to methodology changes, the increased growth rate of hospital spending in 2011 is also likely attributed to waivers in certain states, which provided additional financing to this service area. For example, in

November 2010, the Secretary of Health and Human Services approved California's "Bridge to Reform" 1115 Medicaid Demonstration Waiver, which extended Medicaid coverage and provided billions of federal dollars over a five-year period to public hospitals.[15]

Prescription Drugs

As noted above, spending on prescription drugs was the only category of Medicaid spending with a negative average growth rate over the 2007 to 2011 period, driven by the increasing share of drug expenditures recouped by rebates. Net spending on prescription drugs dropped from $15.0 billion in 2007 to $14.7 billion in 2011, an average annual growth of -0.6%. In contrast, spending on prescription drugs *before* rebates increased steadily throughout the period at an average annual rate of 7.5 percent, from $22.4 billion in 2007 to $29.8 billion in 2011. Rebates increased an average of 19.9 percent a year, and by 2011, offset half of expenditures for prescription drugs.

The increasing share of prescription drug expenditures recouped through rebates is a function of several factors. Most notably, many states have pursued supplemental rebates beyond the federal rebate level. In addition, effective in 2010, the Affordable Care Act included provisions to increase the base federal rebate, including increasing the federal rebate on most brand name drugs from 15.1% of the drug average manufacturer price (AMP) to 23.1% of AMP. Finally, the share of drug expenditures recovered through rebates also depends on the mix of drugs used, as the unit rebate amount depends on whether the drug is categorized as single source, innovator multiple source, non-innovator multiple, a clotting factor drug, or a drug used exclusively in the pediatric setting.[16]

The average annual growth rate in Medicaid prescription drug spending before rebates is slightly above average annual growth rate in overall Medicaid services from 2007 to 2011. Since the early 2000s, states have been making concerted efforts to control the cost of drugs. However, the growth rate of prescription drug spending before rebates has been increasing since 2007. From 2007 to 2010, growth in prescription drug spending before rebates was on par with growth of overall Medicaid services spending each year, but in 2011, spending on prescription drugs before rebates rose by 9.1 percent. States continued to emphasize the use of generics over brand-name drugs, but through FY 2011, drug prices before rebates were still largely based on AWPs,[17,18] which continued to increase at rates higher than inflation.[19] Ultimately, however, states garner considerable savings through manufacturer rebates, as described in the previous paragraph. Regardless, states report growing concern over increases in expenditures for specialty drugs to treat complex conditions, such as high-cost injectables, infusion, oral, or inhaled therapies; sometimes, expenditures for specialty drugs may be billed as a medical benefit rather than a pharmacy benefit. For this reason, pharmacy benefits are still a target for state cost control activity.[20]

Long-Term Care

Compared to acute care spending, Medicaid spending on long-term care grew more slowly from 2007 to 2011. Over this period, total long-term care expenditures increased from $107.4 billion in 2007 to

$123.0 billion in 2011, an average annual growth of 3.5 percent. Long-term care includes a range of services that we categorize into two main components: (i) institutional long-term care, such as care provided in nursing facilities and intermediate care facilities for the mentally retarded (ICF/MR), and (ii) home health and personal care, which includes home and community-based services.

From 2007 to 2010, spending on home health and personal care grew faster than spending on institutional services. In 2010, Medicaid spending for institutional long-term care fell, decreasing by 2.3 percent, while the change in spending for community-based services remained positive and grew by 3.9 percent. In contrast, in 2011, institutional service spending grew more quickly than community-based service spending. Over the entire 2007 to 2011 period, however, spending on home health and personal care grew much faster, with an average increase of 6.3 percent compared to spending on institutional services, which grew on average by 1.4 percent. As a result of this difference in growth rates, overall spending on home health and personal care services has moved closer to the level of expenditures for institutional services over the period.

The different patterns for institutional and community-based long-term care services reflect several factors. Most notably, in recent years, states have sought to "rebalance" the provision of long-term care services by shifting resources from institutional to community-based care. To that end, a majority of states have expanded the availability of home and community-based services, while policy action around institutional care has focused on limiting these services.[21] For example, in 2011, no state expanded their institutional services, but seven states implemented cost control measures to institutional services.[22] The relatively high growth in home and community-based care from 2007 to 2009 may represent a substitution of these services for institutional care. The slow and negative growth in institutional service spending may reflect slow enrollment of aged within that period, since this is the population most likely to use nursing home care. Community-based long-term care increased from 40 percent of total long-term care spending in 2007 to nearly 45 percent of total long-term care spending in 2011, although it grew most quickly between 2007 and 2009.

Other Spending Categories

Payments to Medicare programs (e.g. premiums, deductibles, and cost sharing for dual eligible beneficiary enrollment in Medicare Part A and Part B) increased from $11.0 billion in 2007 to $15.0 billion in 2011.[23] Growth in payments to Medicare was particularly high in 2010, when it reached 13.7 percent. Most of this increase is attributable to increases in payments for Medicare Part B premiums, which were raised by about 14 percent in 2010 after low increases in the preceding years.[24] In 2011, the base Medicare Part B premium rose by only 4 percent, explaining in part the lower spending growth rate of Medicare payments.

