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Medicaid Spending Growth in the Great Recession and Its Aftermath, FY 2007-2012

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Executive Summary

The 2007 to 2012 period encompasses one of the worst economic downturns since the Great Depression, as well as the start of a slow recovery that is still in progress. Although the Great Recession technically ended in 2009, its effects have been felt much longer, with unemployment levels and household incomes slow to return to pre-recession levels. In large part due to this environment, Medicaid enrollment has increased rapidly over the FY 2007 to 2012 period. Throughout its history, the Medicaid program's spending patterns have nearly always tracked enrollment growth,[1] and the FY 2007 – 2012 period is no exception. During this period, Medicaid enrollment rose from 42.3 million to 54.1 million and spending on medical services (that is, excluding administrative and other non-service spending) rose from $292.7 billion in FY 2007 to $383.6 billion in FY 2012– an average annual increase of 5.6 percent. As states expand their Medicaid programs as part of health reform, we can anticipate that both spending and enrollment will jump in the next few years, although the spending jump will mostly be at the federal level.

In this paper, we use CMS administrative data to track Medicaid spending by service or category from FY 2007 through FY 2012[2]. 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" text box in this brief and Appendix B at the end of the brief.

Overall Spending Trends

Our analysis finds that Medicaid spending growth peaked in the 2007 to 2011 period due to recession-driven enrollment growth. In 2012, however, spending growth slowed to near record lows. Enrollment growth over the 2007-2011 period occurred primarily because of the economic downturn, federal protections against eligibility restrictions, and decisions to expand Medicaid eligibility in some states. Non-disabled adults and children, who we will refer to as "families," comprised the majority of the Medicaid enrollment growth during the 2007-2011 period. However, in 2012, enrollment growth for families slowed, and that year, Medicaid spending grew by just 0.8 percent. This slow growth in 2012 reflects the slow-down in enrollment growth as well as state efforts to mitigate the effects of the end of enhanced federal match rate in June 2011.[3]

Managed care is playing an increasingly dominant role in Medicaid spending. Growing at 14.1 percent on average per year, managed care grew steadily and faster than any other service category over the 2007 to 2012 period. The fast growth in managed care spending is due to both overall

increased Medicaid enrollment as well as state policy decisions to expand the number and type of enrollees in managed care and services provided. For example, many states are now providing prescription drug services through managed care since provisions in the ACA enable them to obtain drug rebates for prescription drugs purchased through a managed care organization. In addition, states are expanding use of Medicaid managed care for individuals with disabilities and instituting mandatory enrollment of beneficiaries into managed care. Finally, more long-term care services are being provided through managed care.

Medicaid Spending Trends and Enrollment

When examined on a per enrollee basis, Medicaid medical service spending grew by 1.3 percent per year on average during the 2007-2012 period. Acute care spending per enrollee grew by 2.4 percent a year on average, with steady growth each year until 2012, when it dropped by 1.7 percent. Long-term care spending per enrollee fell by an average of 0.7 percent per year from 2007 to 2012. This fall in long-term care spending per enrollee could likely reflect states' efforts to restructure their long term care services, as well as the growing importance of managed care.

Over the 2007-2012 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 particularly rapidly from 2008 to 2010, due to high enrollment levels at the peak of the recession. 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 grew fairly constantly from 2007 through 2011 but barely increased in 2012, in large part due to states' reaction to the expiration of the enhanced federal match rate. 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 2007-2012 period. This incremental spending growth is likely attributed to an increased ability to diagnose and treat chronic health issues, such as mental health conditions; the effects of the recession; and the aging baby-boomer population.

Medicaid Spending Trends in Context

Medicaid spending per enrollee on medical services grew more slowly than 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 2012. 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. 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 well 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.

Introduction

The recent recession, commonly known as "the Great Recession," officially ended in June 2009. Although it has been slow, the economy is recovering, albeit more quickly in some states than in others. By most measures, this was the worst economic downturn affecting the United States since the Great Depression. 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. It was in this climate that Congress passed the American Recovery and Reinvestment Act in 2009, which among other things, instituted a maintenance of eligibility requirement and enhanced the federal match.[4] However, as the economy has begun to recover, with GDP rising and the unemployment rate decreasing, the rate of Medicaid enrollment has slowed. In June 2011, the federal match rate returned back to pre-ARRA levels, leaving states to cover the remaining amount of Medicaid spending while still being required to maintain eligibility levels.

Over the 2007 to 2012 period, Medicaid enrollment increased by 5.1 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 2012, 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 overall Medicaid spending over the 2007 to 2012 period tracked enrollment, which is largely explained by economic circumstances and, to a smaller degree, decisions to expand Medicaid in some states. Although spending growth slowed considerably in 2012, which may reflect states' reactions to the end of the enhanced federal match, it was relatively high over the entire period. However, 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.

As of July 2014, 27 states including D.C. had decided to expand their Medicaid programs as part of health reform.[5] Consequently, we anticipate Medicaid enrollment to jump. As this report shows, Medicaid spending follows enrollment, and consequently we also anticipate a jump in spending, although the federal government will largely pay for it. At a per enrollee level, however, we anticipate that spending in the Medicaid program will continue to grow more slowly than in other programs.

Data Sources and Methods

The main source for spending data for this analysis is the Medicaid Financial Management Reports (Form 64) from the Center for Medicare and Medicaid Services (CMS) for federal fiscal years 2007 to 2012, 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. Total enrollment data were reported two main groups: 1) aged and individuals with disabilities; and 2) child, parent, and other non-aged, non-disabled adults (referred to as "family enrollment").

