Enrollment-Driven Expenditure Growth: Medicaid Spending during the Economic Downturn, FFY2007-2010

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Summary

The Great Recession, which technically lasted from December 2007 through June 2009, continued to affect the United States economy throughout 2010. This recession was the worst economic downturn our nation has experienced since the Great Depression. During this period, millions of Americans lost income and health benefits as job losses mounted, and many turned to the Medicaid program to provide health coverage for themselves and their families. As a result, Medicaid enrollment rose by the largest amount since the early days of program implementation, increasing by 8 million (19%) from June 2007 to June 2010.\(^1\) Without this rise, the number of uninsured Americans most likely would have been larger than the 49 million uninsured in 2010.\(^2\) In fact, largely because of broad coverage for children in Medicaid and the Children’s Health Insurance Program, the number of uninsured children fell slightly during the economic downturn.

Throughout its history, the Medicaid program’s spending patterns have nearly always tracked enrollment growth,\(^3\) and recent history is no exception. From FFY2007 to FFY2010, average annual growth in national Medicaid spending was 6.6 percent, rising from $330 billion to $400 billion in federal and state spending.\(^4\) Medicaid spending on medical services (that is, excluding administration and other non-service spending) rose from $293 billion in 2007 to $358 billion in 2010— an average annual increase of 6.9 percent. Our analysis finds that increases in Medicaid spending growth from 2007 to 2010 were largely due to enrollment growth. This enrollment growth occurred primarily due to the deepening recession, the federal protections against eligibility restrictions and additional federal funding, and decisions to expand Medicaid eligibility in some states.
Reflecting increasing enrollment due to the recession, Medicaid spending, both on medical services and overall, rose faster than growth in national health expenditures and the gross domestic product (GDP) from 2007 to 2010. On a per enrollee basis, however, growth in Medicaid spending during the economic downturn was slower than both growth in national health expenditures per capita and increases in private health insurance premiums (Figure 1).

Although Medicaid spending per enrollee rose faster than average per capita growth in gross domestic product (GDP) during this period (which was 0.9 percent), other health indicators also show a much higher rate of increase compared to GDP per capita. Further, the growth in Medicaid 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 spending may be reflective of it being a purchaser of relatively costly goods (i.e., health services), and it has been able to keep costs increases below that of other sectors of the health system.

Despite the program’s success in holding down per capita cost growth relative to other segments of the health care system, states are grappling with immediate budgetary crises. State revenues are still below pre-recession levels, and additional federal funding available to states under the American Recovery and Reinvestment Act of 2009 (ARRA) expired in FY2011. While states report that Medicaid enrollment and spending growth have begun to taper in 2012, they also report ongoing pressure to contain costs.5

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, with considerable success, and further cuts could have adverse effects on access and health care quality for the sickest and poorest residents. 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—i.e., when enrollment growth is factored out—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 premiums.
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 2010, 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. Because of inconsistencies that occur between state reporting systems, it is only possible to use detailed data on enrollment by eligibility group from 45 states. For these 45 states, we examine the enrollment of two groups: (1) aged and/or disabled and (2) children, parents, and other non-aged, non-disabled adults (throughout the report referred to simply as “families”). For the remaining states, we use total enrollment and allocate enrollment by eligibility in the same proportions as reported in the other 45 states. We aggregate all states’ enrollment and analyze enrollment changes at the national level.

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 2008 MSIS—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 disabled. MSIS enables us to estimate adjusted per enrollee spending growth rates in a way that accounts for differences in service use across eligibility groups. MSIS data are similarly used to decompose total spending growth over time into increases in enrollment and spending per enrollee by eligibility group. More methodological details on how the MSIS is incorporated into this analysis can be found in Appendix A.

Beginning with FFY 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 FFY 2010 data to previous years, we relied on a crosswalk of spending categories provided to us by 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 FFY 2010 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 FFY 2010 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 FFY 2007 and FFY 2010 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, 2007-2010**

The effects of the December 2007 to June 2009 Great Recession continued in 2010. GDP growth slowed from 2007 to 2008 and then declined between 2008 and 2009 (Table 1). While there was some improvement in GDP between 2009 and 2010, the impact of the recession on families continued. Unemployment grew throughout the entire 2007 to 2010 period, and both real median income and real per capita incomes declined.

