

# Report to Congress on Medicaid and CHIP

**JUNE 2015**



**MACPAC**

Medicaid and CHIP Payment  
and Access Commission

## About MACPAC

The Medicaid and CHIP Payment and Access Commission (MACPAC) is a non-partisan legislative branch agency that provides policy and data analysis and makes recommendations to Congress, the Secretary of the U.S. Department of Health and Human Services, and the states on a wide array of issues affecting Medicaid and the State Children's Health Insurance Program (CHIP). The U.S. Comptroller General appoints MACPAC's 17 commissioners, who come from diverse regions across the United States and bring broad expertise and a wide range of perspectives on Medicaid and CHIP.

MACPAC serves as an independent source of information on Medicaid and CHIP, publishing issue briefs and data reports throughout the year to support policy analysis and program accountability. The Commission's authorizing statute, 42 USC 1396, outlines a number of areas for analysis, including:

- payment;
- eligibility;
- enrollment and retention;
- coverage;
- access to care;
- quality of care; and
- the programs' interaction with Medicare and the health care system generally.

MACPAC's authorizing statute also requires the Commission to submit reports to Congress by March 15 and June 15 of each year. In carrying out its work, the Commission holds public meetings and regularly consults with state officials, congressional and executive branch staff, beneficiaries, health care providers, researchers, and policy experts.

# Report to Congress on Medicaid and CHIP

**JUNE 2015**



**MACPAC**

Medicaid and CHIP Payment  
and Access Commission



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**June 15, 2015**

The Honorable Joseph R. Biden, Jr.  
President of the Senate  
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Washington, DC 20510

The Honorable John A. Boehner  
Speaker of the House  
U.S. House of Representatives  
Washington, DC 20515

**Dear Mr. Vice President and Mr. Speaker:**

On behalf of the Medicaid and CHIP Payment and Access Commission (MACPAC), I am pleased to submit MACPAC's June 2015 *Report to Congress on Medicaid and CHIP*. MACPAC is a non-partisan legislative branch agency that provides policy and data analysis and makes recommendations to Congress, the Secretary of the U.S. Department of Health and Human Services, and the states on a wide array of issues affecting Medicaid and the State Children's Health Insurance Program (CHIP). This document fulfills our statutory mandate to report each year by June 15.

Next month, Medicaid will celebrate its 50th anniversary. Appropriately, the June 2015 report focuses on several aspects of Medicaid's longstanding mission to ensure access to high quality health services for the most vulnerable Americans and looks to the program's future as a major health care payer driving health system change towards value.

The report opens with an examination of Delivery System Reform Incentive Payment (DSRIP) programs operating under waivers in several states. DSRIP programs are targeting supplemental payments, long important to safety-net providers, toward achievement of better health and more efficient systems. Interviews with states, providers, and other stakeholders suggest that DSRIPs have the potential to drive value and improved health outcomes in Medicaid, but the programs could benefit from more clarity and consistency in federal guidance as well as an examination of lessons learned across states to underpin future expansion.

The report reviews access to dental care for adults covered by Medicaid. Poor oral health disproportionately affects adults living in poverty, who are more than three times as likely to have untreated cavities as those with higher incomes. While state Medicaid programs must cover dental benefits for children, providing adult dental coverage is a state option, and these services are often cut when budgets are tight. MACPAC's analysis shows that state Medicaid programs vary considerably in the dental services they offer adults, and that access to regular dental care is challenging in many areas of the country.



We also examine Medicaid's role providing access to health care for specific groups of especially vulnerable populations: children under the protection of child welfare authorities and individuals with behavioral health conditions. As a first step in examining how Medicaid pays for and delivers behavioral health services, this report provides a detailed picture of Medicaid beneficiaries diagnosed with mental health conditions and substance use disorders. Ranging from young children in need of early intervention services to adults with serious mental illness to frail elders affected by depression and dementia, this report looks at these individuals' need for and use of Medicaid services. These analyses lay the groundwork for an extended inquiry into identifying targeted policies and practices for improving care for Medicaid enrollees with different behavioral health needs while containing spending and promoting effective and efficient service delivery.

We also examine the use of psychotropic medications among Medicaid beneficiaries, noting that almost half of children and adults who qualify for Medicaid on the basis of disability and nearly a quarter of children eligible based on child welfare assistance use psychotropic medications. In addition to describing the extent to which these medications are being used, the chapter also highlights promising federal and state activities to ensure safe and effective prescribing practices.

MACPAC is committed to providing in-depth, non-partisan analyses of Medicaid and CHIP and these programs' impact on beneficiaries, states, providers, and the broader health care sector. The scope of topics covered in this report highlight the complex health needs and cost challenges in providing care to Medicaid's diverse and vulnerable populations. We hope our work will prove useful to Congress as it considers legislative changes to Medicaid and CHIP.

Sincerely,



Diane Rowland, ScD  
Chair

Enclosure



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## Executive Summary

As the Medicaid and CHIP Payment and Access Commission (MACPAC) releases its June 2015 *Report to Congress on Medicaid and CHIP*, Medicaid marks its fiftieth year as a unique federal-state partnership working to ensure that low-income Americans have access to comprehensive, affordable health care coverage.

In addition to highlighting the complex health needs and cost challenges in providing care to Medicaid's diverse and vulnerable populations, the June 2015 report looks to Medicaid's future as a major health care payer driving health system change toward value. Chapter 1 examines a new approach to supplemental payments embodied in Delivery System Reform Incentive Payment (DSRIP) programs. Supplemental payments have long been used to sustain safety-net providers in their communities. DSRIP programs offer the added potential of driving value and improved health outcomes in Medicaid by linking payment to achievement of specific milestones.

Chapter 2 discusses coverage of adult dental benefits. Although Medicaid requires states to provide dental coverage for children, such coverage is not mandatory for adults. Chapter 2 compares Medicaid dental coverage available to low-income adults across the country over the past few years, and finds that benefits vary considerably between states and fluctuate over time.

Chapters 3 and 4 describe Medicaid's role in providing health services to two especially vulnerable groups of beneficiaries: people of all ages who have a behavioral health diagnosis and children and youth who receive child welfare assistance. Chapter 5 concludes the report with a discussion of the use of psychotropic medications under Medicaid. While psychotropic drugs are important tools in mental illness treatment, some recent studies have questioned whether they are overprescribed.

## Chapter 1: Using Medicaid Supplemental Payments to Drive Delivery System Reform

DSRIPs are a new type of Medicaid supplemental payment approved under Section 1115 waiver authority that support provider-led efforts to change the delivery of care, improve quality of care, and promote population health. The Centers for Medicare & Medicaid Services (CMS) approved the first DSRIP program in California in 2010; since then, Texas, Massachusetts, New Jersey, Kansas, and New York have also implemented DSRIP programs.

In fiscal year (FY) 2015, a total of \$3.6 billion in federal funds is available to implement DSRIP programs in these six states. The payments are tied to the achievement of specific planning, implementation, reporting, and health outcome milestones, and they have enabled providers to invest in a variety of infrastructure and care redesign projects. These projects include expanding primary care clinics, building information technology capacity, co-locating behavioral and primary health care providers, and creating patient navigator programs. Most state DSRIP programs are limited to hospitals, but some programs also include other providers.

In many states, DSRIP programs are related to prior upper payment limit supplemental payments, which are permitted under fee-for-service arrangements but are not allowed under capitated managed care. However, the relationship between DSRIPs and supplemental payments is complicated and evolving. In the most recently approved DSRIP program in New York, DSRIP payments are not linked to prior supplemental payments and are primarily designed to advance the state's vision for delivery system transformation.

Although the DSRIP approach has the potential to change Medicaid's role from financing medical care to driving value and improved health outcomes, MACPAC site visits to selected states and interviews with CMS and state officials

revealed that implementing DSRIP programs can be challenging. For example, states reported that finding a source of non-federal share to finance DSRIPs is a challenge, and evaluators noted that aggregate data demonstrating improved health outcomes or cost savings are not yet available.

Moving forward, DSRIP programs would benefit from clear and consistent federal guidance to promote more effective oversight. The Commission looks forward to learning more about the programs as they mature; a cross-state synthesis of DSRIP outcomes would be particularly useful in considering whether to expand the approach.

## Chapter 2: Coverage of Medicaid Dental Benefits for Adults

Oral health problems affect a majority of Americans, and as many as 92 percent of adults have dental caries—commonly known as cavities. Poor oral health disproportionately affects adults with incomes below 100 percent of the federal poverty level (FPL), who are more than three times as likely to have untreated dental caries as adults with incomes above 400 percent FPL.

Chapter 2 examines dental benefits for adults enrolled in Medicaid. Like other forms of health coverage, dental coverage increases access to care, and most low-income adults with dental coverage receive their coverage through Medicaid. Federal law does not mandate dental coverage for adult Medicaid beneficiaries; consequently, state Medicaid programs vary considerably in the dental services they offer adults. For example, 18 states cover emergency services only. Thirty-three states cover additional services, but many impose annual dollar and service limits. Twenty-eight states cover preventive services such as oral examinations, teeth cleanings, and fluoride and sealant applications.

States often reduce or eliminate adult dental benefits in lean years, and sometimes restore benefits when the state budget outlook improves. Between 2003 and 2012, 20 states increased or

decreased dental benefits, many making more than one change. This volatility in coverage can make it difficult for beneficiaries and their providers to know what services are covered. Even when Medicaid enrollees have dental coverage, they use dental services less than other health services, perhaps due to their inability to find a provider who accepts Medicaid.

In recent years, multiple federal and state initiatives to improve access to dental services have emerged, including providing federal grants to support oral health activities in school-based health centers, student loan repayment for dentists who commit to working in high-need, underserved areas, changing state scope-of-practice laws that allow for additional members of the dental health team, and deploying mobile dental clinics and telehealth programs in hard-to-reach areas.

## Chapter 3: The Intersection of Medicaid and Child Welfare

Among the vulnerable populations covered by Medicaid are low-income children currently or formerly served by the child welfare system. These children and youth have either been removed from their homes for abuse or neglect or are receiving in-home child welfare services as the result of an allegation of maltreatment. For some of these children, Title IV-E of the Social Security Act provides federal funding for foster care, adoption, and guardianship assistance, but may not be used to cover health care costs.

In FY 2011 there were nearly 1 million children who were eligible for Medicaid based on their receipt of child welfare assistance. While the population is small relative to the rest of the Medicaid program—accounting for less than 1 percent of all Medicaid enrollees and about 3 percent of children enrolled on a basis other than disability—their complex health needs, which are often the result of trauma and maltreatment, require an array of specialized services.



The substantial health needs and complicated family situations of these children heighten concerns about continuity of coverage and access to appropriate health services. These children may experience gaps in needed care as they move between homes or if they have a caregiver who is unaware of the availability of benefits, or they might receive duplicate services because a caregiver or provider does not have access to their medical histories. Many of these children have unmet needs for mental health treatment and are at risk of inappropriate prescribing of psychotropic medications.

Despite high coverage rates among children with current child welfare involvement, they are likely to become uninsured as they age out of the system. The Patient Protection and Affordable Care Act established a new mandatory Medicaid eligibility pathway for former foster youth that should increase coverage, but problems with implementation could affect the size of these gains.

The importance of collaboration among agencies cannot be overstated. However, fragmentation across financing streams and delivery systems, poor interagency coordination and data sharing, and a lack of knowledge among staff about other programs' benefits all present challenges.

The Commission supports continued federal oversight and guidance in this area and encourages states to evaluate how Medicaid policy changes could help to improve the health and well-being of child welfare-involved children and youth.

## Chapter 4: Behavioral Health in the Medicaid Program—People, Use, and Expenditures

Medicaid is the single largest payer in the United States for behavioral health services, including mental health and substance use services. Overall, Medicaid accounted for 26 percent of all behavioral health spending in 2009. The people receiving

these services are a diverse group, ranging from young children who need screening and referral for attention deficit hyperactivity disorder to chronically homeless adults with serious mental illness. Their treatment needs are different—people with less severe illness may require medication or therapy while those with severe illness may require resource-intensive long-term services and supports. They also vary considerably with regard to other treatment needs—from people who can be treated capably by primary care physicians to others who may require specialized care.

Almost 9 million Medicaid enrollees under age 65 had a diagnosis of a behavioral health condition in 2011. Most affected are children and non-dually eligible adults qualifying on the basis of disability, about half of whom had a mental health diagnosis. Prevalence is next highest among children eligible for Medicaid on the basis of child welfare assistance. But 1 in 5 adults eligible on a basis other than disability (2.3 million) and 1 in 10 children eligible on a basis other than disability or child welfare assistance (about 3 million) also had a behavioral health diagnosis.

People diagnosed with behavioral health conditions account for a disproportionate share of Medicaid spending. In 2011, these individuals accounted for 20 percent of enrollees but almost half of total Medicaid expenditures (including both behavioral and physical health services), with more than \$131 billion spent on their care. For every age and eligibility group, enrollees with a behavioral health diagnosis had higher total expenditures per person than enrollees with no behavioral health diagnosis. Among all enrollees, total Medicaid spending per enrollee with a behavioral health diagnosis was nearly four times higher than those without.

Even Medicaid beneficiaries enrolled on a basis other than disability may be in need of behavioral health screening, treatment, and referral; more specialized services now could help them delay or prevent the need for more intensive, more expensive support later. MACPAC will continue to focus on the

specific needs of each of these groups in order to shed light on the targeted policies and interventions that could improve care and contain costs.

## Chapter 5: Use of Psychotropic Medications among Medicaid Beneficiaries

Psychotropic medications, which are generally used to treat conditions such as depression, anxiety, schizophrenia, bipolar disorder, and attention deficit hyperactivity disorder, play a clinically established role in behavioral health treatment. Nevertheless, there are two compelling reasons to take a deeper look at psychotropic drug use in Medicaid.

First, the use of psychotropic medications among Medicaid beneficiaries is substantial. In calendar year 2011, Medicaid spent about \$8 billion in fee-for-service claims for psychotropic medications—30 percent of the program's total fee-for-service drug spending. Overall, about 14 percent of Medicaid beneficiaries used a psychotropic medication during 2011; however, utilization varied by eligibility group. Almost half (48 percent) of children and adults who qualified for Medicaid on the basis of disability and nearly a quarter (24 percent) of children eligible based on child welfare assistance used psychotropic medications, compared to 21 percent of adults eligible on a basis other than disability and 5 percent of children eligible on a basis other than child welfare or disability.

Second, researchers have raised concerns about whether the high proportion of Medicaid enrollees using psychotropic medications and the number of medications used are appropriate. They have been particularly concerned about the use of psychotropic medications in children because there is limited evidence regarding these drugs' short- and long-term safety and effectiveness for this population. In addition, some psychotropic medications pose an increased risk of death for older adults with dementia.

Given these concerns, federal and state agencies have developed several initiatives to provide educational and expert consultation services to prescribers of psychotropic medications and to improve prescribing practices for these medications. They include prior authorization and peer review for prescriptions that do not conform to standard clinical guidelines.

The Commission will continue to explore issues related to the use of psychotropic medications among Medicaid beneficiaries, including whether these drugs are being prescribed appropriately. Plans include analyzing psychotropic medication use at the individual level to identify occurrences of potential inappropriate use and reviewing federal and state Medicaid initiatives that are focused on improving prescribing practices for psychotropic medications.

CHAPTER 1

# Using Medicaid Supplemental Payments to Drive Delivery System Reform

# Using Medicaid Supplemental Payments to Drive Delivery System Reform

## Key Points

- Delivery system reform incentive payments (DSRIPs) are a new type of Medicaid supplemental payment authorized under Section 1115 waiver authority that supports provider-led efforts to change the delivery of care, improve the quality of care, and promote population health.
- In fiscal year 2015, up to \$3.6 billion in federal DSRIP funds are available to eligible providers in six states (California, Texas, Massachusetts, New Jersey, Kansas, and New York).
- The Centers for Medicare & Medicaid Services (CMS) approved the first DSRIP program in California in 2010, and subsequent states have adapted this model to their circumstances:
  - Payment is tied to the achievement of specific milestones, including planning, implementation, reporting, and health outcomes.
  - Most state DSRIP programs are limited to hospitals, but some programs also include other providers.
  - In many DSRIP programs, public hospitals contribute most of the non-federal share of funding.
- The DSRIP approach, if taken to scale, has the potential to fundamentally change Medicaid's role from financing medical care to driving system change toward value and improved health outcomes.
- MACPAC interviews with CMS and state Medicaid officials as well as site visits to selected states revealed that implementing DSRIPs can be challenging:
  - While many states view DSRIP programs as a way to preserve or make new supplemental payments, CMS describes their primary purpose as catalyzing delivery system transformation.
  - States reported that finding a source of non-federal share is a challenge.
  - Implementation is resource intensive for states, providers, and the federal government.
  - It is challenging to evaluate these programs, and results are not yet available.
  - States and providers expressed concerns about sustainability.
- Clear and consistent federal guidance for DSRIP programs is needed. The Commission looks forward to learning more about the programs as they mature; a cross-state synthesis of DSRIP outcomes would be particularly useful in considering whether to expand the approach.