A third data source, the Medicaid Statistical Information System (MSIS), provides individual- level spending and enrollment data stratified by service type and eligibility group. Data from the 2009 MSIS[6] are used to estimate spending growth by eligibility group. This data 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 B provides more detail 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.

Drug manufacturers are required to pay 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. In some cases, specified in the text, we also report spending for prescription drugs excluding rebates.

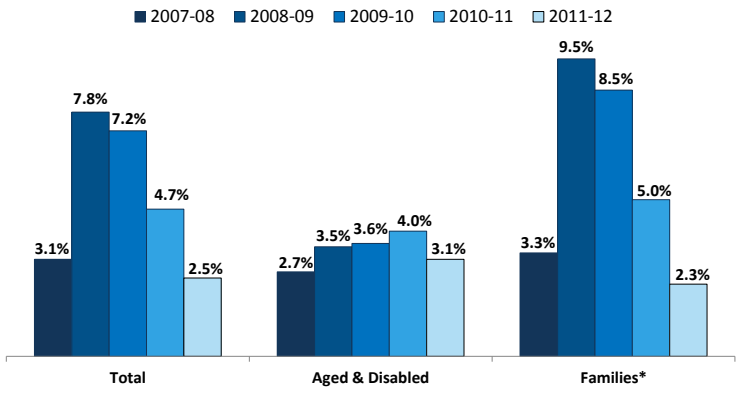
This paper presents data on changes in Medicaid's enrollment and spending per enrollee between FY 2007 and FY 2012 and examines various reasons for the growth in Medicaid spending over the period. It is beyond the scope of this paper to definitively assign causality. We speculate on likely causes of 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.

Overview of Enrollment and Spending

While the recession that began in December 2007 officially ended in June 2009, families continue to feel its effects. After dropping 2.1 percent in 2009, US GDP increased at a fairly constant rate from 2010 through 2012 (Appendix Table A1). The unemployment rate reached a high-water mark of 9.6 percent in 2010 but has been falling since then. However, at 8.1 percent in 2012, it remained much higher than the pre-recession unemployment rate of 4.6 percent in 2007. Additionally, the unemployment rate does not take into account the 8 million people who are working part-time, but would prefer to work full-time, or the 800,000 people who have given up looking for a job.[7] Both real median income and real per capita incomes remain below pre-recession and recession levels. Altogether, these indicators show that the economy is improving, but slowly.

Figure 1

Annual Growth in Medicaid Enrollment, By Enrolled Population, 2007-2012



* NOTE: "Families" refers to non-disabled children and adults.
SOURCE: Kaiser Commission on Medicaid and the Uninsured and Urban Institute estimates based on Kaiser Commission Medicaid enrollment data collected by Health Management Associates.

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. Medicaid enrollment increased from 42.3 million in 2007 to 54.1 million in 2012 (Appendix Table A2). With an average annual growth rate of 5.7 percent, family enrollment comprised the majority of the enrollment growth between 2007 and 2012. As the recession deepened, family enrollment growth jumped from 3.3 percent to over 9 percent. However, as economic conditions began to improve, the family enrollment growth rate slowed to 5 percent between 2010 and 2011, and then even further to 2.3 percent between 2011 and 2012 (Figure 1). It is likely that not yet released data from FY 2013 and 2014 will see an uptick in enrollment because of provisions in the ACA.

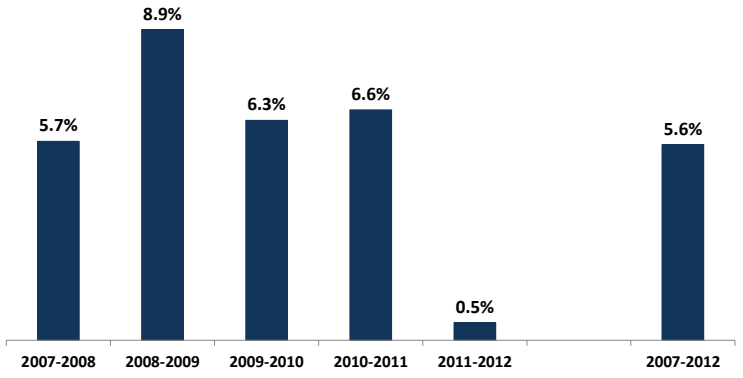
Medicaid enrollment of the aged and individuals with disabilities grew at a comparatively steady rate between 2.7 percent and 4.0 percent over the 2007 to 2012 period. Between 2011 and 2012, for the first time since before the recession, enrollment of the aged and disabled grew more quickly than enrollment of families. Additionally, 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, the population is aging: in 2012, many "baby boomers" began turning 65 and many others entered the 55-64 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.[8] It is likely that the slow-down in Medicaid enrollment of the aged and disabled between 2011 and 2012 is because of the slow-down in layoffs and slow improvement of the economy.[9]

Because more people qualify for Medicaid during economic downturns, growth in Medicaid spending generally tracks the rate of growth in the economy. As shown in Figure 2, spending on medical services in Medicaid increased by an average annual rate of 5.6 percent over the 2007-2012 period. Annual Medicaid spending growth was highest at the peak of the recession, 2008-2009, and slowed somewhat as economic conditions slowly improved. In June 2011, the enhanced federal match expired and in 2012 spending growth slowed dramatically to 0.5 percent.

Figure 2

Annual Growth in Medicaid Spending on Medical Services, 2007-2012



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

Medicaid Spending Growth by Service Category, 2007–2012

Table 1 and Figure 3 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 $429.2 billion in 2012. 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 $383.6 billion in 2012. Average annual growth in medical service spending over this period was 5.6 percent. 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 2012 period, total acute care spending grew by an average of 7.1 percent per year, while long-term care grew by less than half of that amount, an average of 2.7 percent per year (Figure 3).