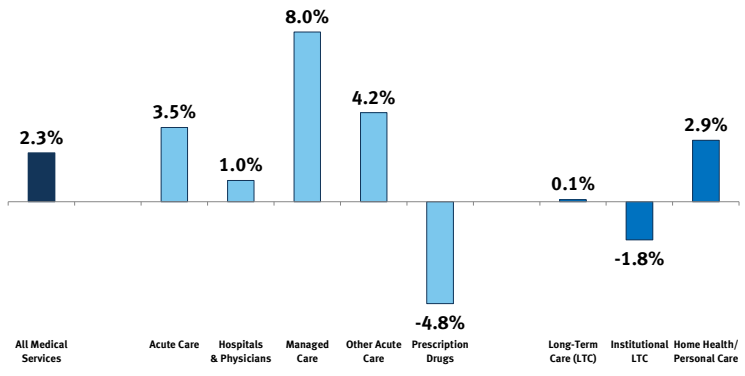
Overall disproportionate share hospital (DSH) spending grew by an average of 2.9 percent from 2007 to 2011, with a larger increase in 2008 (14.9%) and declines in 2009, 2010, and 2011 (-0.2%, -0.7%, and -1.6%, respectively). The federal government reimburses state spending on disproportionate share hospitals based on their matching rate up to the allotted amount, which since 2004 has for the most

part been based upon the allotment from the previous year for that state, adjusted to the consumer price index for urban consumers.[25] Since 2004, DSH spending has remained relatively stable, except in 2007, when it dropped from about $17.1 billion to about $15.4 billion. This was partially due to large drops in spending by a few key states, states that account for about 30 percent of DSH spending in other years (data not shown). DSH spending levels may also reflect some states' redirection of DSH funds to finance waiver coverage. In 2008, combined spending in these key states returned to close to 2006 levels, and national DSH spending also returned to a level closer to that in 2006 (data not shown).

Spending Growth per Enrollee

Figure 5

Average Annual Growth in Medicaid Spending on Medical Services per Enrollee by Service, 2007-2011



NOTE: Figure for prescription drug spending includes rebates. All spending under managed care plans is captured in the "managed care" category; hospital, physician, other acute, and prescription drug spending is fee-for-service only.
SOURCE: Urban Institute estimates based on data from Medicaid Financial Management Reports (CMS Form 64), Medicaid Statistical Information System (MSIS), and KCMU/HMA enrollment data.

Growth in spending per enrollee by service over the entire 2007-2011 period is illustrated in Figure 5 (see also Table 4). These estimates adjust spending per enrollee to control for the effect of the changing composition of Medicaid enrollment, as described in the Methods section and in Appendix A. The growth rate in spending per enrollee for a specific service reflects the growth rate of the spending on that service divided by the enrollment growth rate, where the enrollment growth rate is weighted to reflect increases in enrollment in proportion to the use of that specific service among a particular type of enrollee. For example, enrollment growth of the aged and individuals with disabilities, rather than that of families, predominantly impacts the growth of institutional long-term care use. Thus, when calculating the spending per enrollee of institutional long-term care, the growth rate of enrollment uses weights to reflect that each aged or disabled enrollee contributes more to long-term care spending than a non-disabled, non-elderly enrollee.

Overall, Medicaid medical service spending per enrollee grew by an average of 2.3 percent per year over the 2007 to 2011 period, with federal spending per enrollee growing by an average of 5.4 percent per year and state spending per enrollee decreasing by an average of 2.1 percent per year (see Table 5). Spending per enrollee for acute care services increased by an average of 3.5 percent per year. Within acute care, the managed care and other acute care spending per enrollee grew the fastest on average. As discussed above, the increase in "other acute care" was particularly large in 2010. Concurrently, the spending per enrollee on hospitals and physicians dropped between 2009 and 2010. Both of these shifts likely reflect methodology changes in the classification of services, which affected average rate of

growth for each between 2007 and 2011, (inflating the average rate of growth for "other acute care" and lowering the rate of growth for "hospitals and physicians").

Table 4: Average Annual Growth in Spending Per Enrollee by Type of Service, FY 2007 - 2011

Service Category	2007-2008	2008-2009	2009-2010	2010-2011	2007-2011
Medical Services	**2.7%**	**3.3%**	**1.1%**	**2.4%**	**2.3%**
Acute Care	**2.8%**	**3.5%**	**3.2%**	**4.5%**	**3.5%**
Hospitals & Physicians	-2.5%	2.8%	-2.4%	6.5%	1.0%
Medicaid Managed Care	12.0%	6.9%	5.4%	7.8%	8.0%
Other Acute Care[1]	0.3%	0.3%	19.1%	-1.5%	4.2%
Prescription Drugs	-1.2%	-2.5%	-4.3%	-10.9%	-4.8%
Long-Term Care	**2.5%**	**2.9%**	**-2.8%**	**-1.9%**	**0.1%**
Institutional Long-Term Care	0.0%	-0.1%	-5.5%	-1.7%	-1.8%
Home Health/Personal Care[2]	6.3%	7.1%	0.6%	-2.2%	2.9%

SOURCE: Urban Institute estimates based on data from Medicaid Financial Management Reports (HCFA/CMS Form 64), Medicaid Statistical Information System (MSIS), and KCMU/HMA enrollment data. Expenditures reflect nominal spending and exclude payments made under CHIP, Medicare premiums paid by Medicaid for persons eligible for both programs, Disproportionate Share Hospital (DSH) payments, administrative costs, and accounting adjustments. FY 2009 Medicaid Statistical Information System data was used for the proportion of each service category that is represented by the aged/disabled or families. Due to lack of availability of FY 2009 MSIS data for Pennsylvania, Utah, and Wisconsin, FY 2008 Pennsylvania, Utah, and Wisconsin MSIS data adjusted to the given state's 2009 CMS-64 expenditures was used. To the extent that FY 2010 and FY 2011 include actual new expenditures rather than just new categories that reflect further detail of already existing expenditures, FY 2010 and FY 2011 services could differ from the services included in the MSIS proportions.

