Department of Health & Human Services

# 2008 ACTUARIAL REPORT

## ON THE FINANCIAL OUTLOOK FOR MEDICAID

Office of the Actuary
Centers for Medicare & Medicaid Services
United States Department of Health & Human Services

DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Medicare & Medicaid Services

*Administrator*
Washington, DC 20201

**LETTER OF TRANSMITTAL**

Washington, D.C.
October 17, 2008

The Honorable Michael O. Leavitt
Secretary of Health and Human Services
Washington, DC 20201

Dear Mr. Secretary:

I have the honor of transmitting to you the 2008 inaugural edition of the "Medicaid Actuarial Report on the Financial Outlook for Medicaid." Future reports will expand on content to include longer-range projections and more extensive analysis.

Sincerely,
/s/
Kerry Weems

# 2008 ACTUARIAL REPORT ON THE FINANCIAL OUTLOOK FOR MEDICAID

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Office of the Actuary
Centers for Medicare & Medicaid Services
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# STATEMENT FROM CHIEF ACTUARY

From its inception, the cost of the Medicaid program has generally increased at a significantly faster pace than the U.S. economy. In 1970, combined Federal and State expenditures for Medicaid represented 0.4 percent of gross domestic product (GDP), but this percentage grew to 0.9 percent in 1980, 1.2 percent in 1990, 2.0 percent in 2000, and 2.3 percent in 2007. As illustrated by the actuarial projections in this report, Medicaid costs will likely continue to increase as a share of GDP in the future under current law.

This growth pattern is not unique to Medicaid. Costs for virtually every form of health insurance, public and private, have increased rapidly, reflecting growth in the number of insured persons, wage increases and price inflation in the medical sector, provision of a greater number of medical services, and the development of new, better, more complex, and generally more expensive services. Together, these cost factors have increased at a faster rate than the number of workers, general inflation, and productivity underlying economic growth. Determining how to optimally balance our collective demand for the best health care possible with our not-unlimited ability to fund such care through private and public efforts represents one of the most challenging policy dilemmas facing the Nation.

The Office of the Actuary in the Centers for Medicare & Medicaid Services has been asked to prepare an annual report on the past financial trends and projected outlook for Medicaid. We hope that this inaugural actuarial report, and its successors, will provide insight into the nature of Medicaid costs and a reasonable assessment of their future growth. Our first report is somewhat limited in scope, with projections for the next 10 years only, but our intention is to gradually expand on its content in subsequent installments, including longer-range actuarial projections and more extensive analysis as time and resources permit.

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 used and the 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 Chris Truffer, and team members John Klemm, Dirk Hoffman, and C.J. Wolfe, for their diligent efforts in preparing

this report. In addition, Solomon M. Mussey, A.S.A., helped direct the project, and Catherine A. Curtis, Ph.D., provided invaluable editorial assistance. We welcome any feedback from readers; comments may be addressed to Christopher.Truffer@cms.hhs.gov.

Richard S. Foster, F.S.A., M.A.A.A.
Chief Actuary
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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 analysis of past Medicaid trends and 10-year projections of Medicaid expenditures and enrollment. Following are the major highlights of the report.

*2007 Medicaid Expenditures and Enrollment*

- Total Medicaid outlays in FY 2007 were $333.2 billion; $190.6 billion or 57 percent represented Federal spending, and $142.6 billion or 43 percent represented State spending.
- Estimated average Medicaid enrollment was 49.1 million people in 2007. At some point during the year, 61.9 million people, or about one of every five persons in the U.S., were enrolled in Medicaid.
- Per-enrollee spending for health services was an estimated $6,120 in 2007. Per-enrollee spending for non-disabled children ($2,435) and adults ($3,586) was much lower than that for aged ($14,058) and disabled beneficiaries ($14,858), reflecting the differing health status of these groups.

*10-Year Medicaid Projections*

- Expenditures for medical assistance payments represent about 94 percent of all Medicaid outlays and are projected to increase 7.3 percent to $339.0 billion in 2008. Over the next 10 years, expenditures on benefits are projected to increase at an average annual rate of 7.9 percent and to reach $673.7 billion by 2017.
- Average Medicaid enrollment is projected to increase 1.8 percent to 50.0 million people in 2008. Over the next 10 years, average enrollment is projected to increase at an average annual rate of 1.2 percent and to reach 55.1 million by 2017.

*Medicaid in Context of U.S. Health Spending*

- Total Medicaid outlays represented 14.8 percent of all U.S. health care spending in 2006.
- Medicaid is the largest source of general revenue spending on health care for both the Federal government and the States. Medicaid represents 40 percent of Federal government general revenue spending on health care and 41 percent of such spending by States.
- Federal spending for Medicaid accounted for 7.0 percent of the entire Federal budget in 2007 and is projected to account for 8.4 percent by 2013.

# 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. For the Federal government, the Centers for Medicare & Medicaid Services (CMS) is the agency charged with administering Medicaid.

This report has been prepared at the request of the Secretary of Health & Human Services and is the first annual Medicaid report from the Office of the Actuary (OACT) at CMS. The purpose of this report is to describe the projected trends for Medicaid expenditures and enrollment over the next 10 years. This report 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 all of the Territories have Medicaid programs.[1]

The Federal government establishes certain requirements for each State's Medicaid program. 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 specifies which groups of people must be eligible, and States have considerable flexibility to extend coverage to additional groups. In addition to income, eligibility is typically based on several other factors, including financial resources (assets), age, disability status, other government assistance, and other health or medical conditions such as pregnancy.

Title XIX specifies that certain medical services must be covered under Medicaid, while also granting the States flexibility to cover many other benefits. Services typically 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 options to use managed care plans to provide and manage benefits and to apply for waivers that allow the States more flexibility in developing specialized benefit packages for specific populations. With limited exceptions—such as the use of waivers, demonstration projects, and benchmark benefit plans—States must provide the same benefit package to all Medicaid enrollees. Additionally, States must extend eligibility to all mandatory populations and cover all mandatory services defined by Title XIX in order to receive Federal matching funds for their Medicaid programs.

The Federal government and the States share the responsibility for funding Medicaid. States pay providers or managed care organizations 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

[1] For more information on Medicaid, including information on eligibility and covered services, see Hoffman, Klees, and Curtis, "Brief Summaries of Medicare & Medicaid," November 2007: http://www.cms.hhs.gov/MedicareProgramRatesStats/02_SummaryMedicareMedicaid.asp.

that takes into account State per capita income.[2] 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 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 some other sources of State revenue (such as provider taxes), there are no dedicated revenue sources comparable to the Medicare Hospital Insurance payroll tax. Medicaid costs are met by Federal and State general revenues, on an as-needed basis. The Federal financing is met 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. If these draws exceed the appropriation during the year, Congress can appropriate supplemental funds to cover the remaining costs. 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.

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 to obtain the health care they need in an orderly way. It is also important, of course, to consider the cost to society of providing this coverage and to look ahead in anticipation of likely future trends in such costs. The balance of this report is intended to help illuminate these trends.

[2] Title XIX specifies that the FMAP for each State cannot be lower than 50 percent and cannot be higher than 83 percent; in 2007, FMAP ranged from 50 percent to 76 percent. Additionally, Title XIX overrides the normal formula and sets specific FMAP levels for certain States.

# III. DATA AND ASSUMPTIONS

Projections of Medicaid expenditures and enrollment are highly dependent on demographic and economic assumptions. The most important assumptions are those regarding the growth of health care prices, growth in the use of health care services, overall economic growth, individual wage growth, and population growth. The projections also depend importantly on the nature and quality of the available data on Medicaid operations. This section describes the sources of data and assumptions that are used to generate the Medicaid projections shown in this report.

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.[3] The States provide a quarterly report of spending by type of service; this report, known as the CMS-64, comprises expenditures for all Medicaid fee-for-service programs and capitation arrangements. The Medicaid Statistical Information System (MSIS) contains both service and demographic data supplied by the States, including provider payments and enrollment counts. The States also submit quarterly to CMS 2-year forecasts of spending by service, known as the CMS-37. Spending data are reported both at the Federal and State levels in the CMS-64 and CMS-37; MSIS expenditure data are reported as total Medicaid (Federal and State spending combined). OACT makes several adjustments to these data to merge them together for use in preparing projections.