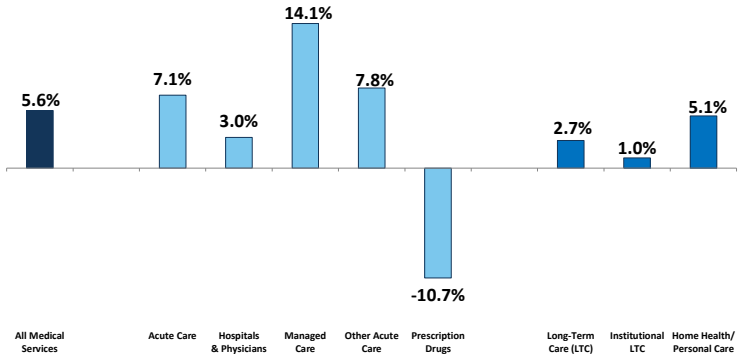
Table 1: US Medicaid Expenditures, by Spending Category and Year, FY 2007–2012

Expenditure Category	Expenditures (in billions)						Average Annual Growth Rate					
	2007	2008	2009	2010	2011	2012	2007 – 2008	2008 – 2009	2009 – 2010	2010 – 2011	2011 – 2012	2007 – 2012
Total Spending	330.3	350.9	377.4	400.1	425.8	429.2	6.3%	7.6%	6.0%	6.4%	0.8%	5.4%
Total Medical Services	292.7	309.3	336.7	357.8	381.5	383.6	5.7%	8.9%	6.3%	6.6%	0.5%	5.6%
Acute Care[1]	185.3	196.2	216.5	237.1	258.5	260.9	5.9%	10.3%	9.5%	9.0%	0.9%	7.1%
Hospitals & Physicians[2]	82.3	82.6	90.3	93.3	103.6	95.2	0.4%	9.3%	3.3%	11.1%	-8.1%	3.0%
Medicaid Managed Care[2]	60.7	70.1	80.5	90.5	101.8	117.5	15.4%	14.8%	12.5%	12.5%	15.4%	14.1%
Other Acute Care[2,3]	26.3	27.2	28.8	36.2	37.1	38.4	3.3%	6.0%	25.5%	2.5%	3.6%	7.8%
Prescription Drugs	15.0	15.3	15.7	15.8	14.7	8.6	1.7%	2.9%	0.7%	-7.4%	-41.6%	-10.7%
Prescribed Drugs Excluding Rebates	22.4	23.7	25.5	27.3	29.8	23.2	6.0%	7.5%	7.3%	9.0%	-22.0%	0.8%
Prescription Drug Rebates[2]	-7.3	-8.4	-9.8	-11.5	-15.1	-14.7	14.9%	15.8%	17.9%	31.6%	-2.9%	14.9%
Long-Term Care	107.4	113.0	120.2	120.7	123.0	122.7	5.3%	6.3%	0.4%	1.9%	-0.3%	2.7%
Institutional Long-Term Care[2]	64.3	66.0	68.2	66.6	68.1	67.4	2.7%	3.3%	-2.3%	2.2%	-0.9%	1.0%
Home Health/Personal Care[2,4]	43.1	47.0	52.0	54.1	55.0	55.2	9.2%	10.7%	3.9%	1.6%	0.5%	5.1%
Medicare Payments[2,5]	11.0	11.8	12.0	13.7	15.0	14.5	6.7%	2.1%	13.7%	9.9%	-3.7%	5.6%
DSH	15.4	17.7	17.7	17.6	17.3	17.1	14.9%	-0.2%	-0.7%	-1.6%	-1.2%	2.0%
Inpatient Hospital - DSH	13.0	14.4	14.7	14.7	14.3	14.3	11.1%	1.9%	0.1%	-2.2%	0.0%	2.1%
Mental Health Facility - DSH	2.5	3.3	3.0	2.9	2.9	2.7	34.2%	-9.2%	-4.2%	1.0%	-7.2%	1.8%
Medical Services Adjustments[6]	-5.2	-5.5	-7.3	-6.9	-7.5	-8.0	4.1%	33.9%	-6.0%	9.0%	7.3%	8.9%
Administration[7]	16.4	17.6	18.3	17.9	19.4	22.1	7.5%	3.9%	-2.4%	8.8%	13.7%	6.2%

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, 1.3B, and 1.2B in FFY 2007, 2008, 2009, 2010, 2011, and 2012, respectively.
2. The CMS-64 was revised beginning with FY 2010 data and this FY 2010-2012 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.

Figure 3

Average Annual Growth in Medicaid Expenditures by Medical Service, 2007-2012



NOTE: Figure for prescription drug spending includes rebates. Before rebates, average annual growth in prescription drug spending was 0.8%. 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.

Acute Care

Since low-income families are more likely to rely on Medicaid for acute care services than for other types of services, changes in their Medicaid enrollment mostly 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 slowed following the recession, the growth in acute care spending slowed slightly but still remained high through 2011. Then in 2012, acute care spending grew less than 1%. As states expand their Medicaid programs, it is likely that acute care spending will comprise most of Medicaid spending growth.

Managed Care

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 $117.5 billion in 2012.[10] The average annual increase in payments to managed care organizations was 14.1 percent during this period. This category of spending includes Medicaid capitated payments 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. Unfortunately, the data do not enable us to determine what managed care plans paid for specific services or providers.