1. Includes dental, other practitioners, abortion, sterilization, PACE programs, emergency services for undocumented aliens, and other care services. Other care services could not be calculated separately from other acute care services due to data limitations.

2. Includes home health services, home- and community-based waiver services, personal care, and related services.

Table 5: Federal and State Expenditures, FY 2007 - 2011

Service Category	Federal and State Expenditures in Billions					Average Annual Growth in Federal and State Expenditures Per Enrollee				
	2007	2008	2009	2010	2011	2007-2008	2008-2009	2009-2010	2010-2011	2007-2011
Medical Services, Total (Federal and State Totals)	293	309	337	358	382	2.7%	3.3%	1.1%	2.4%	2.3%
Medical Services, Federal Total (Includes ARRA in FY 2009-2011)[1]	167	176	225	244	244	2.8%	20.9%	3.6%	-4.2%	5.4%
Medical Services, Federal Non-ARRA Total (Federal Medicaid Component [Federal Total Excluding ARRA] for FY 2009-2011; Federal Total for FY 2007-2008)[1]	167	176	192	206	218	2.8%	3.5%	1.7%	2.1%	2.5%
Medical Services, Federal ARRA Total[1]	N/A	N/A	32	39	26	N/A	N/A	14.9%	-36.4%	N/A
Medical Services, State Total	126	133	112	113	137	2.5%	-20.1%	-3.7%	16.5%	-2.1%

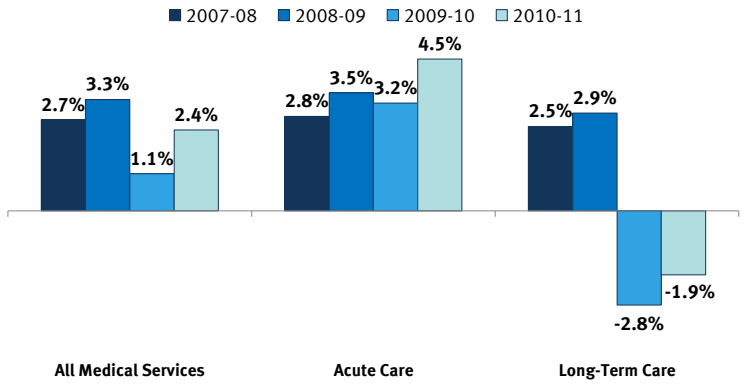
SOURCE: Urban Institute estimates based on data from Medicaid Financial Management Reports (HCFA/CMS Form 64), Medicaid Statistical Information System (MSIS), and KCMU/HMA enrollment data. Expenditures reflect nominal spending and exclude payments made under CHIP, Medicare premiums paid by Medicaid for persons eligible for both programs, Disproportionate Share Hospital (DSH) payments, administrative costs, and accounting adjustments. FY 2009 Medicaid Statistical Information System data was used for the proportion of each service category that is represented by the aged/disabled or families. Due to lack of availability of FY 2009 MSIS data for Pennsylvania, Utah, and Wisconsin, FY 2008 Pennsylvania, Utah, and Wisconsin MSIS data adjusted to the given state's 2009 CMS-64 expenditures was used. To the extent that FY 2010 and FY 2011 include actual new expenditures rather than just new categories that reflect further detail of already existing expenditures, FY 2010 and FY 2011 services could differ from the services included in the MSIS proportions.

1. FY 2011 federal non-ARRA and federal ARRA totals do not sum up to federal total due to data reporting issues.

Long-term care spending per enrollee increased by just 0.1 percent on average per year, representing average annual growth in community-based care but a decline in average annual growth for institutional care. Again, this difference likely reflects states' efforts to "rebalance" their long-term care programs from a heavy reliance on institutional services to greater use of community-based alternatives.

Figure 6

Annual Growth in Medicaid Spending on Medical Services Per Enrollee, 2007-2011



NOTE: Acute Care includes payments to managed care plans.
SOURCE: Urban Institute estimates based on data from Medicaid Financial Management Reports (CMS Form 64), Medicaid Statistical Information System (MSIS), and KCMU/HMA enrollment data.

Figure 6 shows how the annual growth rate in Medicaid spending per enrollee by service type changed over the 2007 to 2011 period. Per enrollee acute care spending increased between 2 and 5 percent each year. Within the "acute care" category, there was some year-to-year variation in growth per enrollee by service (see Table 4). These differences reflect both shifting service categories as well as different policy choices (e.g., to expand managed care and increase rebates in prescription drugs).

