Department of Health & Human Services

2016 ACTUARIAL REPORT

ON THE FINANCIAL OUTLOOK

FOR MEDICAID

Office of the Actuary

Centers for Medicare & Medicaid Services

United States Department of Health & Human Services

Report to Congress

2016 ACTUARIAL REPORT ON THE FINANCIAL OUTLOOK FOR MEDICAID

Sylvia Mathews Burwell
Secretary of Health and Human Services
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2016 ACTUARIAL REPORT ON THE FINANCIAL OUTLOOK FOR MEDICAID

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Office of the Actuary
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United States Department of Health & Human Services

STATEMENT FROM THE CHIEF ACTUARY

The Medicaid program is of critical importance to American society. It is the second largest health program as measured by expenditures (second only to Medicare) and the largest as measured by enrollment, and Medicaid represents one-sixth of the health economy. In 2015, its outlays of $554 billion accounted for a sizeable portion of Federal and State budgets and were a significant source of revenue for health care providers and insurers. As importantly, Medicaid serves as a safety net for the nation's most vulnerable populations, covering about 70 million beneficiaries in 2015, including more than 9 million individuals newly eligible under the Medicaid expansion. In this report, we analyze key historical Medicaid trends—both financial and demographic—and include projections of expenditures and enrollment to inform the public and help policy makers gain insight into the future of the program.

The Medicaid projections shown here are developed under current law, and they do not assume any changes in future legislation. The economic assumptions used to generate the projections are the same as those used by the 2016 OASDI and Medicare Boards of Trustees in their annual reports to Congress.

Projections of health care costs are inherently uncertain. For Medicaid, such projections present an even greater challenge as enrollment and costs are very sensitive to economic conditions.

It is my opinion that (i) the techniques and methodology used herein to project the future costs of the Medicaid program are based upon sound principles of actuarial practice and are generally accepted within the actuarial profession, and (ii) the principal assumptions and resulting actuarial estimates are, individually and in the aggregate, reasonable for the purpose of projecting such costs under current law. Considering the substantial uncertainties inherent in projecting future health care costs, readers should be aware that actual future Medicaid costs could differ significantly from these estimates.

I would like to thank team leader Christopher Truffer and team members Christian Wolfe and Kathryn Rennie for their diligent efforts in preparing this report. We welcome feedback from readers; comments may be sent to Christopher.Truffer@cms.hhs.gov.

Paul Spitalnic, ASA, MAAA
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EXECUTIVE SUMMARY

The joint Federal-State Medicaid program provides health care assistance to certain low-income people and is one of the largest payers for health care in the United States. This report presents an analysis of past Medicaid trends and 10-year projections of expenditures and enrollment under current law, including the impacts of the 2014 eligibility changes under the Affordable Care Act. Underlying demographic or economic experience that is different than assumed or significant changes in legislation can materially affect the cost and enrollment projections included in this report.

HIGHLIGHTS AND FINDINGS

2015 Medicaid Information

- Total Medicaid outlays in Federal fiscal year (FY) 2015 amounted to $553.8 billion, and increased by 11.6 percent between 2014 and 2015. This was the fastest growth in more than a decade, due primarily to the Medicaid eligibility expansion under the Affordable Care Act.

- Federal Medicaid outlays in 2015 were $349.8 billion and grew 16.0 percent over the previous year, in large part due to the Medicaid eligibility expansion. Federal outlays represented 63 percent of total spending on the program. State and local governments' outlays were $204.0 billion, which constituted 37 percent of total program costs.

- Medicaid provided health care assistance for an estimated 70.0 million enrollees on average in 2015 (including those enrolled in Territory Medicaid programs), including 9.1 million newly eligible adults in the first full fiscal year of the Affordable Care Act eligibility expansions. Enrollment is estimated to have grown by 7.6 percent between 2014 and 2015; excluding newly eligible adults, enrollment is estimated to have increased by 0.2 percent.

- Per enrollee spending for health goods and services varies across enrollment categories, reflecting the differing health statuses of, and use of goods and services by, the members of these groups. Estimated per enrollee spending in 2015 for children ($3,389), non-newly eligible adults ($4,986), and newly eligible adults ($6,365) was much lower than that for aged enrollees ($14,323) and enrollees with disabilities ($19,478), resulting in an overall average of $7,492 per enrollee in 2015. (These figures include Federal and State expenditures; the figures exclude expenditures for U.S. Territories, administration, disproportionate share hospital payments, and unallocated collections and prior period adjustments.) Per enrollee spending is estimated to have increased 4.0 percent between 2014 and 2015, reflecting a large enrollment increase in newly eligible adults, whose average costs were less

than the average of all other Medicaid enrollees. Excluding newly eligible adults, per enrollee costs are estimated to have increased 4.6 percent.

2016 Medicaid Estimates

- Medicaid expenditures are estimated to have increased 4.3 percent to $575.9 billion in 2016 with Federal expenditures having grown an estimated 4.5 percent to $363.4 billion. The Federal share of all Medicaid expenditures is estimated to have remained at 63 percent in 2016. State Medicaid expenditures are estimated to have increased 3.8 percent to $212.5 billion.

- Average Medicaid enrollment is estimated to have increased 3.1 percent to 72.2 million enrollees in 2016. Nearly all of the growth in enrollment is estimated to have been among newly eligible adults (2.0 million of the 2.2-million increase).

10-Year Medicaid Projections (2016-2025)

- Over the next 10 years, expenditures are projected to increase at an average annual rate of 5.7 percent and to reach $957.5 billion by 2025.

- Enrollment is projected to increase at an average annual rate of 1.5 percent over the next 10 years and to reach 81.6 million in 2025.

Impacts of the Eligibility Changes under the Affordable Care Act

- Medicaid expenditures for adults newly eligible under the Affordable Care Act are projected to amount to $806 billion over the period 2016 through 2025. Most of these expenditures—$741 billion, or about 92 percent—are projected to be paid by the Federal government.

- An estimated 11.2 million newly eligible adult enrollees were covered under expanded Medicaid eligibility in 2016 (based on 2016 data reported by the States to CMS), and 13.2 million enrollees are projected by 2025. These estimates are based on the assumption that 50 percent of the potentially newly eligible enrollees resided in States that expanded eligibility in 2016, and 55 percent reside in States that would expand eligibility by 2017 and after.

- Per enrollee costs for newly eligible adults are estimated to have decreased from $6,365 in 2015 to $5,926 in 2016 (6.9 percent). These per enrollee costs are expected to continue to further decrease by 6.3 percent in 2017 and 3.3 percent in 2018, at which point newly eligible adult costs are projected to be less than that of the non-newly eligible adults ($5,370 and $5,764, respectively). Newly eligible adult per enrollee costs were 27.7 percent higher than those for other Medicaid adults in 2015, and are estimated to be 13.6 percent higher in 2016.

- Most States covered newly eligible adults through managed care programs and used risk mitigation strategies to offset the risks that the costs of the newly eligible adults were greater, or less, than projected. The most common approaches were risk corridors and minimum medical loss ratios. For newly eligible adults, health care costs in 2014 and 2015 are expected to be less than projected in the managed care capitation rates, based on amounts paid back by plans through 2016 and amounts expected to be paid in 2017. Payments for coverage in 2014 and 2015 for the newly eligible population are estimated to be $82.0 billion, while the reported and estimated collections resulting from risk mitigation are expected to total $8.7 billion ($1.2 billion for 2016 and $7.5 billion for 2017, reflecting estimated payments of $3.2 billion from calendar year 2014 and $5.5 billion from calendar year 2015); for the projections in this report, these amounts are included in the years they are expected to be received.

Comparison to 2015 Actuarial Report Projections

- Compared to the prior report, total projected Medicaid expenditures for benefits and administrative costs are expected to be $142 billion less from 2015 through 2024, or 2.0 percent lower, reflecting slower growth in benefit expenditures (particularly for long-term care services). In addition, annual per enrollee costs are projected to grow by 4.2 percent, or at a 0.5-percent lower rate, over the same period.

CONTENTS

I. INTRODUCTION

Medicaid is a cooperative program between the Federal and State governments to pay for health care and medical services for certain low-income persons in the United States and its Territories. The Federal and the State governments share responsibilities in designing, administering, and funding the program. The Centers for Medicare & Medicaid Services (CMS) is the agency charged with administering Medicaid for the Federal government.

This is the eighth annual Medicaid report prepared by the Office of the Actuary (OACT) at CMS. Its purpose is to describe the past and projected trends for Medicaid expenditures and enrollment, including estimates for Federal fiscal year (FY) 2016 and projections over the next 10 years. It also describes the data available on Medicaid spending and enrollment, as well as the methodology and assumptions used in the projections. Finally, this report places the Medicaid program within the context of Federal and State government spending and the U.S. health care system.

II. OVERVIEW OF MEDICAID

Authorized by Title XIX of the Social Security Act, Medicaid was signed into law in 1965 and is an optional program for the States. Currently all States, the District of Columbia, and five U.S. Territories have Medicaid programs.[1]

The Federal government establishes certain requirements for the States' Medicaid programs. The States then administer their own programs, determining the eligibility of applicants, deciding which health services to cover, setting provider reimbursement rates, paying for a portion of the total program, and processing claims.

Eligibility for enrollment in Medicaid is determined by both Federal and State law. Title XIX of the Social Security Act specifies which groups of people must be eligible, and States have the flexibility to extend coverage to additional groups. In addition to income, eligibility is typically based on several other factors, including age, disability status, other government assistance, other health or medical conditions such as pregnancy, and in some cases financial resources (or assets). As of January 2014, the Affordable Care Act granted the States the authority under their State plans to expand Medicaid eligibility to almost all individuals under age 65 who are living in families with income below 138 percent of the Federal poverty level (FPL) (and who are citizens or eligible legal residents), with the Federal government currently paying 100 percent of the costs for newly eligible adults, to be reduced to 90 percent by 2020.[2] (The Affordable Care Act also simplified eligibility processes for most adults, children, and pregnant women who are covered by Medicaid.)

Title XIX specifies that certain medical services must be covered under Medicaid, while also granting the States flexibility to cover many other benefits. Services usually covered include hospital care, physician services, laboratory and other diagnostic tests, prescription drugs, dental care, and many long-term care services. The States also have the option to use managed care plans to provide and coordinate benefits, and they may apply for waivers of certain requirements that allow more flexibility in developing specialized benefit packages for specific populations. Generally, States must provide the same benefit package to most Medicaid enrollees. Exceptions to these requirements include the use of waivers, demonstration projects,

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[1] For more information on Medicaid, including information on eligibility and covered services, see B. Klees, C. Wolfe, and C. Curtis, "Brief Summaries of Medicare & Medicaid," November 2016 (https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareProgramRatesStats/Downloads/MedicareMedicaidSummaries2016.pdf).

[2] The estimated impacts of the expansion of Medicaid eligibility on enrollment and expenditures are presented in the Actuarial Analysis section of this report. The Affordable Care Act technically specifies an upper income threshold of 133 percent of the FPL but also allows a 5-percent income disregard, making the effective threshold 138 percent. The Supreme Court ruling in *National Federation of Independent Business v. Sebelius*, 132 S. Ct. 2566 (2012), provided that a State may not lose Federal funding for its existing program when it does not implement the Medicaid eligibility expansion under the Affordable Care Act.

and alternative benefit plans, and States must provide an alternative benefit plan, including all essential health benefits, to the newly eligible adult population under the Affordable Care Act. In addition, there may be limited benefits provided for individuals who are eligible based only on medical need, through Medicare savings programs, or through family planning programs.[3]

The Federal government and the States share the responsibility for funding Medicaid. States pay providers or managed care plans for Medicaid costs and then report these payments to CMS. The Federal government pays for a percentage of the costs of medical services by reimbursing each State; this percentage, known as the Federal Medical Assistance Percentage (FMAP), is calculated annually for each State based on a statutory formula that takes into account State per capita income with some adjustments prescribed by legislation.[4] Notably, the Affordable Care Act specifies FMAPs for adult beneficiaries who are newly eligible as a result of the Medicaid expansion that began in 2014 (in States that implement the expansion). Additionally, the Federal government pays for a portion of each State's administration costs. Beneficiary cost sharing, such as deductibles or co-payments, and beneficiary premiums are very limited in Medicaid and do not represent a significant share of the total cost of health care goods and services for Medicaid enrollees.

In contrast to the Federal Medicare program, Medicaid's financial operations are not financed through trust funds. Other than a very small amount of premium revenue from enrollees, as noted above, and certain other sources of State revenue (such as some provider taxes), there are no dedicated revenue sources comparable to the Medicare Hospital Insurance payroll tax. Medicaid costs are met primarily by Federal and State general revenues, on an as-needed basis; the States may also rely on local government revenues to finance a portion of their share of Medicaid costs. The Federal financing is authorized through an annual appropriation by Congress. These funds are then spent through daily draws from the general fund of the Treasury in the amounts required to pay that day's Federal matching amounts on the State program expenditures. As a result, Medicaid outlays and revenues are automatically in financial balance, there is no need to maintain a contingency reserve, and, unlike Medicare, the "financial status" of the program is not in question from an actuarial perspective.

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[3] The Medicare Savings Programs provide assistance to low-income aged persons and persons with disabilities for their share of Medicare costs. Different programs cover a combination of the beneficiary's Part A premium (if any), Part B premium, Part A deductible, and Part B cost-sharing requirements.

[4] In general, Title XIX specifies that the FMAP for each State cannot be lower than 50 percent or higher than 83 percent; in FY 2015, FMAPs ranged from 50.00 percent to 73.58 percent. Also, Title XIX provides for specific FMAP levels for certain States and, in some cases, for specific services or populations.

Medicaid coverage is extremely valuable to the low-income individuals and families who qualify for the health care services provided by the program. By extension, the program is also valuable to society at large, as it enables the least-fortunate members of the population to obtain the health care they need in an orderly way and diminishes their financial burdens. Furthermore, the program provides financial benefits to entities such as governments and health care providers that may otherwise not be compensated for providing health care services to these individuals and families. It is also important, of course, to consider the costs to society of providing this coverage and to anticipate likely future trends in such costs. The balance of this report is intended to describe these trends.[5]

[5] This report does not cover expenditures or enrollment under the Children's Health Insurance Program (CHIP), whether such expenditures are made for a program operated under Title XIX or Title XXI of the Social Security Act. CHIP provides health coverage to many children in households with income above Medicaid eligibility levels. CHIP funding is authorized only through 2017. Should CHIP funding not be extended, Federal payment would continue for children enrolled in Medicaid expansion CHIP programs at the regular Medicaid matching rate. For the purpose of this report, CHIP is assumed to be fully funded through the entire projection period, and there are no assumed increases in Medicaid expenditures or enrollment as a result of the expiration of CHIP funding.

III. ACTUARIAL ANALYSIS

A. FISCAL YEAR 2015 MEDICAID OUTLAYS AND ENROLLMENT

The Federal government and the States collectively spent $553.8 billion for Medicaid in 2015. Of this amount, the Federal government paid $349.8 billion, representing about 63 percent of net program outlays, and the States paid $204.0 billion, or about 37 percent of net outlays. Table 1 summarizes total Medicaid outlays for 2015.

Table 1—Medicaid Outlays for Fiscal Year 2015 by Type of Payment
(in billions)

Title XIX Outlays[1]	Federal Share	State Share	Total
Medical Assistance Payments:			
Acute Care Benefits[2]	$98.9	$61.5	$160.4
Long-Term Care Benefits[2]	64.8	47.9	112.8
Capitation Payments and Premiums[2]	161.6	81.4	243.0
Disproportionate Share Hospital (DSH) Payments[2]	10.6	8.0	18.6
Adjustments[3]	−5.9	−4.2	−10.1
Subtotal, Medical Assistance Payments	330.0	194.7	524.7
Administration Payments	16.7	9.3	26.0
Vaccines for Children Program	3.8	—	3.8
Gross Outlays	350.5	204.0	554.5
Collections[4]	−0.8	—	−0.8
Net Outlays	349.8	204.0	553.8

Totals may not add due to rounding.
[1] Federal outlays are the funds drawn from the U.S. Treasury by the States. The State and total outlays are estimated, reflecting spending as reported by the States for the purposes of drawing Federal funding from the U.S. Treasury. Expenditures represent the spending as it was paid by the State to health care plans or providers. While expenditures and outlays are generally similar, they are not equal mainly due to the timing differences between the States paying for services and the States receiving Federal funds. Neither outlays nor expenditures include Title XIX costs in support of the Children's Health Insurance Program.
[2] Benefit expenditures as reported on the CMS-64 (Net Services).
[3] Adjustments include net adjustments of benefits from prior periods and the difference between expenditures and outlays.
[4] Collections from Medicare Part B for the Qualifying Individuals (QI) program and from other miscellaneous sources.

The great majority of Medicaid spending—95 percent of total outlays in 2015—was for medical assistance payments. In table 1, these payments are divided into four major categories: acute care, long-term care, capitation payments and premiums, and disproportionate share hospital (DSH) payments.

Acute care includes fee-for-service spending for inpatient and outpatient hospital care, physician and other medical professional services, prescription drugs, dental care, laboratory and imaging tests, mental health facility services, and case management costs, as well as coinsurance payments for beneficiaries in managed care plans. Long-term care fee-for-service includes spending on nursing home services, home health care, intermediate care facility services for individuals with intellectual and developmental disabilities, and home and community-based services. Capitation payments and premiums include premiums paid to Medicaid managed care plans, pre-paid health plans, other health plan premiums, and premiums for

Medicare Part A and Part B. DSH payments are provided to certain hospitals that have furnished care for a significant number of uninsured persons and Medicaid beneficiaries and that have acquired, as a result, a substantial amount of uncompensated care costs.

Of these four categories, capitation payments and other premiums represented the largest portion of Medicaid spending in 2015, accounting for $243.0 billion or 46 percent of Medicaid benefit expenditures. This was a significant increase over 2014, largely driven by enrollment growth in the newly eligible population, as the majority of these enrollees are covered by managed care plans. Fee-for-service acute care expenditures were the next largest expenditure category, constituting $160.4 billion or 31 percent of benefit expenditures. Medicaid spending for fee-for-service long-term care amounted to $112.8 billion, representing 21 percent of expenditures on benefits, and DSH payments accounted for $18.6 billion, or 4 percent, of Medicaid benefits in 2015.

Medicaid outlays for program administration totaled $26.0 billion in 2015—$16.7 billion in Federal outlays and $9.3 billion in State outlays—and represented 5 percent of Medicaid outlays. Included in administration outlays were $2.7 billion in health information technology incentive payments to providers.[6]

Medicaid also provided $3.8 billion in 2015 for the Vaccines for Children program.[7]

Enrollment is measured as "person-year equivalents," or the average enrollment over the course of a year. In 2015, Medicaid enrollment was estimated to be 70.0 million (including enrollment in the U.S. Territories).[8]

Table 2 shows estimated enrollment and expenditures by eligibility group for 2015.[9] Historically, children have been the largest group of Medicaid enrollees. In 2015, children are estimated to have numbered 28.1 million, representing 40 percent of

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[6] Health information technology incentive payments were provided for by the American Recovery and Reinvestment Act of 2009 and are paid entirely by the Federal government. This figure does not include payments to States to administer the health information technology incentive payment program.

[7] The Vaccines for Children program is administered by the Centers for Disease Control and Prevention and provides vaccines for children enrolled in Medicaid, as well as for other children who might otherwise not be able to afford vaccines. All Vaccines for Children program costs are paid by the Federal government.

[8] As data for at least some States are not available for 2013, 2014, and 2015, enrollment figures in this report are estimates for these years. This is described further in Section IV of the report. In addition, past reports have provided figures for "ever-enrolled" enrollment, or the number of people who were enrolled at any time during the year. As no data are currently available that show the number of newly eligible adults who were ever-enrolled, and since there is no historical experience with this population, this report does not provide an estimate of ever-enrolled enrollment for 2015.

[9] There are some differences between Medicaid outlays and Medicaid expenditures, mainly due to timing differences between States paying for services and States receiving Federal funds. Thus, the levels and trends in outlays and expenditures differ slightly.

overall Medicaid enrollment. There were an estimated 15.2 million non-newly eligible adults (22 percent of enrollment) and an estimated 9.1 million newly eligible adults (13 percent). Finally, enrollees with disabilities and aged enrollees are estimated to have numbered 10.5 million and 5.6 million (15 percent and 8 percent of Medicaid enrollment, respectively). Another 1.5 million enrollees (2 percent) were estimated for the 5 U.S. Territories with Medicaid programs (Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands).