The growth in spending on managed care reflects overall Medicaid enrollment growth as well as more services being provided and new populations being covered through managed care. For example, states are making policy changes such as expanding use of Medicaid managed care to disabled populations (who have greater health needs than non-disabled parents and children), using managed care for long-term care needs, and instituting mandatory, rather than voluntary, enrollment of beneficiaries into managed care.[11] Thus, the double-digit growth throughout the period may be more reflective of the number and types of enrollees receiving services, as well as the additional services provided through managed care, all causing shifts in spending from other service categories, rather than higher per capita spending growth compared to fee-for-service. 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. Looking forward, we anticipate that managed care will continue to grow in the next several years as most newly eligible Medicaid enrollees will receive their health benefits through managed care.

Hospitals and Physicians

Spending on hospitals and physicians increased from $82.3 billion in 2007 to $95.2 billion in 2012, an average annual increase of 3.0 percent, but fluctuated from year to year. 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[12] and led to lower spending growth in 2008. Spending on hospitals and physicians then increased by 9.3 percent in 2009, increased more slowly by 3.3 percent in 2010, increased by 11.1 percent in 2011, and then dramatically fell by 8.1 percent in 2012. Some of the fluctuation is likely attributable to methodology changes in the CMS-64 data reporting in 2010 that shifted some spending in this category to "other acute care."[13] The drop in the national hospital and physician growth rate may also be attributable in part to states needing to balance their budgets as the enhanced federal match rate ended, as well as natural spending adjustments to the slowly improving economy. It also may reflect a shift away from fee-for-service spending. Finally, policy changes in states that comprise large shares of Medicaid spending, such as California, can have impacts on national trends, especially when broken out at the service level.[14]

Prescription Drugs

Spending on prescription drugs was the only category of Medicaid spending with a negative average growth rate over the 2007 to 2012 period. This negative growth rate is mostly due to spending drops in 2011 and especially in 2012, which is most likely due to a key policy change in 2010 causing drug services to shift to managed care. Prior to the ACA, states were required to pay for prescription drugs through a fee-for-service system in order to participate in the Medicaid Drug Rebate Program (MDRP). However, the ACA revised this regulation, allowing for states to recoup rebates through the MDRP for drugs purchased through a managed care organization.[15] As states have moved the management of prescription drug services into managed care, our data has captured that spending as part of the managed care category.

In addition, since the early 2000s, states have been making concerted efforts to control the cost of drugs, implementing such policy measures as preferred drug lists, prior authorization requirements, state maximum allowable costs for generic drugs, and incentives to use generics over brand-name drugs.[16] Though states garner considerable savings through these measures and manufacturer rebates, they 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.[17]

Long-Term Care

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 intellectually and developmentally disabled (ICF-I/DD), and (ii) home health and personal care, which includes home and community based service waivers. Compared with acute care spending, Medicaid spending on long-term care grew more slowly from 2007 to 2012. Over this period, total long-term care expenditures increased from $107.4 billion in 2007 to $122.7 billion in 2012, an average annual growth of 2.7 percent.

With an average annual growth rate of 5.1 percent over the 2007 to 2012 period, spending on home health and personal care grew faster than spending on institutional services, which grew at an average of 1.0 percent. In fact, in two years, 2010 and 2012, Medicaid spending on institutional services fell, while Medicaid spending on home health services continued to grow, although increasingly more slowly. 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.

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.[18] 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.

Other Spending Categories

Payments to Medicare programs (e.g. premiums, deductibles, and some cost sharing for dual eligible beneficiary enrollment in Medicare Part A and Part B) increased from $11.0 billion in 2007 to $14.5 billion in 2012.[19] 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.[20] However, in 2012, the standard Medicare Part B premium lowered from $115.40 per month to $99.90 per month, and as a result, Medicaid spending on Medicare premiums fell by 3.7 percent.

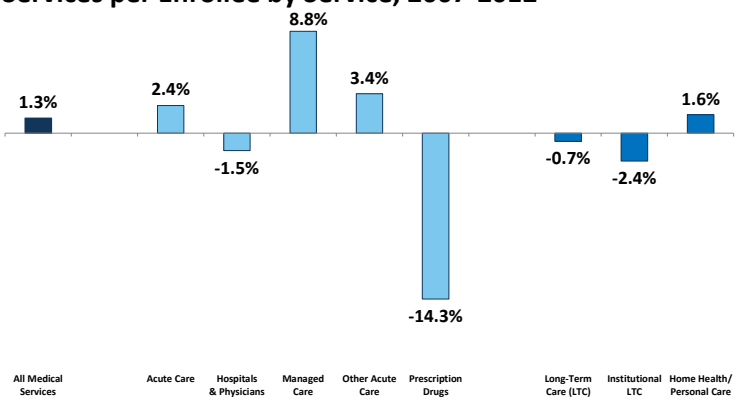
Overall disproportionate share hospital (DSH) spending grew by an average of 2.0 percent from 2007 to 2012, with a larger increase in 2008 (14.9%) and declines in 2009, 2010, 2011, and 2012 (-0.2%, -0.7%, -1.6%, and -1.2%, respectively). Since 2004, DSH spending has remained relatively stable, except 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 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). Because of Medicaid expansion, and other provisions in the ACA, there should be fewer uninsured people in the U.S., meaning that there will be less of a need for DSH spending. Consequently, the ACA decreases DSH spending over the next decade.[21]

Spending Growth per Enrollee

Growth in spending per enrollee by service over the entire 2007-2012 period is illustrated in Figure 4. These estimates adjust spending per enrollee to control for the effect of the changing composition of Medicaid enrollment, as described in the Methods text box and in Appendix B. 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 growth, the growth rate of enrollment is weighted to reflect that each aged or disabled enrollee contributes more to long-term care spending than a non-disabled, non-elderly enrollee.