The second source is the Boards of Trustees for Old-Age, Survivors, and Disability Insurance (OASDI) (i.e., Social Security) and Medicare.[4] 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 2008 annual reports to Congress on the financial statuses of the OASDI and Medicare programs. These assumptions are also used to generate the health care service price forecasts that are used in the projections in this report.[5]

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[3] More information on these sources is available on the CMS website at http://www.cms.hhs.gov/MedicaidBudgetExpendSystem/01_Overview.asp#TopOfPage. Additional detail is provided in the Appendix.

[4] *The 2008 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds* and *The 2008 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds.*

[5] These assumptions are different from those used for projections in the President's Budget. The projections presented in this report differ from projections in the President's Budget to the extent that these assumptions differ and to the extent that additional historical data are available.

The third source—National Health Expenditure (NHE) historical data and projections—is used for comparing Medicaid expenditures and enrollment with Medicare, private health insurance, and total health care spending in the United States. The NHE data and projections are developed by OACT.[6]

It is important to note the limitations that are associated with the data described in this section. First, the most recent MSIS data available are from FY 2005, and the MSIS is the only available source of enrollment data. Consequently, to relate FY 2007 actual expenditures to the number of enrollees, estimates of Medicaid enrollment have to be made for FY 2006 and FY 2007. Second, because the CMS-64 does not provide any data on enrollment or spending by enrollment category and the definitions of medical service categories are not consistent between the MSIS and the other CMS data sources, adjustments need to be made to develop a data set that contains service-level expenditures that match the CMS-64 data and also contains expenditures by enrollment group. The MSIS and the CMS-64 are merged together to provide a more complete understanding of Medicaid spending. Because the service definitions are different between these two sources, estimates are made based on MSIS data to produce spending by enrollment group for each Medicaid service.

A third limitation is the unavailability of demographic, macroeconomic, health care, and program assumptions specific to each State. Because these State-specific assumptions are not available, it is not possible to project Medicaid spending or enrollment separately by State. Fourth, since the NHE data and projections use somewhat different definitions of Medicaid spending and services than do the other Medicaid data sources, historical Medicaid data and projections from the NHE accounts may not match the historical data and projections presented here. Finally, though OACT has reviewed the data sources used in these projections, OACT has relied on CMS program components and the States to ensure the quality of the data.

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.[7] This analysis does not attempt to forecast future changes in policy or legislation that, if realized, would affect the Medicaid program.

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[6] More information on the NHE historical accounts and projections is available at the CMS website at http://www.cms.hhs.gov/NationalHealthExpendData/. Also, see Catlin, et al., "National Health Spending in 2006: A Year of Change for Prescription Drugs," *Health Affairs*, January/February 2008; 27(1): 14-29; and Keehan, et al., "Health Spending Projections Through 2017: The Baby-Boom Generation is Coming to Medicare," *Health Affairs*, March/April 2008; 27(2): w145-w155.

[7] These projections, however, do not include the effects of the recently enacted Medicare Improvements for Patients and Providers Act of 2008.

The Medicaid projections shown in this report, like any projection of future health care costs, 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. For these reasons, the projections shown in this report should be regarded 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 unanticipated developments in demographic, economic, or health cost growth trends, or as a result of further changes in the legislation governing Medicaid.

# IV. METHODOLOGY

This section briefly describes the methodology behind the projections of Medicaid spending presented in this report.

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 the medical service:

$$E = C \times U \times P \tag{1}$$

Direct application of equation (1) requires data on utilization and reimbursement rates for Medicaid that are not currently available or practical to maintain.[8] An alternative recursive approach is therefore used for the projections, as described below.

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

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

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 Medicaid eligibility category and type of service.

With a few exceptions, caseload change factors vary by eligibility category, and utilization and price factors vary by type of service. The projected caseload factors are determined by trend analysis of Medicaid enrollment

[8] There are no comprehensive sources 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.

data; price changes are derived from forecasts produced for the 2008 Medicare Trustees Report; and 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 relationship between growth in expenditures, caseloads, and the price factor.[9] 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/or price per service are implicitly included in the residual.

The results obtained from the "Caseload, Utilization, Price" ("CUP") forecast are frequently adjusted to be consistent with recent expenditure and outlay trends and with the 2-year budget estimates submitted by States.

[9] More details on the trend residual methodology are included in the Appendix.

# V. ACTUARIAL ANALYSIS

## *A. FY 2007 MEDICAID EXPENDITURES AND ENROLLMENT*

The Federal government and the States collectively spent $333.2 billion for Medicaid in FY 2007. Of this amount, the Federal government paid $190.6 billion, representing about 57 percent of net program outlays, and the States paid $142.6 billion, or about 43 percent of net outlays. Table 1 summarizes total Medicaid outlays for FY 2007.

**Table 1—Medicaid Outlays for Fiscal Year 2007 by Type of Payment (In billions)**

| Title XIX Outlays[1] | Federal Share | State Share | Total |
|---|---|---|---|
| Medical Assistance Payments (MAP): | | | |
| Acute Care Benefits[2] | $74.3 | $54.4 | $128.7 |
| Long-Term Care Benefits[2] | 56.1 | 43.9 | 99.9 |
| Capitation Payments and Premiums[2] | 38.0 | 28.6 | 66.6 |
| Disproportionate Share Hospital Payments (DSH)[2] | 9.0 | 6.8 | 15.8 |
| Adjustments[3] | 1.3 | 1.1 | 2.4 |
| Subtotal MAP | 178.7 | 134.8 | 313.5 |
| Administration Payments | 9.5 | 7.8 | 17.3 |
| Vaccines for Children Program | 2.7 | 0.0 | 2.7 |
| Gross Outlays | 191.0 | 142.6 | 333.6 |
| Collections[4] | -0.4 | 0.0 | -0.4 |
| Net Outlays | 190.6 | 142.6 | 333.2 |

[1] Federal outlays are the funds drawn from the U.S. Treasury by the States. The State and Total outlays reflect 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 State Children's Health Insurance Program.
[2] Benefit expenditures as reported on the CMS-64.
[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.

The great majority of Medicaid spending—94 percent of total outlays in FY 2007—was for medical assistance payments. In Table 1, these payments are divided into four major categories: acute care, long-term care, capitation payments, and disproportionate share hospital (DSH) payments.

Acute care includes fee-for-service (FFS) spending for inpatient and outpatient hospital care, physician and other medical professional services, prescription drugs, dental care, laboratory and imaging tests, mental hospital services, and case management costs, as well as coinsurance payments for beneficiaries in managed care plans. Long-term care includes spending on nursing home services, home health care, intermediate care facility services, and services provided through Home and Community-Based Waivers. 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, as a result, have a substantial amount of uncompensated care costs.

Of these four categories, acute care was the largest portion of Medicaid spending in FY 2007, accounting for $128.7 billion or 41 percent of Medicaid expenditures on benefits. Medicaid spent $99.9 billion on long-term care and $66.6 billion on managed care and other premiums in FY 2007, representing 32 percent and 21 percent of expenditures on benefits, respectively. DSH accounted for $15.8 billion, or 5 percent, of Medicaid expenditures in 2007.

Medicaid spent $17.3 billion on program administration in FY 2007—$9.5 billion in Federal expenditures and $7.8 billion in State expenditures, together representing 5.2 percent of Medicaid outlays. Medicaid also provided $2.7 billion of funding in FY 2007 for the Vaccines for Children program (all Federal funding).[10]

At the time this report was prepared, the latest Medicaid enrollment data available were from FY 2005. Accordingly, enrollment by eligibility group (children, adults, aged, and blind or disabled) has been projected for FY 2006 through FY 2017.

Enrollment is measured in two ways: (1) "person-year equivalents" (PYE), or the average enrollment over the course of a year, and (2) "ever-enrolled" persons, or the number of people covered by Medicaid for any period of time during the year. Estimated FY 2007 Medicaid enrollment was 49.1 million PYE. An estimated 61.9 million people, or about one person in five in the U.S., were ever-enrolled. Because annual Medicaid outlays are more closely related to the average number of enrollees in the year, the PYE measure is used predominantly in this report.