Long-term care spending per enrollee increased steadily in 2008 and 2009 (by 2.5% and 2.9% per year, respectively), then fell in 2010 and 2011 (by 2.8% and 1.9% per year, respectively). In 2010, this decline

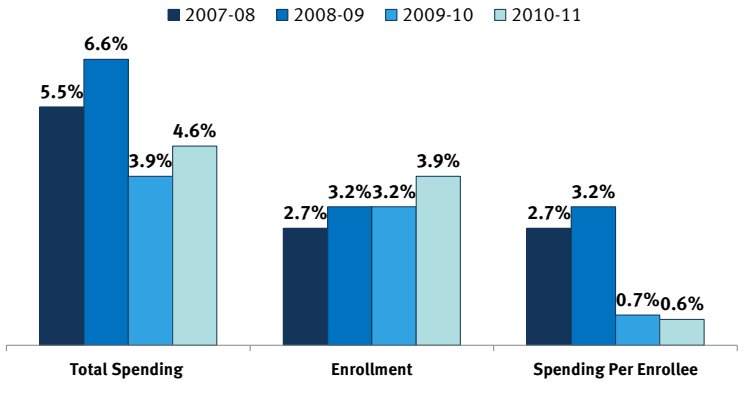
is driven by a 5.5 percent drop in per enrollee spending for institutional long-term care. However, in 2011, per enrollee spending for both institutional and community-based long-term care fell.
For the past twenty years, states have been reorienting the long-term care services their Medicaid programs provide towards community-based services, and away from institutional services, as is reflected by the negative spending per enrollee growth rates for institutional care. It may also be the result of modest changes in reimbursement rates. Although states still highly value community-based care, some are imposing spending restrictions on these services. Additionally, although many states renewed their HCBS waivers in 2010 and 2011, fewer (38 states) renewed their HCBS waivers in 2008. Making revisions to HCBS waivers or not renewing waivers is two of the few eligibility restrictions that states are permitted to enact without violating the MOE requirements put into place by ARRA and then the ACA[26].

Deconstructing Growth into Enrollment and Spending per Enrollee

Total spending is a function of the number of people in the program and spending per enrollee. This section parses out the growth in total spending into increases in enrollment and spending per enrollee from 2007 to 2011 (see Table 6). As in the previous section, these estimates are adjusted for changes in enrollment composition and differential mix of service use across eligibility groups, described in more detail in Appendix A. In short, the analysis uses the 2007 MSIS data to calculate baseline spending by eligibility group; it then uses eligibility group-specific spending growth rate estimates to calculate subsequent years' spending by eligibility group. These spending growth rate estimates are weighted to account for different mix of service use among different eligibility groups. Because total spending in this analysis is calculated using growth rates applied to the 2007 levels, total spending differs slightly from the estimates in previous tables.

Figure 7

Decomposition of Annual Growth in Medicaid Spending on Medical Services for Aged and Disabled, 2007-2011



SOURCE: Urban Institute estimates based on data from Medicaid Financial Management Reports (CMS Form 64), Medicaid Statistical Information System (MSIS), and KCMU/HMA enrollment data.

Overall annual spending increases for the aged and individuals with disabilities were relatively low from 2007 to 2011, increasing by 5.5 percent, 6.6 percent, 3.9 percent and 4.6 percent each year (Figure 7). In both 2008 and 2009, the increase in spending for this group was due to both low enrollment growth (2.7% and 3.2%) and relatively slow growth in spending per enrollee (2.7% and 3.2%). In 2010, the year with the lowest overall spending growth, enrollment continued to rise as in preceding years, but nearly a flat increase (0.7%) in spending per enrollee led to lower overall spending growth for this group. The rate of enrollment picked up in 2011 (3.9%), but with the growth rate of spending per enrollee dropping to a

period low of 0.6 percent, and the growth rate of total spending increased only modestly to 4.6 percent. This slow-down in spending per enrollee likely reflects efforts to shift this population out of institutions and into community-based settings.

Table 6: Average Annual Changes in Enrollment and Medicaid Expenditures on Medical Services by Eligibility Group, FY 2007 - 2011

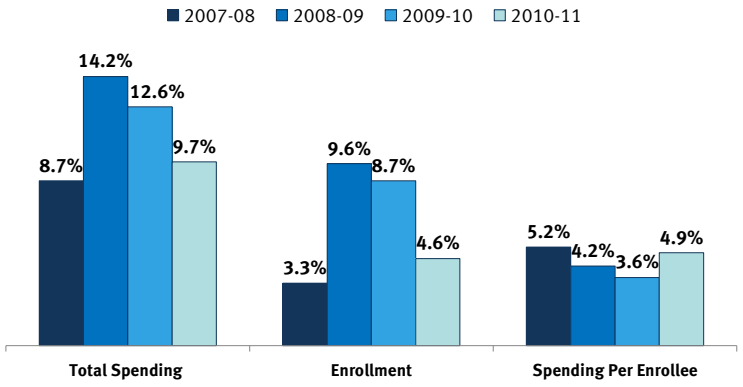
Population	Enrollment (in millions)			Spending Per Enrollee			Total Spending (in billions)			CPI-U Medical Care
2007 - 2008	**2007**	**2008**	**Percent Change**	**2007**	**2008**	**Percent Change**	**2007**	**2008**	**Percent Change**	**2007 - 2008**
Aged & Disabled	12.3	12.6	2.7%	$15,794	$16,227	2.7%	$194	$205	5.5%	
Families[1]	30.0	31.0	3.3%	$3,285	$3,455	5.2%	$99	$107	8.7%	
All Enrollees	**42.3**	**43.6**	**3.1%**	**$6,919**	**$7,149**	**3.3%**	**$293**	**$312**	**6.6%**	**3.7%**
2008 - 2009	**2008**	**2009**	**Percent Change**	**2008**	**2009**	**Percent Change**	**2008**	**2009**	**Percent Change**	**2008 - 2009**
Aged & Disabled	12.6	13.0	3.2%	$16,227	$16,754	3.2%	$205	$218	6.6%	
Families	31.0	34.0	9.6%	$3,455	$3,599	4.2%	$107	$122	14.2%	
All Enrollees	**43.6**	**47.0**	**7.8%**	**$7,149**	**$7,242**	**1.3%**	**$312**	**$340**	**9.2%**	**3.2%**
2009 - 2010	**2009**	**2010**	**Percent Change**	**2009**	**2010**	**Percent Change**	**2009**	**2010**	**Percent Change**	**2009 - 2010**
Aged & Disabled	13.0	13.4	3.2%	$16,754	$16,863	0.7%	$218	$227	3.9%	
Families	34.0	37.0	8.7%	$3,599	$3,728	3.6%	$122	$138	12.6%	
All Enrollees	**47.0**	**50.4**	**7.2%**	**$7,242**	**$7,231**	**-0.1%**	**$340**	**$364**	**7.0%**	**3.4%**
2010 - 2011	**2010**	**2011**	**Percent Change**	**2010**	**2011**	**Percent Change**	**2010**	**2011**	**Percent Change**	**2010 - 2011**
Aged & Disabled	13.4	14.0	3.9%	$16,863	$16,969	0.6%	$227	$237	4.6%	
Families	37.0	38.7	4.6%	$3,728	$3,910	4.9%	$138	$151	9.7%	
All Enrollees	**50.4**	**52.6**	**4.4%**	**$7,231**	**$7,376**	**2.0%**	**$364**	**$388**	**6.5%**	**3.0%**