# CHAPTER 1: Using Medicaid Supplemental Payments to Drive Delivery System Reform

Delivery System Reform Incentive Payment (DSRIP) programs, which direct Medicaid funds toward provider-led efforts to improve health care quality and access, were first authorized in California in 2010 as part of its Section 1115 demonstration waiver. Since then, five additional states—Texas, Massachusetts, New Jersey, Kansas, and New York—have also implemented DSRIP programs as part of their Section 1115 demonstration waivers.<sup>1</sup> DSRIP programs serve as both financing mechanisms for states to make supplemental payments that would otherwise not be permitted under federal managed care rules and as tools for states to invest in provider-led projects designed to advance statewide delivery system reform goals. In fiscal year 2015, up to \$3.6 billion in federal DSRIP funds (and a total of \$6.7 billion when state funds are included) are available to eligible providers in six states (MACPAC analysis of CMS 2015a, 2015b, 2015c, and 2015d).

As more states seek approval of DSRIP programs, and states with current DSRIP programs request renewals, MACPAC has been working to better understand this policy development and its relationship to broader policy issues, particularly the role of supplemental payments and Medicaid's role in delivery system transformation. We contracted with the National Academy for State Health Policy (NASHP) to conduct an environmental scan of the design of DSRIP programs and met with states, providers, and other stakeholders to discuss their experiences so far and their expectations for success. Specifically, NASHP and MACPAC conducted key informant interviews with state and federal policymakers

as well as site visits in Texas, New Jersey, and California (Schoenberg et al. 2015).

This chapter summarizes the findings of our review of DSRIP programs and builds on the Commission's previous analyses of supplemental payment policies. In the March 2014 *Report to the Congress on Medicaid and CHIP*, the Commission raised concerns about the lack of transparency of Medicaid supplemental payments and the extent to which such payments further policy goals of promoting efficiency, economy, quality, and access. The design of DSRIP programs addresses some of these concerns due to the specific terms and conditions of each waiver, milestones for providers, and detailed process and documentation requirements. However, the Commission is still interested in better understanding the effectiveness of the DSRIP approach overall, how it is being implemented in different states, and its effects on the process and outcome of care.

We begin this chapter with a review of the Commission's previous work as context for understanding the historical factors that led to the development of DSRIP programs. We go on to describe the design and operation of DSRIP programs, including the approval process, program structure, eligible providers, and financing. We then present five themes that emerged during key informant interviews and site visits, and outline some of the policy implications for our continuing work related to Medicaid supplemental payment policy and delivery system transformation.

The DSRIP approach could fundamentally change Medicaid's role from financing health care services to driving system change toward value and improved health outcomes. Even so, questions remain, and more clear and consistent federal guidance is necessary to promote more effective oversight. The Commission looks forward to learning more about the impact of these programs as they mature; a cross-state synthesis of DSRIP outcomes would be particularly useful in considering whether to expand the approach.

## Medicaid Supplemental Payments

In order to understand the design of DSRIP programs, it is important to understand state practices of making supplemental payments to providers without the use of Section 1115 waivers.<sup>2</sup> Of particular relevance to DSRIP programs are upper payment limit (UPL) supplemental payments, which are permitted under fee-for-service arrangements. When fee-for-service Medicaid rates to certain providers (primarily hospitals and nursing facilities) result in aggregate provider payments that are lower than what Medicare would have paid for those services, states may make lump-sum UPL payments to such providers.

States reported about \$24 billion (including federal matching funds) in UPL payments in fiscal year 2013, which accounted for about 5 percent of total Medicaid benefit spending nationwide and 23 percent of Medicaid fee-for-service payments to hospitals (MACPAC 2014). The use of UPL payments varies widely by state. Some states do not make UPL supplemental payments. In other states, UPL payments account for more than half of Medicaid fee-for-service payments to hospitals (MACPAC 2014).

UPL payments need not be tied to specific federal policy objectives in the same manner as, for example, disproportionate share hospital (DSH) payments are tied to uncompensated care.<sup>3</sup> Instead, states establish their own criteria for UPL payments within broad federal guidelines. Data on UPL payments are only readily available in the aggregate, which further limits the ability of federal policymakers to understand what UPL payments are for.

The Commission has previously expressed concern that lack of provider-level information about UPL supplemental payments makes it difficult for federal policymakers to determine whether Medicaid payment policies are promoting policy goals of ensuring access and promoting

efficiency, economy, and quality. In its March 2014 *Report to the Congress on Medicaid and CHIP*, the Commission recommended, as a first step toward improving transparency and facilitating the understanding of Medicaid payments, that the Secretary of the U.S. Department of Health and Human Services (the Secretary) collect and make publicly available UPL supplemental payment data at the provider level in a standard format that enables analysis (MACPAC 2014).

DSRIP is a different type of Medicaid supplemental payment that is authorized through Section 1115 waivers.<sup>4</sup> Unlike lump-sum UPL payments, DSRIP funding is based on achievement of particular milestones that are agreed upon up front through the waiver process. Because DSRIP funding is associated with predefined milestones, we have a greater understanding of what DSRIP payments are for and how they are distributed. This additional information helps address some of the Commission's prior concerns about the transparency of supplemental payments and allows the Commission to examine DSRIP programs in more depth.

## History of DSRIP Programs

The Centers for Medicare & Medicaid Services (CMS) approved the first DSRIP program in California in 2010, and subsequent states have adapted this model to their circumstances. In many states, DSRIP programs emerged out of regulatory limits on UPL supplemental payments under managed care and a desire to align prior supplemental payments with larger delivery system reform goals. However, in the most recently approved DSRIP program in New York, DSRIP payments are not linked to prior supplemental payments and are primarily designed to advance the state's vision for delivery system transformation.

The DSRIP model is still in its infancy, and in the absence of federal guidance, CMS's expectations for DSRIP continue to evolve based on the early experience of these programs. Like other Section



1115 waivers, each state's DSRIP program is the product of state-specific waiver negotiations.

## Interaction between supplemental payments and Medicaid managed care

The increasing use of managed care delivery models in Medicaid is one factor that has contributed to some states' decisions to pursue Section 1115 waivers that allow them to continue or make new supplemental payments. While many states have made extensive use of supplemental payments under fee for service, federal rules limit their ability to make these payments in capitated managed care programs. Specifically, federal regulations require capitation payments made to Medicaid managed care organizations to account for the full cost of services under a managed care contract (42 CFR 438.60). This means that under capitated managed care, the state does not have the ability to make supplemental payments directly to providers for services included in the capitation rate.<sup>5</sup>

The amount of money providers stand to lose when states can no longer make UPL supplemental payments is often substantial. For example, Texas hospitals faced the prospect of losing approximately \$3 billion per year in supplemental payments when the state expanded managed care statewide in 2011 (Millwee 2011). Some public hospital officials reported to MACPAC that such a loss would have threatened their financial stability (Schoenberg et al. 2015). In some states, the prospect of losing supplemental payments motivated providers, provider associations, and state policymakers to agree on including a DSRIP in their Section 1115 waiver proposals. Although states could increase Medicaid payment rates statewide without a waiver, targeted supplemental payments allow states to direct payments to particular providers, including public providers that can help finance these payments.

States can use Section 1115 waiver authority to continue or make new targeted supplemental payments to providers while implementing managed care programs. CMS has broad authority under Section 1115 of the Social Security Act (the Act) to allow the use of federal Medicaid funds for "any experimental, pilot, or demonstration project which, in the judgment of the Secretary, is likely to assist in promoting the objectives" of Medicaid. Since 1994, CMS began allowing some states (including four of the current DSRIP states) to make supplemental payments under Section 1115 authority through uncompensated care pools, which are lump-sum payments similar to DSH payments.<sup>6</sup> Since 2010, however, all new Section 1115 waivers authorizing supplemental payments have included a DSRIP program or similar quality improvement component.

## Growing focus on value-based payment methods

DSRIP programs also dovetail with state and federal interest in linking Medicaid payments to value instead of volume. Under traditional fee-for-service payment methods, payments to providers increase as the volume of services provided increases, regardless of the quality of care. In light of this, federal policymakers have increased efforts to encourage payment methods that take the quality of services and other measures of value into account. DSRIP programs specifically link payments to achievement of a variety of system-level improvements, such as improved care management and integration across settings, which are intended to improve health outcomes for the Medicaid and low-income uninsured population.

Consistent with the growing focus on value-based payment methods nationwide, states implementing DSRIP programs are also implementing other initiatives focused on value and system transformation. For example, five of the six state DSRIP programs are currently working to implement Medicaid accountable care

organizations, which reward providers that achieve quality and savings targets. In addition, five states with DSRIP programs have also been awarded State Innovation Model (SIM) grants to develop and test multipayer payment-and-delivery system models (Schoenberg et al. 2015). Many of these initiatives are permissible under current managed care regulations and do not require Section 1115 waiver authority.

DSRIP has the potential to complement and support these broader delivery system reform strategies, particularly for Medicaid providers that may not otherwise have access to capital to make the changes needed to thrive in a value-based payment environment. For example, in New York, the most recently approved DSRIP program, the state's demonstration is explicit about the goal of linking Medicaid payments to value instead of volume and requires the state to develop a strategic plan to move 90 percent of its Medicaid managed care payments to value-based methodologies by the time its DSRIP program ends (NYDOH 2015).<sup>7</sup>

## DSRIP Program Design

Although CMS has not issued formal guidance defining DSRIPs, approved DSRIP programs share several design features. Generally, DSRIP is a mechanism for providing Medicaid payments to qualifying organizations that are implementing infrastructure and care transformation initiatives that align with state and CMS delivery system reform goals. However, each state uniquely adapts this framework to its specific Medicaid program goals, as negotiated between the state and CMS.

### Demonstration and protocol approval process

As noted above, DSRIP programs are authorized under Section 1115 demonstration authority. The state-specific parameters (e.g., total DSRIP

funding and the providers eligible to receive DSRIP payments) are negotiated by CMS and the state and outlined in the special terms and conditions of the demonstration. The features for each DSRIP program are then further developed by states and CMS in protocols or master plans that describe operational requirements, for example, performance measures that providers must meet in order to receive DSRIP payments, a methodology for distributing funds, reporting requirements, and an implementation timeline. States, in turn, require participating providers to develop plans for the projects they intend to implement, for instance, a schedule of milestones a provider must achieve in order to be eligible for the associated incentive payments.

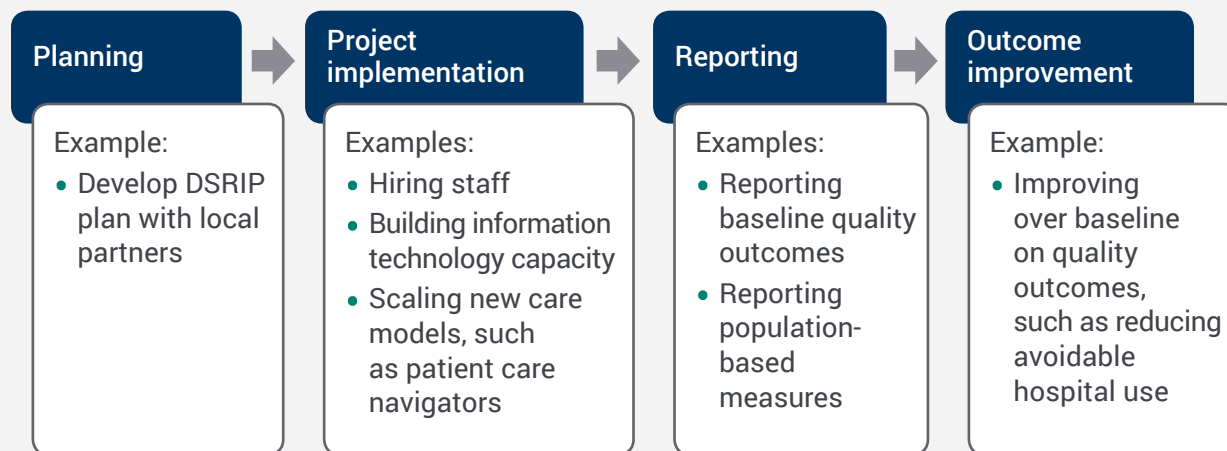
CMS encourages the involvement of community stakeholders in DSRIP project design by requiring project plans to demonstrate how the project meets community needs. In addition, since 2012, all Section 1115 demonstrations have been subject to enhanced transparency requirements, which were added under the Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended) (CMS 2012).

### Program structure

DSRIP programs tie disbursement of supplemental payments to the achievement of specific milestones, including planning, project implementation, reporting, and outcome improvement (Figure 1-1). The specific goals vary depending on the state's master plan, the maturity of the DSRIP program, and the individual project plan negotiated with the provider. DSRIP programs tend to allocate more funding for planning activities and project implementation milestones in earlier program years and more funding for reporting and outcome improvement milestones in later program years. More recently negotiated DSRIP programs tend to have larger proportions of their total DSRIP funding dedicated to reporting and outcome improvement and less toward project implementation milestones.



**FIGURE 1-1.** Types of Delivery System Reform Incentive Payment (DSRIP) Program Milestones



Source: MACPAC analysis of Schoenberg et al. 2015.

In most states, providers can receive initial funding to conduct community needs assessments and complete their DSRIP project plan. Community stakeholders, including consumer representatives, may be involved in the community needs assessment process, but they are not directly supported through planning funds, and decisions of which projects to implement rests with the provider receiving DSRIP funds (subject to state and CMS approval). After the initial DSRIP project plan is approved, providers have opportunities to revise their project plans, and states and CMS have a limited opportunity to re-evaluate approved DSRIP projects during a mid-point assessment.

The number of and nature of projects varies by state. The number of projects ranges from 4 approved projects in Kansas to over 1,400 projects in Texas (Table 1-1).<sup>8</sup> The proposed delivery system reforms also vary. DSRIP projects generally fall into two categories:

- Infrastructure development—these projects tie DSRIP payments to activities that add or improve provider capacity for supporting delivery system reform, such as expanding primary care clinics, creating

mobile health teams, and hiring additional care management staff. Infrastructure activities can also include investments in health information technology, for example, to develop telehealth infrastructure and disease registries.

- Care innovation and redesign—these projects seek to change the way care is delivered, improve the quality of care provided, or promote population health. Some projects in this category have implemented medical homes, improved discharge and transition planning programs, co-located behavioral and primary health care providers, and created patient navigator programs for high-utilizing enrollees; for example, enrollees who have frequent visits to emergency rooms for non-emergent health care needs.

DSRIP projects are oriented toward improvements in health outcomes, such as reducing readmissions and improving access to care, for both Medicaid enrollees and low-income uninsured individuals. Because many DSRIP providers do not have the data and analytic capacity to report on the quality

measures required by DSRIP, a portion of DSRIP funding is directed toward improving providers' ability to report and calculate baseline performance levels. In later years of DSRIP implementation, a portion of DSRIP funding is tied to achieving improvements on the quality measures related to providers' DSRIP projects. In New York, the most recently approved DSRIP program, a portion of DSRIP funding is also tied to meeting a statewide set of transformation goals, such as reducing the number of avoidable emergency department visits and hospital readmissions.

Unlike most Medicaid payments, DSRIP supplemental payments are based on reporting and performance milestones rather than services provided. In most states' DSRIP programs, if a provider fails to achieve a milestone, then the provider is not eligible for the full DSRIP payment tied to that milestone. Because DSRIP projects include several phases and are implemented over several years, a provider may incur costs (for example, hiring staff to implement a project) or provide a service for which they ultimately do not receive payment if they fail to achieve their milestones.

However, some design features mitigate the potential risk to providers. For example, partial payments can be made for partial milestone achievement in California and Texas DSRIP programs.<sup>9</sup> Providers in California, Massachusetts, and Texas have an opportunity to carry forward some DSRIP milestones (and the associated funding) to subsequent years if they miss their targets. New York and New Jersey DSRIP programs both have a high performance pool that reallocates funding from missed milestones to make additional payments to providers who exceed their targets. As a result, a provider who misses a milestone has the opportunity to earn some payment for outperforming expectations in another area.

Setting appropriate milestone targets is challenging for states and CMS, particularly for health outcome measures. Performance

milestones that are set too low and are easy to achieve raise questions about whether incentive payments were necessary in the first place. On the other hand, if performance milestones are difficult to achieve and DSRIP payments are withheld, this can have adverse consequences for both providers and Medicaid enrollees. These consequences could include, for example, reducing services (particularly DSRIP-financed services), reducing staffing levels, and in some extreme cases, closing facilities. In more recently approved DSRIP programs, CMS has addressed some of these concerns by introducing more standardized methods for setting outcome improvement targets.<sup>10</sup>

To date, most DSRIP providers have achieved most of their milestones. Massachusetts reported 95 percent DSRIP milestone achievement in its first year and California reported 99 percent milestone achievement in its first three years of DSRIP implementation (Anderson et al. 2013, Pourat et al. 2014). However, DSRIP milestones may be harder to achieve in later years of DSRIP implementation when a greater proportion of payments are tied to outcome improvement. For example, Texas estimates that only 83 percent of allocated DSRIP funding will be claimed in the fourth year of its demonstration (HHSC 2015).