Table 2—Estimated Enrollment, Expenditures, and Per Enrollee Expenditures, by Enrollment Category, Fiscal Year 2015

Eligibility Group	Enrollment[1] (in millions)	Expenditures (in billions)	Per Enrollee Spending (2015)	Per Enrollee Spending (2014)	Percent Change
Children	28.1	$95.4	$3,389	$3,126	8.4%
Adults	15.2	75.9	4,986	4,695	6.2
Expansion Adults	9.1	58.1	6,365	5,511	15.5
Persons with Disabilities	10.5	204.4	19,478	18,649	4.4
Aged	5.6	80.0	14,323	14,626	−2.1
Subtotal	68.6	513.7	7,492	7,202	4.0
Territories[2]	1.5	2.5	1,696	1,395	21.6
Collections and Adjustments	—	−8.1	—	—	—
DSH	—	18.6	—	—	—
Administration	—	25.6	—	—	—
Total	70.0	552.3	7,887	7,597	3.8

Totals may not add due to rounding.
[1] Measured in person-year equivalents.
[2] Territory enrollment is estimated and based on the data reported in the CMS-64. Expenditures reflect only the amounts paid by the Federal government and the corresponding Territory share; some Territory programs spend additional amounts beyond what is covered by the Federal allotments and Territory share.

The average per enrollee cost for 2015 is estimated to have been $7,492 (including Federal and State shares, based on person-year equivalent enrollment and excluding DSH outlays, Territorial enrollees and costs, adjustments, and administration costs). In estimated average benefits for 2015, children in Medicaid received $3,389, non-newly eligible adults received $4,986, and newly eligible adults received $6,365. These average costs reflect the relatively healthier status of children and adults enrolled in the program, as compared to aged enrollees and persons with disabilities; however, among adult enrollees, a significant number are pregnant women, whose costs are on average relatively greater than those for other adults. As would be expected, expenditures are substantially greater for the aged and persons with disabilities. Aged beneficiaries received an estimated $14,323 in benefits on average—a decrease of 2.1 percent from 2014 driven by a large shift in long-term care delivery from generally more expensive institutional care into home and community-

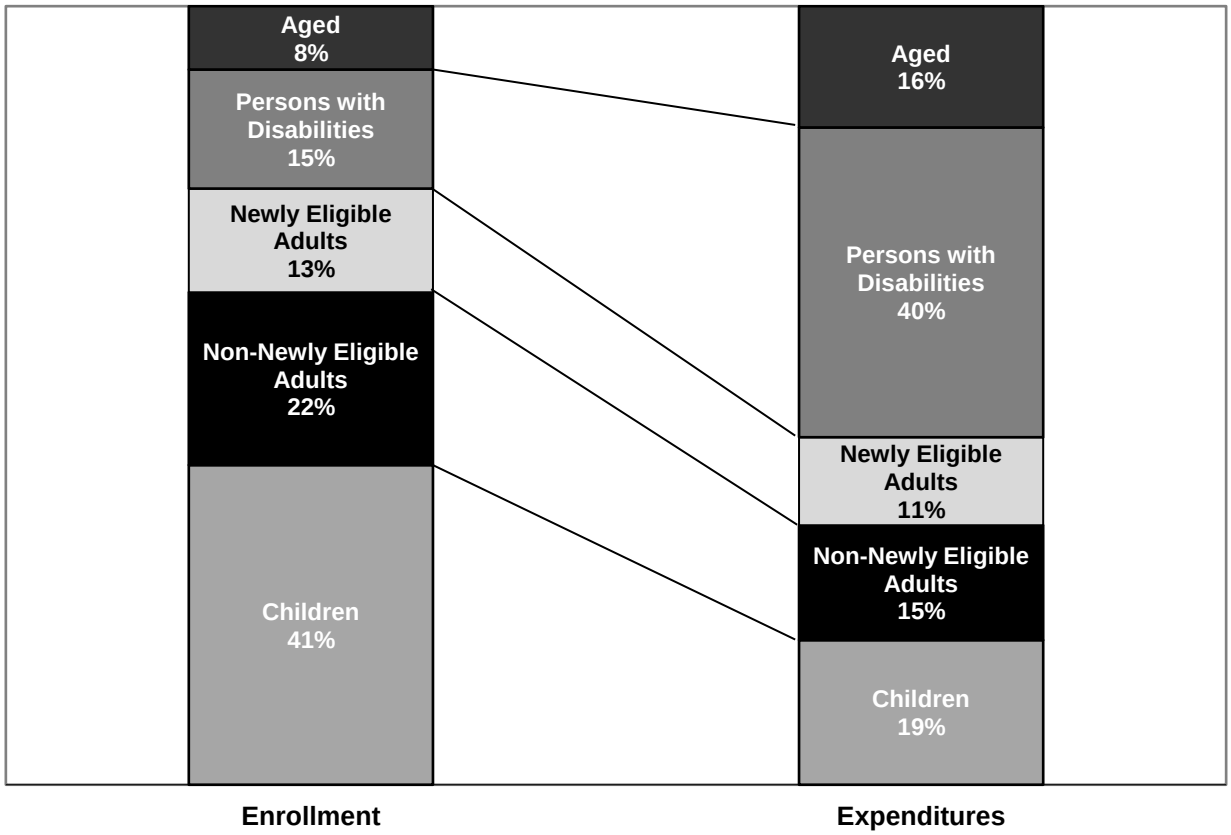
based care, typically through waivers. Beneficiaries with disabilities are estimated to have received an average of $19,478 in benefits, a 4.4-percent increase from 2014.[10]

Territory per enrollee expenditures ($1,696 in 2015) are less than those of other populations covered by Medicaid, as costs of care are lower in the Territories and fewer services are provided by Territory programs. In addition, these amounts reflect only the Federal allotments and the Territory expenditures necessary to draw down those allotments (including additional funds provided by the Affordable Care Act); some Territory programs spend above this amount for their Medicaid programs.

Figure 1 shows each enrollment group's relative share of enrollment and expenditures in Medicaid in 2015. While enrollees with disabilities and aged enrollees are the smallest enrollment groups in Medicaid, they account for the majority of spending. Conversely, children and adults are the largest enrollment groups in Medicaid, but they receive a relatively smaller share of expenditures.

[10] The average per enrollee costs may also vary substantially among States. These variations may reflect differences in State Medicaid programs (for example, eligibility levels, benefits offered, provider reimbursement rates, or program design) and differences in the overall health care market across States.

Figure 1—Estimated Medicaid Enrollment and Expenditures by Enrollment Group, as Share of Total, Fiscal Year 2015



Note: Totals and components exclude DSH expenditures, Territorial enrollees and expenditures, and adjustments. Totals may not add to 100 percent due to rounding.

Combined, spending on aged beneficiaries and beneficiaries with disabilities constituted 55 percent of Medicaid benefit expenditures in 2015, but these groups accounted for only 23 percent of all enrollees. Children and adults represented 77 percent of all enrollees in 2015, while only 45 percent of benefit expenditures were for enrollees in these groups.

These differences between the relative shares of enrollment and expenditures result from per enrollee costs that vary dramatically among the enrollment groups. The differences in average costs, while substantial, actually understate the impact of differences in health status for these groups. In particular, Medicaid pays almost all health care costs for enrolled children and adults. However, many aged beneficiaries or beneficiaries with disabilities are also enrolled in Medicare, which is the primary

payer of benefits before Medicaid; thus, the per enrollee Medicaid estimates are less than the total cost of such beneficiaries' annual health care across all payers.[11]

In the second year of the eligibility expansion provided for by the Affordable Care Act, expenditures and enrollment continued to grow faster in 2015 than in recent years. Expenditures increased 11.6 percent, as compared to 8.6 percent in 2014, and enrollment is estimated to have grown 7.6 percent. The increase in expenditures and enrollment in 2015 is mostly attributable to newly eligible adults receiving coverage throughout the entire 12 months of the year, as opposed to only the last 9 months of FY 2014, and as additional States expanded eligibility in 2015.

Per enrollee benefit costs are estimated to have increased (from $7,202 to $7,492, or 4.0 percent higher than in 2014), as costs for adults and children (who constitute the majority of Medicaid enrollment) grew at faster rates than in recent history. The overall per enrollee benefit cost growth was reduced by the increased proportion of Medicaid enrollees in lower cost categories—in particular newly eligible adults. Excluding newly eligible adults and their benefit costs, Medicaid expenditures for all other populations increased 5.0 percent in 2015 while enrollment increased only 0.3 percent, resulting in per enrollee cost growth of 4.6 percent.

[11] In 2011, Medicaid expenditures for persons eligible for Medicare and full Medicaid benefits (full-benefit dual-eligible beneficiaries) amounted to $112.0 billion, and Medicare expenditures for these persons were $140.9 billion, for a total of $252.9 billion in expenditures between both programs. Medicaid accounted for about 44 percent of the total spending on full-benefit dual-eligible beneficiaries. In addition, for persons eligible for Medicare and limited Medicaid benefits (generally payments for Medicare premiums or cost sharing), Medicaid benefits are typically an even smaller proportion of their total benefits ($2.1 billion of $41.5 billion, or about 5 percent, in 2011). See Exhibit 3 in *Data Book: Beneficiaries Dually Eligible for Medicare and Medicaid*, Medicare Payment Advisory Commission and Medicaid and CHIP Payment and Access Commission, 2016.

B. HISTORICAL MEDICAID TRENDS

Since the start of the program, the year-to-year growth rates of total Medicaid expenditures (Federal and State expenditures combined) and enrollment have varied substantially, as can be seen in figure 2 and figure 3. The growth in expenditures over time reflects growth in the number of enrollees in the program and growth in the cost per enrollee. Enrollment growth is a result of a change in the number of people eligible and electing to participate in the program, but it is also strongly influenced by legislative changes to the eligibility criteria. Similarly, per enrollee costs vary over time due to changes in the use of medical services and the prices paid to providers of health care services and supplies, as well as legislative and other policy changes to the benefits offered by State Medicaid programs.

Figure 2—Historical and Projected Medicaid Expenditures and Annual Growth Rates, Fiscal Years 1966–2025

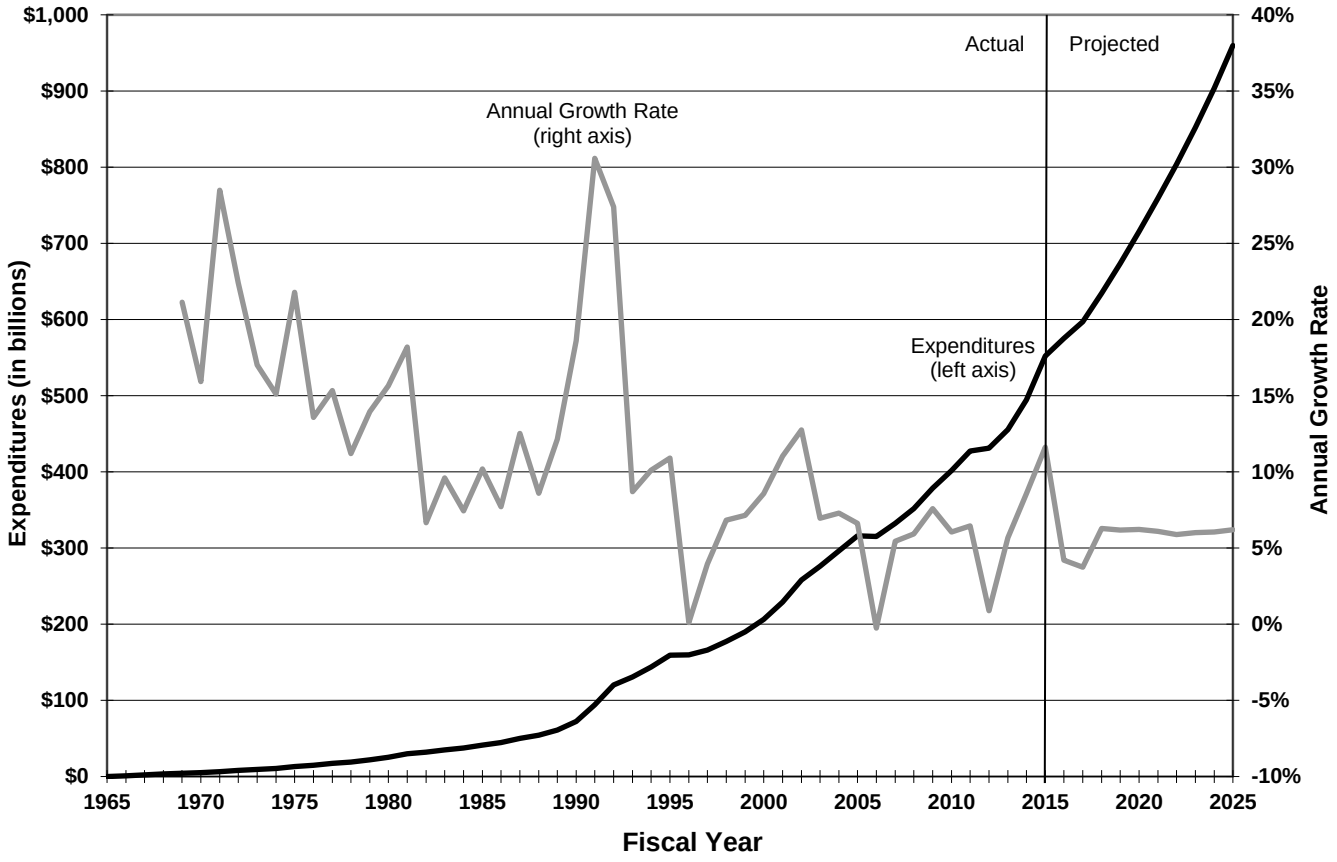
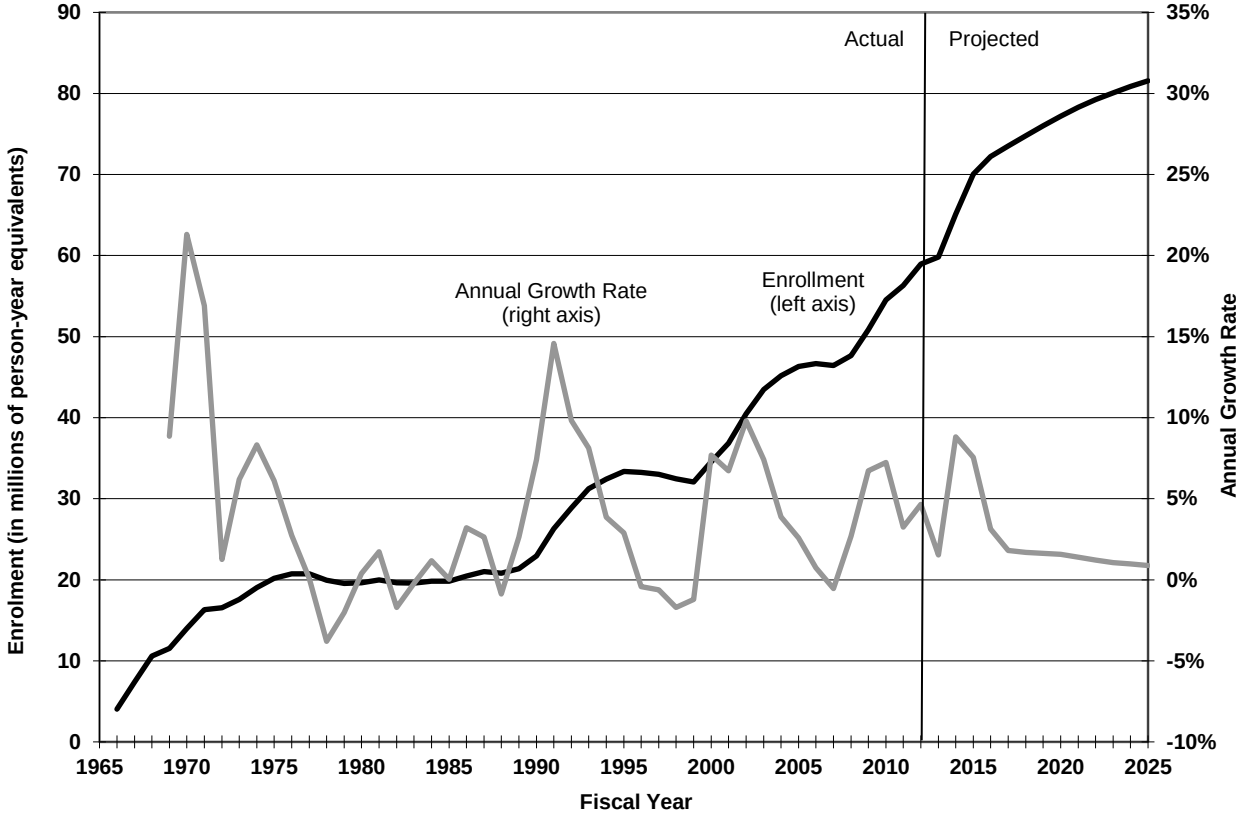


Figure 3—Historical and Projected Medicaid Enrollment and Annual Growth Rates, Fiscal Years 1966–2025



Note: Enrollment levels for 2013, 2014, and 2015 are estimates.

From 2006 to 2015, Medicaid expenditures grew at an average annual rate of 5.7 percent, but annual growth rates varied substantially over the last 10 years (from −0.3 percent in 2006 to 11.6 percent in 2015). Growth in health care expenditures is driven primarily by several key factors: growth in the population, changes in the use of health care services, and changes in the prices of health care services. In addition to these, several other factors affected Medicaid expenditure trends in recent history.

Federal legislation had a significant effect on historical expenditure trends. The Medicare Modernization Act of 2003 created the Medicare Part D program, and in 2006 most prescription drug coverage for dual-eligible beneficiaries (those eligible for both Medicaid and Medicare) shifted from Medicaid to Medicare Part D. All dual-eligible beneficiaries were automatically enrolled in Part D, and Medicare served as the primary source of their prescription drug coverage. As a result of this shift in coverage, Medicaid drug spending (net of rebates) decreased 46 percent from 2005 to 2006, and aggregate Medicaid spending was 0.3 percent *lower* than in 2005, decreasing for the first time in the program's history.

The American Recovery and Reinvestment Act of 2009 provided for temporary increases in the Federal share of Medicaid payments in 2009, 2010, and 2011, as well

as for health information technology incentive payments that were funded entirely by the Federal government. While the increase in the Federal share of Medicaid payments was significant, it is not estimated to have affected total Medicaid expenditure growth in those years.

The Affordable Care Act had a number of provisions that affected Medicaid starting in 2010; however, most of the changes to the Medicaid program through 2013 are estimated to have had only minor effects on Medicaid expenditure growth rates. Beginning in 2014, the expansion of eligibility to most adults with incomes less than 138 percent of the FPL led to a significant increase in expenditures and enrollment. Continued expansion of State programs to cover newly eligible adults in 2015 resulted in the fastest program growth in more than a decade.

Medicaid expenditure growth is also affected by States' decisions in operating their programs. In the past, States took steps to control the costs of their Medicaid programs, especially during periods of relatively faster growth, and many States have taken such steps to slow the rate of expenditure growth in recent history.[12] Common methods have included freezing or reducing provider reimbursement rates and limiting or curtailing optional health care benefits. States also have used managed care and alternative care delivery approaches to control costs in their Medicaid programs.

Medicaid enrollment grew at an average annual rate of 4.2 percent from 2006 to 2015. Annual growth rates varied substantially, from a low of −0.5 percent in 2007 to a high of 8.8 percent in 2014. Changes in Medicaid enrollment were generally driven by population growth and by changes in economic growth and unemployment rates. In general, Medicaid enrollment increases more quickly during economic recessions, and growth slows as the economy expands. Faster Medicaid enrollment growth in turn typically leads to increases in expenditure growth. Medicaid enrollment and expenditure trends followed these historical patterns during the 2001 recession and the 2007-2009 recession and during the subsequent economic recoveries. The Affordable Care Act provided for an expansion of Medicaid eligibility, which contributed to the substantial increase in enrollment in 2014 and to sustained growth of 7.6 percent in 2015.

[12] These State actions are well documented in the annual 50-State survey of Medicaid programs conducted by the Kaiser Family Foundation; see V. Smith, *et al.*, "Implementing Coverage and Payment Initiatives: Results from a 50-State Medicaid Budget Survey for State Fiscal Years 2016 and 2017," Kaiser Family Foundation, October 2016.

C. MEDICAID EXPENDITURES AND ENROLLMENT PROJECTIONS, FISCAL YEARS 2016–2025

The projections presented in this report reflect Medicaid medical assistance payments (or "benefit" expenditures) and Medicaid enrollment. Administration costs are also included and are based on the most recent estimates from OACT, as well as on administrative cost data reported to CMS.[13] Other Title XIX expenditures (such as the Vaccines for Children program) are not included. Historical and projected Medicaid expenditures for medical assistance payments and administration are shown in table 3.[14,15,16,17]

[13] The projections of administration expenditures are based on the projected trends for Medicaid administration outlays in the Mid-Session Review of the President's FY 2017 Budget but are adjusted to be consistent with the expenditures reported in the CMS-64; total expenditures are also projected for administration, whereas the President's Budget projects only Federal outlays.

[14] In table 5, enrollment and expenditure data for the period 1966-1976 have been revised to be consistent with the current definition of the Federal fiscal year (October-September).

[15] There are differences between Medicaid outlays and Medicaid expenditures, mainly due to timing disparities between States paying for services and States receiving Federal funds. Thus, the levels and trends in outlays and expenditures differ slightly, and the amounts shown in table 5 differ from those shown in table 3.