Figure 4

Average Annual Growth in Medicaid Spending on Medical Services per Enrollee by Service, 2007-2012



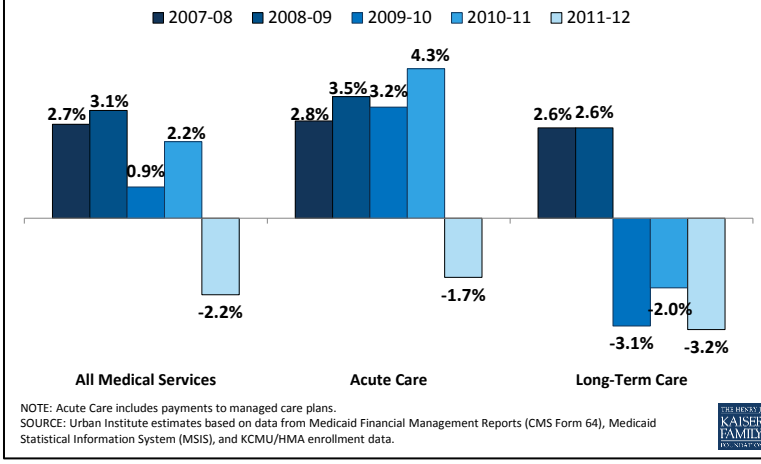
NOTE: Figure for prescription drug spending includes rebates. All spending under managed care plans is captured in the "managed care" category; hospital, physician, other acute, and prescription drug spending is fee-for-service only.
SOURCE: Urban Institute estimates based on data from Medicaid Financial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

Overall, Medicaid medical service spending per enrollee grew by an average of 1.3 percent per year over the 2007 to 2012 period, with federal spending per enrollee growing by an average of 1.5 percent per year and state spending per enrollee growing by an average of 1.0 percent per year (Appendix Table A3).

Acute care spending per enrollee increased by an average of 2.4 percent per year. Within acute care, managed care spending per enrollee grew the fastest on average. Long-term care spending per enrollee fell by 0.7 percent on average per year, representing average annual growth in community-based care but a decline in average annual growth for institutional care.

Figure 5

Annual Growth in Medicaid Spending on Medical Services Per Enrollee, 2007-2012



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 5 and Appendix Table A4 show how the annual growth rate in Medicaid spending per enrollee by service type changed over the 2007 to 2012 period. Per enrollee acute care spending increased between 2 and 5 percent each year until 2012, when it fell by 1.7 percent. Within the "acute care" category, there was some year-to-year variation in growth per enrollee by service.

Long-term care spending per enrollee increased steadily in 2008 and 2009 (by 2.6% each year), then fell in 2010, 2011, and 2012 (by 3.1%, 2.0%, and 3.2% per year, respectively). In 2010, this decline is driven by a 5.8

percent drop in per enrollee spending for institutional long-term care. However, in 2011 and 2012, per enrollee spending for both institutional and community-based long-term care fell.

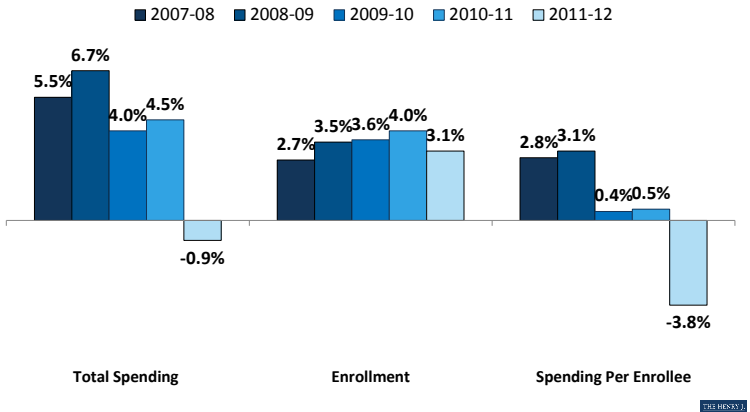
Deconstructing Growth into Enrollment and Spending per Enrollee

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 2012 (see Appendix Table A5). 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 B. 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.

Overall annual spending increases for the aged and individuals with disabilities were relatively low from 2007 to 2011, increasing by 5.5 percent, 6.7 percent, 4.0 percent and 4.5 percent each year, and then fell by 0.9 percent in 2012 (Figure 6). In both 2008 and 2009, the increase in spending for this group was due to both low enrollment growth (2.7% and 3.5%) and relatively slow growth in spending per enrollee (2.8% and 3.1%). In 2010 and 2011, enrollment continued to rise as in preceding years, but a nearly flat increase in spending per enrollee led to lower overall spending growth for this group. Then in 2012, spending per aged or disabled enrollee fell, and as a result, for the first time over the 2007-2012 period, total spending for aged and disabled enrollees also fell.