Table 2 shows estimated enrollment by eligibility group for FY 2007. Historically, non-disabled children have been the largest group of Medicaid enrollees. In FY 2007, this group is estimated to have been 23.5 million PYE, or about 49 percent of overall Medicaid enrollment (excluding Territory programs). Non-disabled non-aged adults made up an estimated 11.1 million PYE (23 percent), while blind or disabled enrollees and aged enrollees are estimated to have accounted for 8.5 million and 5.0 million PYE (18 percent and 10 percent, respectively). Another 1.0 million enrollees were projected for

[10] The Vaccines for Children program is administered by the Centers for Disease Control and provides vaccines for children enrolled in Medicaid, as well as for other children who might otherwise not be able to afford vaccines.

the five U.S. territories (Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the North Mariana Islands).

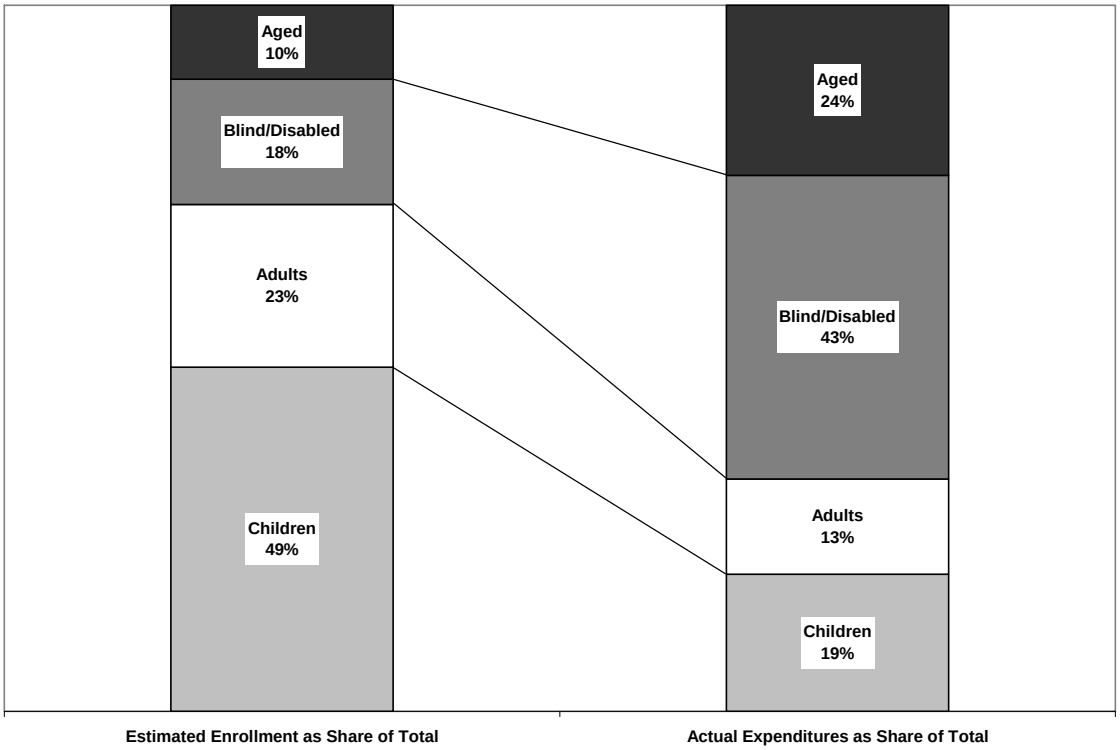
**Table 2—2007 Estimated Enrollment, Expenditures, and Estimated Per Enrollee Expenditures, by Enrollment Group[1]**

| Eligibility Group | Enrollment[2] (in millions) | Expenditures (in billions) | Per Enrollee Spending |
|---|---|---|---|
| Children | 23.5 | $57.1 | $2,435 |
| Adults | 11.1 | 39.7 | 3,586 |
| Blind/Disabled | 8.5 | 126.7 | 14,858 |
| Aged | 5.0 | 70.9 | 14,058 |
| Total | 48.1 | 294.4 | 6,120 |

[1] Does not include DSH expenditures, territorial enrollees or payments, or adjustments.
[2] Measured in person-year equivalents.

While blind or disabled enrollees and aged enrollees are the smallest enrollment groups in Medicaid, they are projected to account for the majority of spending. As indicated in Table 2, for FY 2007, estimated benefit spending was $126.7 billion for blind or disabled enrollees and $70.9 billion for aged enrollees. Combined, spending on these two groups constituted 67 percent of Medicaid expenditures (excluding DSH, territory expenditures, and adjustments which cannot be allocated by eligibility group). Medicaid spending on non-disabled children was about 19 percent of total Medicaid benefit expenditures, and spending on non-disabled and non-aged adults was about 13 percent.

**Figure 1—Medicaid Enrollment and Expenditures, by Enrollment Group, as Share of Total,[1] FY 2007**




[1]Totals and components exclude DSH expenditures, territorial enrollees and expenditures, and adjustments.

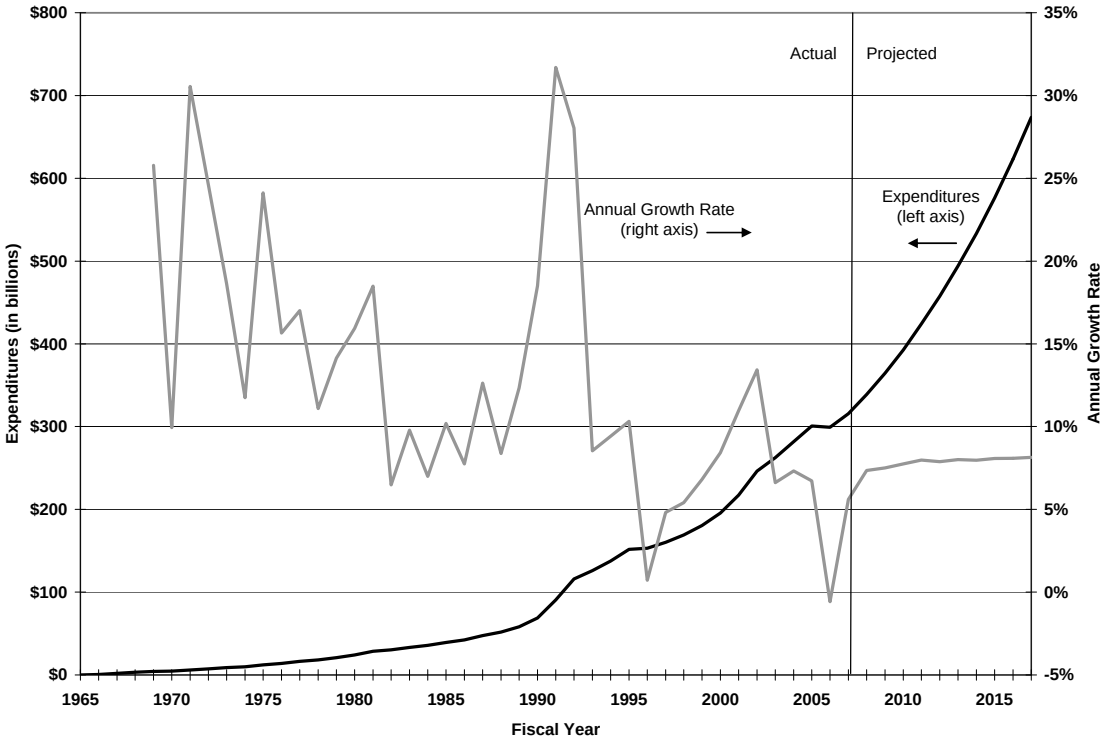
The average per-enrollee cost for 2007 was estimated to be $6,120 (excluding DSH outlays, territorial enrollees and costs, adjustments, and administration costs). These differences between the relative shares of enrollment and expenditures, as shown in Figure 1, result from per-enrollee costs that vary dramatically among the enrollment groups. Non-disabled children in Medicaid received an estimated $2,435 in benefits on average in FY 2007, and non-aged non-disabled adults received an estimated average of $3,586 in benefits (based on PYE enrollment). In both instances, these average costs reflect the relatively favorable health status of the enrollment groups. As would be expected, expenditures are substantially greater for the aged and the disabled; that is, aged beneficiaries received an estimated $14,058 in benefits on average, and disabled beneficiaries are estimated to have received an average of $14,858 in benefits. These 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 non-aged non-disabled adults. However, many aged or disabled beneficiaries are also enrolled in Medicare, which is the primary payer of benefits before Medicaid; thus, these per-enrollee Medicaid estimates are less than the total cost of such beneficiaries' annual health care across all payers.