SOURCE: Urban Institute estimates based on data from Medicaid Financial Management Reports (HCFA/CMS Form 64), Medicaid Statistical Information System (MSIS), and KCMU/HMA enrollment data. Expenditures reflect nominal spending and exclude payments made under CHIP, Medicare premiums paid by Medicaid for persons eligible for both programs, Disproportionate Share Hospital (DSH) payments, administrative costs, and accounting adjustments. Total spending levels and growth rates differ from those presented in previous tables because the data source and method used to calculate total spending are different. Total spending reflects sums of spending by eligibility group which is calculated by taking the 2007 MSIS spending level for each eligibility group and applying the corresponding growth rates. FY 2009 Medicaid Statistical Information System data was used for the proportion of total spending for an eligibility group that is represented by a particular service. Due to lack of availability of FY 2009 MSIS data for Pennsylvania, Utah, and Wisconsin, FY 2008 MSIS data for these three states adjusted to the given state's 2009 CMS-64 expenditures was used. This method is described in more detail in Appendix A. Growth rates for CPI-U Medical Care come from the Bureau of Labor Statistics, Consumer Price Index Detail Report Tables, Annual Average Indexes 2007 - 2011, Table 1A. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category and commodity and service group (1982-84=100, unless otherwise noted), http://www.bls.gov/cpi/cpi_dr.htm.

1. The term "families" is used to refer to non-disabled children and adults.

Figure 8

Decomposition of Annual Growth in Medicaid Spending on Medical Services for Families, 2007-2011



SOURCE: Urban Institute estimates based on data from Medicaid Financial Management Reports (CMS Form 64), Medicaid Statistical Information System (MSIS), and KCMU/HMA enrollment data.

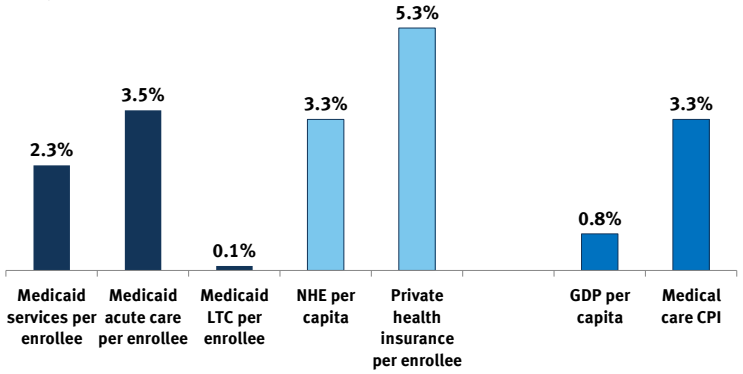
Total spending for families increased by 8.7 percent in 2008, and then increased dramatically by 14.2 percent in 2009. Between 2009 and 2011, the growth rate began to return to earlier levels, increasing by 12.6 percent in 2010, and 9.7 percent in 2011 (Figure 8). In contrast to Medicaid spending on the aged and individuals with disabilities, this rapid growth from 2008-2010 is due to high enrollment levels, attributable in large part to the recession. However, as economic conditions began to improve, the enrollment growth rate has begun to slow down, resulting in slower growth in total spending. Over this period, spending per enrollee was relatively stable between 3.6 percent and 5.2 percent.

Medicaid Spending Growth in Context

In each year and over the entire 2007-2011 period, Medicaid expenditure growth on medical services exceeded increases in national health expenditures and GDP (Table 7). For example, over the entire period, Medicaid expenditures on medical services increased annually by 6.9 percent on average while national health expenditures increased by 4.1 percent on average and GDP increased by 1.8 percent on average.

Figure 9

Average Annual Medicaid Spending on Medical Services Growth Versus Growth in Various Benchmarks, 2007-2011



NOTE: Acute Care includes payments to managed care plans.
SOURCE: Medicaid estimates from Urban Institute analysis of data from the Medicaid Statistical Information System (MSIS), Medicaid Financial Management Reports (CMS Form 64), and Kaiser Commission and Health Management Associates data. NHE and private health insurance data from Centers for Medicare & Medicaid Services Office of the Actuary, National Health Statistics Group. Medical care CPI from the Bureau of Labor Statistics, Consumer Price Index Detail Report Tables. GDP data from Bureau of Economic Analysis.