Figure 6

Decomposition of Annual Growth in Medicaid Spending on Medical Services for Aged and Disabled, 2007-2012



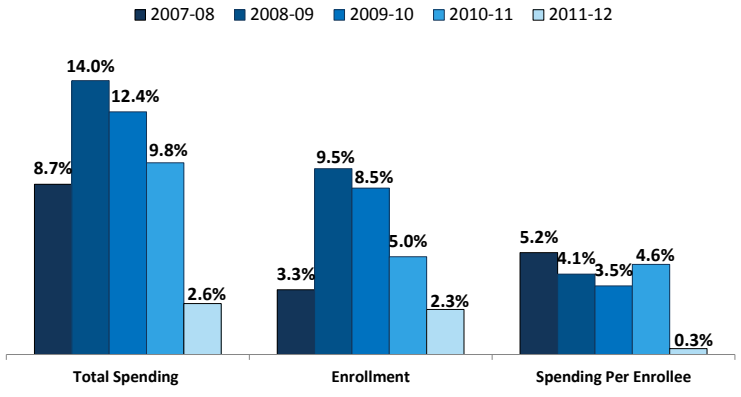
SOURCE: Urban Institute estimates based on data from Medicaid Financial Management Reports (CMS Form 64), Medicaid Statistical Information System (MSIS), and KCMU/HMA enrollment data.

Total spending for families increased by 8.7 percent in 2008, and then increased dramatically by 14.0 percent in 2009. Between 2009 and 2011, the growth rate began to return to earlier levels, increasing by 12.4 percent in 2010, and 9.8 percent in 2011. Then in 2012, spending for families grew considerably more slowly at 2.6 percent (Figure 7). The growth in spending per enrollee certainly does affect the growth in spending, but in contrast to the aged enrollees, the acceleration in family enrollment due to the recession was the root cause over this period for the acceleration in total spending. Spending per enrollee for families grew at a fairly stable

rate over the period, until 2012, when it barely grew at all. Thus, in 2012, the growth in family enrollment alone drove the growth in total family spending.

Figure 7

Decomposition of Annual Growth in Medicaid Spending on Medical Services for Families, 2007-2012



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.

Medicaid Spending Growth in Context

Over the entire 2007-2012 period, and for each year through 2011, Medicaid expenditure growth on medical services exceeded increases in national health expenditures and GDP (Appendix Table A6). For example, over the entire period, Medicaid expenditures on medical services increased annually by 5.6 percent on average while national health expenditures increased by 3.9 percent on average and GDP increased by 2.3 percent on average.

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 8). Overall per enrollee spending on medical services increased by an average of 1.3 percent per year from 2007 to 2012, while national health expenditures per capita increased on average by 3.1 percent annually and private health insurance per enrollee increased by an average of 4.7 percent per year. The growth rate of average annual spending per enrollee on acute care services (2.4%) was lower than both the average annual growth in NHE per capita and the average annual growth in private health insurance per enrollee (4.7%).

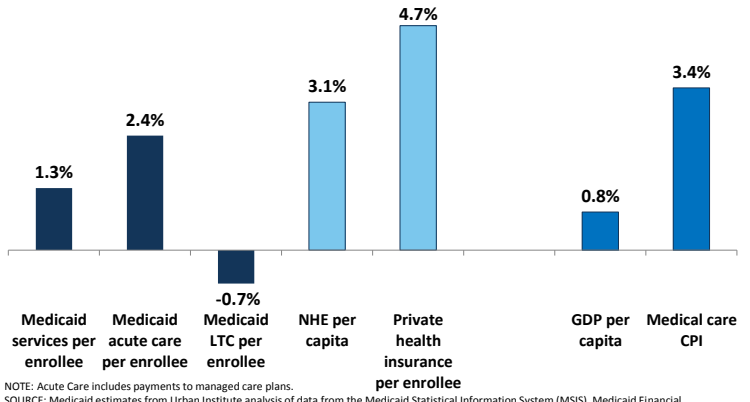
Both the 2007 to 2012 per enrollee growth in Medicaid total service spending and per enrollee growth in Medicaid acute care spending were below the growth in the consumer price index (CPI) for medical care (an indicator of the change in prices of medical care), which averaged 3.4 percent per year from 2007 to 2012. 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 2012 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.[22] 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.

Figure 8

Average Annual Medicaid Spending on Medical Services Growth Versus Growth in Various Benchmarks, 2007-2012



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.

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.

This KCMU issue brief was prepared by Katherine Young of the Kaiser Family Foundation and Lisa Clemans-Cope, Emily Lawton, and John Holahan of the Urban Institute.

Appendix A: Additional Tables

Table A1: National Economic Data 2007–2012						
	2007	2008	2009	2010	2011	2012
GDP[1]						
in billions	$14,480	$14,720	$14,418	$14,958	$15,534	$16,245
% change	8.2%	1.7%	-2.1%	3.7%	3.8%	4.6%
Unemployment Rate[2]	4.6%	5.8%	9.3%	9.6%	8.9%	8.1%
Income (in 2012 dollars)[3]						
Real Median Household	$55,627	$53,644	$53,285	$51,893	$51,100	$51,017
Real Per Capita[4]	$29,682	$28,755	$28,400	$27,968	$28,130	$28,281

SOURCES:
1. Bureau of Economic Analysis: National Economic Accounts. U.S. Department of Commerce. www.bea.gov
2. Bureau of Labor Statistics: Current Population Survey: Labor Force Statistics. U.S. Department of Labor. www.bls.gov/data
3. Income measurements are from U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements.
4. 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>

Table A2: Monthly Medicaid Enrollment, FY 2007–2012												
Population	Enrollment (in millions)						Average Annual Growth Rate					
	June 2007	June 2008	June 2009	June 2010	June 2011	June 2012	2007 – 2008	2008 – 2009	2009 – 2010	2010 – 2011	2011 – 2012	2007 – 2012
Total	42.3	43.6	47.0	50.4	52.8	54.1	3.1%	7.8%	7.2%	4.7%	2.5%	5.1%
Aged & Disabled	12.2	12.6	13.0	13.5	14.0	14.4	2.7%	3.5%	3.6%	4.0%	3.1%	3.4%
Families[1]	30.1	31.1	34.0	36.9	38.8	39.7	3.3%	9.5%	8.5%	5.0%	2.3%	5.7%

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.