[16] The projections shown in this report do not include the impact of the 21st Century Cures Act (Public Law 114-255), which was signed into law after the projections were completed.

[17] The projections of Territory expenditures include additional funding provided to Territory Medicaid programs through the Affordable Care Act. Consistent with current law, these projections assume that the additional funds would be spent by 2018 and that the funds provided by the Affordable Care Act would not continue in future years.

Table 3—Historical and Projected Medicaid Enrollment and Expenditures and Average Federal Share of Expenditures, Selected Years

(Enrollment in millions of person-year equivalents, expenditures in billions of dollars)

Fiscal Year	Enrollment	Total Expenditures			Benefit Expenditures			Administration Expenditures			Avg. Federal Share
		Total	Federal	State	Total	Federal	State	Total	Federal	State	
Historical data:											
1966	4.0	$0.9	$0.5	$0.4	$0.9	$0.4	$0.4	$0.0	$0.0	$0.0	50%
1970	14.0	5.1	2.8	2.3	4.9	2.6	2.2	0.2	0.1	0.1	54
1975	20.2	13.1	7.3	5.9	12.6	6.9	5.6	0.6	0.3	0.3	55
1980	19.6	25.2	14.0	11.2	24.0	13.3	10.7	1.2	0.7	0.5	55
1985	19.8	41.3	22.8	18.4	39.3	21.7	17.6	2.0	1.2	0.8	57
1990	22.9	72.2	40.9	31.3	68.7	38.9	29.8	3.5	2.0	1.5	57
1995	33.4	159.5	90.7	68.8	151.8	86.5	65.3	7.7	4.2	3.4	57
2000	34.5	206.2	117.0	89.2	195.7	111.1	84.6	10.6	5.9	4.7	57
2005	46.3	315.9	180.4	135.5	300.7	172.1	128.7	15.1	8.3	6.8	57
2006	46.7	315.1	179.3	135.8	299.0	170.6	128.5	16.0	8.7	7.3	57
2007	46.4	332.2	189.0	143.2	315.8	180.0	135.8	16.4	9.0	7.5	57
2008	47.7	351.9	200.2	151.7	334.2	190.6	143.6	17.7	9.6	8.1	57
2009	50.9	378.6	246.3	132.3	360.3	236.3	124.0	18.3	10.0	8.3	65
2010	54.5	401.5	269.8	131.7	383.6	260.0	123.6	17.9	9.8	8.1	67
2011	56.3	427.4	270.7	156.7	407.9	259.8	148.1	19.5	10.9	8.6	63
2012	58.9	431.2	248.9	182.3	409.0	235.2	173.9	22.2	13.7	8.4	58
2013	59.8	455.6	262.7	192.9	432.7	248.5	184.2	22.9	14.2	8.7	58
2014	65.1	494.7	299.3	195.4	470.3	284.1	186.2	24.4	15.2	9.2	61
2015	70.0	552.3	347.7	204.7	526.7	331.3	195.4	25.6	16.4	9.2	63
Projections:											
2016	72.2	575.9	363.4	212.5	548.9	346.3	202.6	27.0	17.1	9.9	63
2017	73.5	595.5	368.9	226.6	566.9	350.7	216.2	28.5	18.2	10.4	62
2018	74.8	632.9	392.5	240.4	603.4	373.9	229.5	29.5	18.6	10.9	62
2019	76.0	672.0	415.3	256.7	641.2	395.9	245.3	30.8	19.4	11.4	62
2020	77.2	713.8	439.0	274.8	681.4	418.6	262.8	32.4	20.4	12.0	62
2021	78.3	757.4	465.3	292.0	723.3	443.8	279.5	34.0	21.5	12.5	61
2022	79.2	801.9	492.2	309.7	767.4	470.9	296.4	34.5	21.2	13.3	61
2023	80.1	850.1	521.8	328.3	813.9	499.5	314.4	36.2	22.2	13.9	61
2024	80.8	901.5	553.4	348.1	863.5	530.0	333.5	38.0	23.3	14.6	61
2025	81.6	957.5	587.6	369.8	917.6	563.2	354.5	39.8	24.5	15.4	61

Note: Enrollment is estimated for 2013, 2014, and 2015.

Expenditures

Total Medicaid expenditures (Federal and State combined) for medical assistance payments and administration are estimated to have grown 4.3 percent in 2016 to $575.9 billion and are projected to reach $957.5 billion by 2025, increasing at an average rate of 5.7 percent per year through the projection period. Federal government spending on Medicaid medical assistance payments and administration costs is estimated to have increased by 4.5 percent to $363.4 billion in 2016, representing 63 percent of total Medicaid benefit expenditures. Federal spending on Medicaid is projected to reach $587.6 billion by 2025, or 61 percent of total spending. State Medicaid expenditures for benefits and administration are estimated to have increased to $212.5 billion in 2016, a growth rate of 3.8 percent, and are projected to reach $369.8 billion by 2025.

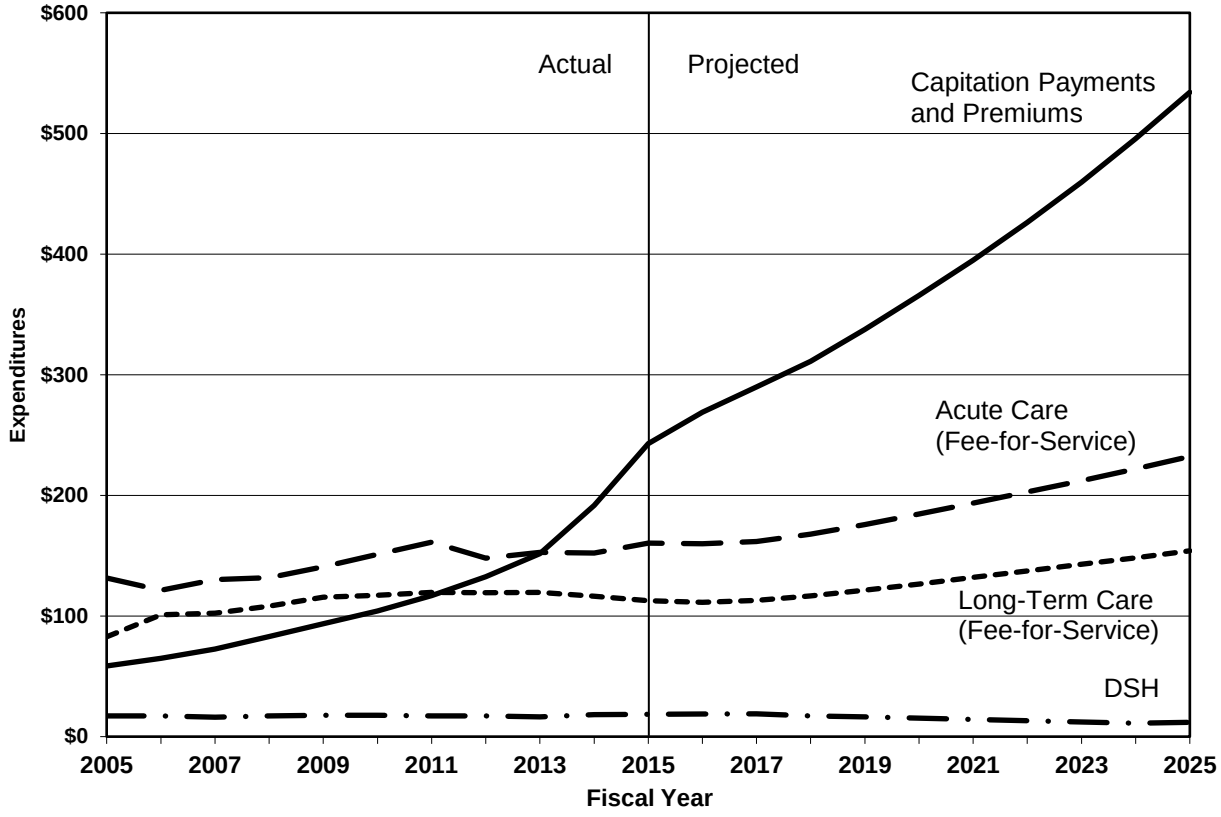
For much of history, the average annual Federal share has been about 57 percent of total expenditures, with several years of greater Federal shares due to changes specified in legislation. Over the next 10 years, the Federal share of Medicaid expenditures is projected to vary, largely due to the Affordable Care Act. The average Federal share was 58 percent in 2013 and increased to 61 percent in 2014 due mainly to the higher FMAP for newly eligible Medicaid beneficiaries, and it is estimated to have increased to 63 percent in 2015 and to have remained at 63 percent through 2016. The average Federal share is expected to decline to 61 percent by 2021 and to remain at that level through 2025, as the matching rate for the newly eligible adults is gradually reduced from 100 percent in 2016 to 90 percent in 2020.

Total Medicaid expenditures (Federal and State combined) for medical assistance payments, excluding those for administration, are estimated to have grown 4.2 percent in 2016 to $548.9 billion. This is a slower rate of growth than in 2015 (12.0 percent) and reflects the end of the acceleration period in 2014 and 2015 that was driven by the State implementation of Medicaid expansion. Medicaid expenditures on total medical assistance payments are projected to reach $917.6 billion by 2025, increasing at an average rate of 5.7 percent per year through the projection period. Federal government spending on these Medicaid payments is estimated to have been $346.3 billion in 2016 and is projected to grow to $563.2 billion by 2025.

Administration costs are estimated to have amounted to $27.0 billion in 2016, reflecting an increase of 5.4 percent, up from a growth rate of 4.8 percent in 2015. Administration costs for health information technology incentive payments are projected to have decreased slightly from $2.7 billion in 2015 to $2.1 billion in 2016. Administration costs are projected to reach $39.8 billion by 2025, growing at an average annual rate of 4.5 percent over the 10-year period. While administrative costs are estimated to have constituted 4.6 percent of total Medicaid costs in 2016, this percentage is projected to decline slightly to 4.2 percent by 2025.

Figure 4 shows historical and projected Medicaid benefit expenditures by four major categories of services: acute care fee-for-service, long-term care fee-for-service, capitation payments and premiums, and DSH.[18]

Figure 4—Past and Projected Medicaid Expenditures for Medical Assistance Payments, by Type of Payment, Fiscal Years 2005–2025[19]
(in billions)



Over the next 10 years, expenditures for capitation payments and premiums are expected to continue to grow more rapidly than expenditures for the other major Medicaid service categories, as shown in figure 4. These expenditures are projected to grow 8.2 percent per year on average from 2016 to 2025 (from $243.0 billion in 2015 to $534.1 billion in 2025), which would be 2.5 percentage points faster than overall Medicaid benefit growth. Prior to 2016, relatively faster growth in these payments was driven by the Medicaid eligibility expansion under the Affordable Care Act, since most of the newly eligible adults are enrolled in managed care plans. In addition, States increased the use of managed care by including managed long-term services and supports programs for their aged enrollees and persons with disabilities. From 2001 to 2013—prior to Medicaid expansion in 2014—Medicaid payments for managed care plans and other premiums grew on average 12.2 percent per year, more rapidly than the overall Medicaid benefit expenditure growth rate of 6.5 percent. In

[18] The data for selected figures in the report can be found in section D of the Appendix.
[19] The data for this graph can be found in table 17 in section D of the Appendix.

2015 alone, these payments increased by 26.8 percent, due primarily to the continued enrollment of newly eligible adults in managed care programs. The use of managed care plans within Medicaid increased over time, with 77 percent of enrollees covered by at least one managed care program and 61 percent covered by a comprehensive managed care program in 2014.[20] The increase in the use of these plans accounts for much of the difference between the capitation payment and overall Medicaid expenditure growth rates; however, this increase does not necessarily imply differences in per enrollee cost growth between those enrolled in managed care and those not enrolled.

Acute care fee-for-service expenditures are estimated to have decreased by 0.4 percent in 2016, due in part to continued managed-care contract use replacing fee-for-service delivery in the Medicaid program. Over the next decade, these expenditures are projected to grow at an average rate of 3.8 percent per year, from $160.4 billion in 2015 to $232.2 billion in 2025, as States are expected to continue to approach the challenge of cost growth for aged beneficiaries and persons with disabilities through increased use of managed long-term care programs for those populations.

Medicaid spending on fee-for-service long-term care is projected to grow by 3.2 percent on average for 2016 through 2025, increasing from $112.8 billion in 2015 to $154.0 billion in 2025. Aged enrollees and persons with disabilities receive the vast majority of long-term care services, and growth in these expenditures is driven in part by growth in enrollment among these beneficiaries. In recent history, Medicaid expenditures on these services have been decreasing; from 2011 through 2015, long-term care expenditures decreased at an average rate of 0.8 percent per year, compared to 7.2-percent average annual growth from 2005 through 2010. This deceleration reflects relatively slower growth in reimbursement rates and utilization of long-term care. Additionally, there has been increased use of managed care for long-term care services in Medicaid over the last several years, which has resulted in several years of slow growth or contraction in fee-for-service expenditures for long-

[20] Centers for Medicare & Medicaid Services, *2014 Medicaid Managed Care Enrollment Report* (https://www.medicaid.gov/medicaid-chip-program-information/by-topics/data-and-systems/medicaid-managed-care/downloads/2014-medicaid-managed-care-enrollment-report.pdf).

term care. Accordingly, long-term care expenditures are projected to have declined 1.3 percent in 2016.[21]

Medicaid DSH expenditures are typically expected to grow at the same rate as the Medicaid Federal DSH allotments, which are based on the Consumer Price Index (CPI). The Affordable Care Act, however, prescribes reductions in Medicaid DSH allotments, and subsequent legislation has extended those reductions through 2025.[22] Thus, the average growth rate for DSH spending is projected to be −4.5 percent over the next 10 years, with DSH expenditures decreasing from $18.6 billion in 2015 to $11.7 billion in 2025.

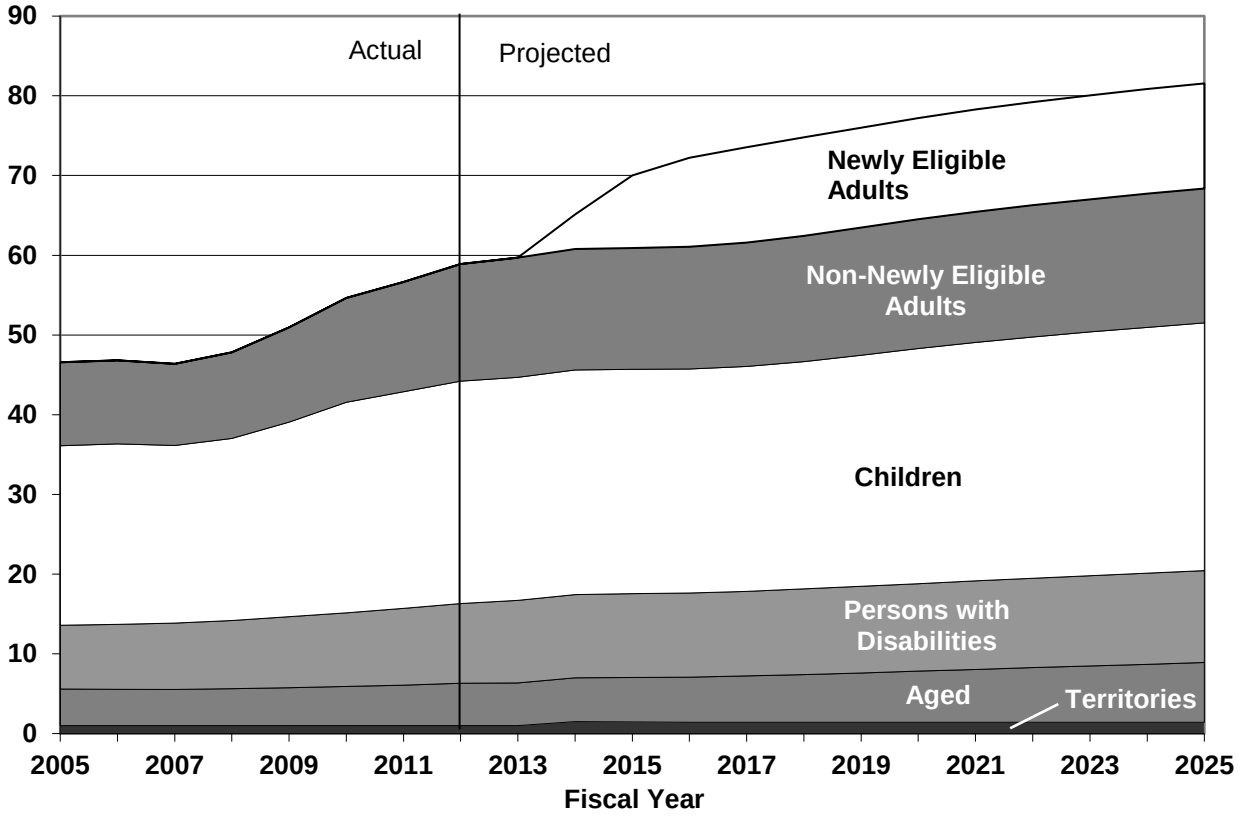
[21] Use of home and community-based services can substantially reduce expenditures for enrollees who would otherwise have had to enter a nursing home or who transition from institutional to community settings. Conversely, the expanding use of these services, by those who would not otherwise have had nursing home care, adds to overall program costs and may offset some amount of the savings realized by reducing the use of institutional long-term care services. Growth in the use of home and community long-term care reflects the increase in the number of home and community-based waivers in Medicaid, as well as the provision of home and community-based services through state plans. In addition, in *Olmstead v. L.C.*, 119 S. Ct. 2176 (1999), the Supreme Court ruled that, under the Americans with Disabilities Act of 1990, States must provide community-based placement for persons with disabilities when appropriate and consistent with consumer wishes. This ruling is also expected to have led to an increase in non-institutional long-term care expenditures in Medicaid.

[22] Several acts of legislation have combined to delay the start of DSH reductions until 2018 and extend the duration of the reductions through 2025: the Middle Class Tax Relief and Job Creation Act (Public Law 112-96); the American Taxpayer Relief Act (Public Law 112-240); the Bipartisan Budget Act (Public Law 113-67); the Protecting Access to Medicare Act (Public Law 113-93); and the Medicare Access and CHIP Reauthorization (Public Law 114-10).

Enrollment

Increasing levels of Medicaid enrollment are expected to contribute to expenditure growth over the next 10 years. Historical and projected Medicaid enrollments are shown by category in figure 5.

Figure 5—Past and Projected Numbers of Medicaid Enrollees, by Category, Fiscal Years 2005–2025[23]
(in millions of person-year equivalents)



Note: Enrollment levels for 2013, 2014, and 2015 are estimates.

Total enrollment is estimated to have increased from 70.0 million in 2015 (including 1.5 million enrollees in the U.S. Territories) to 72.2 million in 2016—with half of the enrollment increase driven by newly eligible adults. Since States electing to expand their programs are expected to have implemented the majority of their coverage expansions prior to 2016, enrollment growth is estimated to have slowed to 3.1 percent (down from 7.6 percent in 2015). Excluding the newly eligible adults, enrollment in 2016 is estimated to have increased by 0.2 percent; child enrollment is projected to have remained level in 2016, contributing to overall slower growth, while

[23] The data for this graph can be found in table 18 in section D of the Appendix.

enrollment among all other non-newly eligible populations is expected to have increased only slightly.