The higher growth in Medicaid spending during the economic downturn and its lingering effects is predominantly explained by changes in enrollment. On a *per enrollee* basis, overall growth in Medicaid spending during this period was slower than growth by other purchasers (Figure 9). Overall per enrollee spending on medical services increased by an average of 2.3 percent per year from 2007 to 2011, while national health expenditures per capita increased on average by 3.3 percent annually and private health insurance per enrollee increased by an average of 5.3 percent per year. The rate of

average annual spending per enrollee growth on acute care services (3.5%) was slightly higher than average annual growth in NHE per capita but considerably lower than average annual growth in private health insurance per enrollee (5.3%)

Table 7: Average Annual Growth in Medicaid Expenditures and in Selected Benchmarks

	Average Annual Growth Rates				
	2007-2008	**2008-2009**	**2009-2010**	**2010-2011**	**2007-2011**
Medicaid Expenditures for Medical Services	**5.7%**	**8.9%**	**6.3%**	**6.6%**	**6.9%**
Medicaid Expenditures per Enrollee					
Medical Services	2.7%	3.3%	1.1%	2.4%	2.3%
Acute Care (Including Prescription Drugs)	2.8%	3.5%	3.2%	4.5%	3.5%
Long Term Care	2.5%	2.9%	-2.8%	-1.9%	0.1%
CPI- Medical Care	**3.7%**	**3.2%**	**3.4%**	**3.0%**	**3.3%**
National Health Expenditures	**4.7%**	**3.9%**	**4.0%**	**3.9%**	**4.1%**
NHE per Capita	**3.7%**	**3.0%**	**3.1%**	**3.1%**	**3.3%**
Gross Domestic Product	**1.9%**	**-2.2%**	**3.8%**	**4.0%**	**1.8%**
GDP per Capita	**1.0%**	**-3.0%**	**3.0%**	**3.1%**	**0.8%**

The 2007 to 2011 per enrollee growth in Medicaid service spending was below the growth in the consumer price index (CPI) for medical care (an indicator of the change in prices of medical care), which averaged 3.3 percent per year from 2007 to 2011. Focusing just on acute care services, the growth in Medicaid acute care spending per enrollee was on par with that of medical care CPI. Medicaid spending on medical services per enrollee did grow faster than GDP per capita, which increased at just 0.8 percent on average annually over the period. Together, the comparison of Medicaid to other health spending indicators suggests that while Medicaid acute care spending may be growing faster than growth in the economy, Medicaid has done considerably better in controlling per capita costs than has private coverage.

Growth in Medicaid spending per enrollee from 2007 to 2011 was lower than the increases in national health expenditures per capita and the growth of private health insurance per enrollee due to an aggressive set of cost containment policies implemented by states in general. These include lower fee-for-service payment rates, consistent expansion of Medicaid managed care programs, an array of policies to control prescription drug costs, and expansion of home health and community-based services intended to reduce the level of institutionalization.[27] Many policymakers are hopeful that efforts to

target high-cost Medicaid populations, particularly individuals dually eligible for Medicare and Medicaid, will produce efficiencies that could further reduce the rate of spending growth in Medicaid.

Beyond these approaches, it is difficult to see ways to reduce Medicaid spending growth on a per capita basis without serious impacts on access to needed care and the quality of care available. Cost-containment efforts that go beyond Medicaid and affect expenditures for the entire population (that is, system-wide efforts to "bend the cost growth curve") are likely to be required for there to be any additional progress in controlling spending in Medicaid, which is already growing more slowly than other payers on a per capita basis.

Conclusion

Medicaid spending is driven by enrollment, as well as various factors that explain the growth in health expenditures for all populations and across all payers. Medicaid enrollment is affected by changes in economic cycles. When the economy does poorly, people not only lose their jobs, but also their access to employer-based health insurance. At the same time, they experience decreases in income that make them eligible for Medicaid under existing eligibility criteria.

The accelerating enrollment in Medicaid observed during the recent recession illustrates this result. In addition, rising income inequality in the country has led to substantial growth in the low-income population over the last decade and is also a major contributor to Medicaid enrollment growth over the entire period. Enrollment in Medicaid was also affected during this period by protections against eligibility restrictions and increased federal funding included in the American Recovery and Reinvestment Act and by decisions to expand Medicaid eligibility in some states. Eligibility expansions have also included the expansion of Medicaid benefits to more disabled individuals, another contributor to Medicaid spending increases.

Ultimately this analysis finds that while overall growth in Medicaid spending for medical services is larger than growth in the medical care consumer price index and the national health expenditures, growth in Medicaid spending *per enrollee*, on average for the nation, has increased more slowly than the growth in underlying medical care inflation as well as both the growth in national health expenditures per capita and growth in private health insurance per enrollee.

Katherine Young and Rachel Garfield are with the Kaiser Commission on Medicaid and the Uninsured. Lisa Clemans-Cope, Emily Lawton, and John Holahan are with The Urban Institute.

Appendix A

No existing single data source includes all of the data needed for an analysis of spending growth through 2011. We used data from two different sources on recent Medicaid spending and recent enrollment, respectively, and we used a third data set to make estimates of spending growth per enrollee.

The main source for spending data is the Medicaid Financial Management Reports (Form 64) from the Center for Medicare and Medicaid Services (CMS) for fiscal years 2007 through 2011. These data are available by state and spending category. However, the CMS-64 does not report enrollment or spending by eligibility group.