| Table 1: National Economic Data 2007-2010 |
|-----------------|-----------------|-----------------|-----------------|
|                 | 2007            | 2008            | 2009            | 2010            |
| GDP $^a$        |                 |                 |                 |                 |
| in billions     | 14,029          | 14,292          | 13,939          | 14,527          |
| % change        | 4.9%            | 1.9%            | -2.5%           | 4.2%            |
| Unemployment Rate $^b$ | 4.6%  | 5.8%            | 9.3%            | 9.6%            |
| Income (in 2010 dollars) $^c$ |                |                 |                 |                 |
| Real Median Household | 52,823       | 50,939          | 50,599          | 49,445          |
| Real Per Capita $^d$ | 28,186        | 27,305          | 26,968          | 26,487          |


$^c$ 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 stems from the differences in income definition and coverage. For further details, see www.census.gov/hhes/www/income/compare1.html>correspondence
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 period surrounding the recession. This rate of growth was higher than the average annual growth between 2004 and 2007 (data not shown), the brief period of economic recovery preceding the Great Recession. During the Great Recession, annual Medicaid spending growth was highest at the peak of the recession, 2008-2009, and slowed somewhat as economic conditions slowly improved.

**Medicaid Enrollment Growth, 2007-2010**

Table 2 shows national monthly Medicaid enrollment and average annual enrollment growth rates between 2007 and 2010. During this period, Medicaid enrollment increased by 8 million, from 42.3 million in 2007 to 50.3 million in 2010.

| Table 2: Monthly Medicaid Enrollment, 2007 - 2010 |
|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Population      | Enrollment (in millions) | Average Annual Growth Rate |
| Total           | 42.3      | 43.6      | 46.9      | 50.3      | 3.0%      | 7.8%      | 7.2%      | 6.0%      |
| Aged & Disabled | 12.4      | 12.7      | 13.1      | 13.5      | 2.4%      | 3.1%      | 3.2%      | 2.9%      |
| Families⁶       | 29.8      | 30.8      | 33.8      | 36.8      | 3.3%      | 9.7%      | 8.7%      | 7.2%      |

SOURCE: Kaiser Commission on Medicaid and the Uninsured and Urban Institute estimates based on KCMU Medicaid enrollment data collected by Health Management Associates from 45 states inflated proportionally to national totals.

a. The term "families" is used to refer to non-disabled children and adults.
Most of the growth in Medicaid during the economic downturn was among families. Family enrollment increased by an average of 7.2 percent per year between 2007 and 2010. In contrast, growth in family enrollees was fairly flat between 2004 and 2007 (0.4%) as the economy was more stable (data not shown). Once the recession began, families’ enrollment growth jumped from 3.3 percent at the early part of the period to over 9 percent as the recession deepened (Figure 3).

The growth in Medicaid enrollment among families during the Great Recession reflects the economic decline. Nearly all of the increase in Medicaid coverage during this period was among people with either no worker or no full-time worker in the family. Although eligibility for parents and other adults is more restricted in Medicaid compared to children’s eligibility for public insurance, a significant increase in Medicaid coverage for adults during this period is apparent in Current Population Survey (CPS) data.

Medicaid enrollment of the aged and disabled grew at a fairly steady rate between 2.4 percent and 3.2 percent over the 2007 to 2010 period. Analysis of administrative data from 2007 to 2009 indicates that growth has been faster among the disabled than among the elderly during this period, with enrollment growth among the elderly nearly flat between 2008 and 2009 (data not shown). While this rate of growth among the aged and disabled is below that for families, enrollment growth among this group has exceeded the rate of growth of the overall US population.

There are several reasons why Medicaid enrollment growth of the aged and disabled (and in particular, the disabled) is faster than overall population growth. First is the aging of the population: “baby boomers” are now in 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, the disabled were more likely to become unemployed sooner and apply for disability benefits.
Medicaid Spending Growth by Service Category, 2007-2010

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 $400.3 billion in 2010. Focusing on only medical services (i.e., excluding payments to Medicare, disproportionate share hospital (DSH), and adjustments and administration), spending increased from $292.7 billion in 2007 to $358.0 billion in 2010. Average annual growth in medical care spending over this period was 6.9 percent.