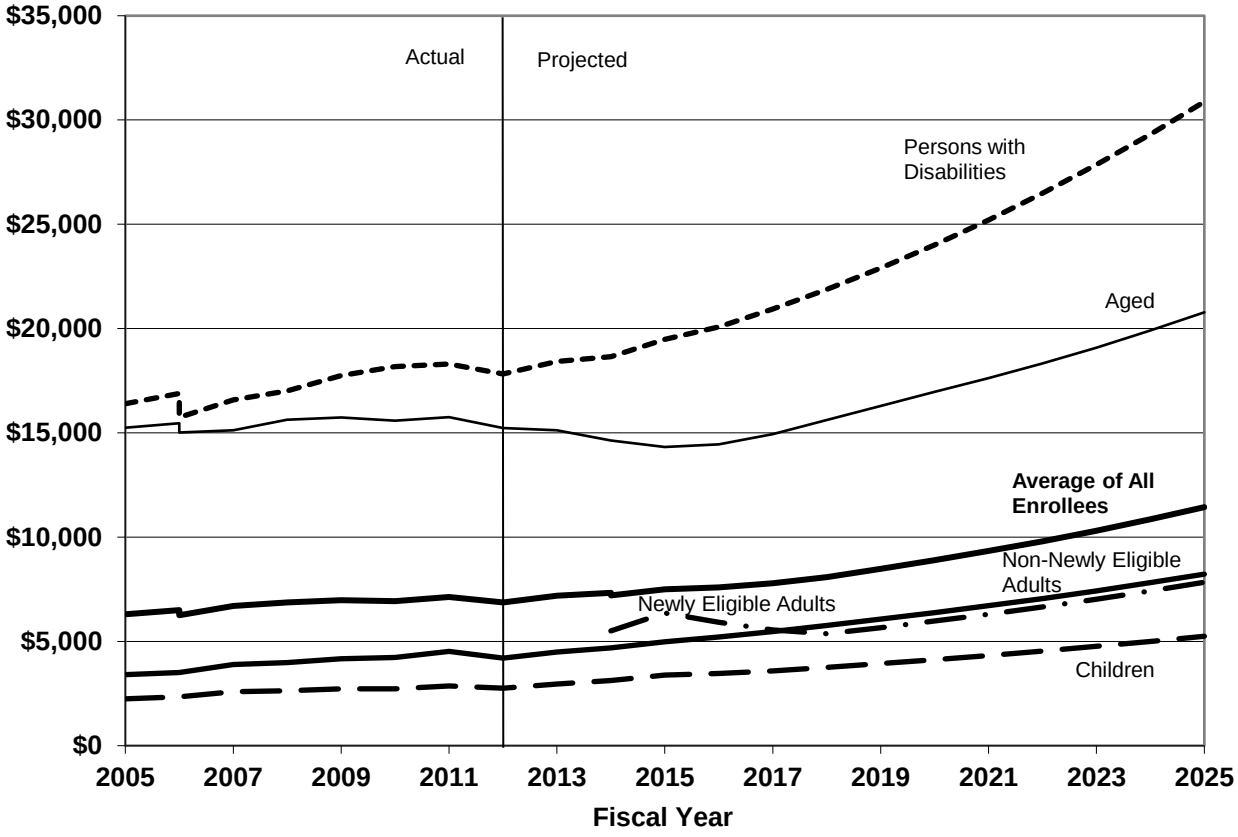
Enrollment in 2017 is projected to grow by only 1.8 percent, as the enrollment rate for newly eligible adults is projected to slow and as few additional States are assumed to expand eligibility in 2017. The total number of Medicaid enrollees is projected to increase during 2018 through 2025 at a rate of about 1.3 percent per year, reflecting expected U.S. population growth and an increase in the number of aged enrollees as baby boomers continue to reach age 65. After 2017, growth in the number of aged adults is expected to be faster than that for the other categories of enrollment; the average annual growth rate for aged adults is estimated to be 3.0 percent over the next 10 years. By 2025, Medicaid enrollment is projected to increase to 81.6 million.[24]

[24] Territory enrollment is projected to remain level at about 1.4 million persons from 2016 to 2025, despite the projected reduction in Federal expenditures for Territory Medicaid programs due to the expiration of additional funds provided by the Affordable Care Act. These projections are based on the assumption that Territories would provide additional funding or make other program changes to maintain enrollment levels as Federal funding is reduced.

Per Enrollee Costs

In addition to increases in Medicaid enrollment, the average costs of benefits for all enrollees are projected to increase over the next 10 years. Figure 6 displays historical and projected average Medicaid benefit expenditures per enrollee for all enrollees collectively and by eligibility group.

Figure 6—Past and Projected Medicaid Expenditures on Medical Assistance Payments Per Enrollee, by Enrollment Category, Fiscal Years 2005–2025[25]



Note: Per enrollee amounts for 2013, 2014, and 2015 are based on actual expenditures and estimated enrollment.

In 2016, per enrollee benefit costs are projected to have increased 1.3 percent, down from 4.0 percent growth in 2015. For most populations, per enrollee costs grew in 2016. Costs are projected to have increased for aged enrollees (from $14,323 to $14,451, 0.9 percent), children (from $3,389 to $3,458, 2.1 percent), enrollees with disabilities ($19,478 to $20,082, 3.1 percent), and adults ($4,986 to $5,215, 4.6 percent). For newly eligible adults, projected per enrollee costs decreased from $6,365 to $5,926 in 2016 (−6.9 percent); these trends are described in more detail in the next section of the report.

[25] The data for this graph can be found in table 19 in section D of the Appendix.

Per enrollee benefit costs are projected to grow somewhat faster from 2016 through 2025 than they did in the previous 9 years.[26] For aged Medicaid enrollees, benefit costs per enrollee fell from $15,023 in 2006 to $14,323 in 2015 (an average annual growth rate of −0.5 percent over the period) but are projected to reach $20,780 in 2025 (an average annual rate of 3.8 percent over 2016 to 2025). Per enrollee benefits costs for persons with disabilities increased from $15,743 in 2006 to $19,478 in 2015 (an average annual growth rate of 2.4 percent) and are projected to reach $30,877 in 2025 (4.7-percent average annual growth over 2016 to 2025).

The slow rate of growth of long-term care expenditures in recent history contributed to limited growth in the benefit costs for aged enrollees and persons with disabilities, as these individuals receive the vast majority of long-term care services. Expenditures for institutional long-term care (primarily nursing facility services) grew very slowly, while costs for community long-term care (including home and community-based waiver services) grew relatively quickly in comparison. Slow cost growth for long-term care through fee-for-service programs was partially offset by increasing managed care expenditures, especially for managed long-term care services. During and immediately after the 2007-2009 recession, States took stronger actions to limit Medicaid expenditure growth, including freezing or reducing provider reimbursement rates.[27]

Aged enrollees are projected to experience the lowest average per enrollee benefit cost growth over the next 10 years compared to other enrollee groups, due in large part to projected relatively slower growth in the cost of long-term care services. States are expected to continue to use more home and community-based long-term care to postpone enrollees' need for long-term care facilities as long as possible. In addition, States are projected to shift long-term care expenditures from fee-for-service programs into managed care. As a result, managed care expenditures are expected to grow more quickly and to constitute a larger share of benefits for aged enrollees.

While average benefit cost growth is expected to be slower over the next 10 years for aged enrollees than for other populations in Medicaid, it is expected to be faster than in recent history. States have instituted fewer provider reimbursement rate freezes and reductions and have allowed for more recent rate increases, and it is expected that these increases will continue in the future.[28]

Benefit costs per enrollee for adults (excluding the newly eligible) are projected to grow somewhat more rapidly over the next 10 years. Adult per enrollee costs

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[26] The years from 2007 to 2015 are used as a reference as they cover a sufficiently long period to compare long-term trends while excluding the effects of the start of the Medicare prescription drug program in 2006, which significantly lowered Medicaid per enrollee costs, especially for aged enrollees and persons with disabilities.

[27] V. Smith, *et al.*, "Implementing Coverage and Payment Initiatives: Results from a 50-State Medicaid Budget Survey for State Fiscal Years 2016 and 2017."

[28] *Ibid.*

increased from $3,503 in 2006 to $4,986 in 2015 (a 4.0-percent annual average growth rate), and they are projected to increase to $8,227 by 2025 (a 5.1-percent average annual growth rate). Benefit costs per enrollee for children are also expected to grow faster over the next decade, though only slightly, having grown from $2,348 in 2006 to $3,389 in 2015 (a 4.2-percent average annual growth rate), and such costs are projected to grow to $5,246 by 2025 (a 4.5-percent average annual growth rate). As was the case for aged enrollees, States took steps to control Medicaid expenditure growth that occurred during and after the 2007-2009 recession, especially in limiting or reducing provider reimbursement rates, but more recently States have implemented fewer rate reductions and freezes and more rate increases, and this is expected to continue.[29] The Affordable Care Act also provided for temporary increases in primary care physician payments in calendar years 2013 and 2014, which contributed to faster growth in expenditures for physician services in those years, particularly among children and adults (as many aged enrollees and enrollees with disabilities receive physician services through Medicare). Spending for managed care represented more than 60 percent of Medicaid expenditures for adults and children in 2015, and, for these enrollees, this type of care is expected to be the fastest growing service category over the next 10 years.

Although the average benefit costs for newly eligible adults were greater than those for other adults in 2014 and 2015, per enrollee costs for the newly eligible adults are estimated to have declined in 2016 and are projected to continue declining through 2018, when relative costs for the newly eligible are expected to be lower than those for non-newly eligible adults. After 2018, per enrollee costs for newly eligible adults are projected to grow at a similar rate as those for other adults. More detail on these projections is provided in the next section of this report.

Enrollment Mix

The growth in average Medicaid benefit expenditures per enrollee for all enrollment categories is significantly affected by the relative proportion of enrollment across these categories. In this report, the "enrollment mix" is defined as the contribution of the change in these relative proportions to the growth in Medicaid benefit expenditures per enrollee. This concept is similar to "age-gender mix" effects in other health care plans or programs (which measure the contribution to health care expenditures of changes in the relative proportion of enrollees by age and by gender in a plan). The enrollment mix differs in that it does not specifically consider gender and considers age in only broad ranges, but it does take into account the disability status of enrollees.

The enrollment mix is an important consideration in analyzing and projecting Medicaid benefit expenditures. While the effects of age-gender mix on other programs are usually relatively small and do not change significantly from year to year, the

[29] *Ibid.*

effect of enrollment mix on Medicaid expenditures can be substantially larger or smaller and may vary greatly from year to year. This variation can occur because Medicaid enrollment categories experience substantially different average costs—average Medicaid costs for aged enrollees and persons with disabilities are much greater than those of child and adult enrollees—and because the enrollment growth for these groups may vary among categories and may fluctuate annually.

For this report, the enrollment mix is measured as the difference between the increase in Medicaid benefit expenditures per enrollee and the increase in Medicaid benefit expenditures per enrollee if enrollment were held constant each year. To calculate this difference, enrollment was set at 2012 levels for each enrollment category.[30]

From 2007 to 2015, Medicaid benefit expenditures per enrollee grew at an average annual rate of 2.0 percent (including newly eligible adults). The effects of changes in enrollment mix over this time period reduced spending growth by an average of 0.6 percentage point per year; that is, excluding the impacts of changes in enrollment, Medicaid benefit expenditures per enrollee would have grown 2.6 percent per year. The effects of the changes in enrollment mix on spending ranged from −2.2 percent to 1.0 percent over these 9 years. The negative effects of the changes in enrollment mix were the result of relatively faster enrollment growth for children and adults than for aged enrollees and persons with disabilities, especially from 2008 to 2010, and the addition of newly eligible adults in 2014 and 2015.

Medicaid benefit expenditures per enrollee are estimated to have increased only 1.3 percent in 2016 (including newly eligible adults). Excluding the impact of the change in the enrollment mix, Medicaid benefit expenditures per enrollee are estimated to have increased 2.0 percent. This relatively large difference is primarily the result of an increase in the enrollment of newly eligible adults, whose per enrollee costs are estimated to have been relatively lower than the average costs of all enrollees.

While Medicaid benefit expenditures per enrollee are projected to grow more rapidly from 2016 to 2025 at an average annual rate of 4.4 percent, changes in enrollment mix are projected to negligibly decrease per enrollee Medicaid expenditure growth by an average of less than 0.1 percentage point per year over this time period.

The average effect of enrollment mix changes is projected to be small over the next 10 years, but there are some differences year to year. The projected enrollment of more newly eligible adults in 2016, 2017, and 2018 (with costs that are projected to be less than the average Medicaid cost per enrollee) contributes to negative enrollment mix effects through 2018 (from −0.7 percent to −0.3 percent per year).

[30] As the base year for enrollment, 2012 was selected because it was the latest year for which nearly all States reported Medicaid enrollment data to CMS. A review of the measurement of enrollment mix using other years as the base year showed no significant differences in results.

After 2018, the enrollment mix effect is projected to be positive (between 0.1 percent and 0.2 percent per year) because the projected growth rate of aged Medicaid enrollees is expected to be faster than that of other populations, as more members of the baby boom generation reach age 65. Excluding the newly eligible adults, the projected effect of enrollment mix from 2016 through 2025 would be an average increase of 0.3 percent.

Medicaid benefit expenditures per enrollee grew at an average annual rate of 2.6 percent per year from 2007 through 2015, excluding the effects of changes in the enrollment mix. For 2016 through 2025, such expenditures are projected to increase 4.3 percent per year on average. This difference is the result of two factors: (i) efforts by States to limit Medicaid expenditure growth (most notably, in 2011 and 2012) are not projected to continue with the same intensity into the future; and (ii) medical price inflation is projected to be modestly faster after 2016 than in recent history—averaging 4.2 percent from 2017 through 2025, as compared to 3.1 percent over the prior 10 years.

D. IMPACTS OF THE MEDICAID ELIGIBILITY EXPANSION

The Affordable Care Act provided for the expansion of Medicaid eligibility to almost all persons under age 65 who are living in families with incomes below 138 percent of the FPL beginning in 2014 (and who are citizens or eligible legal residents). Adults who are eligible under the new criteria are those that meet the definition of "newly eligible" in section 1905(y)(2) of the Social Security Act.[31,32]

This expansion added 4.3 million newly eligible adult person-year equivalents to enrollment during the 9 months that the new eligibility rules were in effect for FY 2014 (or 6.3 million in calendar year 2014), and this figure grew to 9.1 million by 2015. In 2016, an estimated 11.2 million newly eligible adults were enrolled and these adults are projected to number 13.2 million by 2025.

Total Medicaid benefit expenditures for the new adult enrollees were $23.9 billion over the last 9 months of FY 2014, increasing to $58.1 billion in FY 2015. Expenditures are estimated to have increased to $66.2 billion in 2016 and are projected to reach $103.4 billion by 2025. The Affordable Care Act specifies a higher Federal matching rate for newly eligible beneficiaries, decreasing from 100 percent through 2016 to 95 percent in 2017 and then gradually decreasing to 90 percent by 2020 and beyond. By 2025, the States are projected to pay $10.3 billion of the costs for newly eligible adults.

In *National Federation of Independent Business (NFIB) v. Sebelius*, the Supreme Court ruled that a State may not lose Federal funding for its existing program if it does not implement the Medicaid eligibility expansion under the Affordable Care Act. Based on the information currently available and projections about the States' expansion of their Medicaid programs, it is estimated that (i) 45 percent of potentially newly eligible persons resided in States that expanded eligibility in 2014, (ii) 50 percent of potentially newly eligible persons resided in States that expanded eligibility by 2015, (iii) in 2016, 50 percent of potentially newly eligible persons would reside in States that expand eligibility, and (iv) in 2017 and later years, 55 percent of potentially newly eligible persons would reside in States that expand eligibility.

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[31] "Newly eligible" individuals are persons between the ages of 19 and 64 who, beginning in 2014, are enrolled in the new adult group and who would not have been eligible for full Medicaid benefits, benchmark coverage (described in subparagraph (A), (B), or (C) of section 1937(b)(1) of the Social Security Act), or benchmark-equivalent coverage (described in section 1937(b)(2) of the Social Security Act) as of December 1, 2009. An individual may also be newly eligible if he or she would have been eligible but could not have been enrolled for such benefits or coverage because the applicable Medicaid waiver or demonstration had limited or capped enrollment as of December 1, 2009.

[32] The estimates of Medicaid enrollment and expenditures due to the eligibility expansion also include State programs that have received waivers to cover newly eligible enrollees in qualified health plans on the Health Insurance Marketplaces.

It is possible that more or fewer States may expand Medicaid eligibility than have been assumed for 2017 and later years. To the extent that the actual number of States opting for expansion differs from the assumptions used in these projections, future costs and enrollment would likely differ by a similar proportion, taking into account the sizes of the potentially newly eligible populations in those States.

The average per enrollee costs for newly eligible adults grew from $5,511 in 2014 to $6,365 in 2015 (an increase of 15.5 percent). These per enrollee costs were notably higher than those for non-newly eligible adults, as many States included adjustments to reflect a higher level of acuity or morbidity. In most States, these adjustments were positive, and in some cases the adjustments were substantial.[33] States also included other adjustments in the capitation rates for newly eligible adults; many projected increased costs due to pent-up demand, expecting that a number of the newly eligible would have been previously uninsured and would use additional services in the first several months of coverage. Finally, some States also included adjustments for adverse selection with the anticipation that the persons who were most likely to enroll in the first year would be those with the greatest health care needs.

In 2016, newly eligible adult per enrollee costs are estimated to have decreased by 6.9 percent to $5,926. These costs are expected to continue to decrease by 6.3 percent in 2017 and by 3.3 percent in 2018, at which point costs for newly eligible adults are projected to be less than those for the non-newly eligible adults ($5,370 and $5,764, respectively). Per enrollee costs for the newly eligible are estimated to be 13.6 percent higher than those of non-newly eligible adults in 2016, whereas such costs for the newly-eligible adults were 27.7 percent higher than those of the non-newly eligible adults in 2015. Newly eligible adults are projected to have average per enrollee costs that are between 93 percent and 95 percent of the average costs of other Medicaid adult enrollees from 2018 through 2025. The effects of pent-up demand and adverse selection are expected to end after the earliest years of the eligibility expansion, and more recent information (including the results of risk-sharing arrangements between States and managed care plans) indicates that the average costs of newly eligible adults were significantly lower than the States anticipated. As these factors and data for newly eligible adults are incorporated into managed care capitation rates, per enrollee costs for newly eligible adults are projected to decrease through 2018.

[33] It is difficult to generalize about the adjustments that the States have estimated for several reasons. States may have defined differently the non-newly eligible adult population that served as the basis for comparison for the newly eligible adults. (For example, States may have compared the newly eligible adults to only non-newly eligible childless adults or to childless adults and parents or caretaker adults, or States may have compared the newly eligible adults to only non-disabled adults or to non-disabled adults and some adults with disabilities.) Most States also removed from the comparison pregnant women who are not newly eligible for Medicaid, but the projections in this report include pregnant women among non-newly eligible adults; thus, it is difficult to directly compare the assumptions the States made with the projections and analysis in this report. In addition, States used various methodologies to develop these adjustments and in some cases combined them with other adjustments (for example, for adverse selection or pent-up demand).

Data for newly eligible adults are still limited. While CMS has reported some enrollment and expenditure data for this group, data on claims and managed care encounters, along with data on the health status and demographics of these enrollees, are not available. Thus, there is still uncertainty about the health care costs of newly eligible adults in 2014, 2015, and 2016, as well as for future years.

Given the uncertainty inherent in covering a large new population in Medicaid (many of whom were expected to have been previously uninsured), most States that implemented the eligibility expansion included risk-sharing arrangements in their contracts with managed care plans for newly eligible adults in 2014 and 2015, and some States continued these arrangements into 2016.[34] The most common approaches were to use a risk corridor or to use a minimum medical loss ratio. Under a risk corridor, the managed care plans would return some payments to the State and the Federal government if the average benefits per enrollee or loss ratio fell below a certain level or ratio, and the plans would receive additional payments from the State and the Federal government if the average benefits per enrollee or loss ratio exceeded a certain level or ratio. In States requiring a minimum medical loss ratio, the managed care plans would return some payments to the State and the Federal government if the loss ratio fell below a certain level, but the plans would not receive additional funding if the loss ratio was higher than expected.

As a result of these arrangements, there is the potential that the ultimate payments for newly eligible adults in 2014 and 2015 may be notably different from those currently reported. Most States have reported at least preliminary results in 2016, but many of these contractual arrangements have yet to be finalized. Based on the results of States that have reported such information and on comparisons of the costs for newly eligible and non-newly eligible adults enrolled in Medicaid, the Federal government would receive an estimated $3.2 billion from the risk-mitigation strategies in 2014 and an estimated $5.5 billion from those arrangements in 2015, representing about 9 percent of capitation payments for newly eligible adults in 2014 and 2015. Of the total $8.7 billion estimated to be paid to the Federal government, $1.2 billion is estimated to have been paid in 2016, and $7.5 billion is expected to be paid in 2017.[35] Since only some States have reported the results of these contractual provisions, and because of the various arrangements employed by those States and the uncertainty regarding the costs of the new adult enrollees, it is possible that the actual amounts returned to the Federal government could differ significantly from those estimated here. In addition, it is possible that the actual payments to the Federal government (or potentially from the Federal government) could occur later than expected.