Data on enrollment are from a survey of all 50 states and the District of Columbia conducted by Health Management Associates (HMA) for the Kaiser Commission on Medicaid and the Uninsured (KCMU). These data provide point in time enrollment for June of each year. Aged/disabled and total enrollment data were reported for all states and the District of Columbia. Child, parent, and other non-aged, non-disabled adult enrollment (throughout the report referred to simply as "family enrollment") was calculated as the residual enrollment by state.

Accurately estimating per enrollee spending growth rates requires data that can link spending to enrollment groups. This is because simply dividing the total change in spending by the total change in enrollment would bias the estimate of the growth in spending per enrollee. Overall, for the time period of this analysis, spending would be biased downward because of the faster enrollment among less expensive family beneficiaries relative to the aged and disabled. This bias could be even more pronounced among subsets of services. For example, since families account for only a small share of long-term care spending, enrollment growth among families is not likely to affect long-term care spending.

Unfortunately, the CMS-64 does not enable us to stratify Medicaid spending growth for families versus the aged/disabled because CMS-64 data do not associate spending with eligibility groups. Therefore, the analysis presented in this paper draws on a third data source, the Medicaid Statistical Information System (MSIS), to estimate spending per enrollee growth by eligibility group. MSIS provides detailed individual-level spending and enrollment data stratified by service type and eligibility group, but it is not available for the more recent years in this analysis. We use the 2009 MSIS, which is the most recent year available at the time of this analysis, as well as the 2007 MSIS, the year corresponding with the start of the time period in this analysis.

The MSIS is incorporated into the per enrollee estimates in two ways. First, we use the 2009 MSIS data to estimate annual spending per enrollee growth by service in a way that accounts for differences in service use across eligibility groups. To do this, we use MSIS to calculate service-specific annual enrollment growth rates by obtaining service-specific weights for families versus the aged and disabled beneficiaries. These weights are equal to the share of Medicaid spending for each service that each

eligibility group generates using the 2009 MSIS. Then, for each service category, we calculate a weighted average of the enrollment growth for the two eligibility groups. For example, the 2009 MSIS indicates that families account for 48 percent of spending on hospitals and physicians, while the aged and disabled beneficiaries account for 52 percent. Thus, we calculate the hospital and physician-specific enrollment growth by weighting the family enrollment growth by 0.48 and enrollment growth for the aged and disabled beneficiaries by 0.52. Finally, we divide the annual spending growth for each service by the weighted annual enrollment growth for each service to calculate the annual spending per enrollee growth for each service (see Box A-1).

Box A-1: Calculating Annual Spending Per Enrollee Growth by Service

For each service category *s*, the spending per enrollee growth from time period *t1* to time period *t2* is calculated as:

$$\text{Average spending per enrollee growth}_{s,\,t2\text{-}t1} = \frac{\text{Average spending growth}_{s,\,t2\text{-}t1}}{\text{Average enrollment growth}_{s,\,t2\text{-}t1}}$$

where

$$\text{Average enrollment growth}_{s} = (\text{Family weight}_{s} * \text{Family enrollment growth}) + (\text{Aged-disabled weight}_{s} * \text{Aged-disabled enrollment growth})$$

and

Family weight_{s} = Share of spending for *s* accounted for by families in 2009 MSIS
$\text{Aged-disabled weight}_{s}$ = Share of spending for *s* accounted for by aged-disabled in 2009 MSIS

Second, we used MSIS data to estimate annual spending per enrollee growth by eligibility group in a way that similarly accounts for differences in service use across eligibility groups. This analysis enables us to deconstruct total spending growth from year to year into increases in enrollment and increases in spending per enrollee by eligibility group. First, we use the 2007 MSIS to establish baseline spending by eligibility group. Then, to calculate the annual spending per enrollee growth by eligibility group, we weight the annual growth in spending per enrollee for each service by the importance of that service to the specific eligibility group and then aggregate across all services (step 1 in Box A-2). For each eligibility group, we then multiply the annual spending per enrollee growth estimate times the annual enrollment growth. This gives us the annual spending growth rate for each eligibility group (step 2 in Box A-2). Finally, we apply these rates to baseline spending by eligibility group calculated using 2007 MSIS data (step 3 in Box A-2). The spending totals and rates of growth calculated using this method are shown in Table 6 and differ from the spending growth in Figure 2 and Table 3 because the data source and method used to calculate total spending are different. Total spending in Table 6 reflects sums of spending by eligibility group calculated by taking the 2007 MSIS spending level for each eligibility group

and applying the corresponding growth rates calculated using data from Medicaid Financial Management Reports (HCFA/CMS Form 64), Medicaid Statistical Information System (MSIS), and KCMU/HMA enrollment data.

Box A-2: Calculating Annual Spending Per Enrollee by Eligibility Group

Spending per enrollee for families in year *t* is calculated as follows:

1. Annual spending per enrollee $growth_{family} = \Sigma$ [Annual spending per enrollee $growth_{s}$ * Service $weight_{family, s}$]

   Where

   Service $weight_{family, s}$ = Service *s* share of total family spending

2. Annual spending $growth_{family}$ = Annual spending per enrollee $growth_{family}$ * Annual enrollment $growth_{family}$
3. Total $spending_{family, t}$ = Total $spending_{family, startyear}$ * Total spending $growth_{family, t- startyear}$
4. $$\text{Spending per enrollee}_{family, t} = \frac{\text{Total spending}_{family, t}}{\text{Enrollment}_{family, t}}$$

Annual per enrollee spending for aged and disabled is calculated the same way, using growth rates for the aged and individuals with disabilities in place of family growth rates.