| Table 3: US Medicaid Expenditures, by Spending Category and Year, FFY 2007 - FFY 2010 |
|-----------------------------------------------|-----------------------------------------------|
| **Expenditure Category** | **Expenditures (in billions)** | **Average Annual Growth Rate** |
| Total Spending | 330.3 | 350.9 | 377.4 | 400.3 | 6.3% | 7.5% | 6.1% | 6.6% |
| Total Medical Services | 292.7 | 309.3 | 336.7 | 358.0 | 5.7% | 8.9% | 6.3% | 6.9% |
| Acute Care<sup>a</sup> | 180.5 | 191.2 | 211.5 | 231.6 | 5.9% | 10.6% | 9.5% | 8.7% |
| Hospitals & Physicians<sup>b</sup> | 82.3 | 82.6 | 90.3 | 93.5 | 0.4% | 9.3% | 3.6% | 4.4% |
| Medicaid Managed Care<sup>b</sup> | 60.7 | 70.1 | 80.5 | 90.5 | 15.4% | 14.8% | 12.5% | 14.2% |
| Other Care<sup>c</sup> | 21.5 | 22.2 | 23.8 | 30.5 | 3.1% | 7.2% | 28.0% | 12.2% |
| Prescription Drugs | 15.0 | 15.3 | 15.7 | 15.8 | 1.7% | 2.9% | 0.8% | 1.8% |
| Prescribed Drugs Excluding Rebates | 22.4 | 23.7 | 25.5 | 27.3 | 6.0% | 7.5% | 7.3% | 6.9% |
| Prescription Drug Rebates<sup>b</sup> | (7.3) | (8.4) | (9.8) | (11.5) | 14.9% | 15.8% | 17.9% | 16.2% |
| Long-Term Care | 112.2 | 118.0 | 125.3 | 126.3 | 5.2% | 6.1% | 0.9% | 4.0% |
| Institutional Long-Term Care<sup>b</sup> | 64.3 | 66.0 | 68.2 | 66.6 | 2.7% | 3.3% | -2.3% | 1.2% |
| Home Health/Personal Care<sup>b,d</sup> | 47.9 | 52.0 | 57.1 | 59.7 | 8.7% | 9.7% | 4.6% | 7.6% |
| Medicare Payments<sup>b,e</sup> | 11.0 | 11.8 | 12.0 | 13.7 | 6.7% | 2.1% | 13.8% | 7.4% |
| DSH | 15.4 | 17.7 | 17.7 | 17.6 | 14.9% | -0.2% | -0.7% | 4.4% |
| Adjustments<sup>f</sup> | (5.3) | (5.5) | (7.4) | (6.8) | 4.2% | 34.3% | -7.7% | 8.9% |
| Administration<sup>g</sup> | 16.4 | 17.6 | 18.3 | 17.9 | 7.5% | 3.9% | -2.3% | 2.9% |

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

<sup>a</sup>The “Acute Care” total here includes EPSDT screening spending, which amounted to 0.9B, 1.0B, 1.2B, and 1.3B in FFY 2007, 2008, 2009, and 2010, respectively.

<sup>b</sup>The CMS-64 was revised beginning with FY 2010 data and this FY 2010 category may not be comparable to that of previous years.

<sup>c</sup>Includes dental, other practitioners, abortion, sterilization, PACE programs, emergency services for undocumented aliens, and other care services.

<sup>d</sup>Includes home health services, home- and community-based waiver services, personal care, and related services.

<sup>e</sup>Includes premiums paid for those dually eligible for Medicaid and Medicare as well as Medicare deductibles and coinsurance for Qualified Medicare Beneficiaries (QMBs).

<sup>f</sup>Includes collections for overpayments.

<sup>g</sup>Includes immigration status verification system, preadmission screening, family planning, nurse aide training, external quality review, and enrollment broker costs.
During the economic downturn, Medicaid spending on total acute care consistently grew faster than spending on total long-term care. Over the entire 2007 to 2010 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 4.0 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 14.2 percent per year. The categories with the slowest growth rates were prescription drugs and institutional long-term care. Low growth in prescription drugs (average of 1.8 percent 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**

Throughout the past decade, spending on acute care services has followed changes in enrollment, particularly among families (data not shown). During the recession, this pattern held, with acute care increasing at a higher rate as families’ enrollment increased during the latter part of the recession.