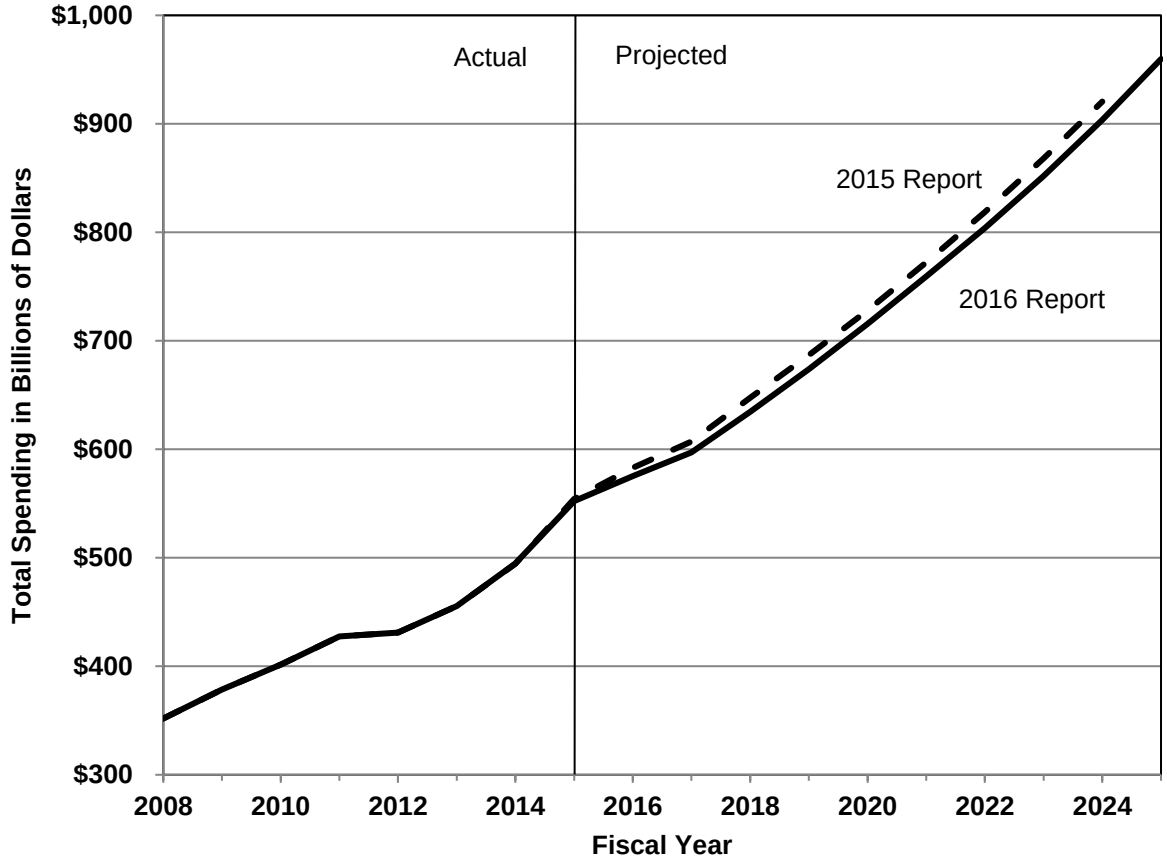
[34] Of the States that did not use a risk-sharing arrangement, several covered newly eligible adults under fee-for-service arrangements, and one covered enrollees through private health insurance plans using premium assistance. Several other States chose not to use risk-sharing arrangements.

[35] These payments are included in the projected expenditures shown in this report for 2016 and 2017; however, they are not counted when calculating per enrollee benefit costs for those years.

E. COMPARISON TO 2015 REPORT PROJECTIONS

The projections of Medicaid expenditures in this report are slightly lower than in the *2015 Actuarial Report on the Financial Outlook for Medicaid*. Figure 7 compares the 2016 projections of total Medicaid expenditures (including Federal and State) to those in last year's report.

Figure 7—Projected Medicaid Expenditures: Comparison of 2016 versus 2015 Actuarial Reports on the Financial Outlook for Medicaid, Fiscal Years 2008–2024[36]
(in billions)



Expenditures in 2016 ($575.9 billion) are projected to be slightly lower than projected last year ($586.0 billion), representing a 1.7-percent difference. Much of this difference is attributable to lower aged expenditures than estimated in last year's report, due primarily to decreases in fee-for-service long-term care spending. Projected spending of $901.5 billion in 2024 is 2.1 percent lower than the corresponding amount from last year ($920.5 billion). In total, the 10-year projections from 2015 through 2024 are $142.0 billion, or 2.0 percent, lower. The decrease over the 10-year period is primarily due to lower projected costs for long-term care;

[36] The data for this graph can be found in table 20 in section D of the Appendix.

however, economic changes and increases to the economic assumptions underlying this report slightly offset this decrease.

In addition, projected increases in utilization (or the residual factors) were slower in this year's report than in last year's (including those for long-term care services). As recent historical expenditures have grown more slowly, the outlook for future utilization growth in the program has changed accordingly.

Medicaid enrollment is projected to be higher over the 10-year projection period than in last year's report, partially offsetting lower 2016 spending and slower growth in the utilization of some services. Increases in the projected enrollment of newly eligible adults in 2016 and beyond reflect higher reported enrollment than was previously estimated.

Medicaid enrollment is expected to be slightly higher by 2024 than projected in the 2015 report for the same year. Enrollment is projected to reach 80.8 million by 2024, whereas it was projected to be 77.5 million by 2024 in last year's report. This 3.2-percent difference is due to updated enrollment data for 2012 and nearly complete data for 2013. Historical enrollment across all categories was higher than previously estimated for 2012 and 2013, resulting in higher enrollment levels over the projection period. In addition, newly eligible adult enrollment is projected to be 6.2 percent higher in 2016 than previously projected (11.2 million as opposed to 10.5 million projected in the previous report) and to reach 13.1 million by 2024 (10.8 percent higher than the 11.8 million projected in the previous report).

Average per enrollee costs by 2024 are projected to be 6.3 percent lower than in last year's report ($10,859 as compared to $11,595 in the 2015 report). This result reflects 1.9-percent lower average per enrollee costs in 2015 and slower projected cost growth (about 0.5 percent per year) over the projection period.

F. MEDICAID IN CONTEXT

From the estimates and analysis of health spending in the U.S. provided by the national health expenditure accounts (NHEA), additional insight can be obtained into the role of Medicaid within the total U.S. health care system.[37] Medicaid spending in the 2015 NHEA represented 17.0 percent of total national health expenditures. Private health insurance was the largest source of spending on health care in 2015, accounting for 33.4 percent of total national health expenditures while Medicare paid for 20.2 percent.[38]

The historical NHEA also present health care spending by the original source of financing (or sponsor). In calendar year (CY) 2015, Medicaid represented 37.5 percent of Federal government expenditures on health services and supplies and 36.7 percent of such spending by State and local governments. For the second year in a row, Medicaid was larger than Medicare as a share of Federal government expenditures on health services and supplies. (Medicare accounted for 34.4 percent of Federal expenditures in 2015.) Medicaid is the largest source of Federal general revenue-based spending on health services. A sizeable portion of Medicare spending is funded by income from dedicated revenue sources—which include Medicare Part A payroll taxes and Part B and Part D beneficiary premiums—with the balance from Federal general revenues. In contrast, Medicaid does not have any dedicated Federal revenue source; all Federal spending on Medicaid comes from general revenue. For State governments, Medicaid is the largest source of general revenue-based spending on health services.[39]

Moreover, Medicaid has a greater number of enrollees than Medicare. In FY 2015, Medicaid is estimated to have covered 70.0 million individuals (including persons residing in U.S. Territories). In comparison, Medicare covered an average of 55.3 million people during CY 2015.[40] Within these totals, there are substantial differences between the programs in the number and nature of people covered. For

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[37] The historical Medicaid spending data and projections presented in this report differ slightly from the national health expenditure estimates and projections in several ways. Some of the differences are as follows: (i) the data and projections featured in this report are shown on a fiscal year basis, whereas the national health expenditure amounts are on a calendar year basis; (ii) the NHEA make several adjustments to Medicaid, such as classifying Medicaid spending for Medicare premiums as Medicare spending; and (iii) the NHEA use somewhat different definitions of services than do the data presented in this report.

[38] A. Martin, *et al*., "National Health Spending: Faster Growth In 2015 As Coverage Expands And Utilization Increases," *Health Affairs*, 36, no.1 (2017): 166-176.

[39] *Ibid*. There are some State dedicated revenues for Medicaid. For more detail on this analysis of health care spending by sponsor, see the methodology paper at http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/dsm-11.pdf.

[40] *The 2016 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds* (https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/reportstrustfunds/downloads/tr2016.pdf).

example, Medicare automatically covers nearly all people over age 65 (46.3 million beneficiaries in 2015), but only those aged individuals with very low incomes and assets—and who apply for the coverage—become Medicaid enrollees (estimated at 5.8 million). Enrollment for persons with disabilities was more similar between the two programs; Medicaid covered an estimated average of 10.5 million persons with disabilities in 2015, while Medicare covered 9.0 million beneficiaries with disabilities. Although the definition of disability is essentially the same for the two programs, the other eligibility criteria are entirely different.[41] Finally, as noted earlier, a majority of Medicaid enrollees are either children or non-aged non-disabled adults in families with low incomes. Medicare does not have comparable categories of beneficiaries. Dual-eligible individuals are estimated to have accounted for $142.5 billion of total Medicaid expenditures in 2015, or 30 percent of benefit expenditures.[42]

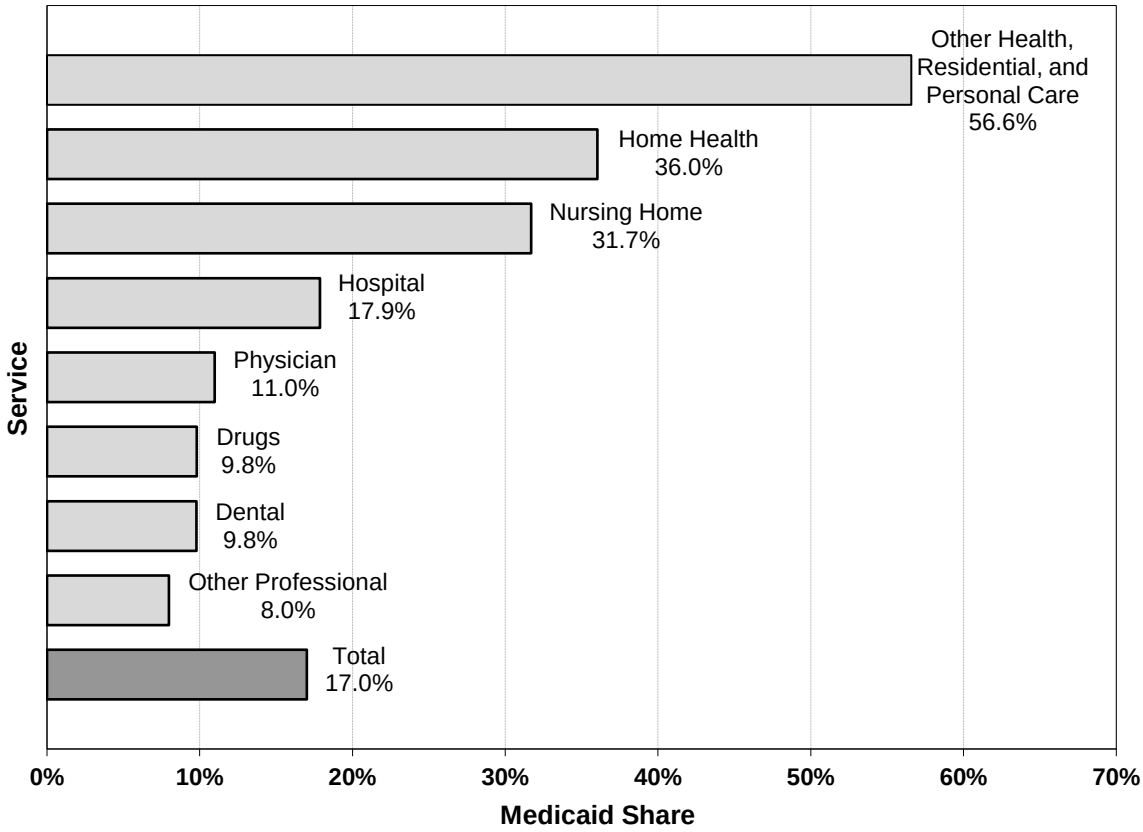
Among the different types of health care services, Medicaid plays the largest role in the funding of long-term care. According to the 2015 NHEA, Medicaid is estimated to have paid for 36.0 percent of all freestanding home health care and 31.7 percent of all freestanding nursing home care in the U.S. In addition, Medicaid covered an estimated 56.6 percent of other health, personal, and residential care in 2015, including Medicaid payments for intermediate care facilities for individuals with intellectual and developmental disabilities and for home and community-based waivers.[43] Medicaid has a major responsibility for providing long-term care because the program covers some aged persons and many persons with disabilities of all ages, who tend to be the most frequent and most costly users of such care, and because private health insurance and Medicare often furnish only limited coverage for these benefits. Many people who pay for nursing home care or community-based long-term care privately become impoverished due to the expense; as a result, these people eventually become eligible for Medicaid. Figure 8 shows the percentage of total spending for the major health care services that Medicaid covers.

[41] Medicaid eligibility for persons with disabilities is based on income and asset criteria (among other measures). Medicare eligibility generally depends on an individual's sufficient participation in the paid work force prior to disability. Furthermore, in many cases the time period to determine eligibility for Medicare on the basis of disability is longer than that for determining Medicaid eligibility. Despite these different requirements, a significant number of persons with disabilities qualify for coverage under both Medicaid and Medicare.

[42] These figures reflect actual 2015 reported expenditures from the CMS-64 and projected 2015 enrollment, based on Medicaid Analytic eXtract (MAX) data through 2013.

[43] A. Martin, *et al*., "National Health Spending: Faster Growth In 2015 As Coverage Expands And Utilization Increases."

Figure 8—Medicaid Expenditures as Percentage of Total U.S. Health Expenditures, by Service Category, Calendar Year 2015



Medicaid represents a significant share of the Federal and State budgets. In FY 2016, out of a total of $3,688 billion spent by the Federal government for all purposes, $350 billion (or 9.5 percent) can be attributed to Medicaid. Under the President's FY 2017 Budget, Federal outlays on Medicaid are projected to account for 9.5 percent of all Federal outlays by 2024.[44]

According to the National Association of State Budget Officers (NASBO), Medicaid represented an estimated 28.2 percent of all State government spending in State fiscal year 2015.[45] This amount, however, includes all Federal contributions to State Medicaid spending, as well as expenditures from State general revenue funds and other State funds (which for Medicaid may include provider taxes, fees, donations, assessments, and local funds). According to NASBO, Medicaid was the largest program in 2015. When only State general revenues are considered, however, Medicaid spending constituted an estimated 19.7 percent of State expenditures in 2015, placing it well behind elementary and secondary education. Overall in 2015,

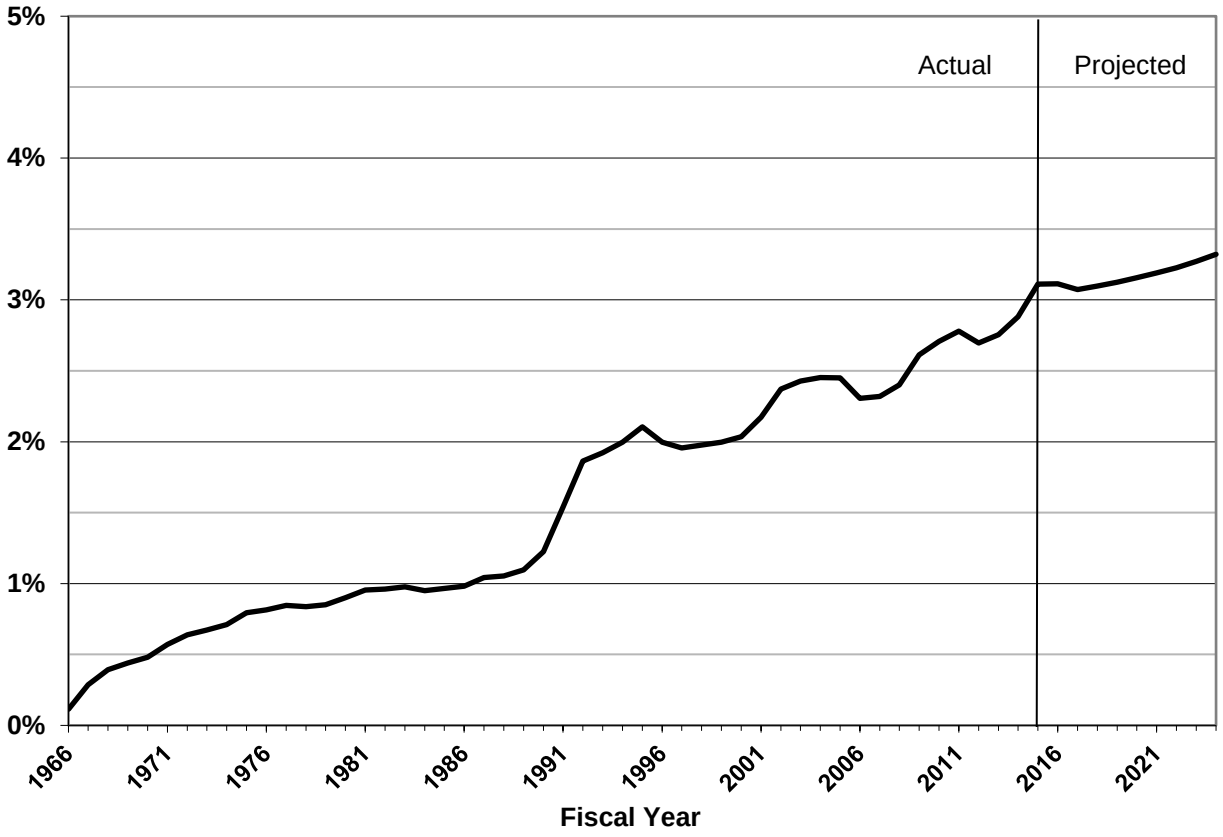
[44] Figures from the President's Budget differ from those shown in this report. More information on the Federal budget is available in *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2017*.

[45] *State Expenditure Report: Examining Fiscal 2014–2016 State Spending*, National Association of State Budget Officers, 2016.

State general revenue expenditures for Medicaid increased by 6.6 percent, which was faster than the overall State general revenue growth rate of 4.8 percent.

As shown in figure 9, Medicaid represented about 3.1 percent of the Gross Domestic Product (GDP) in 2015, which was an increase from the program's 2.9-percent share in 2014. In large part, this result reflects the continued increases in Medicaid expenditures associated with the eligibility expansion in 2015.

Figure 9—Past and Projected Medicaid Expenditures as Share of GDP, Fiscal Years 1966–2025[46]



Note: Percentages are affected by economic cycles.

In 2016, GDP is estimated to have grown by 3.8 percent. This growth rate is similar to that for Medicaid spending, which is estimated to have increased by 4.3 percent, as the main effects of the coverage expansion under the Affordable Care Act slowed. Accordingly, Medicaid spending is estimated to have remained at 3.1 percent as a share of GDP in 2016.

As seen in figure 9, the program's expenditures are projected to continue to grow to 3.4 percent of GDP by 2025. From 2016 through 2025, Medicaid expenditures are projected to increase about 0.9 percentage point faster than GDP per year. This

[46] The data for this graph can be found in table 21 in section D of the Appendix.

difference is driven by relatively faster projected growth in per enrollee spending for the program overall, averaging 4.3 percent from 2016 through 2025.

This projection of Medicaid spending as a share of GDP is greater than that included in last year's report. The share of GDP devoted to Medicaid in 2024 is projected to be 3.3 percent, about 0.1 percentage point higher than the 2015 projection. This result is due to the fact that GDP is projected to grow more slowly than previously assumed, averaging 4.6 percent annually from 2014 through 2024 as opposed to 5.0 percent over the same period in the 2015 report.

IV. SUMMARY OF DATA, ASSUMPTIONS, AND METHODOLOGY

Projections of Medicaid expenditures and enrollment are highly dependent on both demographic and economic assumptions. The most important such assumptions are those regarding the growth of health care prices, growth in the use of health care goods and services, overall economic growth, individual wage growth, and population growth. In addition, there are various "programmatic" factors that have historically influenced Medicaid expenditure and enrollment trends, including decisions by the States regarding eligibility and payment rules for their Medicaid plans, the coverage of and enrollment in other health insurance programs, including Medicare and private health insurance, and changes in the participation rates of eligible persons in Medicaid. The projections also depend on the nature and quality of the available data on Medicaid operations. This section briefly describes the sources of data and assumptions that are used to generate the Medicaid projections shown in this report; further detail is provided in sections A and B of the Appendix.

Data Sources

The data and assumptions on which these Medicaid projections are based are derived from three major sources. The first source is CMS data, which are submitted by the States to CMS on a regular basis. These data include the CMS-64 Financial Management Report (FMR) and the Medicaid Analytic eXtract (MAX).

The FMR provides separate Federal and State expenditures for all Medicaid fee-for-service programs and capitation arrangements.[47] The data and projections in this Medicaid actuarial report rely on the "Net Services" FMR, while Medicaid reports prior to 2015 used the "Base" FMR. Both the Net Services and Base FMRs provide the same total expenditures, but the former allocates prior period adjustments by service, while the latter does not. Neither the total expenditures reported nor the projected total expenditures are changed as a result of the switch from the Base to the Net Services FMR, but the benefit expenditures per enrollee are generally increased (since the benefit expenditures are more complete and thus are greater), as are the benefit expenditures for some categories of service. OACT made this change because using the Net Services FMR provides a more accurate allocation of the costs (by category of service and by enrollment category) than does reporting a significant portion of expenditures as prior period adjustments, and because further complications arise when the Base FMR is used and adjustments are allocated to the newly eligible adults. The effects of changing from the Base to the Net Services FMR are described more fully in section A of the Appendix.

[47] More information on the CMS-64 is available on the CMS website at http://medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Data-and-Systems/MBES/medicaid-budget-and-expenditure-system-MBES.html. Additional detail is provided in section A of the Appendix.

Table 4 shows the 2015 Medicaid medical assistance payments and administration costs reported in the Net Services FMR.