## Eligible providers

Most state DSRIP programs are limited to hospitals that were previously receiving supplemental payments and that serve a high proportion of Medicaid enrollees and uninsured individuals. These typically include both public and private hospitals (except for New Jersey, which does not have public hospitals, and California, whose DSRIP program only includes public hospitals). A few states allow other providers to participate in their DSRIP programs as well, including community mental health centers, physician groups, and local health departments.

Due to variations in program scope and provider eligibility requirements in each state, the number

of participating provider organizations also varies across states, from 2 in Kansas to 309 in Texas (Schoenberg et al. 2015).<sup>11</sup> Four states—California, Kansas, Massachusetts, and New Jersey—specify which providers are eligible to participate in the program and receive incentive payments. In these states, DSRIP programs limit participation to hospitals, and most often hospitals that serve high volumes of Medicaid and uninsured patients.<sup>12</sup> New York and Texas DSRIP programs have many more participating providers than other DSRIP programs because they are required to form regional coalitions that include a variety of non-hospital providers. Hospital-based DSRIP programs in other states also encourage providers to collaborate with each other and with other stakeholders in their communities in the development and implementation of their DSRIP projects, but they do not make DSRIP funding directly available to non-hospital providers.

In general, providers that serve a higher proportion of Medicaid enrollees and the uninsured are eligible for larger DSRIP payments. Because of their payer mix, these providers generally have lower operating margins and less access to capital than providers that serve a higher proportion of commercially insured patients (Bachrach et al. 2012). In 2013, hospitals reported that Medicaid paid 89.8 percent of costs in the aggregate (including Medicaid DSH payments), which was substantially lower than private payers, which paid 143.6 percent of costs in the aggregate (AHA 2015).

## Financing

Total DSRIP funding is established in each demonstration's special terms and conditions, and includes both federal and non-federal contributions. The total federal funding available to the states over the course of each demonstration varies from less than \$34 million in Kansas to more than \$6 billion in Texas and New York. As a percent of total state Medicaid benefit spending in each state, DSRIP ranges from 1 percent in

Massachusetts, New Jersey, and Kansas, to 7 percent in Texas (Table 1-1).

CMS applies a budget neutrality test for Section 1115 waivers before approval to ensure that federal spending under the waiver will be no more than projected spending without the waiver. In some DSRIP demonstrations (e.g., New Jersey), DSRIP expenditures are at least partially offset by savings from eliminating prior supplemental payments that could have hypothetically continued in the absence of the demonstration. In addition, some states (e.g., New York) also apply prior and projected savings from implementing or expanding managed care to the budget neutrality assumptions. Although all Section 1115 waivers must be budget neutral, DSRIP programs that are not offset by reductions to prior supplemental payments often represent new funding to providers, which makes it easier for providers to invest in new initiatives.

The special terms and conditions also describe the funding sources that states intend to use as the non-federal share necessary to draw down federal matching funds. Like other Medicaid payments, the non-federal share of DSRIP payments can be supplied from one or more sources, including state general revenue funds, health care-related taxes, and intergovernmental transfers (IGTs) from governmental entities, such as public hospitals and local governmental entities.<sup>13</sup> In addition, some Section 1115 waivers include federal funding for designated state health programs (DSHP), an indirect method for financing the non-federal share.<sup>14</sup>

In all DSRIP programs except those in New Jersey and Massachusetts, public hospitals contribute all or most of the non-federal share of DSRIP funding through intergovernmental transfers.<sup>15</sup> In these states, hospitals that have implemented DSRIP projects are contributing the funds to draw down federal matching funds for their projects, reducing their net DSRIP payments. In some cases, public providers are also contributing IGT funds to finance the non-federal share of other providers' DSRIP projects.

Private providers are often dependent on public hospitals or local governmental entities for the non-federal share of DSRIP funding because private providers cannot make IGTs. This arrangement poses risks for private providers because of the voluntary nature of IGTs.<sup>16</sup> For example, four regional health care partnerships in South Texas were initially unable to receive most of the DSRIP funds allocated to them because they lacked enough IGT funds (HHSC 2015).

## Monitoring and evaluation

States and CMS both have roles in oversight of DSRIP projects after the demonstration is approved. In general, CMS is responsible for monitoring state compliance with the special terms and conditions associated with the demonstration, including the upper limit on available DSRIP funding and the demonstration's overall budget neutrality test. States and CMS together establish and oversee the process for distributing DSRIP funding to eligible providers, including rules for the share of funding that must be allocated for achievement of particular types of milestones, and they develop a list of eligible projects and corresponding outcome measures that providers can select. States are primarily responsible for review of the specific proposed projects and provider progress reports used to approve payments for documented achievements.

DSRIP projects and protocols are typically posted on state websites, providing more transparency and opportunities for public comment than many other types of Medicaid supplemental payments. In New York, the most recently approved DSRIP program, CMS required the state to use independent assessors to evaluate DSRIP projects based on predefined criteria. In addition, the New York DSRIP protocols add more structure to DSRIP payment levels by establishing a formula for determining DSRIP project value based on the quality of the project and the number of attributed Medicaid and uninsured individuals for the provider organization.

CMS also requires each state to design DSRIP-specific evaluation plans for CMS approval. In addition to reviewing the outcome improvements reported by each DSRIP project, most DSRIP evaluations must include qualitative assessments of the program's impact, and some DSRIP evaluations will also include comparative information about the relative performance of DSRIP and non-DSRIP providers. States must submit an interim evaluation prior to the expiration of the demonstration and a final evaluation after the completion of the demonstration. So far, Massachusetts and California have completed interim evaluations, but no state has finished its final DSRIP evaluation yet.

## DSRIP Program Summaries

Since 2010, CMS has approved six Section 1115 demonstrations with incentive arrangements that are classified as DSRIP programs for this analysis (Table 1-1). We include Massachusetts's Delivery System Transformation Initiative (DSTI) because it is similar to DSRIP programs. Other Section 1115 demonstrations with quality-related provider incentive programs, such as New Mexico and Oregon, differ in some important respects and are thus described in the subsequent section as DSRIP-like programs.

### California

California's DSRIP program is open to 21 designated public hospitals that serve a large portion of the state's Medicaid population. Each hospital has selected 12 to 19 projects across five categories: infrastructure development, innovation/redesign, population-focused improvement, urgent improvements in care (patient safety), and HIV/AIDS transition projects (NAMD 2014). Payment for improvement in quality outcomes is only included for patient safety projects, such as reducing central line-associated bloodstream infections.

**TABLE 1-1. Summary of Current Delivery System Reform Incentive Payment (DSRIP) Programs, 2015**

State	Implementation time frame	Participating providers	Number of DSRIP projects	Total maximum federal DSRIP funding (millions)	Total maximum state and federal DSRIP funding (millions)	DSRIP funding as share of total state Medicaid benefit spending
California	5 years (2010–2015)	Public hospitals (n = 21)	388	\$3,336	\$6,671	2%
Texas	5 years (2011–2016)	Hospital and non-hospital providers participating in one of 20 Regional Healthcare Partnerships (n = 309)	1,491	6,646	11,418	7
Massachusetts	6 years <sup>1</sup> (2011–2017)	Public and private hospitals (n = 7)	49	659	1,318	1
New Jersey	4 years (2013–2017)	Private hospitals (n = 50)	50	292	583	1
Kansas	3 years (2014–2017)	Public teaching hospital and children's hospital (n = 2)	4	34	60	1
New York	6 years (2014–2019)	Hospital and non-hospital safety net providers, organized into 25 Performing Provider Systems (n = 64,099) <sup>2</sup>	258	6,419	12,837	3

**Notes:** The funding amounts provided in this table are estimates based on an analysis of the figures provided in each state's Section 1115 demonstration special terms and conditions. All amounts represent maximum potential funding; earning the funding is contingent upon achieving milestones and providing non-federal share of funding. Federal funding was calculated based on a year-by-year analysis of total computable DSRIP funding and the federal medical assistance percentage (FMAP) for that year, which may vary slightly from actual federal funds paid. DSRIP funding as a percent of total Medicaid spending in the state was estimated based on historic spending and Congressional Budget Office Medicaid spending projections applied to fiscal year 2014 spending. Definitions of DSRIP projects vary by state and may change due to subsequent DSRIP plan modifications.

<sup>1</sup> Massachusetts's Delivery System Transformation Initiative (DSTI) was initially approved for three years and was extended for three years in October 2014 to include additional funding and create a new Public Hospital Transformation and Incentive Initiative (PHTII) pool, to allow one DSTI hospital to implement additional delivery system reform projects. The table above describes the total funding for DSTI for all 6 years of approval and described the number of projects included in the state's initial DSTI. The \$330 million in federal funds for PHTII is not included.

<sup>2</sup> New York estimates that 64,099 unique providers are participating in the state's 25 Performing Provider Systems, but did not provide an estimate of the number of provider organizations (e.g., hospitals and physician groups), which is how other states report their DSRIP participating providers.

**Source:** Schoenberg et al. 2015; MACPAC analysis of CBO 2015 and CMS-64 Financial Management Report (FMR) net expenditure data as of April 2015 (used to calculate DSRIP funding as a percent of total Medicaid benefit spending).



For example, the Hope Center Clinic in Oakland, which is part of the Alameda County Health System, is implementing a project to provide complex case management for patients struggling to manage their chronic conditions. The program identifies the most costly patients based on prior avoidable emergency department use and provides them with ongoing care in an outpatient setting. For the first milestone and subsequent payment, the Hope Clinic was required to develop a plan for two disease-specific care management clinics (including staffing model, budget, space, and scheduling logistics). Other milestones were based on reporting objectives, for example, reporting the number of patients enrolled into the Complex Care Clinic. In the last year of the demonstration, the final milestone requires the Hope Clinic to complete a cost-effectiveness study of utilization and patient satisfaction of the Complex Care Clinic. Initial program results of the Complex Care Clinic show a 20 percent reduction in admissions per patient per year and a 23 percent reduction in bed days per patient per year (CAPH 2014).

Overall, the Alameda County Health System may earn up to \$14 million (state and federal) for this complex case management project and a total of \$300 million (state and federal) over five years for completing all 19 of its DSRIP projects, which include a total of over 100 distinct milestones.<sup>17</sup> On average, this level of DSRIP funding per year is equal to approximately one quarter of the hospital's 2010 total Medicaid revenue (MACPAC 2015a).<sup>18</sup> Alameda County Health System finances the state share of this project and its other DSRIP projects through its own IGT funding.

## Texas

The Texas DSRIP program is open to virtually all Medicaid providers in the state, including community mental health centers, physicians, and local health departments. DSRIP providers are organized into 20 Regional Healthcare Partnerships (RHPs), which are anchored by a public hospital or other governmental entity. Each RHP anchor is responsible

for coordinating activities such as conducting community needs assessments, managing reports, and convening learning collaboratives for otherwise independent DSRIP providers.

More than 300 providers are implementing over 1,400 DSRIP projects in Texas. In addition to the projects proposed by 224 hospital providers, DSRIP projects were also submitted by 38 community mental health centers, 20 local health departments, and 18 physician groups.<sup>19</sup> A wide variety of projects are being implemented, but the most common are: (1) projects that expand access to primary and specialty care, (2) behavioral health interventions to prevent unnecessary use of services in more acute settings, and (3) programs to help targeted patients navigate the health care system (Khalsa 2014). Each project is linked to one or more corresponding quality outcome improvement milestones, which are a basis for payment in the final two years of implementation.

One example of regional collaboration in the Texas DSRIP program can be found in Austin, Texas. The county's health district (Central Health) and the largest hospital system in Austin (Seton Healthcare Family) joined together to form the Community Care Collaborative (CCC), the initial phase of an integrated delivery system for the safety net population. This jointly owned non-profit is implementing 15 DSRIP projects that are performed by contracted service providers within the community. For example, the CCC is partnering with Travis County's three federally qualified health centers (FQHCs) to structure and standardize the treatment of individuals with certain high-prevalence chronic conditions, like diabetes and congestive heart failure, and to provide integrated treatment for approximately 1,000 patients with co-occurring depression and diabetes. Through its contracted providers, the CCC is also partnering with churches and food pantries using mobile health teams to bring primary care and chronic care management services to patients with limited access, including individuals who are homeless or living in geographically underserved communities (CCC 2013).

The CCC is eligible to receive a total of approximately \$240 million (state and federal) over four years for the implementation of its DSRIP projects. Most of this funding (\$157 million) is for project implementation and about one quarter of the funding (\$62 million) is based on reporting and improvement in corresponding outcome measures. The CCC also is eligible to receive up to \$21 million over four years for reporting on a standard set of population health measures that most DSRIP hospitals are required to report.

Central Health, the public health care district that is part owner of the CCC, provides the state share for the CCC's projects and 18 other projects in its RHP (Central Health 2014). Travis County voters approved a tax increase in 2012, at the start of the DSRIP implementation process, in order to make funding for this IGT and other health care projects available.

## Massachusetts

The Massachusetts Delivery System Transformation Initiative (DSTI) program is open to seven hospitals serving a high volume of Medicaid patients. Each hospital implements projects focused on the goals of developing integrated delivery systems, moving toward value-based purchasing, and instituting population-focused improvements. Outcome measures were initially included for most projects on a reporting basis, but as part of the state's three-year DSTI extension, the state is required to transition more DSTI funding toward improvement on quality outcomes.

The October 2014 extension of the state's demonstration also includes a new Public Hospital Transformation and Incentive Initiative (PHTII) pool, which will allow one DSTI hospital (Cambridge Health Alliance) to implement additional delivery system reform projects to improve its capacity to operate as an accountable care organization for Medicaid. As part of the PHTII authorized under the Massachusetts demonstration renewal, Cambridge

Health Alliance is eligible to receive \$660 million over three years to expand these efforts.

## New Jersey

New Jersey's DSRIP program is open to all 63 acute hospitals in New Jersey that previously received supplemental payments, and 50 hospitals are participating. Each hospital is implementing a project focusing on one of eight conditions: HIV/AIDS, cardiac care, asthma, diabetes, obesity, pneumonia, behavioral health, or substance abuse conditions.

New Jersey's DSRIP program was the first to include a high performance fund to reward providers for exceeding benchmark performance on a core set of quality measures. The high performance fund is composed of some funds set aside from the initial DSRIP allocation and any unclaimed DSRIP funding from providers that do not meet earlier DSRIP milestones.

One example of a DSRIP project in New Jersey is Robert Wood Johnson University Hospital's Care Transitions Intervention Model to Reduce 30-Day Readmissions for Chronic Cardiac Conditions. Eligible patients are selected to participate based on criteria including income, having a cardiac disease or risk factors for developing a cardiac disease, and being at high risk for readmission due to a cardiac condition. Once patients are enrolled in the project, a patient navigator, typically a registered nurse, reviews all cases and discusses any medication issues with physicians. Once patients have been discharged, a nurse makes home visits within 48 hours to high-risk patients to perform a symptom and medication check; for instance, it might be possible for a physician to prescribe a more affordable medication. Within seven days of hospital discharge, patients have a follow-up appointment at a discharge clinic set up in the hospital. Finally, a social worker follows up with three phone calls to identify any outstanding issues that may lead to readmission. The hospital is eligible to receive approximately \$4 million (state

and federal) a year, which represents less than 5 percent of the hospital's 2010 total Medicaid revenue (MACPAC 2015b).<sup>20</sup>

## Kansas

Kansas's DSRIP program only includes one teaching hospital and one children's hospital. These hospitals were receiving UPL supplemental payments prior to the implementation of the demonstration.

Each hospital is implementing at least two projects related to either access to integrated delivery systems, the prevention and management of chronic diseases, or both. For example, the University of Kansas hospital is using DSRIP funding to provide additional monitoring for heart failure patients and their caregivers following a hospital discharge. The program also provides training and education, so that these patients can monitor their condition at home. The goal of the program is to improve health outcomes and reduce hospital readmissions (University of Kansas 2014). Both participating hospitals receive larger DSRIP funding if they partner with other providers across the state, particularly in rural and underserved areas. Each project is linked to pay-for-performance outcome measures, which are collected and calculated by the state's external quality review organization.

## New York

New York's DSRIP is open to providers who collaborate to form a Performing Provider System (PPS), a coalition of providers that assume responsibility for improving health outcomes for a defined patient population. The New York DSRIP program is the only DSRIP program that includes a statewide outcome improvement goal to reduce avoidable hospital use by 25 percent over five years.

While hospitals generally serve as the anchor entities for these systems, a wide variety of providers can participate, including hospitals,

health homes, nursing facilities, and any other Medicaid provider that meets the state's definition of a safety net provider.<sup>21</sup> In addition to playing a coordinating role similar to RHP anchors in Texas, the anchor entity for a New York PPS is also fiscally responsible for distributing DSRIP payments among participating providers.