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 $90.5 billion in 2010. The average annual increase in payments to managed care organizations was 14.2% 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. 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 $93.5 billion in 2010, an average annual increase of 4.4 percent. Annual growth in spending for this category fluctuated over the period. As reported in a previous paper, 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 and led to lower spending growth in 2008. Thus the 0.4 percent growth in 2008 may not be reflective of actual national trends. The 9.3 percent growth in 2009 indicates a return to normal growth, reflecting payment increases as well as enrollment growth. In 2010, growth in spending for hospitals and physicians was lower, increasing 3.6 percent over the previous year. This slow growth likely reflects low real increases in fees, particularly those paid to physicians. It also likely reflects the shift away from fee-for-service (and direct payment from Medicaid to providers) to managed care arrangements (with providers being paid by managed care plans).

Spending on “other acute care” also increased at a relatively high rate between 2007 and 2010, with an average annual growth of 12.2 percent. Much of this increase is driven by a large increase in payments to “other practitioners” in 2010 (data not shown). While this increase could represent a shift to the use of non-physician providers in Medicaid, it likely reflects methodology changes in the CMS-64 reporting categories for that year.

*Prescription Drugs*

As noted above, spending on prescription drugs was one of the slowest-growing categories of Medicaid spending from 2007 to 2010, driven by the increasing share of drug expenditures recouped by rebates. Net spending on prescription drugs increased from $15.0 billion in 2007 to $15.8 billion in 2010, an average annual increase of 1.8%. In contrast, spending on prescription drugs before rebates increased steadily throughout the period at an average annual rate of 6.9 percent, from $22.4 billion in 2007 to $27.3 billion in 2010. Rebates increased an average of 16.2 percent a year, and by 2010 offset over 40 percent 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 to capture additional rebates beyond the federal rebate. The share of drug expenditures recovered through rebate also depends on the mix of drugs used, as some drugs (e.g., brand name) are covered by higher rebates than others (e.g., generics). Last, the Affordable Care Act included provisions to increase the base federal rebate starting in 2010, though this increase accounted for only a small share of growth that year (data not shown).
The rate of growth in Medicaid prescription drug spending before rebates is on par with growth in overall Medicaid services from 2007 to 2010. In recent years, Medicaid pharmacy spending has reflected state actions to control spending in this area, low nationwide drug spending growth, and a shift from brand-name drugs to less costly generic drugs. At the same time, 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. As a result, pharmacy benefits are still a target for state cost control activity.

Long-Term Care

Compared to acute care spending, Medicaid spending on long-term care grew more slowly from 2007 to 2010. Over this period, total long-term care expenditures increased from $112.2 billion in 2007 to $126.3 billion in 2010. 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 at much faster rates than spending on institutional services (7.6 percent on average per year versus 1.2 percent). In 2010, Medicaid spending for institutional long-term care actually fell, decreasing by 2.3 percent, while the change in spending for community-based services remained positive and grew by 4.6 percent. The result of this difference in growth rates is that 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 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. Thus, the relatively high growth in home and community-based care 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 the period, since this is the population most likely to use nursing home care.

Within the period of 2007 to 2010, both institutional and community-based services grew more slowly in 2010 than in previous years. While states report continued efforts to expand community-based service, they also indicate that all components of long-term care have been subject to cost containment actions in recent years.
Other Spending Categories

Payments to Medicare programs (e.g. premiums, deductibles, and cost sharing for dual eligibles’ enrollment in Medicare Part A and Part B) increased from $11.0 billion in 2007 to $13.7 billion in 2010. Growth in payments to Medicare was particularly high in 2010, when it reached 13.8%. 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 or no increases in the preceding years.

Overall disproportionate share hospital (DSH) spending grew by an average of 4.4 percent from 2007 to 2010, with a larger increase in 2008 (14.9%) and small declines in both 2009 and 2010 (-0.2% and -0.7%, respectively). Federal DSH funds are available to states up to an allotted amount, determined by statutory formula, and states have two years to claim their allotments. In the years leading up to the Great Recession, DSH spending grew very slowly (data not shown). The jump in DSH spending for 2008 relative to 2007 may reflect state efforts to spend their full allotments due to growing need given the rising number of uninsured individuals during the recession. Though there was a temporary increase in allotments in 2009 and 2010 to provide fiscal relief to states, spending in this area declined in those years. This may be because states, which faced extremely tight budgets in those years, had difficulty raising their share of the Medicaid payment to claim these dollars. States facing tight budgets may have opted to spend their Medicaid dollars in areas that captured even greater fiscal relief, such as medical services eligible for the temporary Federal Medical Assistance Percentage (FMAP) increase.