Table 4—Total Medical Assistance Payments and Administration Expenditures from the CMS-64 Financial Management Report, Fiscal Year 2015

Type of Payment	Total	Federal	State
Medical Assistance Payments	$526,710,873,983	$331,298,890,461	$195,411,983,522
Administration Costs	25,602,681,617	16,370,733,082	9,231,948,535
Total Expenditures	552,313,555,600	347,669,623,543	204,643,932,057

Note: The complete CMS-64 Financial Management Report for medical assistance payments and administrative costs in FY 2015 is provided in section D of the Appendix and is available on the CMS website at https://www.medicaid.gov/medicaid-chip-program-information/by-topics/financing-and-reimbursement/expenditure-reports-mbes-cbes.html.

CMS data also include MAX, which contains both service and demographic data supplied by the States, including provider payments and enrollment counts, and is derived from the Medicaid Statistical Information System (MSIS).[48] MAX expenditure data include only total Medicaid expenditures and do not provide data separately for Federal or State expenditures. Several adjustments are made to merge the CMS-64 and MAX data together for use in preparing projections.

Table 5 shows average annual Medicaid enrollment by enrollment category for the last 5 years of complete enrollment data (2008 through 2012). Enrollment levels are estimated for 2013, 2014, and 2015.

[48] More information regarding MAX can be found on the CMS website at https://www.cms.gov/research-statistics-data-and-systems/computer-data-and-systems/medicaiddatasourcesgeninfo/maxgeneralinformation.html, and more information regarding MSIS can be found on the CMS website at http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Data-and-Systems/MSIS/Medicaid-Statistical-Information-System.html.

Table 5—Average Annual Medicaid Enrollment by MAX Enrollment Category, Fiscal Years 2008–2012

Enrollment Category	2008	2009	2010	2011	2012
Aged	4,633,327	4,742,798	4,906,857	5,070,917	5,281,836
Persons with Disabilities	8,559,183	8,915,394	9,223,315	9,651,883	10,069,328
Children	21,790,290	23,338,750	25,314,793	26,079,135	26,802,765
Adults	10,664,823	11,675,142	12,875,583	13,550,526	14,446,790
Children (Unemployed Parent)	136,864	182,751	217,681	234,629	235,524
Unemployed Adults	118,178	148,525	181,847	200,381	204,703
Foster Care Children	904,297	897,986	880,464	839,805	848,280
Breast and Cervical Cancer Act Enrollees	34,294	38,152	39,968	41,963	43,300
Total	46,841,256	49,939,498	53,640,509	55,669,239	57,932,526

Note: MAX data for 2012 are supplemented with MAX data for Colorado and Idaho, as information for these two States is unavailable in the 2012 MAX data.

Key Assumptions

The Boards of Trustees for Old-Age, Survivors, and Disability Insurance (OASDI, or Social Security) and Medicare constitute the second source for the data and assumptions.[49] The projections in this Medicaid report are based on the same economic and demographic assumptions that were developed by the Trustees and used to determine the intermediate estimates presented in their statutory 2016 annual reports to Congress on the financial status of the OASDI and Medicare programs. The Trustees' intermediate economic assumptions are also used to develop the health care service price forecasts underlying the projections in this report.[50]

The third source of underlying data and assumptions—national health expenditure historical data and projections—is used for comparing Medicaid expenditures and enrollment with Medicare, private health insurance, and total health care spending

[49] *The 2016 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds* (https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/downloads/tr2016.pdf) and *The 2016 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds* (https://www.ssa.gov/OACT/TR/2016/).

[50] These assumptions are different from those used for projections in the President's FY 2017 Budget. Consequently, the projections presented in this report usually differ somewhat from the President's Budget projections. In addition, due to differences in the timing of this report and the Budget, later data are generally available for use in this report. Finally, while the Trustees' economic assumptions underlie both the Medicare Trustees Report and the Medicaid actuarial report, the two sets of health care service price growth forecasts are not the same. The two programs have significantly different statutory mechanisms for setting provider price updates, and these differences are reflected in the updated assumptions for each program.

in the United States. OACT develops the national health expenditure data and projections.[51]

For the purpose of projecting enrollment of, and expenditures for, adults who were made newly eligible by the Affordable Care Act beginning in 2014, OACT developed assumptions regarding States' decisions to implement the eligibility expansion. In *National Federation of Independent Business v. Sebelius*, 132 S. Ct. 2566 (2012) (*NFIB v. Sebelius*), the Supreme Court ruled that a State may not lose Federal funding for its existing program when it does not implement the Medicaid eligibility expansion under the Affordable Care Act. Of all people who were potentially newly eligible Medicaid enrollees, 45 percent are estimated to have resided in States that elected to expand Medicaid eligibility in 2014, and 50 percent are estimated to have resided in States that expanded eligibility by 2015. Assumptions about the effective national participation rate of the States for the eligibility expansion after 2015 were developed using public information and statements for each State regarding its intent to implement the expansion. Based on this information, it is assumed that 50 percent of all people who are potentially newly eligible Medicaid enrollees in 2016 would reside in States that elected to expand Medicaid eligibility and, for 2017 and thereafter, that 55 percent of such individuals would reside in expansion States.

In the future, the actual participation by States could differ from these assumptions. A greater or lesser number of States could elect to expand eligibility than has been assumed, and States' decisions may change over time (either to expand if they have not done so previously or to end the expansion sometime in the future).

The Medicaid expenditure and enrollment projections shown in this report are based on current law. That is, they are consistent with current legislation and administrative policy regarding Medicaid as of December 1, 2016, with one exception: the assumption that funding for the Children's Health Insurance Program (CHIP) is extended after FY 2017 for the duration of the projection window.[52] No other attempts have been made to forecast any future changes in policy or legislation that, if realized, would affect the Medicaid program—including Federal Medicaid, State Medicaid, or Medicare policy and legislation or other legislation that could affect private health

[51] More information on the historical NHEA and projections is available on the CMS website at https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/index.html. Also, see A. Martin, *et al.*, "National Health Spending: Faster Growth In 2015 As Coverage Expands And Utilization Increases," *Health Affairs*, 36, no.1 (2017): 166-176; and S. Keehan, *et al.*, "National Health Expenditure Projections, 2014-24: Spending Growth Faster than Recent Trends," *Health Affairs*, 34, no. 8 (2015): 1407-1417.

[52] This report does not cover expenditures and enrollment under CHIP, whether operated under Title XIX or Title XXI of the Social Security Act. CHIP provides health coverage to many children in households with income above Medicaid eligibility levels. In addition, this report does not consider any potential effects on Medicaid if CHIP funding is not extended beyond FY 2017. Should CHIP funding not be extended, children enrolled in Medicaid expansion CHIP would be eligible for coverage in Medicaid, and projected Medicaid expenditures and enrollment would be higher than the projections in this report.

insurance plans. Thus, while changes in Federal or State Medicaid policy have been a significant factor affecting the patterns of growth in expenditures and enrollment over history, no future changes in policy are assumed (beyond those already scheduled under current law).

Methodology

Health actuaries typically base estimates of medical expenditures on three major factors:

- C – the number of people enrolled in the program ("caseload"),
- U – the quantity of services each person uses ("utilization"), and
- P – the reimbursement ("price") for each unit of service.

The product of these three factors yields an estimate of total expenditures for medical services:

$$E = C \times U \times P \qquad (1)$$

Direct application of equation (1) requires data on utilization and reimbursement rates for Medicaid that are not currently available or practical to maintain.[53] An alternative recursive approach is therefore used for the projections, as described below.

Instead of using equation (1), the projection algorithm begins with development of data on the current level of Medicaid expenditures, by eligibility category and by type of medical service, to serve as a projection base. *Changes* in the three determinants of expenditures in equation (1) are then projected for future years and applied sequentially to the base year expenditures. Thus, if E_y represents expenditures in year y, then

$$E_{y+1} = E_y \times (1 + c_{y+1}) \times (1 + u_{y+1}) \times (1 + p_{y+1}) \qquad (2)$$

where c_{y+1}, u_{y+1}, and p_{y+1} are the assumed or projected rates of change in caseload, utilization, and prices, respectively, between years y and y+1. Equation (2) is applied separately to expenditures for each combination of the Medicaid eligibility categories and categories for type of service.

With a few exceptions, caseload factors vary by eligibility category, price factors vary by type of service, and utilization factors can vary by both eligibility category and type of service. The projected caseload factors are determined by trend and regression

[53] No comprehensive sources are available that track reimbursement rates and use by service for all Medicaid programs. Because the expenditure data reported by the States in the CMS-64 are at an aggregate service level, each category likely includes various services with different numbers of claims and distinct reimbursement rates. Additionally, reimbursement rates and service use are different for each State.

analysis of Medicaid enrollment data. Projections of future enrollment by eligibility category are based on estimates of the change in the share of the U.S. population enrolled in Medicaid, which has historically varied with changes in the unemployment rate. The relationship between Medicaid enrollment and unemployment reflects (i) how many people are without other forms of insurance and (ii) how many people might qualify for Medicaid based on its income requirements. Historically, this relationship has varied by eligibility category; in general, children and adult enrollment in Medicaid has been more sensitive to changes in the unemployment rate, and the enrollment of aged persons and persons with disabilities has been relatively less sensitive.

Price changes are derived from economic forecasts produced for the 2016 Medicare Trustees Report, including forecasts for economy-wide inflation, inflation for prices of medical services, and wage growth. Utilization is treated as the residual between total growth and the growth due to enrollment and price changes. The estimate of utilization is determined by an analysis of the historical interrelationship of expenditure, caseload, and price factor growth.[54] The residual factor, while termed "utilization," reflects not only the change in the average number of services per enrollee but also changes in the "intensity" or average complexity of the services. In addition, any errors in the measurement of the number of enrollees and price per service are implicitly included in the residual.

The methodology used to develop the utilization factor for the projections is calculated by service and by enrollment category. While for some services historical utilization is similar across enrollment categories, utilization in services disproportionately concentrated in one or two enrollment categories can vary significantly by enrollment category. In these cases, projecting utilization by both type of service and enrollment category improves the accuracy of the forecast. In addition, the growth of managed care in Medicaid has reduced historical fee-for-service utilization for several types of service. The extent to which States appear to have maximized their use of managed care or are likely to continue to expand is measured and projected in the utilization factor for managed care services and the affected fee-for-service categories.

The results obtained from the "Caseload, Utilization, Price" ("CUP") recursive forecast, using equation (2), are frequently adjusted to be consistent with recent expenditure data and outlay trends.

It is important to note that some of the reported line items in the financial data are not projected using category- or service-specific growth rates with respect to caseload, utilization, or price. Collections reported by the States constitute the largest such item, and they are projected to grow at the underlying total Medicaid expenditure growth rate, calculated net of all reported collections. In addition, payments for the Medicare Part A and Part B premiums are projected to grow at rates based on the

[54] More details on the trend residual methodology are included in section C of the Appendix.

most recent premium amounts and projections developed for the Mid-Session Review of the President's FY 2017 Budget, and separate utilization and price trends are not developed.

The projections of newly eligible adult enrollment and costs are based on currently available data from the CMS-64 and on several assumptions, including projections of population growth, eligibility for and enrollment in other forms of health care coverage (such as employer-sponsored insurance and the Health Insurance Marketplaces), and growth in the utilization and prices of health care services. In addition, preliminary indications are that the actual costs for these beneficiaries are significantly less than the payments made to managed care plans to cover them. These results are considered in developing the projected per enrollee costs for newly eligible adults. Section III of the report discusses this issue in more detail.

The projections in the report also include estimated payments that the Federal government is anticipated to receive from managed care plans (via the States) through risk corridors and minimum medical loss ratio requirements for the newly eligible adults covered in managed care in 2014 and 2015. (These payments are described in more detail in section III.D of the report.) To develop these estimates, per enrollee costs of the newly eligible adults in 2014 and 2015 were compared to projections of the costs of non-newly eligible adults. The costs for the non-newly eligible were based on data from the 2010 Annual Person Summary (APS) files, adjusted to discount the costs of pregnant women (as pregnant women are not expected to be among the newly eligible) and projected forward using the data and assumptions of per enrollee costs underlying this report. The costs of the newly eligible individuals were compared to the projected costs for non-newly eligible individuals after adjusting for assumptions of additional costs due to pent-up demand among the new enrollees. The amounts estimated to be owed by plans in each State were then determined using a "model" risk corridor (reflecting average terms for the risk corridor, such as how much risk remained with the plan and how much remained with the Federal government), and those amounts were adjusted to match in the States that have reported preliminary risk corridor or minimum medical loss ratio amounts to CMS. While this methodology provides a reasonable indication of the amounts that the Federal government is likely to receive from the managed care plans, in actuality the amounts could be significantly greater, or less, than estimated.

In addition to benefit expenditures, this report includes projections of administration costs that are based on historical administrative cost reporting, as well as projected growth rates from the Mid-Session Review of the President's FY 2017 Budget, updated to include more recent data.

Like any projection of future health care costs, the Medicaid projections presented here are necessarily uncertain. Actual numbers of enrollees, the number of services used, and the reimbursement levels per service will depend on all of the factors described previously—none of which can be predicted with certainty. Past increases

in Medicaid and other health care costs have often been relatively volatile, adding to the difficulty of correctly anticipating future trends. Moreover, the impacts of the numerous sections of the Affordable Care Act that affect Medicaid, especially the broadening of Medicaid eligibility in 2014, introduce additional uncertainty into these projections. Finally, there is relatively limited experience for people who became eligible for and enrolled in Medicaid in 2014, 2015, and 2016; accordingly, while these estimates are more certain than those in previous reports, they should still be considered uncertain due to the relative lack of program data and experience to inform them and the uncertainty about which States will expand their eligibility standards in the future.

The projections shown in this report should be regarded only as a reasonable indication of future Medicaid costs under current law and from today's perspective. It is important to recognize that actual costs in the future could differ significantly from these projections, as a result of (i) unanticipated developments in demographic, economic, or health cost growth trends and (ii) any further changes in the legislation governing Medicaid.

Sections A and B of the Appendix include additional detail regarding the data, assumptions, and methodologies used in the projections in this report.

V. CONCLUSION

Medicaid expenditures are estimated to have grown 4.3 percent in 2016 and to have reached $575.9 billion. Growth is estimated to have decelerated in 2016 due to the slowdown in enrollment of newly eligible adults, decreases in per enrollee costs for newly eligible adults, and the collection of payments from States for managed care risk mitigation strategies that were put in place for those adults. In 2017 and beyond, enrollment and expenditures are expected to steadily increase, with total Medicaid expenditures growing to a projected $957.5 billion by 2025. The projected annual average growth rate of Medicaid expenditures from 2016 to 2025 is 5.7 percent—notably faster than the projection of average annual GDP growth of 4.8 percent over the same period. Should these trends continue as projected under current law, Medicaid's share of State budgets would continue to expand absent other changes to the program, budget expenditures, or budget revenues, while its share of the Federal budget would remain about the same.

The proportion of Medicaid expenditures for capitation payments and premiums is projected to increase, as is the number of enrollees that receive all or some of their Medicaid benefits through a managed care plan. This trend has accelerated since 2014 as many States have covered newly eligible enrollees through managed care plans. In addition, States have continued to expand the use of managed care to cover aged enrollees and persons with disabilities and to provide for long-term care services through managed care programs. Thus, understanding how the use of managed care in Medicaid will affect future expenditure growth—and how fee-for-service expenditures for acute care and long-term care will also be affected—will be an important consideration for Medicaid programs in the future.

Because Medicaid does not have any dedicated revenue source at the Federal level or a trust fund approach to financing, the solvency of the program is not an issue in the same way it may be for the Medicare Hospital Insurance (or Part A) trust fund; the expenditures of each State (or Territory) program are covered by the State's revenues plus Federal matching general revenues. However, even without solvency as a concern, Medicaid constitutes a significant portion of spending by both Federal and State governments and thus is important to evaluate as part of the respective budgets. A growing share of budget expenditures on the Medicaid program could displace spending on other important programs, or additional taxes or other revenue sources could be required to fund Medicaid.

Typically the cost growth rates of different payers and programs, such as Medicare, Medicaid, and private health insurance plans, are related. Attempts by one payer or program to affect costs can have a direct or indirect impact on other payers and programs. Whether such efforts are focused on the payment or management of health care specific to certain programs, or on the delivery or practice of health care generally, it will be important to consider the potential effects not just on Medicaid but across all health care payers. Programs and demonstrations that focus on health

care provided for persons enrolled in both Medicare and Medicaid (dual-eligible beneficiaries), or that focus on Medicare but also include some dual-eligible beneficiaries, may have effects on the costs and quality of care paid for by Medicaid.

This report includes projections of the current-law Medicaid program. As policy makers consider changes or reforms to the program, for Medicaid specifically or for the broader health care system, particular attention may need to be paid to the ways in which Medicaid differs from other types of health care coverage—for example, in its administration, the benefits offered, the populations covered, and the ways in which it pays for health care. Other important issues for consideration, as Medicaid's role continues to evolve, are provider participation, Medicaid payment rates, and beneficiary access to services.

VI. APPENDIX

A. DATA SOURCES

Projections of Medicaid expenditures and enrollment are highly dependent on both demographic and economic assumptions, as well as on program data. This section describes the sources and limitations of data and assumptions that are used to generate the Medicaid projections shown in this report.

CMS-64 (Financial Management Reports)

The CMS-64 reports (Financial Management Reports, or FMRs) are products of the Medicaid and CHIP Budget and Expenditure Systems (MBES/CBES). These reports are submitted by the States quarterly and provide current fiscal year spending. The expenditure amount shown on the FMR is a summary of expenditures for the various mandatory and optional services covered by the Medicaid State programs. In addition, in 2014 the CMS-64 began reporting monthly enrollment data by enrollment category as well as quarterly expenditures for newly eligible adults.[55]

The mandatory services contained in the FMR include inpatient and outpatient hospital care, physician services, nursing facility care for individuals aged 21 or older, family planning services, rural health clinic services, home health care, laboratory and x-ray tests, other practitioner services, federally qualified health center services, and early and periodic screening, diagnostic, and treatment services for children under age 21 (EPSDT). Among the many reported optional services that States may provide are clinic services, prescription drugs, services furnished by intermediate care facilities for the intellectually disabled, hospice care, home and community-based care to certain persons with chronic impairments, and targeted case management services. Additionally, the FMR captures expenditures for DSH payments, offsets to drug spending through rebates, Medicare Part A and Part B premiums paid for those dually eligible for Medicare and Medicaid, premiums paid for Medicaid-only capitated arrangements, and expenditures for home and community-based waiver programs.

The FMR also includes the separate Federal and State expenditures for all Medicaid fee-for-service programs and capitation arrangements. The FMR is available on a "Net Services" basis and a "Base" basis, both of which report the same total expenditures. The historical data and projections provided here are based on the

[55] The CMS-64 reports enrollment and expenditures for enrollees in the "VIII group," which includes those persons who are eligible under the criteria of section 1902(a)(10)(A)(i)(VIII) of the Social Security Act. Most enrollees in this group are newly eligible adults, but some adults who may have been eligible under pre-2014 criteria are in this group as well. The CMS-64 provides data on both newly eligible adults and other enrollees in the VIII group separately starting in 2014.

expenditure data in the Net Services reports. All Medicaid reports published prior to 2015 used the Base reports for historical data and projections.

The main difference between the Net Services and Base reports is that the Base report provides service-level expenditures that were both incurred and paid in the current quarter, whereas the Net Services report shows expenditures by service on a paid basis. The Base report allocates expenditures that were paid in a different quarter than the services were incurred as prior period adjustments, and it similarly groups all collections (negative adjustments to payments) together. The Net Services report allocates all prior period adjustments to individual services, and it reports as collections only those collections that are not associated with a specific service (such as recoveries for fraud, waste, and abuse). Total expenditures are the same in both reports.

Because the Net Services report allocates prior period adjustments by service, the net effect is that the amount of prior period adjustments to expenditures is reduced while expenditures by category of service are increased. Therefore, the amounts reported for benefit expenditures by category of service and for benefit expenditures per enrollee are more complete and effectively higher under the Net Services report than under the Base report, and, as a result, these benefit expenditures by category of service and the accompanying projections are greater than shown in previous Medicaid reports.

Medicaid Analytic eXtract (MAX) and the Medicaid Statistical Information System (MSIS)

The Medicaid Statistical Information System (MSIS) is the basic source of State-submitted eligibility and claims data on the Medicaid population, its demographic characteristics, utilization of health care services, and payments. The purpose of MSIS is to collect, manage, analyze, and disseminate information on eligible individuals, beneficiaries, utilization, and payment for services that are covered. States provide CMS with quarterly files consisting of specified data elements for persons covered by Medicaid and adjudicated claims for medical services reimbursed with Title XIX funds. Four types of claims files representing inpatient services, long-term care, prescription drugs, and non-institutional services are submitted. Claims records contain information on the types of services used, providers, service dates, costs, and types of reimbursements. Eligibility characteristics, such as basis-of-eligibility and maintenance assistance status, are the foundation of the enrollment projections; specifically, the primary basis-of-eligibility categories consist of aged persons, persons who are blind or have other disabilities, non-disabled children (including foster care children), and non-disabled non-aged adults (including women eligible under the Breast and Cervical Cancer Act eligibility expansion).