Each PPS will implement 5 to 11 projects focusing on system transformation and clinical and population-wide improvements. The DSRIP funding for each project will be based on each project's application score and the number of individuals attributed to each PPS. By the final year of the demonstration, all of the funding will be allocated toward outcome milestones. In addition, the demonstration includes a high performance fund for providers (similar to New Jersey) and a penalty for all providers if statewide performance standards are not met.

A total of 25 New York PPS coalitions have submitted applications to implement a total of 258 DSRIP projects. The three most commonly selected projects are integration of primary and behavioral health, creation of integrated delivery systems, and implementation of care transitions intervention models to reduce 30-day readmissions for chronic disease (Shearer et al. 2015). The state estimates that more than 64,000 unique providers are participating in this program (Schoenberg et al. 2015).

## DSRIP-like programs

In addition to the DSRIP programs described above, CMS has approved provider-based quality incentive programs in New Mexico and Oregon, also using Section 1115 expenditure authority. In this chapter, we refer to these programs as DSRIP-like because they do not include funding for the implementation of particular projects. The structure of these DSRIP-like programs and their relationship to full DSRIP programs are briefly described below.

**New Mexico.** New Mexico's Hospital Quality Improvement Incentive (HQII) program was



approved in 2012 as part of the state's Centennial Care Section 1115 waiver. This program provides a total of \$20 million (in federal funds) to 29 hospitals over five years. The program is different from DSRIP programs in other states because there are no specific hospital projects that providers implement. Instead, the funding is tied solely to each hospital's performance on a common set of quality measures, primarily measures of hospital safety and preventative care.

**Oregon.** Oregon added a Hospital Transformation Performance Program (HTPP) to its Oregon Health Plan Section 1115 waiver in June 2014. This program provides approximately \$95 million a year in federal funds to urban hospitals with more than 50 beds. Participating hospitals are required to report and improve on a set of quality measures that are similar to the measures used for the state's Coordinated Care Organizations (CCOs), which are also authorized under the state's Section 1115 waiver.<sup>22</sup> Similar to New Mexico's HQII, Oregon's program does not have any specific projects for providers to implement.

## MACPAC Interviews and Site Visits

To better understand the role of DSRIP programs in the Medicaid delivery system, MACPAC contracted with NASHP to document and analyze the variety and common features of DSRIP programs. The project sought to provide a comprehensive review of all existing DSRIP programs, as well as an in-depth examination of the DSRIP's genesis, goals, and functioning in three states.

The project had three phases. In the first phase, NASHP conducted an environmental scan of six state DSRIP programs and two DSRIP-like programs to gather information on state goals and DSRIP categories, participating providers, financing mechanisms, provider projects, clinical outcomes, program reporting and monitoring,

and outputs to date. Following the environmental scan, NASHP conducted key informant interviews with Medicaid officials in four states (New York, New Mexico, Oregon, and Massachusetts) and with CMS officials to verify material collected in the environmental scan and gather additional information such as state and federal experiences with DSRIP implementation and lessons learned. Finally, site visits were conducted in Texas, New Jersey, and California. These states were selected to represent various stages of DSRIP program development, implementation, and experience. California is in the final year of its program, Texas is mid-way through implementation, and New Jersey began project implementation at the end of 2014. Interviews and site visits were conducted between September and December, 2014.

### Themes from interviews and site visits

Below, we describe five themes that emerged from these interviews and site visits. These reflect the perspectives of hospital administrators and other providers, state and CMS officials, and state evaluators on the purpose of the program, the challenges of operating and financing the program, their efforts to understand whether DSRIP programs are succeeding, and the future of delivery system transformation.

**While many states view DSRIP programs as a way to preserve or make new supplemental payments, CMS describes the primary purpose of DSRIP programs as catalyzing delivery system transformation.** Although CMS describes DSRIP programs as a tool primarily intended to assist states in transforming their delivery systems in order to fundamentally improve care for beneficiaries, states have been candid that DSRIP programs have been pursued as a means to make supplemental payments. With the introduction of DSRIP programs, states shift from a system where supplemental funding was designed to make up for Medicaid payment shortfalls toward a system where funding is earned when quality and improvement goals are met. This has been a

significant culture shift for state Medicaid officials and health care providers, and stakeholders reported that the culture continues to evolve.

Differing perspectives on the purpose of DSRIP programs lead to differing expectations for the scope and breadth of delivery system transformation. If DSRIP programs are considered to be a replacement for prior supplemental payments, then states and providers may expect to limit funding to hospitals that previously received supplemental payments. On the other hand, if DSRIP programs are seen primarily as tools for transformation, then DSRIP programs may be expected to expand to other providers that are also critical to systemwide change. At issue is whether state DSRIPs are meant to stimulate improvement for all providers or to stabilize particular providers that have historically received supplemental payments and serve a high proportion of Medicaid enrollees and uninsured individuals.

The relationship between DSRIP and supplemental payments is complicated and evolving. Although early DSRIP demonstrations often replaced or expanded prior supplemental payments, New York's DSRIP is not related to prior supplemental payments and is primarily focused on supporting the state's delivery system goals. More recently, as part of the extension of Massachusetts's DSTI program, CMS required the state to conduct an analysis of the interplay between the DSRIP and other types of provider financing in order to provide insight into how the state's supplemental payment programs will look in the future.

**States reported that finding a source of non-federal share was a challenge.** States and providers noted that finding a source of non-federal share is difficult, and presents a host of complications (political, technical, and financial). States report federal inconsistency on policies such as IGTs and other sources of non-federal share for DSRIP programs. In many states, the provision of the non-federal share is directly linked to which participants qualify for DSRIP, which can inhibit non-public provider's

participation. Furthermore, the entity providing the non-federal share may net less DSRIP funding than a privately owned health care provider for comparable work after accounting for IGT contributions.

### **DSRIP implementation is resource intensive for states, providers, and the federal government**

States, providers, and federal officials suggest that DSRIP mechanisms for accountability have produced results, but have also required substantial upfront investment. Most states have increased staff or consulting capacity and expertise in clinical quality and performance improvement. For example, the Texas Health and Human Services Commission dedicated an additional 13 full-time equivalent employees to support the administration of DSRIP. Providers, too, report adding staff and contractor time to implement projects, comply with DSRIP reporting, and address data and technology limitations.

The significant administrative burden of DSRIP was highlighted by all stakeholders. State officials and providers expressed concerns that the DSRIP program negotiation and approval process took longer than anticipated, and truncated the time for implementation of delivery system reforms. They also expressed concern that operational delays shortened the implementation time frame, which might limit providers' ability to realize the full potential of reforms. CMS officials have noted that they too find the administration challenging but that the size and complexity of the programs require greater oversight. While participants understand the value of DSRIP monitoring and federal oversight, they question whether there may be an equally valuable, but less administratively burdensome approach.

**DSRIP program evaluation is challenging and results are not yet available.** Most DSRIP programs are currently in their initial approval period, with the exception of Massachusetts, which was extended for an additional three years in October 2014. States continue to develop evaluation plans and

collect data, but no state has yet completed a final evaluation of its DSRIP.

At the time of our interviews, most states did not yet have aggregate data demonstrating improved health outcomes or cost savings. Absent these data, states reported that they could not yet determine if the DSRIP program reforms could be sustained. State officials were enthusiastic that early provider reports suggested that the projects were bringing about real change in the delivery of care and improving the health of Medicaid beneficiaries. However, they were concerned that more time is needed to fully realize their vision for transformation and that continued funding would be needed to sustain improvements in the short term.

Officials in California and Texas, who had completed or were in the process of conducting mid-point assessment of their DSRIP programs at the time of our interviews, reported that they encountered challenges in collecting data from providers. And once collected, it took considerable effort to format data from different providers so that it would be useful for making comparisons.

**States and providers expressed concerns about sustainability.** While most states were interested in continuing DSRIP after their initial approval period, they were uncertain how long CMS would make DSRIP funding available. In the fall of 2014, CMS extended the DSTI program in Massachusetts for an additional three years, instead of the five years that the state initially requested. CMS is currently reviewing a request from California to renew its DSRIP program for an additional five years.

Providers also expressed concern about the sustainability of the programs without DSRIP funding. The infusion of capital from DSRIP payments allowed providers to enhance their services for Medicaid enrollees by allowing them to develop infrastructure, increase their capacity, or provide new services. Providers were optimistic that these enhancements improved the quality of care provided to their patients. At the same time,

they expressed concern that the time frame to implement projects was not sufficient to realize their performance goals. Some providers noted that without continued funding, DSRIP projects would be discontinued and providers would not realize their goals for the transformation of care delivery and improved health outcomes. This raises questions about whether capital is needed as a one-time investment or on an ongoing basis, and the length of time necessary to realize transformation goals.

## Policy Implications

While DSRIP policy continues to evolve with each new demonstration, our analysis raises a number of larger policy issues that the Commission will explore as states continue to implement and evaluate their DSRIP programs. We highlight four policy implications below.

### **Medicaid's role in delivery system transformation.**

The DSRIP approach, if taken to scale, has the potential to fundamentally change Medicaid's role from financing medical care to driving system change toward value and improved health outcomes. DSRIP is part of a broader shift from volume-based payment to new approaches that incentivize both prudent use of resources and improvements in health outcomes. This shift is particularly important for providers that serve a high proportion of Medicaid enrollees and otherwise have limited access to capital to invest in new models of care delivery on their own.

On the other hand, DSRIP supplemental payments do not affect the underlying mechanisms by which providers are paid for Medicaid services. Although DSRIP payments are large compared to other funding available for delivery system reform, they represent only a portion of overall Medicaid spending and may not be enough by themselves to support and sustain delivery system reform efforts. Moreover, the process is disruptive for providers that have historically relied on supplemental payments. While risk-based payments are an

important motivator for practice transformation, providers that are particularly reliant on Medicaid supplemental payments will have to reexamine their business model under DSRIP.

The extent to which Medicaid can drive such change will likely depend on the success of specific initiatives such as DSRIP, as well as how such programs align with other approaches to value-based purchasing, both within Medicaid and beyond. For example, as noted earlier, many of the states with DSRIP programs are also implementing accountable care organizations and developing and testing multipayer payment-and-delivery system models under a SIM grant (Schoenberg et al. 2015). The integration of DSRIP with other value-based purchasing efforts has become an increasing focus in more recent DSRIP programs, such as New York, which explicitly requires a plan to transition DSRIP to other value-based payment mechanisms.

**Need for federal guidance.** As state Medicaid programs embark on a new role through DSRIP, it is the Commission's view that clear and consistent federal guidance is needed. Greater clarity of DSRIP policies and expectations would help states and providers implement their programs (for instance, addressing some of the delays that occurred in the states we studied) and also allow for more effective involvement of external stakeholders, such as consumer groups. In addition, while Section 1115 demonstration negotiations are state-specific by design, greater consistency around DSRIP program design, policies, and goals would help reduce barriers for new states interested in implementing DSRIP programs.

In the most recently approved DSRIP programs, CMS has begun to further standardize DSRIP program design. For example, performance measurements are increasingly prescriptive, with predefined, population-based outcome targets replacing provider-defined improvement goals based on their own facilities and patients. However, these efforts at standardization have been limited

to state-by-state waiver negotiations and their applicability to other states are unclear.

**Medicaid supplemental payments.** DSRIP programs provide more transparency about payment than UPL supplemental payment programs, the lack of transparency of which was noted by the Commission in its March 2014 report. DSRIP programs and processes are well documented in the special terms and conditions of each demonstration and in state protocols. As a result, there is more information available about DSRIP than about UPL supplemental payments regarding which providers are eligible to receive payments, how much they can receive, and the milestones and achievements that are tied to payments.

Even so, most state Medicaid programs continue to make UPL supplemental payments. The concerns the Commission raised about the ability to analyze these payments at the provider level and about the lack of transparency around their use remain significant. Moreover, while there is growing interest among states in implementing the DSRIP approach, the budget neutrality test and other federal requirements of Section 1115 waivers may limit the ability of all states to adopt this model.

**Value of cross-state evaluation.** Finally, given the potential of DSRIP to transform care delivery and the amount of funding at stake, it is important to independently assess the success of these programs. Evaluating the success of DSRIP programs should go beyond whether or not providers achieved their particular milestones and whether budget neutrality is maintained. In particular, it is critical to learn whether the quality and access improvements achieved through DSRIP are sustainable in the long-term without DSRIP payments.

Although each state is required to evaluate its own program, measures should also be aligned across states wherever possible to promote cross-state comparison. A cross-state synthesis of DSRIP outcomes would be a valuable addition to state-specific findings.

## Endnotes

- <sup>1</sup> We include the Massachusetts Delivery System Transformation Initiative (DSTI) in our analysis of DSRIP programs because it uses a similar structure. Other Section 1115 demonstrations with quality-related provider incentive programs, such as New Mexico and Oregon, do not include direct funding for project implementation and are thus described as “DSRIP-like” programs in this report.
- <sup>2</sup> A supplemental payment is a Medicaid payment to a provider, typically in a lump sum, that is made in addition to the standard payment rates for services. More background information on Medicaid supplemental payments can be found in Chapter 6 of MACPAC’s March 2014 report.
- <sup>3</sup> DSH payments are supplemental payments to hospitals that serve a disproportionate share of low-income patients. Payments to each hospital are limited to the actual cost of uncompensated care to Medicaid enrollees and uninsured individuals for hospital services.
- <sup>4</sup> We consider DSRIPs to be supplemental payments because they are Medicaid payments to a provider made in addition to the standard payment rates for services. However, DSRIPs are not directly linked to Medicaid services provided.
- <sup>5</sup> There are two exceptions: states can make DSH and graduate medical education (GME) supplemental payments under capitated managed care. In addition, states can make payments directly to providers for Medicaid services not included in the capitation rate.
- <sup>6</sup> Four of the six approved DSRIP programs (California, Texas, Massachusetts, and Kansas) operate in parallel to uncompensated care pools, which pay providers for the costs of providing uncompensated care. The relationship between the DSRIP program and such pools varies by state. For example, the size of the Texas uncompensated care pool is linked to the amount of DSRIP funding available. Over the duration of the waiver, funding for uncompensated care decreases while funding for DSRIPs increases. In other states, the relationship is less direct (Schoenberg et al. 2015). While uncompensated care pools are tied directly to underpayment for Medicaid services and care for the uninsured (similar to DSH), DSRIP payments are not considered payments for services.
- <sup>7</sup> New York’s draft value-based payment roadmap does not have a single definition of value, but rather it outlines a menu of potential payment methodologies. The draft framework discourages incentive payments based on quality scores alone and instead promotes shared savings methodologies that are linked to the total cost of care for a particular population or service (such as integrated primary care or episodic care bundles). Global capitation and bundled payments are highlighted as the highest level of value-based purchasing. This model will continue to evolve as it is reviewed by CMS (NYDOH 2015).
- <sup>8</sup> In all states except for New Jersey, providers may implement multiple concurrent projects. Hospitals in New Jersey can only implement one project.
- <sup>9</sup> In the Texas DSRIP program, partial payment is only permitted for outcome improvement milestones (referred to as Category 3 milestones).
- <sup>10</sup> For example, the New York DSRIP program requires providers to set outcome improvement targets based on a gap-to-goal methodology modeled after the Quality Improvement System for Managed Care (QISMC) method. The state establishes a high performance goal for each outcome measure and providers must close 10 percent of the gap between the baseline performance and the high performance goal each year.
- <sup>11</sup> New York estimates that 64,099 unique providers are participating in the state’s 25 Performing Provider Systems, but did not provide an estimate of the number of provider organizations (e.g., hospitals and physician groups), which is how other states report their DSRIP participating providers (Schoenberg et al. 2015).
- <sup>12</sup> In New Jersey, the state’s DSRIP program is open to all hospitals in the state.
- <sup>13</sup> Intergovernmental transfer (IGT) is a transfer of funds from another government entity (e.g., counties, other state agencies, providers operated by state or local government) to the Medicaid agency.
- <sup>14</sup> DSHPs are authorized under Section 1115 demonstrations and provide states with additional funding for state programs that are related to the health of Medicaid, the State Children’s Health Insurance Program (CHIP), and other low-income populations, but



are not Medicaid benefits. By providing federal financing for previously state-funded programs, these DSHP demonstrations make more state funding available to finance additional Medicaid spending on programs such as DSRIP.

<sup>15</sup> New Jersey does not have public hospitals and finances DSRIP through state general revenue. Massachusetts has one public hospital that contributes IGTs toward the state's DSTI program. Other payments to other DSTI providers are financed through state general revenue.

<sup>16</sup> Section 1905(cc) of the Social Security Act limits the ability of states to require political subdivisions to contribute additional IGT funding for Medicaid.

<sup>17</sup> We do not include population health reporting requirements (classified as Category 3 projects in California's DSRIP program) as projects for this comparison because they only include reporting milestones.

<sup>18</sup> Illustrative estimate based on MACPAC analysis of 2010 DSH audit data and provider DSRIP documentation. Total Medicaid payments include disproportionate share hospital payments and are not adjusted for inflation.