Spending Growth per Enrollee

Growth in spending per enrollee by service over the entire 2007-2010 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. Essentially, the growth in spending per enrollee for a specific service reflects the change in spending on that service divided by the growth in enrollees, where the growth of enrollees is weighted to reflect increases in enrollment in proportion to the use of that specific service among a particular type of enrollee. For example, the growth in enrollees for long-term care services reflects the growth in enrollment of the aged and disabled much more than the growth among family enrollees. In contrast, the growth in enrollees for acute care services more evenly reflects enrollment growth among the aged and disabled as well as families.
Overall, Medicaid medical service spending per enrollee grew by an average of 2.5 percent per year over the 2007 to 2010 period. Spending per enrollee for acute care increased by an average of 3.4 percent per year, led by growth in managed care and other acute care spending. As discussed above, the increase in “other acute care” was particularly large in 2010 and likely reflects methodology changes in the CMS-64 reporting categories for that year. On average, spending per enrollee on hospitals and physicians declined by a small amount from 2007 to 2010; this decline may be due to the particularly high spending levels in 2007 described above or could be a small offset as states transferred more people into managed care arrangements. As with the total spending trend, the decline in spending per enrollee for prescription drugs is due to the increasing share of drug expenditures that are covered by rebate.

Long-term care spending per enrollee increased by just 1.1 percent 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 shows how the annual growth rate in Medicaid spending per enrollee by service type changed over the 2007 to 2010 period. Per enrollee acute care spending increased by between 3 and 4 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 2.8 percent each year), then dropped by 2.4 percent in 2010. This decline is driven by a 5.4 percent drop in per enrollee spending for institutional long-term care in 2010. This decline suggests a smaller share of the aged and disabled in institutions as well as modest changes in reimbursement rates. Growth in community-based long-term care also slowed in 2010 relative to the preceding years.

**Decomposing 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 decomposes the growth in total spending into increases in enrollment and spending per enrollee from 2007 to 2010 (see Table 5). 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 estimates to calculate subsequent years’ spending by eligibility group. These spending growth 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.
### Table 5. Average Annual Changes in Enrollment and Medicaid Expenditures on Medical Services by Eligibility Group, FFY 2007 - 2010

<table>
<thead>
<tr>
<th>Population</th>
<th>Enrollment (in millions)</th>
<th>Spending Per Enrollee</th>
<th>Total Spending (in billions)</th>
<th>CPI-U Medical Care</th>
</tr>
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<tbody>
<tr>
<td>Aged &amp; Disabled</td>
<td>12.4</td>
<td>12.7</td>
<td>2.4%</td>
<td>$15,809</td>
</tr>
<tr>
<td>Families(^a)</td>
<td>29.8</td>
<td>30.8</td>
<td>3.3%</td>
<td>$3,218</td>
</tr>
<tr>
<td>All Enrollees</td>
<td>42.3</td>
<td>43.6</td>
<td>3.0%</td>
<td>$6,922</td>
</tr>
</tbody>
</table>

| Aged & Disabled   | 12.7      | 13.1      | 3.1%          | $16,228 | $16,736 | 3.1%         | $207 | $220 | 6.3%         |
| Families          | 30.8      | 33.8      | 9.7%          | $3,379  | $3,521  | 4.2%         | $104 | $119 | 14.3%        |
| All Enrollees     | 43.6      | 46.9      | 7.8%          | $7,135  | $7,215  | 1.1%         | $311 | $339 | 9.0%         |

| Aged & Disabled   | 13.1      | 13.5      | 3.2%          | $16,736 | $16,874 | 0.8%         | $220 | $228 | 4.0%         |
| Families          | 33.8      | 36.8      | 8.7%          | $3,521  | $3,657  | 3.9%         | $119 | $134 | 12.9%        |
| All Enrollees     | 46.9      | 50.3      | 7.2%          | $7,215  | $7,214  | 0.0%         | $339 | $363 | 7.2%         |

**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 2008 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 2008 MSIS data for Hawaii, FY 2007 Hawaii MSIS data adjusted to 2008 Hawaii 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 - 2010, 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](http://www.bls.gov/cpi/cpi_dr.htm).

\(^a\) The term “families” is used to refer to non-disabled children and adults.
Overall annual spending increases for the aged and disabled were relatively low during the economic downturn, increasing by 5.1 percent, 6.3 percent, and 4.0 percent in 2008, 2009, and 2010, respectively (Figure 7). In both 2008 and 2009, the increase in spending for this group was due to both low enrollment growth (2.4% and 3.1%) and relatively slow growth in spending per enrollee (2.7% and 3.1%). In 2010, the year with the lowest overall spending growth, enrollment continued to rise as in preceding years, but nearly a flat increase (0.8%) in spending per enrollee led to lower overall spending growth for this group. This drop in spending per enrollee likely reflects efforts to shift this population out of institutions and into community-based settings.