### *B. RECENT MEDICAID COST TRENDS*

Over the past 15 years, the year-to-year growth of Medicaid expenditures has varied substantially, as can be seen in Figure 2. During FY 1994 through FY 1999, Medicaid experienced an extended period of relatively slow growth—an average rate of 6.2 percent per year—that was influenced mainly by two trends. The first was that Medicaid enrollment growth slowed due to the combination of strong economic growth and welfare reform. Enrollment grew at a rate of just 0.4 percent per year over the 6-year period, a rate that was lower than overall U.S. population growth. Another trend was slower growth in the use and price of health care services. These trends were influenced in part by the increased use of managed care plans in the U.S. over the same period.

At the same time, States expanded eligibility and benefits as strong economic growth, combined with slow enrollment and medical price growth, gave the States the ability to fund more generous Medicaid programs. In the absence of these expansions, the annual growth rates would have been even slower.

**Figure 2—Historical and Projected Medicaid Expenditures and Annual Growth Rates, FY 1966-FY 2017**




During FY 2000 through FY 2005, Medicaid growth was faster than in the previous 6 years, with spending increasing an average of 8.9 percent per year over the 6-year period. Several trends contributed to this acceleration. First, Medicaid enrollment increased at an average rate of 6.4 percent per year

between FY 2000 and FY 2005. It grew fastest between FY 2000 and FY 2002, coinciding with the 2001 economic recession, and reached a peak of 9.3 percent in FY 2002.

The price and use of health care services also continued to increase over this period. The price of personal health care (as measured by the NHE personal health care deflator) grew 3.7 percent per year on average during Calendar Year (CY) 2000 through CY 2005 (as compared to 2.9 percent per year on average in CY 1994 through CY 1999).[11] These trends were apparent in the growth of health care spending by other payers as well; non-Medicaid health spending grew 7.4 percent per year on average from CY 2000 through CY 2005 (whereas non-Medicaid spending grew 5.4 percent from CY 1994 through CY 1999).[12] Notably among health care services and products, spending on prescription drugs increased rapidly over this period for both Medicaid and all other payers. Spending on hospital care and physician and clinic services also accelerated steadily over the first half of the decade.

Moreover, Congress increased the FMAP for parts of FY 2003 and FY 2004 in the Jobs and Growth Tax Relief Reconciliation Act of 2003, thereby temporarily increasing the Federal share of Medicaid expenditures. Although Medicaid expenditure growth slowed to 6.6 percent in FY 2003 and rebounded to 7.3 percent in FY 2004 from a peak rate of 13.4 percent in FY 2001, it is likely that spending would have slowed further without the increase in Federal funding.

A final trend that somewhat offset the accelerated growth in Medicaid spending involves the States' efforts to control the costs of their Medicaid programs. As enrollment and medical prices grew faster than they had in the past and economic growth was slower, the States' efforts were focused on controlling program growth rather than on expanding their Medicaid programs. Medicaid spending growth includes both the net effects of any expansions of eligibility or services and reimbursement increases and any State activities to limit Medicaid growth, such as provider rate cuts or freezes, efforts to encourage use of lower-cost services (for example, utilizing home and community-based care instead of skilled nursing facilities), and modifications to the benefits covered under Medicaid plans. These changes likely offset some of the rapid growth over this period.

In FY 2006, aggregate Medicaid spending was 0.6 percent lower than in FY 2005, decreasing for the first time in the program's history. The primary driver of this trend was the shift of most prescription drug coverage for dual-

[11] Catlin, et al., "National Health Spending in 2006: A Year of Change for Prescription Drugs."
[12] Ibid.

eligibles (those eligible for both Medicaid and Medicare) from Medicaid to the new Medicare Part D program, which began in January 2006. All dual-eligibles were automatically enrolled in Part D, and Medicare now served as the primary source of their prescription drug coverage.[13] As a result of this shift in coverage, Medicaid drug spending (net of rebates) decreased 34 percent from FY 2005 to FY 2006. All other spending grew 3.9 percent—still relatively low compared to historical Medicaid growth, but clearly indicating that Medicaid expenditures were otherwise increasing.

In FY 2007, Medicaid expenditures grew 5.6 percent. Due to the shift of drug coverage for dual-eligibles to Medicare Part D, spending was lower in the first quarter of FY 2007 than in the first quarter of FY 2006, resulting in a growth rate of −2.4 percent.[14] For the rest of FY 2007, Medicaid grew 8.1 percent compared to the same period in 2006.

### *C. MEDICAID EXPENDITURES AND ENROLLMENT PROJECTIONS, FY 2008—FY 2017*

The projections presented in this report focus on Medicaid benefit expenditures and Medicaid enrollment; other Medicaid expenditures (such as administration costs or the Vaccines for Children program) are not included.[15] Total Medicaid expenditures for medical assistance payments are projected to grow 7.3 percent in FY 2008 to $339.0 billion and to reach $673.7 billion by FY 2017, increasing at an average rate of 7.9 percent per year over the next 10 years. Federal government spending on Medicaid medical assistance payments is projected to rise to $192.6 billion in FY 2008 and to $383.4 billion by FY 2017, continuing to represent about 57 percent of total spending each year. Historical and projected Medicaid expenditures for medical assistance payments are shown in Table 3.

[13] Medicaid still provides some prescription drug coverage for dual-eligibles for categories of drugs that Medicare Part D does not cover.

[14] The Federal Fiscal Year begins on October 1. The first quarter of the Federal Fiscal Year consists of October, November, and December.

[15] These projections do not include the effects of the recently enacted Medicare Improvements for Patients and Providers Act of 2008; its impacts on Medicaid expenditures and enrollment are expected to be relatively small.

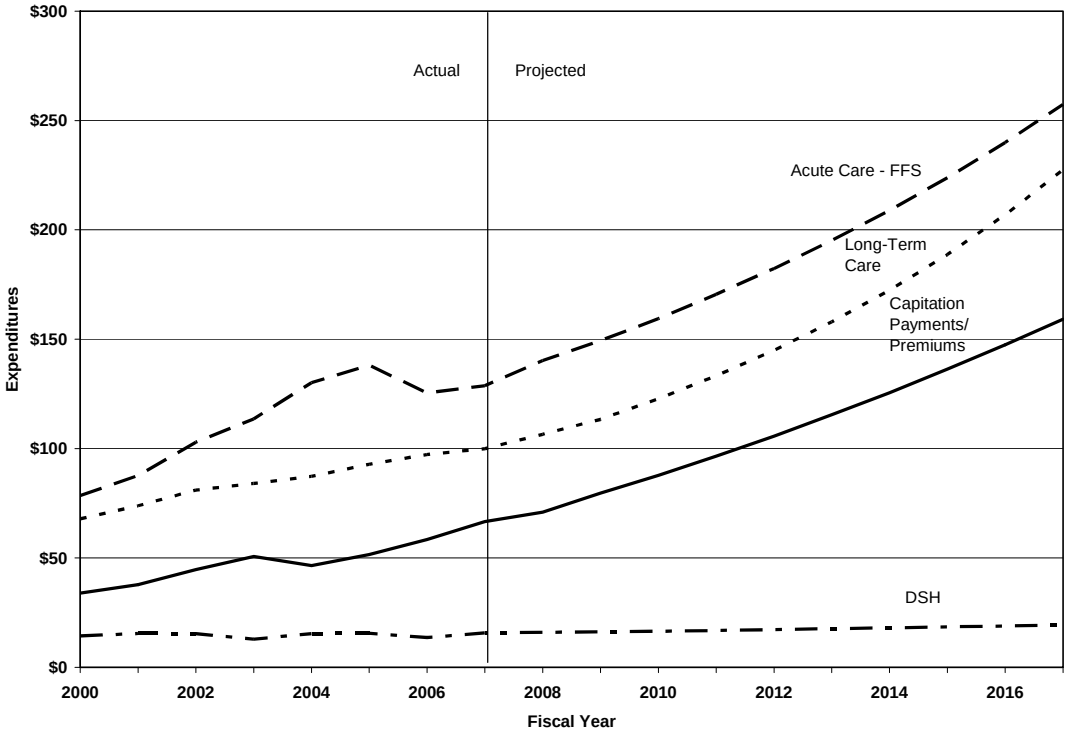
**Table 3—Historical and Projected Medicaid Expenditures for Medical Assistance Payments, Selected Years (In billions)**