Table A3: Average Annual Growth in Federal and State Expenditures Per Enrollee, FY 2007 – 2012

Service Category	2007–2008	2008–2009	2009–2010	2010–2011	2011–2012	2007–2012
Medical Services, Total (Federal and State Totals)	2.7%	3.1%	0.9%	2.2%	-2.2%	1.3%
Medical Services, Federal Total (Includes ARRA beginning in FY 2009)	2.8%	20.6%	3.4%	-4.3%	-12.1%	1.5%
Medical Services, Federal Non-ARRA Total[1]	2.8%	3.3%	1.5%	1.9%	-2.1%	1.4%
Medical Services, Federal ARRA Total	N/A	N/A	14.8%	-36.6%	-97.6%	N/A
Medical Services, State Total	2.6%	-20.3%	-3.9%	16.2%	15.3%	1.0%

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. 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. To the extent that FYs 2010-2012 include actual new expenditures rather than just new categories that reflect further detail of already existing expenditures, FY 2010-2012 services could differ from the services included in the MSIS proportions.
1. Federal Medicaid Component [Federal Total Excluding ARRA] beginning in FY 2009; Federal Total for FY 2007-2008)

Table A4: Average Annual Growth in Spending Per Enrollee by Type of Service, FY 2007 – 2012

Service Category	2007–2008	2008–2009	2009–2010	2010 – 2011	2011–2012	2007–2012
Medical Services	2.7%	3.1%	0.9%	2.2%	-2.2%	1.3%
Acute Care	2.8%	3.5%	3.2%	4.3%	-1.7%	2.4%
Hospitals & Physicians	-2.4%	2.7%	-2.5%	6.4%	-10.6%	-1.5%
Medicaid Managed Care	12.0%	6.9%	5.4%	7.5%	12.4%	8.8%
Other Acute Care[1]	0.3%	0.1%	18.9%	-1.8%	0.8%	3.4%
Prescription Drugs	-1.2%	-2.7%	-4.4%	-11.3%	-43.2%	-14.3%
Long-Term Care	2.6%	2.6%	-3.1%	-2.0%	-3.2%	-0.7%
Institutional Long-Term Care	0.0%	-0.4%	-5.8%	-1.8%	-3.9%	-2.4%
Home Health/Personal Care[2]	6.3%	6.8%	0.3%	-2.3%	-2.5%	1.6%

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. To the extent that FY 2010, FY 2011, and FY 2012 include actual new expenditures rather than just new categories that reflect further detail of already existing expenditures, FY 2010, FY 2011, and FY 2012 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 A5: Average Annual Changes in Enrollment and Medicaid Expenditures on Medical Services by Eligibility Group, FY 2007 – 2012

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	12.2	12.6	2.7%	$15,873	$16,312	2.8%	$194	$205	5.5%	
Families[1]	30.1	31.1	3.3%	$3,280	$3,449	5.2%	$99	$107	8.7%	
All Enrollees	42.3	43.6	3.1%	$6,920	$7,151	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	3.5%	$16,312	$16,810	3.1%	$205	$218	6.7%	
Families	31.1	34.0	9.5%	$3,449	$3,590	4.1%	$107	$122	14.0%	
All Enrollees	43.6	47.0	7.8%	$7,151	$7,244	1.3%	$312	$341	9.2%	3.2%
2009-2010	2009	2010	Percent Change	2009	2010	Percent Change	2009	2010	Percent Change	2009 – 2010
Aged & Disabled	13.0	13.5	3.6%	$16,810	$16,884	0.4%	$218	$227	4.0%	
Families	34.0	36.9	8.5%	$3,590	$3,716	3.5%	$122	$137	12.4%	
All Enrollees	47.0	50.4	7.2%	$7,244	$7,233	-0.1%	$341	$364	7.0%	3.4%
2010-2011	2010	2011	Percent Change	2010	2011	Percent Change	2010	2011	Percent Change	2010 – 2011
Aged & Disabled	13.5	14.0	4.0%	$16,884	$16,966	0.5%	$227	$237	4.5%	
Families	36.9	38.8	5.0%	$3,716	$3,887	4.6%	$137	$151	9.8%	
All Enrollees	50.4	52.8	4.7%	$7,233	$7,355	1.7%	$364	$388	6.5%	3.0%
2011-2012	2011	2012	Percent Change	2011	2012	Percent Change	2011	2012	Percent Change	2011 – 2012
Aged & Disabled	14.0	14.4	3.1%	$16,966	$16,318	-3.8%	$237	$235	-0.9%	
Families	38.8	39.7	2.3%	$3,887	$3,897	0.3%	$151	$155	2.6%	
All Enrollees	52.8	54.1	2.5%	$7,355	$7,208	-2.0%	$388	$390	0.5%	3.7%

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. This method is described in more detail in Appendix B. Growth rates for CPI-U Medical Care come from the Bureau of Labor Statistics, Consumer Price Index Detail Report Tables, Annual Average Indexes 2007 - 2012, 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.