In contrast to Medicaid spending on the aged and disabled, enrollment growth coinciding with the peak of the Great Recession is the driver of overall spending for families from 2007 to 2010 (Figure 8). Growth in total spending jumped from 8.5 percent in 2008 to 14.3 percent in 2009 and 12.9 percent in 2010. This pattern mirrors growth in enrollment, which rose from 3.3 percent in 2008 to 9.7 percent in 2009 and 8.7 percent in 2010. Spending growth per enrollee follows another pattern, declining slightly each year.

**Medicaid Spending Growth in Context**

In each year and over the entire 2007-2010 period, Medicaid expenditure growth on medical services exceeded increases in national health expenditures and GDP (Table 6). For example, over the entire period, Medicaid expenditures on medical services increased annually by 6.9 percent while national health expenditures increased by 4.2 percent and GDP increased by 1.2 percent.
Table 6. Average Annual Growth in Medicaid Expenditures and in Selected Benchmarks

<table>
<thead>
<tr>
<th></th>
<th>Average Annual Growth Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid Expenditures for Medical Services</td>
<td>5.7%</td>
</tr>
<tr>
<td>Medicaid Expenditures per Enrollee</td>
<td></td>
</tr>
<tr>
<td>Medical Services</td>
<td>2.9%</td>
</tr>
<tr>
<td>Acute Care (Including Prescription Drugs)</td>
<td>3.0%</td>
</tr>
<tr>
<td>Long Term Care</td>
<td>2.8%</td>
</tr>
<tr>
<td>CPI- Medical Care</td>
<td>3.7%</td>
</tr>
<tr>
<td>National Health Expenditures</td>
<td>4.7%</td>
</tr>
<tr>
<td>NHE per Capita</td>
<td>3.8%</td>
</tr>
<tr>
<td>Gross Domestic Product</td>
<td>1.9%</td>
</tr>
<tr>
<td>GDP per Capita</td>
<td>0.9%</td>
</tr>
</tbody>
</table>

The higher growth in Medicaid spending during the economic downturn 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 2.5 percent per year from 2007 to 2010, while national health expenditures per capita increased by 3.3 percent annually and private health insurance premiums per enrollee increased by an average of 5.5 percent per year. The rate of average annual spending per enrollee growth on acute care services (3.4 percent) was about the same as average annual growth in national health expenditures per capita. Medicaid acute care spending per enrollee increased by much less than the rate of growth in private health insurance premiums.

The 2007 to 2010 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

![Figure 9: Average Annual Medicaid Spending Growth Versus Growth in Various Benchmarks, 2007-2010](image-url)
medical care), which averaged 3.4 percent from 2007 to 2010. 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 0.9 percent annually over the period.

The similar growth rates between Medicaid acute care spending per capita, national health expenditures per capita, and medical care CPI are reflective of Medicaid being a purchaser of relatively costly goods in the economy. 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 2010 was lower than the increases in national health expenditures per capita and the premium growth of employer-sponsored health insurance plans 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 drugs, and expansion of home health and community-based services intended to reduce the level of institutionalization. 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**

The factors driving Medicaid spending growth are enrollment increases and the 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 lose jobs and 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 premiums.

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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 2010. 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 2010. 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. Because of inconsistencies that occur between state reporting systems, it is only possible to use detailed data on enrollment by eligibility group from 45 states. For these 45 states, we examine the enrollment of two groups: (1) aged and/or disabled and (2) children, parents, and other non-aged, non-disabled adults (throughout the report referred to simply as “families”). For the remaining states, we use total enrollment and allocate enrollment by eligibility in the same proportions as reported in the other 45 states. We aggregate all states’ enrollment and analyze enrollment changes at the national level.