| Fiscal Year | Total | Federal share | State share |
|---|---|---|---|
| Historical data: | | | |
| 1966 | $0.4 | $0.2 | $0.2 |
| 1970 | 4.5 | 2.4 | 2.1 |
| 1975 | 12.1 | 6.7 | 5.4 |
| 1980 | 20.7 | 11.5 | 9.3 |
| 1985 | 39.3 | 21.7 | 17.6 |
| 1990 | 68.7 | 38.9 | 29.8 |
| 1995 | 151.8 | 86.5 | 65.3 |
| 1996 | 152.9 | 87.0 | 65.9 |
| 1997 | 160.3 | 90.8 | 69.5 |
| 1998 | 169.0 | 95.6 | 73.4 |
| 1999 | 180.5 | 102.2 | 78.3 |
| 2000 | 195.7 | 111.1 | 84.6 |
| 2001 | 217.1 | 123.3 | 93.9 |
| 2002 | 246.3 | 140.0 | 106.2 |
| 2003 | 262.6 | 153.4 | 109.2 |
| 2004 | 281.8 | 167.0 | 114.8 |
| 2005 | 300.7 | 172.1 | 128.7 |
| 2006 | 299.0 | 170.6 | 128.5 |
| 2007 | 315.8 | 180.0 | 135.8 |
| Projections: | | | |
| 2008 | 339.0 | 192.6 | 146.4 |
| 2009 | 364.4 | 207.4 | 157.0 |
| 2010 | 392.6 | 223.5 | 169.1 |
| 2011 | 423.9 | 241.3 | 182.7 |
| 2012 | 457.4 | 260.3 | 197.1 |
| 2013 | 494.0 | 281.1 | 212.9 |
| 2014 | 533.3 | 303.5 | 229.8 |
| 2015 | 576.4 | 328.0 | 248.4 |
| 2016 | 623.0 | 354.5 | 268.5 |
| 2017 | 673.7 | 383.4 | 290.3 |

As shown in Figure 3, of the major medical assistance payment categories, capitation payments are expected to grow the fastest over the next 10 years, increasing at an average rate of 9.1 percent per year. This expected strong growth reflects the continuing interest of the States to use capitation and other managed care arrangements to provide health care coverage for their Medicaid populations. The anticipated increase in the use of managed care in Medicaid also contributes to relatively slower growth of projected acute care FFS spending. As the use of managed care expands, the use of FFS services would be expected to decrease; thus, as managed care use in Medicaid is expected to increase, growth in acute care FFS expenditures is expected to be relatively slower. Medicaid spending for acute care is expected to grow at an average of 7.2 percent per year from FY 2008 through FY 2017. As noted previously and shown in Figure 3, the decline in Medicaid acute care FFS expenditures from FY 2005 to FY 2006 was directly attributable to the introduction of the Medicare Part D prescription drug program, which

transferred a substantial amount of Medicaid drug costs to Medicare. (Most of these prescription drug costs were part of acute care FFS in Medicaid.)

**Figure 3—Past and Projected Medicaid Expenditures for Medical Assistance Payments, by Type of Payment, FY 2000-FY 2017 (In billions)**

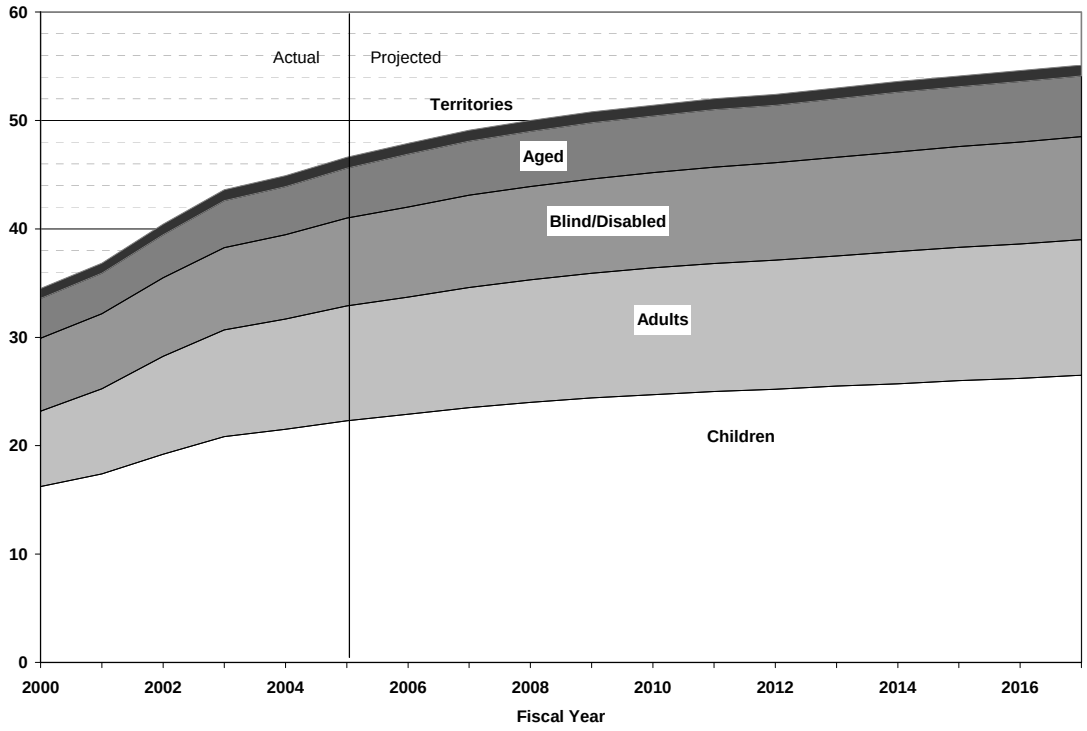



Medicaid long-term care spending, including home and community-based services, is expected to increase rapidly over the next 10 years at an average rate of 8.6 percent per year. This projected increase is due to the expected continuing increases in the use and the costs of long-term care, as well as projected increases in enrollment—especially for aged and disabled beneficiaries. Home and community-based care is expected to grow substantially faster than institutional care; that is, the former is projected to grow at an average rate of 11.9 percent per year, while the latter is projected to grow only 5.5 percent per year on average. This difference is mainly attributable to a continuing shift towards using non-institutional settings to provide a greater share of long-term care services, since non-institutional care tends to be less expensive than institutional care and since beneficiaries are generally believed to prefer receiving care in their homes or communities rather than in nursing homes or other institutional settings.

Of all the service categories, DSH spending is expected to grow most slowly, because DSH allotments to the States are capped and increase only at the

rate of the Consumer Price Index (CPI) each year.[16] DSH spending is projected to grow 2.1 percent per year through 2017.