The data and projections in this report generally rely on the Medicaid Analytic eXtract (MAX). MAX contains both service and demographic data supplied by the States, including provider payments and enrollment counts, and is derived from MSIS.[56] As is the case with MSIS, MAX expenditure data include only total Medicaid expenditures, and MAX does not provide data separately for Federal or State expenditures. Several adjustments are made to the CMS-64 and MAX data to merge them together for use in preparing projections.

Prior to the 2015 Medicaid report, historical data and projections relied on data from MSIS—mainly from the APS files. It is worth noting that MAX data are based on claims data from MSIS, and although there are differences in the way the claims are summarized, these differences do not have a significant impact on the projections in this report. Historical data shown in the report from 2000 through 2004 are based on MSIS.

Users of Medicaid data may note discrepancies between the expenditure information captured in MAX and the CMS-64. For example, DSH payments and Medicare premiums do not appear in MAX. Whereas actual payments are reflected in the CMS-64, in MAX adjudicated claims data are used. Service definitions vary in these two sources as well. Territorial data for American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the Virgin Islands appear in the CMS-64, but not in MAX. Each State has a different system for capturing statistical (MSIS) and financial (CMS-64) data.

It is important to note the limitations that are associated with the data described in this section. First, MAX data are available for 48 States through 2011, for 49 in 2012, for 44 in 2013, and for only 20 states in 2014. MAX (and the MSIS data from which MAX is derived) is the only available source of complete enrollment data.[57] Consequently, to relate 2011, 2012, 2013, and 2014 actual expenditures to the number of enrollees, estimates of Medicaid enrollment are prepared for those years for the missing States.[58] For 2015 (and for the projections for 2016 through 2025), enrollment is estimated using a regression model and historical data, including available (2011, 2012, 2013, and 2014) State data. MAX also does not provide data on

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[56] More information regarding MAX can be found on the CMS website at https://www.cms.gov/research-statistics-data-and-systems/computer-data-and-systems/medicaiddatasourcesgeninfo/maxgeneralinformation.html.

[57] While the CMS-64 provides enrollment data starting in 2014, the MSIS and MAX data overlap with the CMS-64 in 2014 for only a small number of States, and thus it is not possible to determine how closely the two sources match. Further, the 2014 MAX data do not differentiate between newly eligible adults and non-newly eligible adults. The figures in this report are based on the MAX data, and the CMS-64 enrollment data are used only for newly eligible adults and for enrollment in the Territories.

[58] In this report, child Medicaid enrollees consist of non-disabled children, children of unemployed parents, and foster care children; adult Medicaid enrollees consist of non-disabled non-aged adults, unemployed adults, and women covered under the Breast and Cervical Cancer Act expansion; and disabled Medicaid enrollees consist of blind or disabled persons.

enrollment in Territory programs, and thus enrollment figures for Territories are estimated from previous data; to estimate enrollment in the Territories for 2014 and 2015, for example, data from the CMS-64 are used. Accordingly, there is uncertainty regarding the estimates of the number of enrollees and expenditures by enrollment category in the most recent historical years.[59]

Another qualification is that it was only in 2014 that the CMS-64 began providing data on enrollment or spending by enrollment category (and, in the case of spending by enrollment category, only for newly eligible adults or other adults in the "VIII group").[60] In addition, the definitions of medical service categories are not consistent between the MAX (or the MSIS) and the other data sources. Adjustments are made to develop a data set that contains not only service-level expenditures that match the CMS-64 data but also expenditures by enrollment group; accordingly, the MAX and the CMS-64 are merged together to provide a more complete understanding of Medicaid spending. Since the service definitions are different between these two sources, MAX data are used to estimate spending by enrollment group for each Medicaid service reported in the CMS-64.[61] While every State that chose to expand its program is reporting enrollment data in the CMS-64, regular updates to these submissions indicate that the data are not yet final for FY 2016. To develop the enrollment estimates and projections for this report, the CMS-64 enrollment data were used only for the number of newly eligible adults enrolled.

Finally, OACT reviewed the data sources used in these projections for reasonableness but relied on CMS program components and the States to ensure the quality of the data.

B. KEY ASSUMPTIONS

The primary demographic, economic, and health cost inflation assumptions underlying the Medicaid projections shown in this report are the same as those used by the Social Security and Medicare Boards of Trustees in their 2016 reports to Congress.[62] Final 2017 Medicare premium amounts were used in place of projected premium amounts to more accurately reflect anticipated expenditures.

The price assumptions used to develop the Medicaid expenditure projections are derived from the assumptions included in the Social Security and Medicare Trustees Reports. While these price assumptions are specifically meant to measure the

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[59] CMS is in the process of transitioning Medicaid data from MSIS to the Transformed Medicaid Statistical Information System (T-MSIS), but T-MSIS is not currently available.

[60] The "VIII group" refers to enrollees who are eligible under section 1902(a)(10)(A)(i)(VIII) of the Social Security Act, including newly eligible adults.

[61] Certain services in the CMS-64 for which there is little to no history are combined with other services assumed to have a matching underlying distribution of spending by eligibility category.

[62] Further information on the Trustees' population projections and economic assumptions is available in the 2016 Social Security and Medicare Trustees Reports (https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/downloads/tr2016.pdf).

changes in the prices that Medicare would pay providers, they also generally reflect the projected growth in the prices of health care services.

As noted in section IV of this report, there is no single data source available that tracks all Medicaid prices or price changes. In addition, since States do not have a prescribed methodology for updating provider reimbursement rates, there are no specific or consistent forecasts of the changes in the prices for health care services that can be used across all Medicaid programs. Accordingly, OACT relies on other forecasts from Medicare, which are assumed to be reasonable projections of the underlying growth in health care prices that States would consider when changing provider reimbursement rates within their Medicaid programs.

The principal economic assumptions include growth in average wages and the CPI. These and other assumptions are used to generate health care service input price indices (or "market baskets") for inpatient hospital and home health care services. These indices serve as indicators of increases in Medicaid payments per service.

It is important to note that these price assumptions may not accurately measure the underlying changes in the prices paid by Medicaid programs year to year. States have significant discretion in setting reimbursement rates, and in any given year the changes in rates paid to providers may differ from the changes in the price assumptions that are used to project future price changes for Medicaid expenditures. Thus, while these price forecasts are expected to reasonably estimate the changes in prices over time, they may not be precise measures of the actual changes in prices in any State Medicaid program. Moreover, to the extent that any specific price assumption is not an accurate assessment of the change in the price paid for any particular service, the difference between the actual change in price and the change in the price assumption would be reflected in the residual factor. While in general the residual factor is meant to represent changes in utilization, it would also incorporate errors in the measurement of prices.

Medicaid enrollment is projected by eligibility category: aged persons, persons with disabilities, children, newly eligible adults, and other adults. The model measures enrollment by eligibility category as a percentage of the U.S. population by relevant age group (aged—U.S. population aged 65 and over; disabled—U.S. population aged 0-64; children—U.S. population aged 0-19; and adults—U.S. population

aged 20-64). Historical enrollment is measured for 1992 through 2012—the period for which reliable enrollment data exist in MSIS (1992-2004) and MAX (2005-2012).[63]

The relationship between the change in the share of the U.S. population enrolled in Medicaid by eligibility category and the change in the national U.S. unemployment rate is measured using a regression model. Analysis conducted in developing this enrollment model has shown that the unemployment rate is the most meaningful factor in analyzing changes in historical Medicaid enrollment. Other economic variables either are not statistically significant or do not improve the accuracy of the model. In addition, changes in the unemployment rate have a strong theoretical relationship with Medicaid enrollment. As the unemployment rate increases, fewer people have jobs, leading in turn to a greater number of people with lower incomes and more individuals likely to be eligible for Medicaid. Moreover, a decrease in the number of people with jobs is likely to lead to fewer people with private health insurance, and as a result more people may enroll in Medicaid for health care coverage. Conversely, as the unemployment rate decreases, an increase in the number of people with jobs is likely to lead to increases in income and more people with private health insurance, and consequently enrollment growth in Medicaid may be slower. The Trustees do not typically forecast economic cycles, and thus the projections of Medicaid enrollment in this report do not exhibit the same cyclical variation that enrollment has experienced historically.

The change in the share of the U.S. enrolled population is projected forward using the results of the regression model and forecasts of the unemployment rate from the 2016 Social Security Trustees Report for each eligibility category. Enrollment is projected using those results and the forecasts of the U.S. population from the 2016 Trustees Report. The projections from the model may be adjusted, in particular for estimates of enrollment in recent years (in this Medicaid report, enrollment is estimated for 2013, 2014, and 2015); in estimating historical enrollment, other data or information is often used to adjust the results from the Medicaid enrollment models. Typically, other sources do not provide enrollment at the same level of detail as shown in MAX or in this Medicaid report, but such sources may inform the overall level of enrollment or the growth rate of total enrollment in those historical years.

Changes in the utilization of services and other changes in expenditures not reflected in changes in enrollment or prices are reflected in the "residual" factors in the model. The trend residual approach to projecting Medicaid expenditures begins with an analysis of historical Medicaid expenditures per enrollee on a service-by-service basis.

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[63] Medicaid enrollment data have lagged by as much as 2 years in recent history, and this lag has increased during the transition to the new Medicaid data system. CMS is in the process of transitioning Medicaid data from MSIS to the Transformed Medicaid Statistical Information System (T-MSIS), but T-MSIS is not currently available. Until the system is operational, it is unclear what data will be available and what form the data will take. More information about T-MSIS is available at http://www.medicaid.gov/medicaid-chip-program-information/by-topics/data-and-systems/medicaid-and-chip-operational-data.html.

The annual percent change in these per enrollee expenditures is compared to the change in the applicable price indicator (listed below), and the differential, or residual, is calculated. This residual measures the collective impact of changes in utilization and "intensity" (average complexity) of services, case mix effects, and other factors, and it is calculated by service and by eligibility category. For the purpose of developing projected expenditures, the residual may be calculated as the average across all eligibility categories (typically when the residuals across eligibility categories have similar values, or when the amount of spending for one or more eligibility categories is relatively small and there are potential concerns about the credibility of the residual factor). The basis of the projected residual is the historical average of the residual value (either as a weighted average or an unweighted average over the previous several years), but adjustments may be made by gradually increasing or decreasing the residual toward the average residual for a broader category of services (such as all acute care, all long-term care, or all medical services).

The residuals are adjusted to limit the value of any particular service from significantly increasing or decreasing more than the value of all services (or broader categories of services). In general, the residual of all services (or broader categories of services) tends to be more stable, but it is necessary to use residuals by service to account for changes in the Medicaid program as well. Often, these adjustments are made to reflect areas in which there has likely been a shift between services or categories of services in recent history, but projecting those changes to continue at the same rate over 10 years would not necessarily be the best estimate of future expenditures.

One key example concerns the historical shifts of Medicaid expenditures from fee-for-service programs (especially acute care services, such as hospital services, physician and other professional services, and prescription drugs) to managed care. As part of the adjustment, managed care expenditures as a share of total expenditures were reviewed by State and by eligibility category. This review provided more detailed information on the use of managed care across States, as well as some evidence regarding the extent to which recent expenditure growth in managed care programs was driven by the States' expansion of their use of these programs. The analysis suggested that managed care expenditures were likely to continue to grow relatively quickly but, over time, were more likely to slow, as the rate at which States shift expenditures to managed care programs slows. Similarly, the analysis suggested that the residuals for acute care services in general would increase over the same period as the shift from fee-for-service programs decelerates.

The following table shows the price indicators currently used to produce Medicaid expenditure projections.

Type of Service	Price Indicator
Inpatient and outpatient hospital	Medicare hospital input price index (market basket), before the application of productivity adjustment
Physician, clinic, and related services	Medical CPI increase
Institutional long-term care	Maximum of CPI increase and average wage increase
Community long-term care and home and community-based waiver services	Medicare home health input price index, before the application of productivity adjustment
Prescription drugs	CPI increase
Managed care	Medical CPI increase

One exception to the trend residual methodology occurs in the case of some premiums. The costs for Medicare premiums financed by Medicaid are based on the projected premium rates for Medicare Parts A and B in the President's FY 2017 Budget. The proportions of aged and blind or disabled enrollees who are "bought into" Medicare by the States or the Federal government through premium payments are assumed to remain at historical levels.

C. RESIDUAL ANALYSIS RESULTS AND ASSUMPTIONS

This section provides the results of the analysis used to calculate the residual factors for the projections. The following tables show the historical residual factors and the projected values by eligibility category and by service for the largest five services (as measured by total 2015 expenditures).

Table 8—Historical and Projected Residual Factors for Aged Enrollees, Selected Services, Fiscal Years 2010–2025

Fiscal Year	Nursing Facility	Managed Care	Home and Community-Based Waivers	Inpatient Hospital	Personal Care
Historical data:					
2010	−5.7%	30.4%	−7.4%	−8.1%	−4.4%
2011	−3.5	6.8	−0.4	−10.5	24.0
2012	−10.8	28.2	−6.6	−10.6	−15.4
2013	−3.0	12.6	−3.1	2.7	0.2
2014	−7.7	−0.1	−3.3	−5.6	−17.5
2015	−12.9	21.3	10.0	−4.6	5.8
Projections:					
2016	−7.1	15.9	0.2	−5.1	−3.6
2017	−6.5	13.4	0.2	−4.5	−3.1
2018	−5.8	10.9	0.2	−3.8	−2.6
2019	−5.2	8.5	0.2	−3.2	−2.1
2020	−4.5	6.0	0.2	−2.5	−1.6
2021	−3.9	3.5	0.2	−1.9	−1.1
2022	−3.9	3.5	0.2	−1.9	−1.1
2023	−3.9	3.5	0.2	−1.9	−1.1
2024	−3.9	3.5	0.2	−1.9	−1.1
2025	−3.9	3.5	0.2	−1.9	−1.1

Table 8 shows the residual factors for the largest five services for aged enrollees based on estimates of 2015 expenditures; spending for these services constituted 82 percent of total estimated Medicaid expenditures for aged enrollees, as shown in table 9. (Medicare Part B premiums are shown below, but residual factors are not calculated for Medicare premiums.)

Table 9—Fiscal Year 2015 Selected Service Expenditures for Aged Enrollees
(in billions)

Service	2015 Expenditures
Nursing Facility	$33.8
Managed Care	14.5
Home and Community-Based Waivers	6.6
Medicare Part B Premiums	5.4
Inpatient Hospital	3.6
Personal Care	1.3
Total Expenditures for Aged Enrollees	80.0

Table 10—Historical and Projected Residual Factors for Persons with Disabilities, Selected Services, Fiscal Years 2010–2025

Fiscal Year	Managed Care	Home and Community-Based Waivers	Inpatient Hospital	Nursing Facility	Prescription Drugs
Historical data:					
2010	3.6%	1.3%	1.1%	−5.6%	−7.8%
2011	7.9	−4.0	5.6	−2.6	−14.7
2012	28.5	−3.7	−15.1	−8.4	−45.7
2013	15.3	−1.8	−0.3	−3.2	−26.2
2014	18.4	−2.9	−17.3	−1.6	5.9
2015	16.9	6.4	1.5	−14.6	31.9
Projections:					
2016	14.1	0.2	−4.6	−5.8	−4.8
2017	8.8	0.2	−4.0	−5.3	−4.2
2018	3.5	0.2	−3.4	−4.8	−3.5
2019	3.5	0.2	−2.8	−4.3	−2.9
2020	3.5	0.2	−2.2	−3.8	−2.3
2021	3.5	0.2	−1.6	−3.3	−1.7
2022	3.5	0.2	−1.6	−3.3	−1.7
2023	3.5	0.2	−1.6	−3.3	−1.7
2024	3.5	0.2	−1.6	−3.3	−1.7
2025	3.5	0.2	−1.6	−3.3	−1.7

Table 10 shows the residual factors for the top five services for persons with disabilities based on estimates of 2015 expenditures; spending for these services constituted 71 percent of total estimated Medicaid expenditures for persons with disabilities, as shown in table 11. (Prescription drug expenditures shown in table 11 do not include Medicaid prescription drug rebates.)

Table 11—Fiscal Year 2015 Selected Service Expenditures for Persons with Disabilities
(in billions)

Service	2015 Expenditures
Managed Care Organizations	$55.4
Home and Community-Based Waivers	41.6
Inpatient Hospital	25.1
Prescription Drugs	11.7
Nursing Facility	11.3
Total Expenditures for Persons with Disabilities	204.4

Table 12—Historical and Projected Residual Factors for Child Enrollees, Selected Services, Fiscal Years 2010–2025

Fiscal Year	Managed Care	Inpatient Hospital	Prescription Drugs	Physician	Outpatient Hospital
Historical data:					
2010	−2.8%	−10.3%	−7.8%	−4.4%	−9.5%
2011	7.3	0.1	−11.9	−2.0	−1.4
2012	−4.6	−13.9	−35.4	−17.9	−16.5
2013	14.6	2.4	−24.3	−10.0	1.3
2014	9.8	−11.0	2.4	−4.9	−8.8
2015	16.5	1.8	−0.3	−17.1	−10.0
Projections:					
2016	5.7	−4.5	−5.2	−7.4	−6.9
2017	3.6	−3.0	−3.6	−5.2	−4.8
2018	1.4	−1.6	−1.9	−3.0	−2.8
2019	1.4	−1.6	−1.9	−3.0	−2.8
2020	1.4	−1.6	−1.9	−3.0	−2.8
2021	1.4	−1.6	−1.9	−3.0	−2.8
2022	1.4	−1.6	−1.9	−3.0	−2.8
2023	1.4	−1.6	−1.9	−3.0	−2.8
2024	1.4	−1.6	−1.9	−3.0	−2.8
2025	1.4	−1.6	−1.9	−3.0	−2.8

Table 12 shows the residual factors for the top five services for the child population based on estimates of 2015 expenditures; spending for these services constituted 81 percent of total estimated Medicaid expenditures for children, as shown in table 13. (Prescription drug expenditures shown in table 13 do not include Medicaid prescription drug rebates.)

Table 13—Fiscal Year 2015 Selected Service Expenditures for Child Enrollees
(in billions)

Service	2015 Expenditures
Managed Care Organizations	$54.2
Inpatient Hospital	13.1
Prescription Drugs	4.3
Physician Services	3.1
Outpatient Hospital	3.0
Total Expenditures for Children	95.4

Table 14—Historical and Projected Residual Factors for Adult Enrollees, Selected Services, Fiscal Years 2010–2025

Fiscal Year	Managed Care	Inpatient Hospital	Outpatient Hospital	Prescription Drugs	Physician
Historical data:					
2010	6.6%	−7.7%	−2.6%	2.3%	−0.2%
2011	11.8	14.1	5.2	−10.5	1.3
2012	3.1	−13.2	−12.1	−49.9	−16.3
2013	12.0	4.6	8.7	−27.5	−8.5
2014	10.2	−11.2	−8.3	4.0	−5.0
2015	12.9	9.5	−5.7	25.0	−20.6
Projections:					
2016	8.8	−1.4	−2.5	−0.5	−7.8
2017	5.2	−0.7	−1.6	−0.1	−5.5
2018	1.5	0.0	−0.6	0.4	−3.2
2019	1.5	0.0	−0.6	0.4	−3.2
2020	1.5	0.0	−0.6	0.4	−3.2
2021	1.5	0.0	−0.6	0.4	−3.2
2022	1.5	0.0	−0.6	0.4	−3.2
2023	1.5	0.0	−0.6	0.4	−3.2
2024	1.5	0.0	−0.6	0.4	−3.2
2025	1.5	0.0	−0.6	0.4	−3.2

Table 14 shows the residual factors for the top five services for the adult population based on estimates of 2015 expenditures; spending for these services constituted 91 percent of total estimated Medicaid expenditures for adults, as shown in table 15. (Prescription drug expenditures shown in table 15 do not include Medicaid prescription drug rebates.)

Table 15—Fiscal Year 2015 Selected Service Expenditures for Adult Enrollees
(in billions)

Service	2015 Expenditures
Managed Care Organizations	$44.2
Inpatient Hospital	14.5
Outpatient Hospital	4.4
Prescription Drugs	3.5
Physician Services	2.4
Total Expenditures for Adults	75.9

Table 16—Historical and Projected Price Factors and Unemployment Rates, Fiscal Years 2010–2025

Fiscal Year	Medical consumer price index	Consumer price index	Home health input price index	Inpatient price index	Wages	Unemployment rate (CY)
Historical data:						
2010	3.4%	1.7%	2.2%	2.1%	1.6%	9.6%
2011	3.1	2.7	2.1	2.6	2.9	8.9
2012	3.5	2.0	2.3	3.0	3.1	8.1
2013	2.8	1.5	2.3	2.6	1.6	7.4
2014	2.4	1.2	2.3	2.5	2.6	6.2
2015	2.3	0.3	2.5	2.9	2.8	5.3
Projections:						
2016	2.1	1.4	2.4	2.4	2.9	5.1
2017	3.8	2.8	3.4	3.6	4.3	5.2
2018	4.3	2.7	3.7	3.9	4.8	5.3
2019	4.2	2.6	3.6	3.8	4.6	5.4
2020	4.2	2.6	3.5	3.7	4.4	5.5
2021	4.2	2.6	3.4	3.7	4.2	5.5
2022	4.2	2.6	3.3	3.6	4.1	5.5
2023	4.2	2.6	3.2	3.5	4.0	5.5
2024	4.2	2.6	3.2	3.5	4.0	5.6
2025	4.2	2.6	3.2	3.5	3.9	5.6

D. DATA FOR SELECTED FIGURES

The following tables provide the data underlying selected figures in the report.