Table A6: Average Annual Growth in Medicaid Expenditures and in Selected Benchmarks

	Average Annual Growth Rates					
	2007–2008	2008–2009	2009–2010	2010–2011	2011–2012	2007–2012
Medicaid Expenditures for Medical Services	5.7%	8.9%	6.3%	6.6%	0.5%	5.6%
Medicaid Expenditures per Enrollee						
Medical Services	2.7%	3.1%	0.9%	2.2%	-2.2%	1.3%
Acute Care (Including Prescription Drugs)	2.8%	3.5%	3.2%	4.3%	-1.7%	2.4%
Long Term Care	2.6%	2.6%	-3.1%	-2.0%	-3.2%	-0.7%
CPI- Medical Care	3.7%	3.2%	3.4%	3.0%	3.7%	3.4%
National Health Expenditures	4.7%	3.8%	3.8%	3.6%	3.7%	3.9%
NHE per Capita	3.8%	2.9%	2.9%	2.9%	3.0%	3.1%
Gross Domestic Product	1.7%	-2.1%	3.7%	3.8%	4.6%	2.3%
GDP per Capita	0.7%	-2.9%	2.9%	3.1%	3.7%	0.8%

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. Growth rates for CPI-U Medical Care come from the Bureau of Labor Statistics, Consumer Price Index Detail Report Tables, Annual Average Indexes 2007 - 2012, 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. National Health Expenditure growth rates come from the CMS Natinal Health Expenditure Accounts, http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.html. GDP growth rates come from the Bureau of Economic Analysis, http://www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1#reqid=9&step=3&isuri=1&910=x&911=0&903=5&904=2007&905=2013&906=a.

Appendix B: Methodology

No existing single data source includes all of the data needed for an analysis of spending growth through 2012. 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 2012. 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 and individuals with disabilities; child, parent, and other non-aged, non-disabled adult enrollment (throughout the report referred to simply as "family enrollment"); and total enrollment data were reported for all states and the District of Columbia.

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, 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 B-1).

Box B-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

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 B-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 B-2). Finally, we apply these rates to baseline spending by eligibility group calculated using 2007 MSIS data (step 3 in Box B-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 B-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 $growth_{family}$ = Σ [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.

Endnotes

[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/report/medicaid-today-preparing-for-tomorrow-a-look-at-state-medicaid-program-spending-enrollment-and-policy-trends-results-from-a-50-state-medicaid-budget-survey-for-state-fiscal-years-2012-and-2013/.

[4] "American Recovery and Reinvestment Act (ARRA): Medicaid and Health Care Provisions." Kaiser Family Foundation, March 2009. Available at http://www.kff.org/medicaid/fact-sheet/american-recovery-and-reinvestment-act-arra-medicaid/.

[5] "Status of State Action on the Medicaid Expansion Decision, 2014." Kaiser Family Foundation. Available at http://kff.org/health-reform/state-indicator/state-activity-around-expanding-medicaid-under-the-affordable-care-act/#note-2.

[6] 2010 MSIS data is available for use, but because data is missing in several states, and because of remaining data quality issues, we opted to use the FY 2009 MSIS.

[7] J Yellen, "A Painfully Slow Recovery for America's Workers: Causes, Implications, and the Federal Reserve's Response," Delivered at the "A Trans-Atlantic Agenda for Shared Prosperity," February 2013. Available at http://www.federalreserve.gov/newsevents/speech/yellen20130211a.pdf.

[8] 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.

[9] This explanation is supported by the enrollment trend in Supplemental Security Income (SSI), which is an eligibility pathway to Medicaid. From 2006 through 2012 (calendar years), the number of blind and disabled enrolled in SSI grew most quickly between 2009 and 2010 and then slowed in 2011 and 2012. See "SSI Annual Statistical Report, 2012." Social Security Administration, July 2013. Available at http://www.ssa.gov/policy/docs/statcomps/ssi_asr/.

[10] 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.

[11] VK Smith, K Gifford, E Ellis, R Rudowitz, and L Snyder. "Medicaid in a Historic Time of Transformation: Results from a 50-State Medicaid Budget Survey for State Fiscal Years 2013 and 2014." Kaiser Family Foundation, October 2013. Available at http://www.kff.org/medicaid/report/medicaid-in-a-historic-time-of-transformation-results-from-a-50-state-medicaid-budget-survey-for-state-fiscal-years-2013-and-2014/.

[12] 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.

[13] 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.

[14] 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. However, in 2012, hospital and physician spending in California fell dramatically, which is reflected in the drop in the national hospital and physician growth rate. In 2011, California spent $7.1 billion more on hospital and physician services than it did in 2010. California then spent $5.8 billion less on these services in 2012 than it had the previous year (data not shown). See "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.

[15] In September 2011, 19% of drugs were handled through a managed care organization; in June 2012, 46% were. See IMS Institute for Healthcare Informatics, "Shift from Fee-for-Service to Managed Medicaid: What is the Impact on Patient Care? An early review of prescription drug utilization," April 2013. Available at http://www.imshealth.com/deployedfiles/ims/Global/Content/Insights/IMS%20Institute%20for%20Healthcare%20Informatics/2012%20Medicaid%20Report/IIHI_Medicaid_Report_4_13.pdf.

[16] Smith, Gifford, Ellis, Rudowitz, and Snyder, 2013.

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

[18] VK Smith, K Gifford, E Ellis, R Rudowitz, and L Snyder. "Medicaid in a Historic Time of Transformation: Results from a 50-State Medicaid Budget Survey for State Fiscal Years 2013 and 2014." Kaiser Family Foundation, October 2013. Available at http://www.kff.org/medicaid/report/medicaid-in-a-historic-time-of-transformation-results-from-a-50-state-medicaid-budget-survey-for-state-fiscal-years-2013-and-2014/.

[19] 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.

[20] 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/issue-brief/income-relating-medicare-part-b-and-part/.

[21] A Mitchell. "Medicaid Disproportionate Share Hospital Payments." Congressional Research Service. December 2, 2013.

[22] Ibid.