Notes

[1] See e.g., R Kronick and D Rousseau. "Is Medicaid sustainable? Spending projections for the program's second forty years." *Health Affairs*, 26.2 (2007): w271-87.

[2] Unless otherwise noted, all years in this brief refer to the federal fiscal year (FY), which runs from October 1 through September 30.

[3] VK Smith, K Gifford, E Ellis, R Rudowitz, and L Snyder. "Medicaid Today; Preparing for Tomorrow: A Look at State Medicaid Program Spending, Enrollment, and Policy Trends." Kaiser Family Foundation, October 2012. Available at http://www.kff.org/medicaid/8380.cfm.

[4] Bureau of Labor Statistics, Current Population Survey: Labor Force Statistics. U.S. Department of Labor. Available at www.bls.gov/data.

[5] Due to lack of availability of FY 2009 MSIS data for Pennsylvania, Utah, and Wisconsin, we used FY 2008 Pennsylvania, Utah, and Wisconsin MSIS data, having adjusted the data to the given state's 2009 CMS-64 expenditures.

[6] J Holahan, L Clemans-Cope, E Lawton, and D Rousseau. "Medicaid Spending Growth over the Last Decade and the Great Recession, 2000-2009." Kaiser Family Foundation, February 2011. Available at http://www.kff.org/medicaid/8152.cfm.

[7] J Holahan and AB Garret. "Rising Unemployment, Medicaid and the Uninsured." Kaiser Family Foundation, January 2009. Available at http://www.kff.org/uninsured/7850.cfm.

[8] For an in depth explanation of the maintenance of eligibility requirements, see "Understanding the Medicaid and CHIP Maintenance of Eligibility Requirements." Kaiser Family Foundation, June 2011. Available at http://www.kff.org/medicaid/8204.cfm.

[9] The Affordable Care Act specifies an income threshold of 133 percent of the federal poverty level but allows a 5 percent income disregard.

[10] According to analysis of the Current Population Survey, the change in the number of individuals covered by Medicaid between 2007 and 2011 was 9.2 million, 4.3 million of whom were adults. See J Holahan and M McGrath. "Reversing the Trend? Understanding the Recent Increase in Health Insurance Coverage among the Nonelderly Population." Kaiser Family Foundation, February 2013. Available at http://www.kff.org/uninsured/8264.cfm.

[11] HS Kaye. "The Impact of the 2007–09 Recession on Workers with Disabilities." *The Monthly Labor Review*, U.S. Bureau of Labor Statistics, 133.10 (2010). Available at http://www.bls.gov/opub/mlr/2010/10/art2exc.htm.

[12] The CMS-64 includes a category of spending for payments to managed care plans for delivery of benefits to Medicaid enrollees. We classify these payments as acute care spending since the majority of managed care plans in Medicaid cover acute care (versus long-term care) benefits.

[13] Smith, Gifford, Ellis, Rudowitz, and Snyder, 2012.

[14] J Holahan, A Yemane, and D Rousseau. "Medicaid Expenditures Increased by 5.3% in 2007, Led By Acute Care Spending Growth." Kaiser Family Foundation, September 2009. Available at http://www.kff.org/medicaid/7978.cfm.

[15] "Key Facts on California's 'Bridge to Reform' Medicaid Demonstration Waiver." Kaiser Family Foundation, October 2011. Available at http://www.kff.org/medicaid/8197.cfm. See also S Artiga. "An Overview of Recent Section 1115 Medicaid Demonstration Waiver Activity." Kaiser Family Foundation, May 2012. Available at http://www.kff.org/medicaid/8318.cfm.

[16] "Medicaid Drug Rebate Program." Available at http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Benefits/Prescription-Drugs/Medicaid-Drug-Rebate-Program.html.

[17] "AWP" stands for "Average Wholesale Price," but this is a misnomer, as the AWP is actually a list price. Because AWPs have long been inflated, precipitating numerous litigations, many experts have urged a reconsideration of the industry-wide reliance on the AWP as a pricing mechanism. In February 2012, CMS proposed legislation addressing this issue. 77 Fed. Reg. 5318-5367 (February 2, 2012).

[18] VK Smith, K Gifford, E Ellis, R Rudowitz, and L Snyder. "Moving Ahead Amid Fiscal Challenges: A Look at Medicaid Spending, Coverage and Policy Trends." Kaiser Family Foundation, October 2011. Available at http://www.kff.org/medicaid/8248.cfm.

[19] Office of Inspector General, "Medicaid Brand-Name Drugs: Rising Prices Are Offset by Manufacturer Rebates," August 2011, OEI-03-10-00260.

[20] Smith, Gifford, Ellis, Rudowitz, and Snyder, 2012.

[21] Ibid.

[22] Smith, Gifford, Ellis, Rudowitz, and Snyder, 2011.

[23] For example, state Medicaid programs are required to pay the Part B premium on behalf of certain types of beneficiaries who are dually eligible for Medicare and Medicaid and enroll in Medicare Part B.

[24] Dual eligible beneficiaries were not included in the groups of beneficiaries subject to the "hold harmless" provisions that protected against premium increases. See: http://www.cms.gov/apps/media/press/factsheet.asp?counter=3534 and http://www.kff.org/medicare/8126.cfm.

[25] A Mitchell. “Medicaid Disproportionate Share Hospital Payments.” Congressional Research Service. December 18, 2012.

[26] Smith, Gifford, Ellis, Rudowitz, and Snyder, 2012.

[27] Ibid.

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