<sup>19</sup> As of October 2014, 309 providers were participating in the Texas DSRIP program, slightly more than the 300 DSRIP providers that initially proposed projects.

<sup>20</sup> Illustrative estimate based on MACPAC analysis of 2010 DSH audit data and provider DSRIP documentation. Total Medicaid payments include disproportionate share hospital payments and are not adjusted for inflation.

<sup>21</sup> In New York, up to 5 percent of a performing provider system's DSRIP funding can go to providers that do not meet the state's safety net provider definition.

<sup>22</sup> Oregon currently operates a statewide accountable care model that consists of a network of Coordinated Care Organizations (CCOs). These community-level entities provide coordinated and integrated care to Oregon Medicaid beneficiaries and are held accountable for the populations they serve by operating under a global budget. The state specifically hopes to use its DSRIP-like program, in part, as a vehicle to accelerate transformation and quality improvements in CCOs.

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CHAPTER 2

# Medicaid Coverage of Dental Benefits for Adults

# Medicaid Coverage of Dental Benefits for Adults

## Key Points

- Poor oral health is widespread among adults in the United States and especially affects those with low incomes.
  - Adults with incomes below 100 percent of the federal poverty level (FPL) are three times more likely to have untreated dental caries—commonly known as cavities—than adults with incomes above 400 percent FPL.
  - Thirty-seven percent of adults age 65 and older with incomes below 100 percent FPL had complete tooth loss compared to 16 percent of those with incomes at or above 200 percent FPL.
- Individuals with a range of chronic conditions are more susceptible to oral disease. Oral disease can also exacerbate chronic disease symptoms. Poor oral health can limit communication, social interaction, and employability.
- Medicaid programs are required to cover dental services for children and youth under age 21 but there are no minimum coverage requirements for adults. As a result, adult dental benefits vary widely across states. For example, as of February 2015:
  - 19 states provided emergency-only adult dental benefits for non-pregnant, non-disabled adults;
  - 27 states covered preventive services;
  - 26 states covered restorative services;
  - 19 states covered periodontal services;
  - 25 states covered dentures;
  - 25 states covered oral surgery;
  - 2 states covered orthodontia; and
  - 9 states placed an annual dollar limit on covered dental services.
- States change Medicaid coverage of adult dental benefits on a regular basis, cutting benefits when budgets are tight and expanding them when more funds are available.
- Initiatives to improve access to dental services include using mobile clinics and telehealth technologies, increasing the number of providers serving Medicaid enrollees, and funding demonstrations to encourage Medicaid enrollees to increase dental utilization. For example:
  - In 2014, the Health Resources and Services Administration supported 238 school-based health center oral health activities through capital grants.
  - The National Health Service Corps and some states offer student loan repayment assistance to dentists who commit to working in high-need, underserved, or rural areas.
  - Minnesota and Alaska have amended state scope-of-practice laws to allow mid-level dental practitioners to provide dental services.

## CHAPTER 2: Medicaid Coverage of Dental Benefits for Adults

Federal law does not mandate any minimum requirements for adult dental coverage under Medicaid, allowing states to decide whether or not to provide such coverage. As with other optional Medicaid benefits for adults, states that cover dental services under Medicaid can define the amount, duration, and scope of the services covered. States often reduce or eliminate adult dental benefits in response to budget difficulties, and may restore benefits when the state budget outlook improves (Lee et al. 2012, Gehshan et al. 2001). In contrast, the Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) benefit for children under age 21 enrolled in Medicaid, and the State Children's Health Insurance Program (CHIP) require states to provide comprehensive dental services necessary to prevent disease and promote oral health, restore oral structures to health and function, and treat emergency conditions without caps or other limits that are unrelated to medical necessity (Cardwell et al. 2014, Kaiser 2012a).<sup>1</sup>

This chapter examines dental benefits for adults enrolled in Medicaid. We begin by examining why oral health benefits are important for all adults, and particularly those with low incomes. We describe current Medicaid dental benefits for adults, noting differences for various subpopulations, and report on recent changes in state coverage policies. We present information on the use of dental care by Medicaid enrollees as well as state and community efforts to improve access to care in underserved areas.

## The Impact of Poor Oral Health

Poor oral health affects a majority of adults in the United States. Almost all (92 percent) adults age 20 to 64 have had dental caries, commonly referred to as cavities, in their permanent teeth (NIDCR 2015). Of those with dental caries, adults with incomes below 100 percent of the federal poverty level (FPL) are more than three times as likely to have untreated dental caries than adults with incomes above 400 percent FPL (Kaiser 2012b). Specifically, between 2005 and 2008, 42 percent of adults age 20 to 64 with incomes below 100 percent FPL had untreated dental caries, compared to 11 percent of those with incomes above 400 percent FPL. Additionally, among adults age 65 and older with incomes below 100 percent FPL, 37 percent were edentulous (meaning they had complete tooth loss), compared to just 16 percent of those with incomes at or above 200 percent FPL (Dye et al. 2012).

Disparities also exist within racial and ethnic groups and for older adults. Among adults age 20 to 64 with incomes below 100 percent FPL, almost 53 percent of African American adults had untreated dental caries, compared to 40 percent of non-Hispanic white adults in that income range (NCHS 2013). Additionally, 32 percent of non-Hispanic black adults age 65 and over were edentulous, compared to 22 percent of non-Hispanic white adults (Dye et al. 2012).

Individuals with a range of chronic conditions are more susceptible to oral disease, and in turn, oral disease can contribute to complications from these conditions and exacerbate their symptoms. Diseases of poor oral health include the gum disease gingivitis and the gum infection periodontitis, which may involve all of the soft tissue and bone supporting the teeth (Kaiser 2012b). People with uncontrolled diabetes are more susceptible than their non-diabetic counterparts to develop periodontal diseases,

which can, in turn, adversely affect metabolic control of diabetes (Nycz 2014, Kuo et al. 2008, Mealey 2006). Individuals with respiratory infections, such as pneumonia and exacerbated chronic obstructive pulmonary disease, are more likely than those without such infections to have poor periodontal health, gingival inflammation, and deeper pockets (deep spaces between the teeth and gum tissue that provide a place for bacteria to live) (Kuo et al. 2008, Sharma and Shamsuddin 2011). There is also evidence of a link between osteoporosis and tooth loss, although the causal relationship is unclear (Inaba and Amano 2010, Kuo et al. 2008).

Periodontal disease may also affect pregnancy outcomes. There is an emerging consensus that preventive dental care during pregnancy is desirable (Bogges et al. 2013, Albert et al. 2011, Detman et al. 2010, Offenbacher et al. 2006). Some studies show an association between maternal periodontal disease and pregnancy complications, such as preterm labor or premature rupture of membranes, both major precursors to preterm births (Offenbacher et al. 2006, USPHS 2000). Research shows a possible association between preterm birth, low birth weight, and poor oral health (Albert et al. 2011, Skelton et al. 2009).

In addition to its association with serious medical conditions, poor oral health can negatively affect individuals in other ways. Untreated dental conditions can lead to pain and tooth loss, jeopardizing employment and lowering quality of life. For example, in fiscal year 2008, 52.5 percent of U.S. Army recruits were classified as Dental Fitness Classification 3, meaning that they were non-deployable without treatment for urgent conditions that likely would cause a dental emergency within 12 months (Moss 2011). Such a classification prohibits U.S. Army recruits from serving in combat until their dental needs are addressed. Pain affects everyday activities such as speech, eating, and sleep, which may deter socialization and employment (Dubay et al. 2005, Kaiser 2012b). In addition, poor oral health can

have negative cosmetic consequences affecting a person's ability to communicate and limiting social interactions (USPHS 2000).

## Public and Private Coverage of Dental Services

Access to and use of dental care increases when a person has dental insurance benefits (Manski et al. 2002). Dental benefits vary widely among private and public payers, from comprehensive to emergency care only.

In 2014, 55 percent of firms in the United States offered health benefits to their employees. Health coverage may be provided as part of a broader plan that includes medical benefits or stand-alone coverage (GAO 2010). Slightly more than half (53 percent) of firms offering health benefits to their employees offer or contribute to a dental coverage benefit for their employees that is separate from any dental coverage the health plan may include. Firms with 200 or more employees are more likely to offer or contribute to a separate dental health benefit than smaller firms—88 percent and 52 percent, respectively (Claxton et al. 2014). The specific dental benefits covered vary across sponsoring employers and plans.

Adult dental services are not included in the 10 essential health benefits established in the Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended) that must be offered in health plans in the individual and small group markets, whether inside or outside of the health insurance exchanges. Consequently, adults purchasing an individual plan or purchasing a small group plan are not guaranteed dental coverage unless they enroll in a stand-alone dental plan.

Medicare provides limited dental benefits, paying only for dental services that are an integral part of either a covered procedure or a procedure done

in preparation for other covered treatment, for example:

- reconstruction of the jaw following accidental injury;
- extractions done in preparation for radiation treatment for neoplastic diseases involving the jaw;
- oral examinations, but not treatment, preceding kidney transplantation or heart valve replacement under certain circumstances; and
- inpatient hospital services if the severity of a dental procedure requires hospitalization in connection with the provision of services for an underlying medical condition (CMS 2013).

According to data from the 2012 Medicaid Expenditure Panel Survey (MEPS), people with low incomes are less likely to have dental coverage than those with higher incomes. Seventy-one percent of those with incomes above 200 percent FPL have some level of coverage, compared to 42 percent of those with incomes at or below 100 percent FPL. Additionally, people with low incomes who have dental coverage are more likely to have public coverage than those with higher incomes. Of adults with incomes at or below 100 percent FPL, 26 percent have public coverage, and 16 percent have private coverage. In contrast, 2 percent of people with incomes above 200 percent FPL have public coverage, while 69 percent have private coverage (Rohde 2014). As discussed later in this chapter, coverage is highly associated with use of services.

## Adult Dental Benefits in Medicaid

Medicaid programs vary in the dental services they cover for adults (Table 2-1). Currently, 18 states cover emergency services only. States

that cover emergency services differ in how they define those services, although most include emergency coverage of treatment for pain and infection. Thirty-three states cover services beyond emergency services, but many impose annual dollar and service limits. These limits vary widely among states. Twenty-eight states cover preventive services such as oral examinations, teeth cleanings, fluoride application, and sealant application (painting a plastic material on to the chewing surfaces of the back teeth to prevent decay).

Many of the 26 states offering restorative services place annual limits on the number of fillings or crowns an enrollee can get, the types of crowns that can be used on certain teeth, and how often root canals can be performed. Most states that cover oral surgery services include extractions, and some include jaw repair, removal of impacted teeth, or other surgical services. Most states covering denture services offer replacement dentures every 5 to 10 years, but some offer only one set of dentures per lifetime.

Many states place limits on the dental services they will cover within a certain time frame. Nine states have annual dollar limits, ranging from \$500 to \$2,500 a year (Table 2-2). Additionally, 31 states place limits on the frequency of service delivery. As do many commercial dental benefit providers, state Medicaid programs commonly limit examinations and cleanings to one or two per year. Connecticut and Illinois limit fillings to one per year, limit crowns to one per tooth every five years, and limit root canals to one per tooth per lifetime. North Dakota, Rhode Island, and Washington limit root canals to front teeth only. Prior authorization is also commonly required for many services, although not for emergency services. Detailed information on state coverage and limits can be found in Appendix 2A, Tables 2A-1 and 2A-2.

Some states have different Medicaid dental coverage policies for pregnant women and certain disabled adults, sometimes using Section 1115 demonstration waivers to cover dental services

**TABLE 2-1. Types of Adult Dental Services Covered for Non-Pregnant, Non-Disabled Adults under Medicaid, 2015**

Type of service	Number of states	Services typically included
Emergency only	18	Emergency extractions, other procedures for immediate pain relief
More extensive	33	
Preventive	28	Examinations, cleanings, and sometimes fluoride application or sealants
Restorative	26	Fillings, crowns, endodontic (root canal) therapy
Periodontal	19	Periodontal surgery, scaling, root planing (cleaning below the gum line)
Dentures	26	Full and partial dentures
Oral surgery	25	Non-emergency extractions, other oral surgical procedures
Orthodontia	2	Braces, headgear, retainers

**Note:** Federal Medicaid regulations define dental services as “diagnostic, preventive, or corrective procedures provided by or under the supervision of a dentist in the practice of his profession, including the treatment of – (1) the teeth and associated structures of the oral cavity; and (2) disease, injury, or impairment that may affect the oral or general health of the recipient.” (42 CFR 440.100).

**Sources:** MACPAC analysis of AHCCCS 2014, Alaska DHHS 2014, Amerigroup 2014, Anthem Blue Cross and Blue Shield 2014, BadgerCare Plus and Wisconsin Medicaid 2015, BadgerCare Plus and Wisconsin Medicaid 2013, Better Health Florida 2014, California Medi-Cal Dental Program 2015, Colorado DHCPF 2014, Commonwealth of Virginia DMAS 2012, Connecticut Dental Health Partnership 2013, DentaQuest of Illinois, LLC. 2014, DentaQuest, South Carolina Healthy Connections 2014, Florida AHCA 2011, Hawaii State Med-Quest Division 2011, Holleman 2014, Idaho DHF 2015, Illinois DHFS 2014, Indiana Dental Association 2011, Indiana FSS 2014, Iowa DHS 2013, KanCare 2015, Kansas DHE 2015, 907 Ky. Admin. Regs. 1:026 (2012), Kentucky CHFS 2013, Maine Department of Health and Human Services 2014, Maryland DHMH 2015, Maryland DHMH 2007, Massachusetts EOHHS 2014, 130 Mass. Code Regs. 420 (2014), MDWise 2014, Michigan DCH 2014, Minnesota DHS 2014, Miss. Admin. Code 23-204:1 (2015), Missouri DSS 2013, MOHealthNet 2013, Montana DPHHS 2015, Montana DPHHS 2013a, Montana DPHHS 2013b, Nebraska DHHS 2008, Nevada DHHS 2010, New Hampshire Medicaid Program 2013, N.J. Admin. Code § 10:56-2.6 (2015), N.M. Admin. Code § 8.310.2.12(G) (2015), New York State Medicaid Program 2013, North Carolina DMA 2013, North Dakota DHS 2013, Ohio Department of Medicaid 2015, Okla. Admin. Code § 317:30-5-696 (2014), Or. Admin. R. 410-123 (2014), Oregon Health Plan 2012, Oregon Medicaid 2014, Peach State Health Plan 2013, Pa. Code § 55:1149.24 (2015), Pennsylvania DPW 2014a, Pennsylvania DPW 2014b, Rhode Island DHS 2010, South Carolina Healthy Connections Choices 2015, South Dakota DSS 2015, South Dakota DSS 2015, State of Louisiana BHSF 2012, State of Louisiana DHH 2015, State of Missouri 2013, Texas HHSC 2015, Utah DMHF 2014, Vermont AHS 2014, Washington AppleHealth 2014, WellCare 2014, West Virginia BMS 2015, West Virginia DHHR 2012, Wyoming Department of Health 2015, Xerox 2014. See Appendix 2A for additional details.

for these populations (Silverman 2012). The Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA, P.L. 99-272) granted states the option of providing an enhanced benefit package to pregnant women, and approximately half of the states use this authority to provide dental benefits (Johnson and Witgert 2010). Adults with disabilities, who are more likely to have dental disease than non-disabled people, also receive Medicaid dental benefits beyond their non-disabled counterparts in some states (Waldman and Perlman 2012, McGinn-Shapiro 2008).