Table 17—Past and Projected Medicaid Expenditures for Medical Assistance Payments, by Type of Payment, Fiscal Years 2000–2025
(Data for Figure 4)
(in billions)

Fiscal Year	Acute care FFS	Long-term care FFS	Capitation payments & premiums	Disproportionate share hospital payments
Historical data:				
2000	$78.8	$67.9	$33.9	$14.4
2001	88.2	73.9	37.8	15.5
2002	103.2	81.1	44.7	15.4
2003	114.0	84.2	50.7	13.0
2004	124.0	87.3	52.7	15.4
2005	131.4	82.8	58.6	17.1
2006	121.3	101.1	65.0	17.1
2007	130.1	102.3	72.6	16.0
2008	131.7	108.1	82.8	17.1
2009	140.7	115.7	93.5	17.8
2010	151.2	117.2	104.3	17.6
2011	161.3	119.5	116.9	17.3
2012	148.0	119.3	132.5	17.1
2013	152.6	119.4	151.8	16.4
2014	152.2	116.3	191.6	18.1
2015	160.4	112.8	243.0	18.6
Projections:				
2016	159.7	111.3	268.8	18.6
2017	161.6	112.8	290.0	18.9
2018	167.7	116.7	311.1	17.2
2019	175.9	121.4	337.6	16.3
2020	184.5	126.5	365.7	15.3
2021	193.6	131.9	394.9	14.3
2022	202.8	137.3	426.1	13.2
2023	212.2	142.8	459.6	12.1
2024	222.1	148.3	495.6	11.1
2025	232.2	154.0	534.1	11.7

Table 18—Past and Projected Numbers of Medicaid Enrollees, by Category, Fiscal Years 2000–2025
(Data for Figure 5)
(in millions of person-year equivalents)

Fiscal Year	Aged	Disabled	Children	Adults	Newly eligible adults	Territories[64]
Historical data:						
2000	3.6	6.7	16.1	6.9	n/a	0.9
2001	3.7	6.9	17.3	7.7	n/a	0.9
2002	4.0	7.2	19.1	8.9	n/a	1.0
2003	4.3	7.5	20.9	9.7	n/a	1.0
2004	4.4	7.7	21.9	10.1	n/a	1.0
2005	4.6	8.0	22.5	10.5	n/a	1.0
2006	4.5	8.2	22.6	10.5	n/a	1.0
2007	4.5	8.3	22.3	10.2	n/a	1.0
2008	4.6	8.6	22.8	10.8	n/a	1.0
2009	4.7	8.9	24.4	11.9	n/a	1.0
2010	4.9	9.2	26.4	13.1	n/a	1.0
2011	5.1	9.7	27.2	13.8	n/a	1.0
2012	5.3	10.0	27.9	14.7	n/a	1.0
Projections:						
2013	5.4	10.4	28.0	15.0	n/a	1.0
2014	5.5	10.4	28.2	15.2	4.3	1.5
2015	5.6	10.5	28.1	15.2	9.1	1.5
2016	5.7	10.6	28.1	15.3	11.2	1.4
2017	5.8	10.6	28.2	15.5	12.0	1.4
2018	6.0	10.7	28.5	15.8	12.4	1.4
2019	6.2	10.9	29.0	16.0	12.5	1.4
2020	6.4	11.0	29.5	16.2	12.7	1.4
2021	6.6	11.1	29.9	16.4	12.8	1.4
2022	6.9	11.2	30.3	16.5	13.0	1.4
2023	7.1	11.3	30.6	16.6	13.0	1.4
2024	7.3	11.4	30.9	16.7	13.1	1.4
2025	7.5	11.5	31.1	16.8	13.2	1.4

[64] Territory enrollment is projected to remain level at about 1.4 million persons from 2016 to 2025, despite the projected reduction in Federal expenditures for Territory Medicaid programs due to the expiration of additional funds provided by the Affordable Care Act. These projections are based on the assumption that Territories would provide additional funding or make other program changes to maintain enrollment levels as Federal funding is reduced.

Table 19—Past and Projected Medicaid Expenditures on Medical Assistance Payments Per Enrollee, by Enrollment Category, Fiscal Years 2000–2025
(Data for Figure 6)
(in dollars per person-year equivalent enrollee)

Fiscal Year	Aged	Disabled	Children	Adults	Newly eligible adults	Average of all enrollees
Historical data:						
2000	$14,124	$12,218	$1,741	$2,805	n/a	$5,411
2001	14,720	13,016	1,860	2,901	n/a	5,593
2002	14,817	14,471	2,030	2,975	n/a	5,829
2003	14,401	15,035	2,040	3,093	n/a	5,839
2004	14,700	15,157	2,079	3,245	n/a	5,900
2005	15,254	16,405	2,247	3,407	n/a	6,308
2006	15,023	15,743	2,348	3,503	n/a	6,255
2007	15,124	16,589	2,591	3,894	n/a	6,700
2008	15,631	17,013	2,640	3,987	n/a	6,863
2009	15,738	17,744	2,723	4,162	n/a	6,982
2010	15,577	18,172	2,731	4,225	n/a	6,926
2011	15,757	18,295	2,865	4,517	n/a	7,124
2012	15,235	17,824	2,762	4,192	n/a	6,874
Projections:						
2013	15,130	18,416	2,958	4,490	n/a	7,188
2014	14,626	18,649	3,126	4,695	$5,511	7,202
2015	14,323	19,478	3,389	4,986	6,365	7,492
2016	14,451	20,082	3,458	5,215	5,926	7,587
2017	14,939	20,934	3,579	5,475	5,551	7,789
2018	15,617	21,877	3,755	5,764	5,370	8,080
2019	16,294	22,899	3,939	6,067	5,662	8,473
2020	16,969	24,003	4,130	6,381	5,981	8,890
2021	17,626	25,207	4,328	6,709	6,309	9,332
2022	18,326	26,487	4,538	7,057	6,659	9,806
2023	19,083	27,854	4,761	7,425	7,027	10,313
2024	19,910	29,321	4,997	7,815	7,421	10,859
2025	20,780	30,877	5,246	8,227	7,838	11,438

Table 20—Projected Medicaid Expenditures: Comparison of 2015 versus 2016 Actuarial Reports on the Financial Outlook for Medicaid, Fiscal Years 2000–2025
(Data for Figure 7)
(in billions)

Fiscal Year	2016 Report	2015 Report
Historical data:		
2000	$206.2	$206.2
2001	229.0	229.0
2002	258.2	258.2
2003	276.2	276.2
2004	296.3	296.3
2005	315.9	315.9
2006	315.1	315.1
2007	332.2	332.2
2008	351.9	351.9
2009	378.6	378.6
2010	401.5	401.5
2011	427.4	427.4
2012	431.2	431.2
2013	455.6	455.6
2014	494.7	494.5
2015	552.3	554.3
Projections:		
2016	575.9	586.0
2017	595.5	612.7
2018	632.9	647.5
2019	672.0	686.9
2020	713.8	728.2
2021	757.4	772.3
2022	801.9	818.7
2023	850.1	868.0
2024	901.5	920.5
2025	957.5	n/a

Table 21—Past and Projected Medicaid Expenditures as Share of GDP, Fiscal Years 1966–2025, Selected Years
(Data for Figure 9)
(in billions)

Fiscal Year	Total expenditures	Expenditures as share of GDP
Historical data:		
1966	$0.9	0.1%
1970	5.1	0.5
1975	13.1	0.8
1980	25.2	0.9
1985	41.3	1.0
1990	72.2	1.2
1995	159.5	2.1
2000	206.2	2.0
2001	229.0	2.2
2002	258.2	2.4
2003	276.2	2.4
2004	296.3	2.5
2005	315.9	2.5
2006	315.1	2.3
2007	332.2	2.3
2008	351.9	2.4
2009	378.6	2.6
2010	401.5	2.7
2011	427.4	2.8
2012	431.2	2.7
2013	455.6	2.8
2014	494.7	2.9
2015	552.3	3.1
Projections:		
2016	575.9	3.1
2017	595.5	3.1
2018	632.9	3.1
2019	672.0	3.1
2020	713.8	3.2
2021	757.4	3.2
2022	801.9	3.2
2023	850.1	3.3
2024	901.5	3.3
2025	957.5	3.4

E. FINANCIAL MANAGEMENT REPORT DATA

Table 22—CMS-64 Financial Management Report, Net Services, Medical Assistance Payments, Fiscal Year 2015

Service Category	Total	Federal	State
Inpatient Hospital – Reg. Payments	$35,953,632,285	$22,168,979,944	$13,784,652,341
Inpatient Hospital – DSH	15,664,438,869	8,942,146,504	6,722,292,365
Inpatient Hospital – Sup. Payments	20,230,594,351	11,784,859,228	8,445,735,123
Inpatient Hospital – GME Payments	1,596,986,840	989,375,466	607,611,374
Mental Health Facility Services – Reg. Payments	2,253,843,570	1,391,374,036	862,469,534
Mental Health Facility – DSH	2,919,586,943	1,623,020,476	1,296,566,467
Nursing Facility Services – Reg. Payments	42,831,274,038	24,465,240,567	18,366,033,471
Nursing Facility Services – Sup. Payments	2,676,633,247	1,596,941,535	1,079,691,712
Intermediate Care Facility – Public	3,404,441,281	2,042,730,722	1,361,710,559
Intermediate Care Facility – Private	5,508,934,116	3,075,981,440	2,432,952,676
Intermediate Care Facility: Supplemental Payments	127,088,908	65,026,946	62,061,962
Physician & Surgical Services – Reg. Payments	9,298,064,082	6,046,828,551	3,251,235,531
Physician & Surgical Services – Sup. Payments	975,310,134	616,236,079	359,074,055
Phys. & Surg. Services – Evaluation and Mgmt.	879,939,213	879,941,324	−2,111
Physician & Surgical Services – Vaccine codes	57,935,534	57,935,605	−71
Outpatient Hospital Services – Reg. Payments	11,738,690,429	7,769,610,551	3,969,079,878
Outpatient Hospital Services – Sup. Payments	4,553,406,863	2,635,891,308	1,917,515,555
Prescribed Drugs	22,691,726,579	14,723,578,130	7,968,148,449
Drug Rebate Offset – National	−10,547,657,885	−6,750,448,248	−3,797,209,637
Drug Rebate Offset – State Sidebar Agreement	−842,686,786	−526,573,540	−316,113,246
MCO – National Agreement	−10,990,020,714	−6,688,705,453	−4,301,315,261
MCO – State Sidebar Agreement	−207,156,105	−126,315,744	−80,840,361
Increased ACA OFFSET – Fee for Service	−756,280,974	−756,280,974	0
Increased ACA OFFSET – MCO	−686,492,602	−686,492,602	0
Dental Services	4,223,814,047	2,711,374,779	1,512,439,268
Other Practitioners Services – Reg. Payments	1,880,997,274	1,107,894,466	773,102,808
Other Practitioners Services – Sup. Payments	13,507,863	7,074,011	6,433,852
Clinic Services	5,757,004,809	3,668,315,941	2,088,688,868
Laboratory/Radiological	1,506,189,121	1,017,463,535	488,725,586
Home Health Services	4,000,392,653	2,325,355,220	1,675,037,433
Sterilizations	89,517,247	71,595,066	17,922,181
Abortions	500,659	327,341	173,318
EPSDT Screening	1,130,265,911	702,641,161	427,624,750
Rural Health	1,104,112,715	721,973,398	382,139,317
Medicare – Part A	3,123,075,385	1,692,643,623	1,430,431,762
Medicare – Part B	10,596,078,871	6,130,077,556	4,466,001,315
120% – 134% Of Poverty	750,434,507	750,434,507	0
Coinsurance	964,276,592	573,486,990	390,789,602
Medicaid – MCO	219,578,444,060	145,604,592,792	73,973,851,268
Medicaid MCO – Evaluation and Management	3,207,667,166	3,214,576,762	−6,909,596
Medicaid MCO – Vaccine codes	165,957,783	166,292,867	−335,084
Medicaid MCO – Community First Choice	1,053,401,352	616,909,522	436,491,830
Medicaid MCO – Preventive Services	139,632,140	81,053,363	58,578,777
Prepaid Ambulatory Health Plan	816,272,367	535,652,162	280,620,205
MCO PAHP – Evaluation and Management	−1,220,017	5,689,527	−6,909,544
MCO PAHP – Vaccine codes	3,352	338,436	−335,084
MCO PAHP – Community First Choice	0	0	0
MCO PAHP – Preventive Services	0	0	0

Service Category	Total	Federal	State
Prepaid Inpatient Health Plan	13,380,032,076	8,580,128,895	4,799,903,181
MCO PIHP – Evaluation and Management	−34,916,409	−34,916,409	0
MCO PIHP – Vaccine codes	37,250,754	37,250,754	0
MCO PIHP – Community First Choice	0	0	0
MCO PIHP – Preventive Services	0	0	0
Medicaid – Group Health	1,128,571,191	997,954,967	130,616,224
Medicaid – Coinsurance	327,548,398	321,841,366	5,707,032
Medicaid – Other	594,958,981	501,318,984	93,639,997
Home & Community–Based Services (HCBW)	41,548,824,833	23,711,772,204	17,837,052,629
HCBW – State Plan 1915 - i) Only Payments	133,796,158	78,636,400	55,159,758
HCBW – State Plan 1915 –j) Only Payments	−105,373,722	−48,730,215	−56,643,507
HCBW – State Plan 1915 - k) Comm. First Choice	7,428,231,219	4,403,127,255	3,025,103,964
All-Inclusive Care Elderly	1,494,205,434	816,371,273	677,834,161
Personal Care Services – Reg. Payments	5,314,682,180	3,141,133,105	2,173,549,075
Personal Care Services – SDS 1915–j)	−103,546,734	−36,506,305	−67,040,429
Targeted Case Man. – Com. Case-Man.	2,057,669,732	1,199,819,656	857,850,076
Case Management–State Wide	526,610,650	297,943,855	228,666,795
Primary Care Case Management	353,844,939	227,074,737	126,770,202
Hospice Benefits	2,018,331,492	1,202,467,828	815,863,664
Emergency Services for Undocumented Aliens	2,082,529,305	1,165,012,038	917,517,267
Federally-Qualified Health Center	4,315,221,269	2,831,278,108	1,483,943,161
Non-Emergency Medical Transportation	1,758,868,768	1,147,443,024	611,425,744
Physical Therapy	179,201,099	104,426,077	74,775,022
Occupational Therapy	95,780,140	57,664,279	38,115,861
Services for Speech, Hearing & Language	264,430,165	162,114,539	102,315,626
Prosthetic Devices, Dentures, Eyeglasses	362,829,800	231,895,476	130,934,324
Diagnostic Screening & Preventive Services	101,629,902	65,000,587	36,629,315
Preventive Services Grade A OR B, ACIP Vaccines	173,110,917	109,090,213	64,020,704
Nurse Mid-Wife	27,032,047	18,691,353	8,340,694
Emergency Hospital Services	2,250,440,024	1,473,403,441	777,036,583
Critical Access Hospitals	820,213,863	552,479,754	267,734,109
Nurse Practitioner Services	233,376,013	157,797,147	75,578,866
School Based Services	3,170,729,033	1,771,854,969	1,398,874,064
Rehabilitative Services –non-school-based)	3,593,550,771	2,350,791,765	1,242,759,006
Private Duty Nursing	719,835,689	425,866,352	293,969,337
Freestanding Birth Center	7,906,576	5,346,725	2,559,851
Health Home w Chronic Conditions	693,472,906	423,974,916	269,497,990
Tobacco Cessation for Preg Women	209,584	139,477	70,107
Other Care Services	18,400,841,352	10,411,344,996	7,989,496,356
Balance	534,784,488,468	335,908,948,462	198,875,540,006
Collections	−8,073,614,485	−4,610,058,001	−3,463,556,484
Total Net Expenditures	526,710,873,983	331,298,890,461	195,411,983,522
Total Newly Eligible	58,064,787,664	58,064,784,815	2,849
Total Not Newly	17,645,257,586	12,941,053,663	4,704,203,923
Total VIII Group	75,710,045,250	71,005,838,478	4,704,206,772

Table 23—CMS-64 Financial Management Report, Net Services, Administration Costs, Fiscal Year 2015

Service Category	Total	Federal	State
Family Planning	$31,148,611	$28,033,750	$3,114,861
MMIS – Inhouse Activities	130,908,902	109,728,607	21,180,295
MMIS – Private Sector	833,337,822	696,522,540	136,815,282
Skilled Professional Medical Personnel – Single State Agency	289,453,074	216,726,016	72,727,058
Skilled Professional Medical Personnel – Other Agency	326,642,482	244,981,906	81,660,576
Approved MMIS: Inhouse	512,434,574	384,285,269	128,149,305
Approved MMIS: Private	1,867,937,499	1,398,946,483	468,991,016
Mechanized Systems – In-House	87,349,754	43,711,970	43,637,784
Mech. Sys. – Private Sector	203,857,319	101,928,707	101,928,612
Mech. Sys. – Not Approved under MMIS Procedures: Interagency	15,368,280	7,684,143	7,684,137
Peer Review Organizations	272,673,611	204,505,244	68,168,367
TPL – Recovery	2,294,036	1,147,029	1,147,007
TPL – Assignment Of Rights	1,286,265	643,144	643,121
Immigration Status	2,685,435	2,685,435	0
Nurse Aide Training Costs	18,315,648	9,157,892	9,157,756
Preadmission Screening	110,688,527	83,016,456	27,672,071
Resident Review	17,266,180	12,949,648	4,316,532
Drug Use Review	7,438,044	3,417,602	4,020,442
Outstationed Eligibility	75,600,304	37,800,191	37,800,113
External Review	31,163,030	23,372,324	7,790,706
Enrollment Brokers	172,277,142	86,138,613	86,138,529
School Based Administration	783,886,177	391,943,133	391,943,044
Program Integrity/Fraud, Waste, and Abuse Activities	44,633,006	22,316,533	22,316,473
County/Local ADM Costs	2,633,875,406	1,316,937,738	1,316,937,668
Interagency Costs (State Level)	3,232,779,666	1,616,389,953	1,616,389,713
Translation and Interpretation	29,237,281	21,783,365	7,453,916
Health Insurance Technology Administration	0	0	0
HIT: Planning: Cost of In-house Activities	0	0	0
HIT: Planning: Cost of Private Contractors	0	0	0
HIT: Implementation and Operation: Cost of In-house Activities	35,998,337	32,398,513	3,599,824
HIT: Implementation and Operation: Cost of Private Contractors	126,820,837	114,138,765	12,682,072
HIT Incentive Payments: Eligible Professionals	855,911,692	855,911,692	0
HIT Incentive Payments: Eligible Hospitals	681,137,303	681,137,303	0
Citizenship Verification Technology CHIPRA	0	0	0
Planning for Health Home for Enrollees with Chronic Conditions	414,265	282,059	132,206
Recovery Audit Contractors Contingency Fee	0	0	0
Recovery Audit Contractors State Administration	5,530,064	2,765,041	2,765,023
Design Development/Installation – Elig. Sys. – Cost of In-house activities	328,612,997	289,153,027	39,459,970
Design Development/Installation – Elig. Syst. – Cost of Private Sec. Con.	1,149,338,798	1,024,097,282	125,241,516
Operation of an Approved – Elig. Sys. – Cost of In-house activities	222,389,236	166,791,947	55,597,289
Operation of an Approved Elig. Sys. – Cost of Private Sec. Con.	307,630,898	230,723,197	76,907,701
Eligibility Determination Staff – Cost of In-house Activities	3,133,121,719	2,349,841,314	783,280,405
Eligibility Determination Staff – Cost of Private Sector Contractors	189,223,296	141,917,498	47,305,798
Eligibility Determination Staff – Cost of In-house Activities – 50% FFP	309,115,969	154,558,004	154,557,965
Eligibility Determination Staff – Cost of Private Sec. Con. – 50% FFP	32,544,295	16,272,157	16,272,138
Non-Emergency Medical Transportation	251,503,847	125,751,938	125,751,909
Other Financial Participation	6,261,834,107	3,134,352,628	3,127,481,479
Balance	25,625,665,735	16,386,846,056	9,238,819,679
Collections	−22,984,118	−16,112,974	−6,871,144
Total Net Expenditures	25,602,681,617	16,370,733,082	9,231,948,535