**Figure 4—Past and Projected Numbers of Medicaid Enrollees, by Category, FY 2000-FY 2017**
**(In millions of person-year equivalents)**



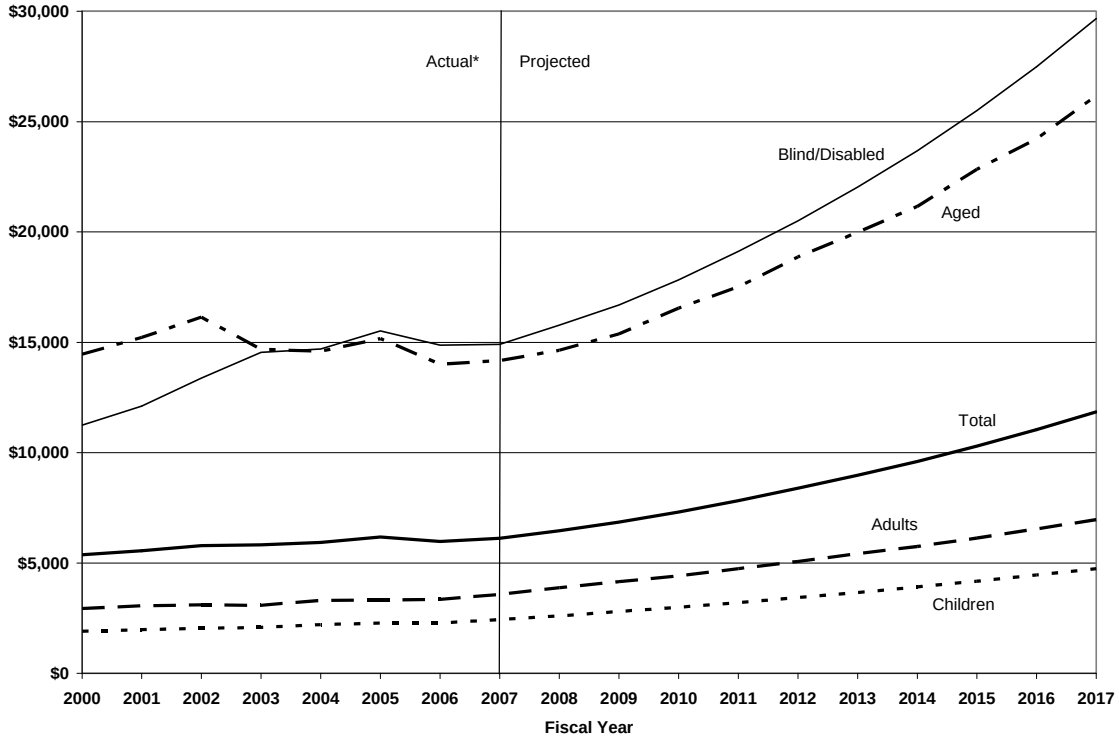

Historical and projected Medicaid enrollment is shown in Figure 4. Enrollment is projected to grow from 49.1 million PYE (including the 1.0 million enrollees in the U.S. Territories) in FY 2007 to 50.0 million in FY 2008, reflecting a growth rate of 1.8 percent. Enrollment is projected to increase to 55.1 million PYE by FY 2017, amounting to an average growth rate of 1.2 percent per year over 10 years.

Figure 5 displays historical and projected Medicaid per enrollee benefit expenditures by eligibility group. By FY 2017, the average enrollee is projected to receive about $11,800 in health care benefits through Medicaid. Per enrollee spending on medical assistance payments is projected to increase at an average annual rate of 6.7 percent per year during FY 2008 through FY 2017. Spending on blind or disabled enrollees is projected to grow the

[16] DSH spending may increase more or less than the CPI, as not all States spend their entire allotment. Additionally, the Medicare Modernization Act of 2003 contained provisions affecting DSH that led to higher allotments starting in 2004, but that led to slower DSH allotment growth rates over the next several years as allotments remained at the same level as in 2004. While the CPI is a reasonable proxy for DSH expenditure growth, actual expenditures may increase more rapidly or more slowly.

fastest at an average of 7.2 percent per year per enrollee; for aged enrollees, non-disabled children, and non-disabled adults, average growth rates for per-enrollee expenditures are expected to be somewhat slower than those for disabled enrollees over the next 10 years (6.4 percent, 7.0 percent, and 7.0 percent, respectively). These variations in per capita growth rates are mainly due to the different mix of services assumed for each group of enrollees. Specifically, blind or disabled enrollees receive the largest amount of home and community-based long-term care (as they have moved from institutional long-term care settings to home and community-based care or increased their use of these services as the availability has expanded). Such care is expected to be the fastest-growing service category over the next 10 years.

**Figure 5—Past and Projected Medicaid Expenditures on Medical Assistance Payments Per Enrollee, by Enrollment Category, FY 2000-FY 2017**




*Per-enrollee amounts for 2006 and 2007 are based on actual expenditures and estimated enrollment.

As shown in Figure 5, Medicaid per-enrollee expenditures on benefits are expected to grow faster overall in the next 10 years than they did during FY 2000 through FY 2007. There are several key differences between the recent history and the assumptions about the near-term future of Medicaid. One factor that led to relatively slower per-enrollee cost growth over the past several years was the change in the relative number of children and non-aged non-disabled adults in Medicaid. Medicaid enrollment increased rapidly in the early half of this decade, and most of the increase was among children

and non-aged non-disabled adults. As their share of Medicaid enrollment increased, the average per-enrollee cost for the total Medicaid population grew more slowly, since children and non-aged non-disabled adults are significantly less expensive to cover than aged and disabled beneficiaries. Holding the relative share of Medicaid enrollment constant for each eligibility group during FY 2000 through FY 2007 would have resulted in average per-enrollee cost growth of 2.9 percent per year; however, the actual average growth rate was 2.1 percent. Thus, the increasing proportion of Medicaid enrollees who were children or non-aged non-disabled adults slowed the average rate of growth for per-enrollee expenditures. Increases in enrollment for each eligibility group are projected to be similar over the next 10 years, a trend that would suggest relatively faster per-enrollee expenditure growth than has recently occurred.

Additionally, the increasing costs of Medicaid led the States to undertake efforts to slow the rate of growth of their programs, such as limiting benefits and cutting or freezing provider rates. While Medicaid is likely to remain a major share of State budgets, these projections assume that States would not use these measures as much as in recent history.

The shift of prescription drug coverage for dual-eligibles from Medicaid to Medicare in 2006 also slowed per-enrollee expenditure growth for aged and disabled beneficiaries. A drop in per-enrollee benefit spending for these two eligibility groups between 2005 and 2006 can be seen in Figure 5. As this was a one-time change in benefit coverage attributable to a change in law, this trend is also assumed not to reoccur in these projections.

### *D. MEDICAID IN CONTEXT*

From the estimates and analysis of health spending in the U.S. provided by the NHE Accounts, additional insight can be obtained into the role of Medicaid in the U.S. health care system.[17] Based on the 2006 NHE Accounts (the latest available historical year), Medicaid spending for that year was 14.8 percent of total national health expenditures. Private health insurance was the largest source of spending on health care in 2006, paying for

[17] The historical Medicaid spending data and projections presented in this report differ from the NHE estimates and projections in several ways. Some of the differences are as follows: (i) the data and projections featured in this report are available on a Fiscal Year basis, whereas the NHE are available on a Calendar Year basis; (ii) the NHE make several adjustments to Medicaid, such as classifying Medicaid spending for Medicare premiums as Medicare spending and classifying spending for the State Children's Health Insurance Program (SCHIP) through Medicaid expansion programs as Medicaid; and (iii) the NHE use somewhat different definitions of services than do the data presented in this report.

34.4 percent of total NHE, while Medicare paid for 19.1 percent of total NHE.[18]

From CY 2000 through CY 2005, expenditures for Medicaid grew faster than did spending for the other major payers of health care. Medicaid increased at an average rate of 9.3 percent per year, while Medicare and private health insurance plans increased 8.6 percent and 8.0 percent per year on average, respectively. In CY 2006, Medicaid spending decreased 0.9 percent due largely to the shift of dual-eligible prescription drug coverage to Medicare; for the same reason, Medicare spending grew 18.7 percent. (Excluding prescription drugs and administration and net costs of insurance, Medicaid spending for personal health care grew 6.0 percent in 2006.)[19]

The historical NHE also presents health care spending by the original source of financing (or sponsor). In CY 2006, Medicaid represented 40 percent of Federal government expenditures on health services and supplies and 41 percent of State and local government expenditures on health services and supplies. For both the Federal and State governments, Medicaid is the largest source of general revenue-based spending on health services. Notably, Medicaid is a larger source of such Federal spending than Medicare. A sizeable portion of Medicare's expenditures 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.[20]