Adult dental benefits in Medicaid also vary in states that expanded adult Medicaid eligibility under the ACA. States that have chosen a traditional expansion, as laid out in the ACA, must create an alternative benefit plan for their Medicaid expansion population, which may be different from what the base population receives (Chazin et al. 2014, CMS 2014a). For example, North Dakota’s alternative benefit plan limits dental coverage for the Medicaid expansion population to emergency-only coverage, while it provides additional dental benefits for non-expansion enrollees (CMS 2014b). States that choose to expand Medicaid using a

**TABLE 2-2. Medicaid Dental Benefits for Non-Pregnant, Non-Disabled Adults by State, as of February 2015**

State	Dental services covered							Limits	
	Emergency services only	Preventive services	Restorative services	Periodontal services	Dentures	Oral surgery services	Orthodontia	Annual spending limits (dollars)	Annual or lifetime limits on services
<b>Total</b>	<b>18</b>	<b>28</b>	<b>26</b>	<b>19</b>	<b>26</b>	<b>25</b>	<b>2</b>	<b>9</b>	<b>31</b>
Alabama	1								
Alaska		✓	✓		✓			✓ (\$1,150)	
Arizona	✓								
Arkansas		✓	✓	✓	✓	✓		✓ (\$500)	Yes
California		✓	✓	✓	✓	✓		✓ (\$1,800)	Yes
Colorado		✓	✓	✓	✓	✓		✓ (\$1,000)	Yes
Connecticut		✓	✓	✓	✓	✓			Yes
Delaware	1								
District of Columbia		✓	✓	✓	✓	✓	✓		Yes
Florida					✓				Yes
Georgia	✓								
Hawaii	✓								
Idaho	✓								
Illinois			✓		✓	✓			Yes
Indiana		✓							Yes
Iowa		✓	✓	✓	✓	✓			Yes
Kansas	✓								
Kentucky		✓		✓					Yes
Louisiana					✓				Yes
Maine	✓								
Maryland	✓								
Massachusetts		✓	✓		✓	✓			Yes
Michigan		✓							Yes
Minnesota		✓	✓	✓	✓	✓			Yes
Mississippi	✓							✓ (\$2,500)	
Missouri	✓								
Montana	✓								
Nebraska		✓	✓	✓	✓	✓		✓ (\$1,000)	Yes
Nevada					✓				Yes
New Hampshire	✓								
New Jersey		✓	✓	✓	✓	✓			Yes
New Mexico		✓	✓	✓		✓			Yes
New York		✓	✓	✓	✓	✓			Yes
North Carolina		✓	✓	✓	✓	✓			Yes
North Dakota		✓	✓	✓	✓				Yes



**TABLE 2-2. (continued)**

State	Dental services covered							Limits	
	Emergency services only	Preventive services	Restorative services	Periodontal services	Dentures	Oral surgery services	Orthodontia	Annual spending limits (dollars)	Annual or lifetime limits on services
Ohio		✓	✓		✓	✓			Yes
Oklahoma	✓								
Oregon		✓	✓		✓	✓	✓		Yes
Pennsylvania		✓	✓	✓	✓	✓			Yes
Rhode Island		✓	✓	✓	✓	✓			Yes
South Carolina		✓	✓			✓		✓ (\$750)	Yes
South Dakota		✓	✓		✓	✓		✓ (\$1,000)	
Tennessee	<sup>2</sup>								
Texas	✓								
Utah	✓								
Vermont		✓	✓	✓		✓		✓ (\$510)	Yes
Virginia						✓			Yes
Washington		✓	✓	✓	✓	✓			Yes
West Virginia	✓								
Wisconsin		✓	✓	✓	✓	✓			Yes
Wyoming		✓	✓		✓	✓			Yes

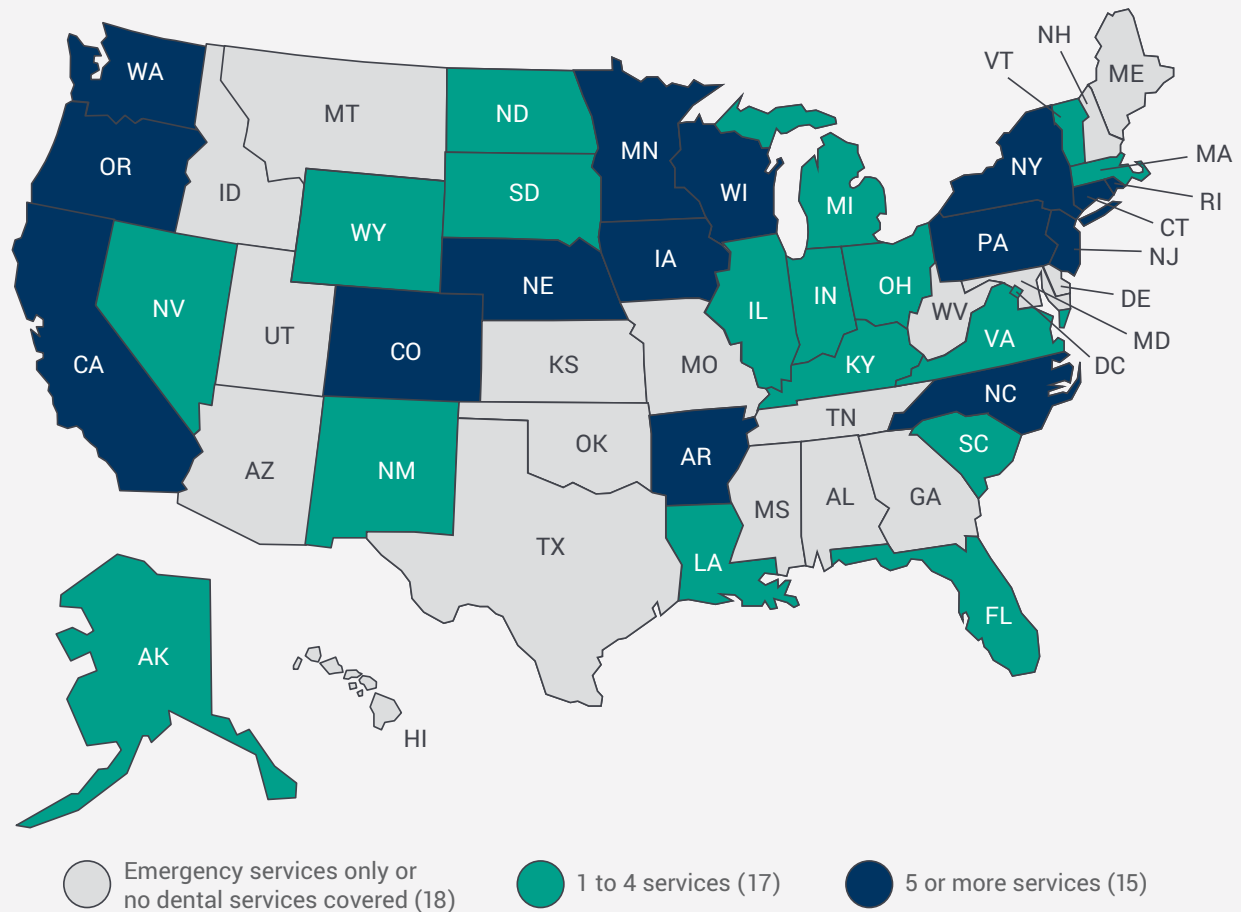
**Notes:**

<sup>1</sup> Alabama and Delaware classify themselves as offering no dental services, including no emergency services. However, emergency services related to oral health care may be covered under another benefit type. Alabama states that dental services are “any diagnostic, preventive, or corrective procedures administered by or under the direct supervision of a licensed dentist. Such services include treatment of the teeth and the associated structures of the oral cavity, and of disease, injury, or impairment, which may affect the oral or general health of the individuals” (Alabama Medicaid 2015). Delaware states that dental services include “any services related to the dental treatment such as drugs, anesthetics, and use of operating/recovery room, etc.” (DHSS 2014).

<sup>2</sup> Tennessee covers emergency dental treatment only when “an adult enrollee presents to a hospital emergency department with a dental problem,” in which case screening and treatment of the emergency medical condition identified in the screening are covered. Tennessee does not cover services to treat the origin of the emergency medical condition and does not cover any emergency services in any setting beyond the emergency department (TennCare 2014).

**Sources:** MACPAC analysis of AHCCCS 2014, Alaska DHHS 2014, Amerigroup 2014, Anthem Blue Cross and Blue Shield 2014, BadgerCare Plus and Wisconsin Medicaid 2015, BadgerCare Plus and Wisconsin Medicaid 2013, Better Health Florida 2014, California Medi-Cal Dental Program 2015, Colorado DHCPF 2014, Commonwealth of Virginia DMAS 2012, Connecticut Dental Health Partnership 2013, DentaQuest of Illinois, LLC. 2014, DentaQuest, South Carolina Healthy Connections 2014, Florida AHCA 2011, Hawaii State Med-Quest Division 2011, Holleman 2014, Idaho DHF 2015, Illinois DHFS 2014, Indiana Dental Association 2011, Indiana FSS 2014, Iowa DHS 2013, KanCare 2015, Kansas DHE 2015, 907 Ky. Admin. Regs. 1:026 (2012), Kentucky CHFS 2013, Maine Department of Health and Human Services 2014, Maryland DHMH 2015, Maryland DHMH 2007, Massachusetts EOHHS 2014, 130 Mass. Code Regs. 420 (2014), MDWise 2014, Michigan DCH 2014, Minnesota DHS 2014, Miss. Admin. Code 23-204:1 (2015), Missouri DSS 2013, MOHealthNet 2013, Montana DPHHS 2015, Montana DPHHS 2013a, Montana DPHHS 2013b, Nebraska DHHS 2008, Nevada DHHS 2010, New Hampshire Medicaid Program 2013, N.J. Admin. Code § 10:56-2.6 (2015), N.M. Admin. Code § 8.310.2.12(G) (2015), New York State Medicaid Program 2013, North Carolina DMA 2013, North Dakota DHS 2013, Ohio Department of Medicaid 2015, Okla. Admin. Code § 317:30-5-696 (2014), Or. Admin. R. 410-123 (2014), Oregon Health Plan 2012, Oregon Medicaid 2014, Peach State Health Plan 2013, Pa. Code § 55:1149.24 (2015), Pennsylvania DPW 2014a, Pennsylvania DPW 2014b, Rhode Island DHS 2010, South Carolina Healthy Connections Choices 2015, South Dakota DSS 2015, South Dakota DSS 2015, State of Louisiana BHSF 2012, State of Louisiana DHH 2015, State of Missouri 2013, Texas HHSC 2015, Utah DMHF 2014, Vermont AHS 2014, Washington AppleHealth 2014, WellCare 2014, West Virginia BMS 2015, West Virginia DHHR 2012, Wyoming Department of Health 2015, Xerox 2014. See Appendix 2A for additional details.

**FIGURE 2-1. Medicaid Dental Benefits for Non-Pregnant, Non-Disabled Adults, 2015**



**Note:** Does not reflect differences in dental benefits that may be available to pregnant women, adults with disabilities, adults in the Medicaid expansion population, or those enrolled in certain Medicaid managed care organizations.

**Source:** MACPAC analysis of AHCCCS 2014, Alaska DHHS 2014, Amerigroup 2014, Anthem Blue Cross and Blue Shield 2014, BadgerCare Plus and Wisconsin Medicaid 2015, BadgerCare Plus and Wisconsin Medicaid 2013, Better Health Florida 2014, California Medi-Cal Dental Program 2015, Colorado DHCPF 2014, Commonwealth of Virginia DMAS 2012, Connecticut Dental Health Partnership 2013, DentaQuest of Illinois, LLC. 2014, DentaQuest, South Carolina Healthy Connections 2014, Florida AHCA 2011, Hawaii State Med-Quest Division 2011, Holleman 2014, Idaho DHF 2015, Illinois DHFS 2014, Indiana Dental Association 2011, Indiana FSS 2014, Iowa DHS 2013, KanCare 2015, Kansas DHE 2015, 907 Ky. Admin. Regs. 1:026 (2012), Kentucky CHFS 2013, Maine Department of Health and Human Services 2014, Maryland DHMH 2015, Maryland DHMH 2007, Massachusetts EOHHS 2014, 130 Mass. Code Regs. 420 (2014), MDwise 2014, Michigan DCH 2014, Minnesota DHS 2014, Miss. Admin. Code 23-204:1 (2015), Missouri DSS 2013, MOHealthNet 2013, Montana DPHHS 2015, Montana DPHHS 2013a, Montana DPHHS 2013b, Nebraska DHHS 2008, Nevada DHHS 2010, New Hampshire Medicaid Program 2013, N.J. Admin. Code § 10:56-2.6 (2015), N.M. Admin. Code § 8.310.2.12(G) (2015), New York State Medicaid Program 2013, North Carolina DMA 2013, North Dakota DHS 2013, Ohio Department of Medicaid 2015, Okla. Admin. Code § 317:30-5-696 (2014), Or. Admin. R. 410-123 (2014), Oregon Health Plan 2012, Oregon Medicaid 2014, Peach State Health Plan 2013, Pa. Code § 55:1149.24 (2015), Pennsylvania DPW 2014a, Pennsylvania DPW 2014b, Rhode Island DHS 2010, South Carolina Healthy Connections Choices 2015, South Dakota DSS 2015, South Dakota DSS 2015, State of Louisiana BHSF 2012, State of Louisiana DHH 2015, State of Missouri 2013, Texas HHSC 2015, Utah DMHF 2014, Vermont AHS 2014, Washington AppleHealth 2014, WellCare 2014, West Virginia BMS 2015, West Virginia DHHR 2012, Wyoming Department of Health 2015, Xerox 2014. See Appendix 2A for additional details.

demonstration waiver can also create different benefits for the expansion population. Indiana expanded Medicaid eligibility through a Section 1115 demonstration waiver and opted to provide additional adult dental benefits to enrollees who make monthly contributions to a health savings account (CMS 2015). Iowa also expanded through a Section 1115 demonstration waiver and opted to provide three tiers of dental benefits, allowing enrollees to gain access to additional benefits by receiving periodic examinations (CMS 2014c).

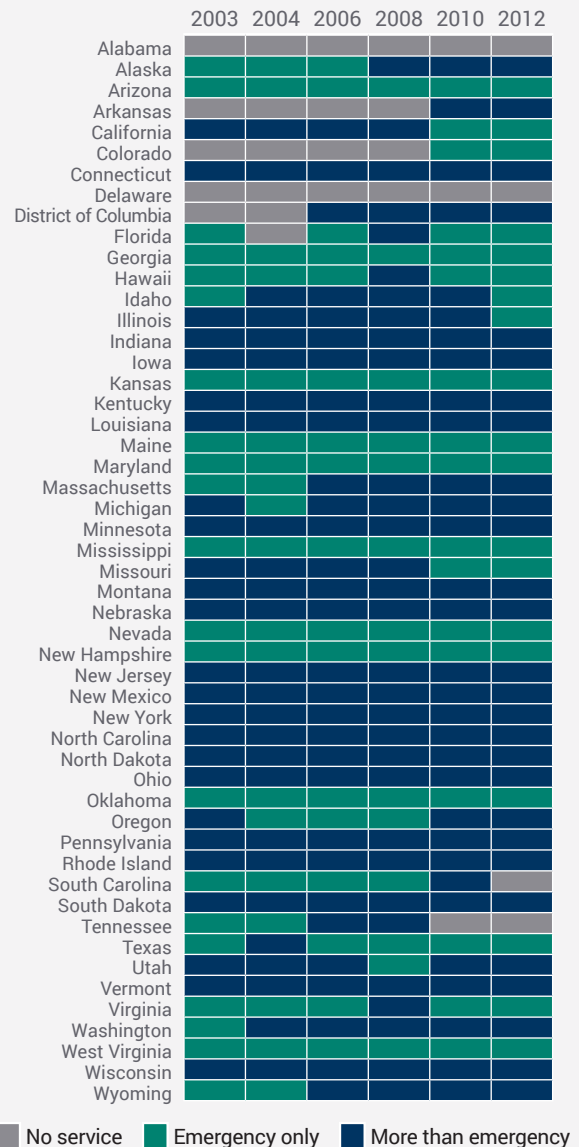
Adult dental benefits may also differ among Medicaid managed care plans. Medicaid managed care plans have the authority to apply any savings they realize through efficient management to the provision of additional benefits to enrollees, for instance, additional dental coverage for adults that goes beyond state requirements (Schneider and Garfield 2002). In Florida, Georgia, Kansas, and Maryland, for example, Medicaid programs enroll a large number of beneficiaries in managed care plans that provide adult dental benefits not available to beneficiaries enrolled in fee-for-service Medicaid (Yarbrough et al. 2014).

## Changes in adult dental benefit levels under Medicaid

Because adult dental benefits under Medicaid are optional, many states make changes to benefits on a regular basis (Figure 2-2):

- Between 2003 and 2012, 20 states made at least one large-scale change in dental benefits for non-pregnant, non-disabled adult Medicaid enrollees (for example, adding an additional service to a program that was previously emergency services only), and nine of those states made two or more benefit changes within that time period.
- Between 2003 and 2012, 32 benefit changes were made among 20 states, with 10 states making more than one change—14 of these

**FIGURE 2-2. Changes in Medicaid Adult Dental Benefits by State, 2003–2012**



**Notes:** Data were analyzed through 2012, the most recent year for which data are available. The above illustration does not reflect additional dental benefits that may be available to pregnant women or adults with disabilities. Variation exists in the type of and amount of benefits among states in the category of “more than emergency services,” which can include anything from one service in one category to multiple services in all service categories. Due to the scope of this category, benefit changes can occur within the category. Additionally, states create their own definitions of emergency dental services, so some states that are listed in the “no services” category may classify themselves as providing no dental benefits despite covering emergency dental services.

**Source:** MACPAC analysis of Kaiser Family Foundation 2014.

changes decreased dental benefits, and 18 increased dental benefits.

- Between 2003 and 2012, 12 states consistently offered no benefits or emergency services only, and 19 states consistently offered more than emergency services.
- The year 2010 marked the greatest large-scale change—five states increased benefits and six states decreased benefits.
- In 2012, no states increased benefits while three states decreased benefits.