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 per enrollee spending 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 2008 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, the 2008 MSIS data are used to estimate average annual per enrollee growth in spending by service in a way that accounts for

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differences in service use across eligibility groups. Specifically, we use MSIS to calculate a service-
specific enrollment growth rate for each service category. The service-specific enrollment growth rate is
calculated by first obtaining service-specific weights for families versus aged/disabled beneficiaries,
which are based on the share of Medicaid spending for which each group is responsible according to the
2008 MSIS; these weights are then multiplied by the enrollment growth observed for each of the two
groups to obtain a service-specific enrollment growth. For example, for hospitals and physicians, the
2008 MSIS indicates that families account for 48 percent of spending, while aged/disabled account for
52 percent. The hospital and physician-specific enrollment growth is calculated by weighting enrollment
growth among families by 0.48 and enrollment growth among the aged/disabled by 0.52. Finally, the
average annual growth in spending per enrollee for a particular service is then calculated by dividing the
average annual growth in spending for that service by the weighted, service-specific enrollment growth
(see Box A-1).

Box A-1: Calculating Average Annual Per Enrollee Growth in Spending by Service
For each service category \( s \), average annual per enrollee growth in spending from time period \( t1 \) to
time period \( t2 \) is calculated as:

\[
\text{Average annual per enrollee spending growth}_{s, t2-t1} = \frac{\text{Average annual spending growth}_{s, t2-t1}}{\text{Average annual service -specific enrollment growth}_{s, t2-t1}}
\]

where

Service-specific enrollment growth

\[
= (\text{Family service weight}_s \times \text{Family enrollment growth}) + (\text{Aged-disabled service weight}_s \times \text{Aged-disabled enrollment growth})
\]

and

Family service weight\(_s\) = Share of spending for \( s \) accounted for by families in 2008 MSIS
Aged-disabled service weight\(_s\) = Share of spending for \( s \) accounted for by aged-disabled in 2008 MSIS

Second, MSIS data are used to estimate average annual per enrollee growth in spending by eligibility
group in a way that similarly accounts for differences in service use across eligibility groups. This
analysis enables us to decompose total spending growth from year to year into increases in enrollment
and spending per enrollee by eligibility group. First, we use the 2007 MSIS to establish baseline spending
by eligibility category. Then, average annual growth in spending per enrollee by eligibility group is
calculated by weighting the average annual growth in total spending per enrollee for each service by the
importance of that service to the specific eligibility group and then aggregating (across all services) each
weighted service growth rate (step 1 in Box A-2). Average annual spending growth rates for each
eligibility group are then calculated by taking the product of eligibility group specific average annual
spending per enrollee growth estimates and average annual enrollment growth (step 2 in Box A-2). Finally, these rates are applied 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 5 and differ from the spending growth in Figure 3 and Table 3 because the data source and method used to calculate total spending are different. Total spending in Table 5 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 Average Annual Per Enrollee Spending by Eligibility Group**

Average annual per enrollee spending for families in year $t$ is calculated as follows:

1. Average annual per enrollee spending growth$_{family} = \Sigma \left[ \text{Average annual per enrollee spending growth}_s \times \text{Service family weight}_s \right]$

   Where

   Service family weight$_s = \text{Share of spending for families accounted for by service } s$

2. Average annual spending growth$_{family} = \text{Average annual per enrollee spending growth}_{family} \times \text{Average annual family enrollment growth}$

3. Total spending$_{family, t} = \text{Total spending}_{family, \text{startyear}} \times \text{Total spending growth}_{family, \text{t-startyear}}$

4. \[
\text{Per enrollee spending}_{family, t} = \frac{\text{Total spending}_{family, t}}{\text{Enrollment}_{family, t}}
\]

Average annual per enrollee spending for aged and disabled is calculated the same way, using aged/disabled growth rates in place of family growth rates.
Notes


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


7 Holahan and Chen 2011.

8 According to analysis of the Current Population Survey, the change in the number of individuals covered by Medicaid between 2007 and 2010 was 7.5 million, 2.9 million of whom were adults. See Holahan and Chen 2011.

9 Based on analysis of MSIS data as reported in the MSIS Data Mart, February 2012. Excludes Massachusetts, Utah, and Wisconsin due to missing data for FY2009 as of February 3, 2012. Analysis indicates that enrollment among the disabled increased by 3.4% between 2007 and 2008 and 4.5% between 2008 and 2009, an average of 3.9%. Enrollment among the aged increased by 2.0% between 2007 and 2008 and 0.9% between 2008 and 2009, an average of 1.4%.


11 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.


15 Smith, Kramer and Rudowitz.


17 Smith et al, 2011.

18 For example, state Medicaid programs are required to pay the Part B premium on behalf of those who are dually eligible for Medicare and Medicaid and enroll in Medicare Part B.


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