Medicaid is also larger than Medicare in terms of the number of people covered. In FY 2007, Medicaid was estimated to have covered 49.1 million PYE, and 61.9 million people were enrolled in Medicaid at some point during the year. In comparison, Medicare covered an average of 44.1 million people during CY 2007. Within these totals, there are substantial differences between the programs in the number and nature of people covered. For example, Medicare automatically covers nearly all people over 65 (36.9 million beneficiaries in 2007), but only those aged individuals with very low incomes—and who apply for the coverage—become Medicaid enrollees (estimated at 5.0 million persons). Disabled enrollment was similar between the two programs; Medicaid covered an estimated PYE average of 8.5 million

[18] Catlin, et al., "National Health Spending in 2006: A Year of Change for Prescription Drugs." These figures include all sources of revenue, including dedicated revenue sources, such as the Medicare Trust Funds, and beneficiary premiums.
[19] Ibid.
[20] 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.hhs.gov/NationalHealthExpendData/downloads/bhg-methodology-08.pdf.

blind or disabled persons in 2007, while Medicare covered 7.2 million disabled beneficiaries. Although the definition of disability is essentially the same for the two programs, the eligibility criteria are completely different, and the similarity of the enrollment numbers is somewhat coincidental.[21] Finally, as noted earlier, a majority of Medicaid enrollees are either children or certain adults in families with low incomes. Medicare does not have comparable categories of beneficiaries. Dual-eligibles accounted for 7.5 million enrollees in each program in 2006.[22]

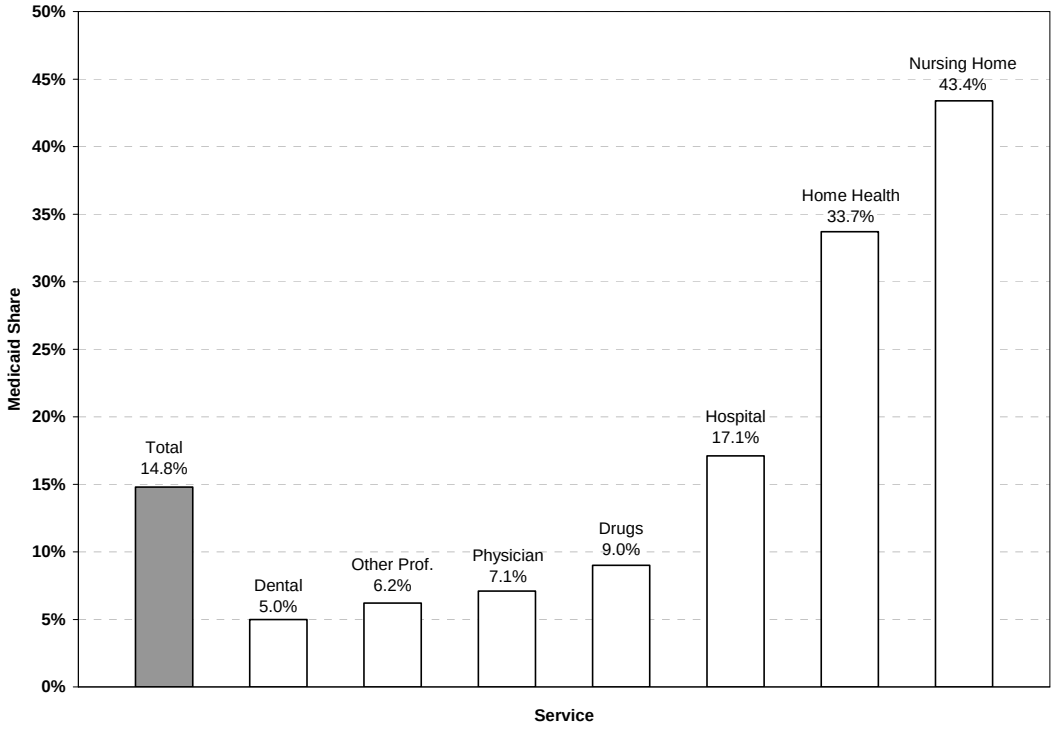
Among the different types of health care services, Medicaid plays the largest role in the funding of long-term care. According to the 2006 NHE, Medicaid is estimated to have paid for 34 percent of all home health care and 43 percent of all nursing home care in the U.S.[23] Medicaid has a major responsibility for providing long-term care because the program covers some aged and many disabled persons, who tend to be the most frequent and most costly users of it, and because private health insurance and Medicare often furnish only limited coverage for such care, particularly for nursing homes. Many people who pay for nursing home care privately become impoverished because nursing home care is very expensive; as a result, these people eventually become eligible for Medicaid. Figure 6 shows the percentage of total spending for major health care services provided by Medicaid.

[21] As with other enrollment categories, eligibility for Medicaid for disabled individuals is based on income and asset criteria. Medicare eligibility depends on an individual's sufficient participation in the paid work force prior to disability.

[22] *2006 Medicaid Managed Care Enrollment Report: Summary Statistics as of June 30, 2006.* Dual-eligibles are included in the aged or disabled enrollment groups based on their eligibility for Medicaid.

[23] Catlin, et al., "National Health Spending in 2006: A Year of Change for Prescription Drugs."

**Figure 6—Medicaid Expenditures as Percentage of Total U.S. Health Expenditures, by Service Category, CY 2006[1]**




[1]Source: Catlin, et al,. "National Health Spending in 2006: A Year of Change for Prescription Drugs."

Medicaid is also significant in terms of its burden on the Federal and State budgets. In FY 2007, out of a total of $2,730 billion spent by the Federal government, $191 billion (or 7.0 percent) can be attributed to Medicaid. Based on the most recent projections of the Federal budget, Medicaid would represent about 8.4 percent of all Federal spending in 2013.[24]

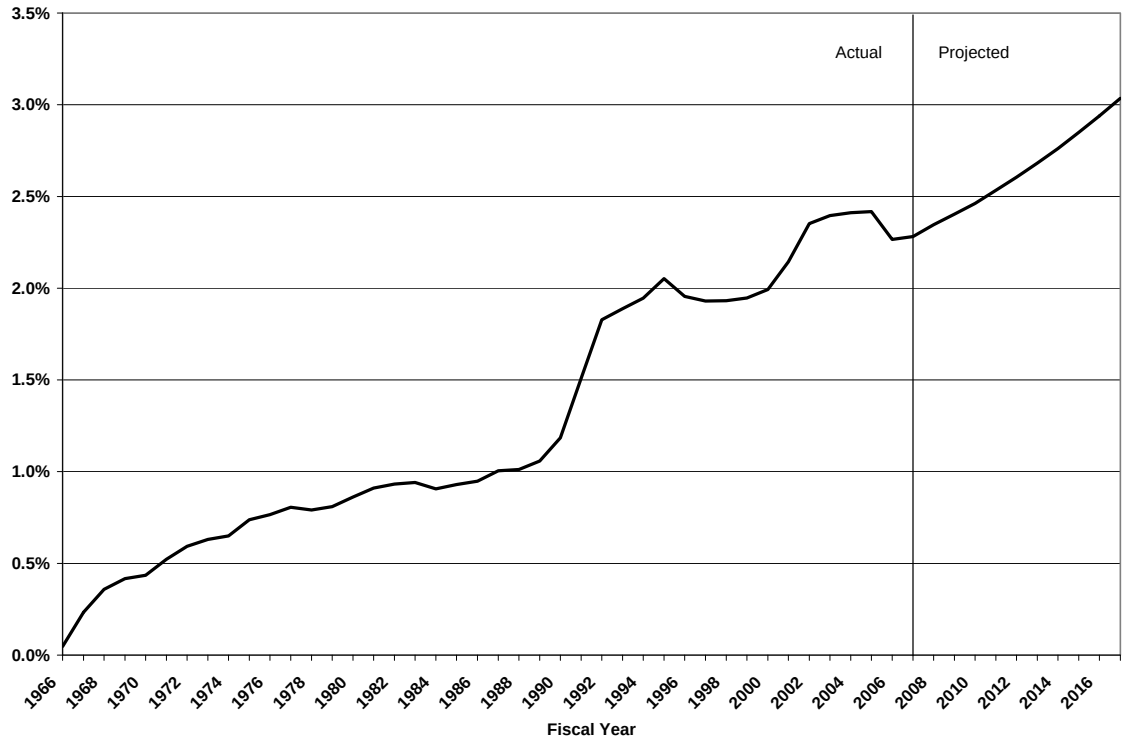
According to the National Association of State Budget Officers (NASBO), in State Fiscal Year 2007, Medicaid represented an estimated 21 percent of all State government spending.[25] This amount includes all Federal contributions to State Medicaid spending, as well as spending from State general revenue funds and other State funds (for Medicaid, this includes "provider taxes, fees, donations, assessments, and local funds"). According to the NASBO report, Medicaid has been the largest category of State spending since 2003. Medicaid is somewhat smaller as a share of State general revenue spending alone (that is, excluding Federal funds and other State funds); in 2007, NASBO estimates that Medicaid represented about 17 percent of State

[24] More information on the Federal budget is available in *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2009*. The figures presented here exclude spending for the State Children's Health Insurance Program (SCHIP).
[25] *FY 2006 State Expenditure Report*, National Association of State Budget Officers, Fall 2007.

general fund spending, making it the second-largest category after elementary and secondary education.