Examples of recent changes in several states include the following:

- California eliminated coverage of non-emergency dental services for adults in Medi-Cal in 2009 (CHCF 2011). As of May 1, 2014, many adult dental benefits were restored for Medi-Cal enrollees, including preventive care, restorative care, periodontal services, and dentures (California Dental Association 2014).
- In 2011, the Idaho legislature limited Medicaid dental benefits for adults age 21 and older to emergency services only (Idaho Department of Health and Welfare 2011; H.B. 260, 61st Leg., 1st Reg. (Idaho 2011)).
- In 2012, Illinois passed legislation restricting dental services covered by Medicaid to emergency services only (S.B. 2840, 97th Leg., 1st Reg. (Ill. 2012)). Then in 2014, the legislature expanded services covered to include limited fillings, root canals, dentures, and oral surgery services (S.B. 741, 98th Leg., 1st Reg. (Ill. 2014)).
- In recent years South Carolina has covered only emergency dental services to adult Medicaid enrollees. On December 1, 2014, the state began covering cleanings, fillings, and extractions with a \$750 per year maximum benefit (Holleman 2014).

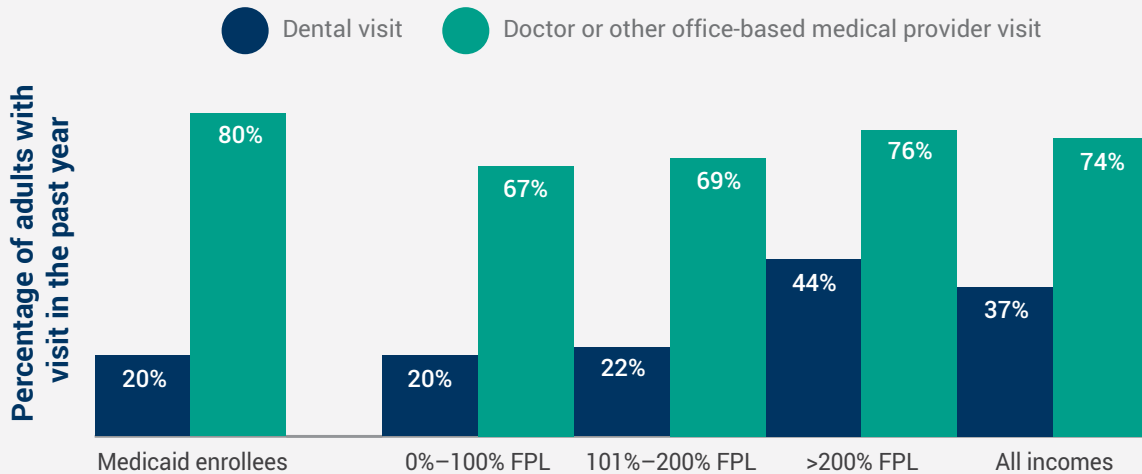
## Use of Dental Services

Medicaid enrollees and individuals in other low-income populations use dental services less often than other health services. An analysis of data from the 2012 MEPS found that among adult Medicaid enrollees age 21 and older, 20 percent reported a dental visit within the past year while 80 percent reported a visit to any other type of office-based medical provider during the same time period (MACPAC 2014) (Figure 2-3).<sup>2</sup> Adults with a family income at or below 100 percent FPL, regardless of coverage status, reported dental visits at rates similar to rates of the adult Medicaid enrollee population, though their office-based medical provider visit rate was 13 percentage points lower than that of the adult Medicaid enrollee population.<sup>3</sup>

Between 2000 and 2012, the percentage of adults with a dental visit in the last 12 months decreased, with the most pronounced drop among those with lower incomes. During this time period, the share of adults age 19–64 with family incomes at or below 100 percent FPL who had a dental visit within a 12-month period decreased from 23 percent to 20 percent; for adults age 19–64 with family incomes between 101 and 200 percent FPL, the share with a dental visit during the past year decreased from 26 percent in 2000 to 21 percent in 2012 (Nasseh and Vujicic 2014).

One reason for low utilization of dental services among Medicaid enrollees who have coverage may be the inability to find a provider who participates in the program. There is a shortage of dentists available and willing to treat low-income clients, particularly those enrolled in Medicaid (Gehshan and Straw 2002). In 2008, fewer than half of dentists in 25 states treated any Medicaid patients, and most dentists who did treat Medicaid patients treated fewer than 100 Medicaid patients in a year (GAO 2010). Additionally, the high level of student debt for dental graduates has been identified as a barrier to practicing in rural and low-income communities where earning potential is lower,

**FIGURE 2-3.** Percentage of Adults Age 21 and Older Who Had a Dental Visit Versus Doctor or Other Office-Based Medical Provider Visit in Past Year, 2012



**Notes:** FPL is federal poverty level. This chart shows utilization for adults beginning at age 21 because the Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) benefit requires coverage of dental services for 19- and 20-year-old Medicaid enrollees. The Medicaid enrollees category includes adults regardless of income level and reflects those with at least one month of Medicaid coverage. (Estimates for enrollees with full-year coverage may differ.) Income groups include all adults regardless of coverage status.

**Source:** MACPAC analysis of AHRQ 2012.

creating a geographically uneven distribution of dentists (HRSA 2015).

Dentists cite several reasons for not participating in Medicaid; the most common are low Medicaid payment rates, the administrative burden, and patient issues, such as failing to keep scheduled appointments (Mofidi 2005; GAO 2000). Increasing Medicaid payment rates to a level where payments are high enough to cover overhead expenses has been found to increase provider participation, but is not a solution on its own. Rate increases must be accompanied by administrative reforms and partnerships with state dental associations and individual dentists (Borchgrevink et al. 2008). Dentists who accept Medicaid report more positive attitudes about Medicaid administration than those who do not (McKernan et al. 2015). Additionally, there is some evidence that dentists would rather

donate care for low-income and Medicaid patients at a clinic than provide care at their private practices (Gehshan and Straw 2002, Mofidi 2005).

Sixty to 70 percent of dental care for low-income populations is provided in private practice settings. The remainder is provided mainly at clinics, which can be sponsored by federal, state, or local governments (including federally qualified health centers), voluntary organizations, non-profit and public hospitals, and dental schools and residency programs (Bailit and D’Adamo 2012). Some states and communities are working to increase access to dental services, particularly for underserved communities, through telehealth technologies, portable equipment that can be transported to community-based locations, and an expanded scope of practice for dental hygienists and other dental professionals (IOM 2011).

## Utilization changes when benefits are cut

When a state reduces or eliminates adult dental benefits, unmet dental needs increase, and use of preventive dental services decreases (Pryor and Monopoli 2005, Wallace et al. 2011). In one study, Medicaid enrollees without dental benefits were nearly three times as likely to have unmet dental needs compared to those whose Medicaid coverage included dental benefits, and they were one-third as likely to get annual dental checkups (Wallace et al. 2011). Another study found that use of dental care among adults—poor adults in particular—decreased from 2000 to 2010, corresponding with reductions and eliminations of adult dental benefits in many state Medicaid programs (Vujicic et al. 2013).

Another consequence of benefit cuts is increased use by Medicaid beneficiaries of emergency departments for dental problems, although the magnitude of the increase varies by study. One study found that emergency department dental visits by Medicaid beneficiaries increased by 23 percent several months after California eliminated Medicaid dental benefits (CHCF 2011). A Maryland study conducted 15 years after the California study had similar results, seeing an increase of 22 percent in emergency department dental visits after Medicaid adult dental benefits were eliminated (Cohen et al. 1996). However, another Maryland study found that Medicaid spending for emergency department dental care for adults rose by only 8 percent after the state eliminated Medicaid dental benefits (Mullins et al. 2004). A national study found a small increase in the number of Medicaid adult emergency dental claims at emergency departments over a period of seven years, during which time several states reduced or eliminated Medicaid dental benefits (Lee et al. 2012). Regardless of the impact on emergency department use, when adult dental benefits in Medicaid are scaled back, community health centers have reported not having enough capacity

to deal with the large numbers of new patients (Pryor and Monopoli 2005).

Some communities have created programs aimed at diverting dental patients from emergency departments to other settings. For example, a pilot program in Virginia referred patients with dental pain from the emergency department to an in-hospital dental clinic, reducing the number of dental patients with repeat visits to the emergency department by 66 percent in the first year (Chesser 2014). Another test intervention in Cincinnati, Ohio, connected an emergency department with dental providers who agreed to expedite dental appointments for Medicaid managed care members who presented at the emergency department with dental conditions. The program reported success in diverting patients from the emergency department to participating dental providers by helping patients schedule appointments from the emergency department itself during business hours or by providing contact information and assurances that patients would be seen quickly if they called the dental providers the next day if the emergency department visit was after hours (Chang 2013).

## Efforts to Improve Access to Dental Services

Like other forms of health coverage, dental coverage increases access to care, and most low-income adults with dental coverage receive their coverage through Medicaid. Federal law does not mandate dental coverage for adult Medicaid beneficiaries, so despite the strong link between oral health and physical health and the significant burden of oral disease among low socioeconomic groups, state Medicaid programs vary considerably in the dental services they offer adults. Even within states, Medicaid dental benefits can vary from one year to the next, making it difficult for beneficiaries and their providers to know what services are covered. Variability in covered services can affect



continuity of care for some patients, potentially resulting in lost opportunities for prevention and early treatment.

Providers, advocates, researchers, and others have worked on multiple ways to improve access to dental health services for adult enrollees of Medicaid. Examples of innovative projects include the following:

- **Bringing dental care into the community through coordination between the Health Resources and Services Administration (HRSA) and community health centers.** HRSA administers capital development grants to support community- and school-based health center efforts to expand their capacity to provide primary and preventive health services to medically underserved populations in underserved communities (HRSA 2014). For example, in fiscal year 2014, the Bureau of Primary Healthcare at HRSA supported 238 school-based health center oral health activities through School Based Health Center Capital Grants (Makaroff 2014).
- **Funding demonstration projects to study innovative ways to improve Medicaid enrollee use of preventive dental care.** As previously stated, Iowa's current Section 1115 Medicaid expansion demonstration waiver includes three tiers of dental benefits. All waiver enrollees receive a basic level of benefits, enrollees who receive one examination per year receive enhanced dental benefits, and those who receive two examinations per year receive even more dental benefits (CMS 2014c).
- **Expanding access in dental shortage areas through the use of technology.** On January 1, 2015, California began requiring Medi-Cal, the state's Medicaid system, to pay for dental services delivered by hygienists in consultation with dentists connected through the Internet, a practice known as teledentistry. California law allows dental hygienists to perform certain procedures under remote dentist supervision, although it requires the hygienist to refer a patient to a dentist if more sophisticated procedures are needed (Hernandez 2014).
- **Expanding the number of dentists serving Medicaid enrollees through provider incentives.** Some states have worked to encourage dentists to participate in the Medicaid program by increasing reimbursement rates and simplifying administrative processes. For example, in 2008, in an effort to increase children's dental utilization, Connecticut increased its payment rates to match the 70th percentile of private insurance fees from 2005. The state also simplified administrative processes by placing all Medicaid dental services under one administrative service organization. Finally, the state initiated an outreach effort designed to increase the participation of both patients and providers in the dental program. Children's utilization rates increased from 46 percent in 2006 to almost 70 percent in 2011 (Beazoglou et al. 2013).
- **Expanding the number of dentists providing services to Medicaid enrollees through loan repayment models.** The National Health Service Corps (NHSC) provides up to \$50,000 in student loan repayment to dentists and other types of health professionals in exchange for a two-year commitment to work at an approved NHSC site in a high-need, underserved area (NHSC 2015). Some states have also created their own programs. For example, since the late 1970s, Nebraska has run a loan repayment program designed to bring dentists and other health care providers to rural areas. The local-state matching program repays up to \$40,000 per year for a three-year period to dentists who practice for at least three years in a dental shortage area. These dentists must also accept Medicaid patients (NORH 2011).



- Amending state scope-of-practice laws to allow for additional members of the dental health team.** Minnesota has enacted a program to create a new type of dental professional, called a dental therapist. Dental therapists are authorized to perform a limited number of dental procedures as part of the dental team. They are required to practice in settings serving primarily low-income, uninsured, and underserved patients or in Health Professional Shortage Areas for dental care (Minnesota Department of Health 2014). Alaska, in an effort to increase the dental workforce serving tribal health consortiums, has implemented a similar, though not identical, program that allows dental health aides to perform routine dental services under the supervision of a dentist (Shoffstall-Cone and Willard 2013).

MACPAC will continue to examine issues related to adult dental benefits in Medicaid. In particular, we plan to analyze data on enrollee use of the emergency room for dental services and how such service use relates to state coverage policies. We also plan to learn more about the adequacy of the dental workforce for the Medicaid population, the sites of care for Medicaid dental services, and state initiatives to increase adult dental utilization in Medicaid.

## Endnotes

- Originally the requirement to provide comprehensive dental services only pertained to children enrolled in Medicaid, but Congress required that states provide dental services through CHIP in the Children's Health Insurance Program Reauthorization Act of 2009 (CDHP 2012).
- The 2012 MEPS data does not differentiate between Medicaid enrollees who had dental benefits beyond emergency services and those who did not.
- The main sources of data on dental coverage and use are the MEPS and the National Health Interview Survey (NHIS). Both surveys rely on information reported by individuals, and the MEPS sample is drawn from a nationally representative subsample of families and individuals who took part in the NHIS the previous year (GAO 2008). MEPS visit data are considered more accurate than NHIS data because they are generally verified by providers and written in a journal.

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# APPENDIX 2A: State Dental Benefits Policies, as of February 2015

**TABLE 2A-1. Medicaid Adult Dental Benefits and Limits by State, as of February 2015**

State	Adult dental services covered by state Medicaid plans and annual caps					Limits	
	Preventive services	Restorative services	Periodontal services	Dentures	Oral surgery services		Orthodontia
<b>Total number states offering these services</b>	28	26	19	26	25	2	9
<b>Alabama<sup>1</sup></b>	No coverage for dental services to adults over 20 years						
<b>Alaska</b>	After reaching annual monetary cap, adult is responsible for any additional costs	After reaching annual monetary cap, adult is responsible for any additional costs	—	May obtain both upper and lower dentures in one year by combining current and upcoming year monetary limits	—	—	Yes (\$1,150)
<b>Arizona</b>	Emergency services only						
<b>Arkansas</b>	1 exam per year; 1 cleaning per year; 1 fluoride treatment per year	Fillings and crowns covered to monetary limit (fillings will be paid beyond annual monetary limit)	Scaling and root planing	1 full or partial denture per lifetime; payments for complete or partial dentures and to lab paid beyond annual monetary limit	Simple and surgical tooth pulling will be paid beyond annual monetary limit	—	Yes (\$500)
<b>California</b>	2 exams per year; 1 cleaning per year; 1 fluoride treatment per year	Prefabricated crowns (1 per year for primary teeth and 1 every 3 years for permanent teeth); lab processed crowns (1 every 5 years); root canals except for 3rd molar	1 scaling or root planing per quadrant every 2 years	1 full or partial denture every 5 years; 1 immediate denture per lifetime, not applied toward annual limit	Maxillofacial and complete oral surgery not applied toward annual limit	—	Yes (\$1,800)
<b>Colorado</b>	Exams and cleanings covered to monetary limit	Fillings, crowns, and root canals covered to monetary limit	Gum treatment covered to monetary limit	Complete set of upper or lower dentures to monetary limit	Unspecified procedures covered	—	Yes (\$1,000)
<b>Connecticut</b>	1 exam per year; 1 cleaning per year	1 filling per year; 1 crown per tooth every 5 years; 1 root canal per tooth per lifetime	Gingivectomy or gingivoplasty covered with prior authorization	1 full or partial denture every 7 years	Extractions, and other procedures	—	—
<b>Delaware<sup>1</sup></b>	No coverage for dental procedures for clients over twenty-one years of age in any setting						

**TABLE 2A-1. (continued)**

State	Adult dental services covered by state Medicaid plans and annual caps					Limits	
	Preventive services	Restorative services	Periodontal services	Dentures	Oral surgery services		Orthodontia
District of Columbia	2 exams per year; 2 cleanings per year; 2 fluoride treatments per year; 1 sealant per tooth per lifetime	1 filling per tooth, up to 5 fillings per year	1 scaling and root planing per quadrant per year	1 full or partial denture every 5 years	Emergency repair of accidental injury to jaw or related structures	1 removable or fixed appliance therapy per lifetime; 1 unspecified procedure per lifetime	—
Florida	—	—	—	1 upper and lower denture per lifetime	—	—	—
Georgia	Emergency services only						
Hawaii	Emergency services only						
Idaho	Emergency services only						
Illinois	—	1 filling per tooth; per year; 1 crown per tooth every 5 years; 1 root canal per tooth per lifetime	—	1 complete denture every 5 years; 1 immediate denture every 5 years	Surgical removal of impacted teeth, removal of tumors in emergencies	—	—
Indiana <sup>2</sup>	1 exam per year; 1 cleaning per year	—	—	—	—	—	—
Iowa <sup>3</sup>	2 exams per year; 2 cleanings per year; 4 fluoride treatments per year	1 filling per tooth every 2 years; crowns with resin window for front teeth only	Scaling, root planing, etc. with prior approval	1 full or partial denture every 5 years	Extractions, impaction, root recovery, other procedures	—	—
Kansas	Emergency services only						
Kentucky	1 cleaning per year	—	1 scaling and root planing per quadrant per year in limited circumstances	—	—	—	—
Louisiana	—	—	—	1 full or partial denture every 8 years (partial must oppose full)	—	—	—
Maine	Emergency services only						
Maryland	Emergency services only						