Medicaid is a significant share of the U.S. Gross Domestic Product (GDP). In FY 2007, Medicaid was about 2.3 percent of GDP, slightly down from its historical peak of 2.5 percent in FY 2005. Medicaid declined in share of GDP during FY 2006 as Medicaid expenditures decreased 1.0 percent, a result of the shift of prescription drug coverage for dual-eligibles to Medicare. As shown in Figure 7, this decrease in share was only the second substantial decrease in Medicaid's share of GDP.

**Figure 7—Past and Projected Medicaid Expenditures as Share of GDP, FY 1966-FY 2017**




Medicaid is projected to grow faster than GDP during FY 2008 through FY 2017. As seen in Figure 7, Medicaid is projected to grow to 3.0 percent of GDP over the next 10 years. Expenditures for Medicaid benefits are projected to increase about 3.1 percentage points faster than GDP on average through FY 2017.

# VI. CONCLUSION

Medicaid benefit expenditures are projected to reach $339.0 billion in 2008 and $673.7 billion by 2017, when Medicaid spending would be about 113 percent higher than in 2007. Medicaid is expected to grow about 7.9 percent per year on average—which would be much faster than the projection of average annual GDP growth of 4.8 percent. If these Medicaid trends continue as projected under current law, a steadily increasing burden would be placed on both Federal and State budgets.

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; the expenditures of each State (or Territory) program are covered by the State's revenues plus Federal matching general revenues. However, the Federal budget would be directly affected because projected future increases in Federal Medicaid spending would be derived directly from general revenue sources. Additionally, the traditional tools used in private health insurance plans and Medicare to help finance costs and control utilization—such as premiums, coinsurance, co-payments, and deductibles—are substantially limited in Medicaid by law. Efforts to slow the growth of Medicaid spending would likely require other measures and changes in the law.

The projections in this report illustrate that Medicaid's growing share of Federal and State budgets is unlikely to abate over the next 10 years under current law. This expectation is not unlike the conclusions reached concerning future health care costs under Medicare, private health insurance, and individuals' own out-of-pocket costs for health care. Nonetheless, the Medicaid cost projections point to the continuing need for policy makers to consider the implications of further rapid cost growth relative to the economy and to take action as necessary to address those implications. Such action will likely be required at both the Federal and State levels. In their annual report to Congress, the Medicare Board of Trustees argues that the earlier that action is taken to respond to Medicare's challenges, the less drastic those actions can be, the more options are available, and the more quickly advance notice can be provided to stakeholders—including, in this case, the States, health care providers, and enrollees. We believe that the Trustees' views in this regard are equally applicable to the Medicaid program.

Finally, experts have cited the need to consider Medicaid in the context of all other health care programs, since many of the challenges facing Medicaid are the same as those facing Medicare and sponsors of private health insurance. Changes that affect those programs would likely have implications for

Medicaid, and vice-versa. Thus, it is critical that Medicaid be examined with respect to its place in the nation's overall health care system.

# VII. APPENDIX

## *A. MEDICAID DATA SOURCES*

The primary sources for Medicaid statistical data used in the projections of Medicaid expenditures and enrollment are the Medicaid Statistical Information System (MSIS) and the CMS-64 and CMS-37 reports.

### Medicaid Statistical Information System (MSIS)

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 eligibles, beneficiaries, utilization, and payment for services that are covered. States provide CMS with quarterly computer 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, long-term care, prescription drugs, and non-institutional services are submitted. Claims records contain information on the types of services provided, providers, service dates, costs, and types of reimbursements. Eligibility characteristics, such as basis-of-eligibility and maintenance assistance status, are the foundation of OACT's demographic projections; specifically, the primary bases-of-eligibility include aged persons, blind or disabled persons, non-disabled children, and non-aged non-disabled adults.

### CMS-64 and CMS-37 Reports

The CMS-64 and CMS-37 reports are products of the Medicaid and SCHIP Budget and Expenditure Systems (MBES/CBES). These reports are submitted by the States quarterly. The CMS-64 provides current fiscal year spending, while the CMS-37 provides State budgeted amounts for the next 2 fiscal years. The expenditure amount claimed on the CMS-64 report is a summary of expenditures for the various mandatory and optional services covered by the Medicaid State programs.

The mandatory services contained in the CMS-64 and CMS-37 reports 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 care, and early and periodic screening, diagnostic, and treatment services for children under 21 (EPSDT).

Among the many reported optional services that States may provide are clinic services, prescription drugs, intermediate care facilities for the mentally retarded, hospice care, home and community-based care to certain persons with chronic impairments, and targeted case management services. Additionally, these reports capture expenditures for disproportionate share hospital (DSH) payments, offsets to drug spending through rebates, Medicare Parts A and B premiums paid for those dually eligible for both Medicare and Medicaid, as well as premiums paid for Medicaid-only capitated arrangements, and expenditures for home and community-based waiver programs.

Users of Medicaid data may note discrepancies between the information captured in MSIS and the CMS-64. For example, DSH payments and Medicare premiums do not appear in MSIS. Whereas actual payments are reflected in the CMS-64, in MSIS 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 MSIS. Each State has a different system for capturing statistical (MSIS) and financial (CMS-64/37) data.

### *B. DEMOGRAPHIC, ECONOMIC, AND HEALTH CARE 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 OASDI and Medicare Boards of Trustees in their annual reports to Congress. The number of Medicaid enrollees in each eligibility category—aged, blind or disabled, child, and non-aged non-disabled adult—are projected from past growth trends and assumed ultimately to grow at rates comparable to the general population. The Trustees' population projections depend on assumed future birth rates, mortality rates, and net immigration rates.[26]

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

Projected Medicaid costs for paying Medicare Part A premiums on behalf of enrollees who do not directly qualify for Medicare based on their work in covered employment, and for paying Part B premiums for dual beneficiaries,

[26] Further information on the Trustees' population projections and economic assumptions is available in the 2008 OASDI and Medicare Trustees Reports.

are available directly from the projections prepared by OACT for the Medicare Board of Trustees.

The proportion of enrollees in Medicaid managed care plans and the cost of capitation payments to such plans are projected based on historical growth trends.

### *C. ADDITIONAL PROJECTION METHODOLOGY DETAIL*

This section provides additional detail concerning the projection of "residual" cost growth for the Medicaid projections in this report. The trend residual approach to projecting Medicaid expenditures begins with an analysis of historical Medicaid expenditures per enrollee on a service-by-service basis. The annual percent change in these per capita expenditures is compared to changes 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. The price indicator may be lagged in order to obtain a residual that is as small and stable as possible. The residual is assumed to remain constant at its historical average value and is then combined with caseload growth and the Medicare Trustees' forecast of change in the applicable price indicator to obtain projected expenditures, as indicated in section IV, equation (2).

The table below displays 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) |
| Physician, clinic, and related services | Average wage increase |
| Institutional long-term care | Maximum of CPI increase and average wage increase |
| Community long-term care | Home health input price index |
| Prescription drugs | CPI increase |

One exception to the trend residual methodology occurs in the case of capitated services. Expenditures for these services are projected by trend analysis of average per capita payments for Medicaid capitated services, and from projected premium rates for Medicare Parts A and B.