**TABLE 2A-1. (continued)**

State	Adult dental services covered by state Medicaid plans and annual caps						Limits
	Preventive services	Restorative services	Periodontal services	Dentures	Oral surgery services	Orthodontia	
Massachusetts	2 exams per year; 2 cleanings per year	Crowns (material depends upon tooth); root canals in limited circumstances	–	Only removable complete and partial dentures covered	Removal of impacted teeth; biopsies; soft-tissue surgery	–	–
Michigan <sup>4</sup>	2 exams per year; 2 cleanings per year	–	–	–	–	–	–
Minnesota	1 exam per year; 1 cleaning per year; 1 fluoride treatment per year	Posterior fillings; 1 root canal per tooth per lifetime	1 full mouth debridement every 5 years	1 full or partial denture per arch every 6 years	Prior authorization for removal of impacted teeth	–	–
Mississippi	Emergency services only						Yes (\$2,500)
Missouri	Emergency services only						
Montana	Emergency services only						
Nebraska	1 exam per year; 1 cleaning per year; fluoride and sealants	Fillings; crowns; root canals (upper 2nd molar is not covered for root canal if 1st molar is in occlusion)	Gingivectomy or gingivoplasty; periodontal scaling, root planing; full mouth debridement	Dentures must be of a material that will last 5 years	Extractions (medical need); tooth reimplantation or stabilization	–	Yes (\$1,000)
Nevada	–	–	–	With prior authorization	–	–	–
New Hampshire	Emergency services only						
New Jersey	1 exam per year; 1 cleaning per year	Fillings; crowns (excluding porcelain jackets); root canals	1 scaling and root planning per year, prior authorization required for more than one	1 full or partial denture every 7.5 years	Extractions with preauthorization (not required if tooth is impacted)	–	–
New Mexico	1 exam per year; 1 cleaning per year; 1 fluoride application per year	Fillings; 1 prefabricated stainless steel or prefabricated resin crown per tooth	Scaling and root planing; periodontal maintenance with pre-authorization	–	Simple and surgical extractions; tooth reimplantation; drainage of abscess	–	–

**TABLE 2A-1. (continued)**

State	Adult dental services covered by state Medicaid plans and annual caps						Limits
	Preventive services	Restorative services	Periodontal services	Dentures	Oral surgery services	Orthodontia	
New York	2 exams per year; 2 cleanings per year; 2 fluoride applications per year	Fillings; crowns (not routinely approved for molars); root canals	1 scaling and root planing per quadrant every 2 years	1 full or partial denture every 8 years	Extractions; alveoplasty; vestibuloplasty; other procedures	-	-
North Carolina	2 exams per year; 2 cleanings per year; 2 fluoride applications per year	Only resin based crowns	1 scaling and root planing per quadrant per 2 years	1 complete or immediate denture per arch every 10 years; 1 partial denture per arch every 8 years	Extractions; alveoplasty; vestibuloplasty; other procedures	-	-
North Dakota <sup>5</sup>	1 exam per year; 1 cleaning per year	Front crowns that have a root canal on the tooth only; root canals (front only)	Scaling and root planing; periodontal maintenance	5 year limit on replacement of immediate complete and partial dentures; missing back teeth not covered unless at least one front tooth included	-	-	-
Ohio	1 exam per year; 1 cleaning per year	Fillings; crowns; root canals upon medical necessity	-	Dentures upon medical necessity	Upon medical necessity	-	-
Oklahoma	Emergency services only						
Oregon	1 exam per year; 1 cleaning per year; fluoride	Amalgam and resin based crowns; root canals (not for molars)	-	1 set partial dentures every 10 years; 1 complete denture per lifetime	Extractions	Removable and fixed appliance therapy	-
Pennsylvania	2 exams per year; 2 cleanings per year	Root canals; crowns (with prior authorization)	Periodontal services (with prior authorization)	1 denture per lifetime	Extractions	-	-
Rhode Island	2 exams per year; 2 cleanings per year; 2 fluoride applications per year	Root canals (front teeth only); crowns (stainless steel only for back teeth)	1 scaling or root planing every 2 years	1 full or partial denture every 5 years	Upon medical necessity	-	-
South Carolina <sup>6</sup>	1 exam per year; 1 cleaning per year	1 amalgam and 1 resin-based filling every 3 years	-	-	Extractions; Impactions; other procedures	-	Yes (\$750)



**TABLE 2A-1. (continued)**

State	Adult dental services covered by state Medicaid plans and annual caps						Limits
	Preventive services	Restorative services	Periodontal services	Dentures	Oral surgery services	Orthodontia	
South Dakota	Exams; cleanings; fluoride application	Fillings; crowns and root canal therapy	–	Complete and partial dentures	Extractions	–	Yes (\$1,000)
Tennessee <sup>7</sup>	No coverage for dental procedures unless adult enrollee presents to a hospital with a dental problem						
Texas	Emergency services only						
Utah	Emergency services only						
Vermont	2 exams per year; 2 cleanings per year; 2 fluoride applications per year	Prefabricated crowns only (1 per tooth every 2 years)	Root canal therapy; 1 scaling and root planing in each quadrant per year	–	Extractions; impactions; biopsies; other procedures	–	Yes (\$510)
Virginia	–	–	–	–	Upon medical necessity	–	–
Washington	1 exam per year; 1 cleaning per year; 1 fluoride application per year	1 filling per tooth every 2 years; crowns not covered; root canals for front teeth only	1 scaling or root planing per quadrant every 2 years	Partial dentures if 1 front tooth or 4 back teeth are missing per arch (but not 2nd or 3rd molar)	Extractions; biopsies; intraoral and extraoral incise; draining	–	–
West Virginia	Emergency services only						
Wisconsin	1 cleaning per year; 1 fluoride application per year	1 filling per tooth every 3 years; 1 stainless steel, or resin crown per tooth every 5 years; 1 stainless steel crown with resin window per tooth per year; (resin crowns and stainless steel crowns with resin window for front teeth only); 1 root canal per tooth per lifetime	1 scaling or root planing per quadrant every 3 years; full mouth debridement; gingivectomy and gingivoplasty; periodontal maintenance	1 full or partial denture per arch every 5 years	Extractions; alveoloplasty; other procedures	–	–
Wyoming	1 exam per year; 1 cleaning per year	Restorative services essential to restore and maintain adequate dental health	–	1 complete or immediate denture or 1 partial denture per arch per lifetime	Extractions; impactions	–	–

**TABLE 2A-1. (continued)****Notes:**

- <sup>1</sup> Alabama and Delaware classify themselves as offering no dental services, including no emergency services. However, emergency services related to oral health care may be covered under another benefit type. Alabama states that dental services are “any diagnostic, preventive, or corrective procedures administered by or under the direct supervision of a licensed dentist. Such services include treatment of the teeth and the associated structures of the oral cavity, and of disease, injury, or impairment, which may affect the oral or general health of the individuals” (Alabama Medicaid 2015). Delaware states that dental services include “any services related to the dental treatment such as drugs, anesthetics, and use of operating/recovery room, etc.” (Delaware Health and Social Services 2014).
- <sup>2</sup> Indiana: Dental benefits are available to beneficiaries in traditional Medicaid, which is available to parents making up to 22 percent of the federal poverty level. Dental benefits are also available to beneficiaries in the Healthy Indiana Plan (HIP) Plus program, which includes beneficiaries between 100 and 138 percent of the federal poverty level (who are required to make contributions to a health savings account) and beneficiaries with incomes at or below 100 percent of the federal poverty level who choose to make contributions to a health savings account. (Indiana Medicaid Website, Indiana HIP 2.0 Demonstration Approval).
- <sup>3</sup> Iowa: Dental benefits are available to beneficiaries in traditional Medicaid. Three tiers of dental benefits are available to beneficiaries in the Iowa Wellness Plan and Iowa Marketplace Choice program, which include beneficiaries with incomes at or below 138 percent of the federal poverty level. The core benefits are basic preventive and diagnostic, emergency, and stabilization services and are available to all enrollees. The “enhanced” benefits cover restorative services, endodontic services, denture adjustments and repairs, non-surgical extractions and other oral surgery services, and designated adjunctive services. The “enhanced plus” benefits include crowns and onlays, tooth replacements, and gum surgery. To be eligible for enhanced benefits, enrollees must complete a periodic exam within 6 to 12 months of the first visit. To be eligible for enhanced plus benefits, enrollees must complete two periodic exams within 6 to 12 months of the first visit. To maintain eligibility for the enhanced or enhanced plus benefits, enrollees must continue to return for periodic exams every 6 to 12 months. (Letter from Cindy Mann to Jennifer Vermeer, 2014).
- <sup>4</sup> Michigan: Through the state’s Section 1115 Healthy Michigan waiver, the state covers two exams, cleanings, and X-rays per year. Other diagnostic, therapeutic, and restorative care (including fillings, tooth extractions, and dentures and partial dentures) are covered for conditions relating to a specific medical problem. All prosthodontics (dentures) require prior authorization. (Michigan Medicaid State Plan Attachment 3.1-C, 2014; Michigan Department of Community Health 2014).
- <sup>5</sup> North Dakota: The state created an alternative benefits plan (ABP) for its Medicaid expansion population that includes emergency-only adult dental benefits. The base Medicaid population retains additional benefits through the state plan. (North Dakota ABP State Plan Amendment).
- <sup>6</sup> South Carolina: Beginning December 1, 2014, enrollees became eligible for cleanings, fillings, and extractions with a \$750 annual limit. (The State, October 24, 2014).
- <sup>7</sup> Tennessee covers emergency dental treatment only when “an adult enrollee presents to a hospital Emergency Department with a dental problem,” in which case screening and treatment of the emergency medical condition identified in the screening are covered. Tennessee does not cover services to treat the origin of the emergency medical condition, and does not cover any emergency services in any setting beyond the emergency department. (TennCare 2014).

**Sources:** MACPAC analysis of AHCCCS 2014, Alaska DHHS 2014, Amerigroup 2014, Anthem Blue Cross and Blue Shield 2014, BadgerCare Plus and Wisconsin Medicaid 2015, BadgerCare Plus and Wisconsin Medicaid 2013, Better Health Florida 2014, California Medi-Cal Dental Program 2015, Colorado DHCPF 2014, Commonwealth of Virginia DMAS 2012, Connecticut Dental Health Partnership 2013, DentaQuest of Illinois, LLC 2014, DentaQuest, South Carolina Healthy Connections 2014, Florida AHCA 2011, Hawaii State Med-Quest Division 2011, Holleman 2014, Idaho DHF 2015, Illinois DHFS 2014, Indiana Dental Association 2011, Indiana FSS 2014, Iowa DHS 2013, KanCare 2015, Kansas DHE 2015, 907 Ky. Admin. Regs. 1-026 (2012), Kentucky CHFS 2013, Maine Department of Health and Human Services 2014, Maryland DHMH 2015, Maryland DHMH 2007, Massachusetts EOHHS 2014, 130 Mass. Code Regs. 420 (2014), MDWise 2014, Michigan DCH 2014, Minnesota DHS 2014, Miss. Admin. Code 23-204:1 (2015), Missouri DSS 2013, MOHealthNet 2013, Montana DPHHS 2015, Montana DPHHS 2013a, Montana DPHHS 2013b, Nebraska DHHS 2008, Nevada DHHS 2010, New Hampshire Medicaid Program 2013, N.J. Admin. Code § 10:56-2.6 (2015), N.M. Admin. Code § 8.310.2.12(G) (2015), New York State Medicaid Program 2013, North Carolina DMA 2013, North Dakota DHS 2013, Ohio Department of Medicaid 2015, Okla. Admin. Code § 317:30-5-696 (2014), Or. Admin. R. 410-123 (2014), Oregon Health Plan 2012, Oregon Medicaid 2014, Peach State Health Plan 2013, Pa. Code § 55:1149.24 (2015), Pennsylvania DPW 2014a, Pennsylvania DPW 2014b, Rhode Island DHS 2010, South Carolina Healthy Connections Choices 2015, South Dakota DSS 2015, South Dakota DSS 2015, State of Louisiana BHSF 2012, State of Louisiana DHH 2015, State of Missouri 2013, Texas HHSC 2015, Utah DMHF 2014, Vermont AHS 2014, Washington AppleHealth 2014, WellCare 2014, West Virginia DHHR 2012, Wyoming Department of Health 2015, Xerox 2014.

**TABLE 2A-2. Relevant Dental Policy Restrictions by State, as of February 2015**

State	State definition of emergency services or relevant policy restrictions
Arizona	“Services furnished by dentists which are covered for members 21 years of age and older must be related to the treatment of a medical condition such as acute pain (excluding Temporomandibular Joint Dysfunction (TMJ) pain), infection, or fracture of the jaw. Covered services include a limited problem focused examination of the oral cavity, required radiographs, complex oral surgical procedures such as treatment of maxillofacial fractures, administration of an appropriate anesthesia and the prescription of pain medication and antibiotics. Diagnosis and treatment of TMJ is not covered except for reduction of trauma.”
Georgia	The state provides emergency dental services for members age 21 and older. The state contracts with Amerigroup Community Care, Peach State Health Plan, and WellCare health plans for Medicaid services and all three provide additional dental benefits for free to beneficiaries, including oral exams, cleanings, and simple tooth removal.
Hawaii	“Individuals over 20 years of age are eligible for dental coverage limited to the treatment of dental emergencies....Adult dental benefits are restricted to a limited panel of services necessary for the control or relief of dental pain, elimination of infection of dental origin, management of trauma and/or treatment of acute injuries to teeth and supporting structures.”
Idaho	“Dental benefits for adults ages 21 and older will be limited to emergency dental treatment only such as pain or infection.”
Kansas	Dental services are not covered for beneficiaries under KMAP (Kansas Department of Health and Environment 2015). However, three Medicaid managed care organizations operate in Kansas, and all three offer limited dental benefits as a value-added service.
Maine	Adult dental care for adults 21 years of age or older is limited to “acute surgical care directly related to an accident where traumatic injury has occurred within three months of the accident; oral surgical and related medical procedures not involving the dentition and gingiva; extraction of teeth that are severely decayed and pose a serious threat of infection during a major surgical procedure of the cardiovascular system, the skeletal system or during radiation therapy for a malignant tumor; treatment necessary to relieve pain, eliminate infection or prevent imminent tooth loss; and other dental services, including full and partial dentures, medically necessary to correct or ameliorate an underlying medical condition, if the Department determines that the provision of those services will be cost-effective in comparison to the provision of those services will be cost-effective in comparison to the provision of other covered medical services for the treatment of that condition.”
Maryland	“All of the MCOs [participating in Maryland’s HealthChoice program] have chosen to offer preventive dental services for adults, a service not normally covered under Maryland Medicaid. Only those enrolled in Healthy Choice may receive these services.”
Missouri	“Changes in MO HealthNet Program benefits were effective for dates of service on or after September 1, 2005. The bill eliminated certain optional MO HealthNet services for individuals age 21 and over that are eligible for MO HealthNet under one of the following categories of assistance:...MO HealthNet for Families – Adult...MO HealthNet coverage for the following programs or services has been eliminated or reduced for adults with a limited benefit package...dental services...”
Montana	“When dental services are necessary to get or keep a job, talk with your OPA Case Manager about the ‘Essential for Employment’ program. Emergency dental care is covered when related to emergency treatment.”
New Hampshire	“Dental services for members 21 years of age and older is limited to the treatment of acute pain and acute infection. This generally means NH Medicaid covers extractions and services related to extraction to relieve pain or acute infection. For example, covered services for an adult with a complaint of acute pain may include a problem-focused examination and radiographs to the extent needed to diagnose and document the need for the extraction, as well as needed to perform the extraction itself.”

State	State definition of emergency services or relevant policy restrictions
Oklahoma	“Dental coverage for adults is limited to: (i) medically necessary extractions and approved boney adjustments. Surgical tooth extraction must have medical need documented if not apparent on images of tooth. In the SoonerCare program, it is usually performed for those teeth which are damaged to such extent that no tooth is visible above the gum line, the tooth fractures, the tooth is impacted, or tooth can't be grasped with forceps; (ii) Smoking and Tobacco Use Cessation Counseling; and (iii) medical and surgical services performed by a dentist or physician to the extent such services may be performed under State law when those services would be covered if performed by a physician.”
Texas	“Dental Services Overview: The services provided by a dentist to preserve teeth and meet the medical need of the consumer. Allowable services include emergency dental treatment necessary to control bleeding, relieve pain and eliminate acute infection; preventative procedures required to prevent the imminent loss of teeth; the treatment of injuries to teeth or supporting structure; dentures and the cost of preparation and fitting; and routine procedures necessary to maintain good oral health.”
Utah	“The dental program does not cover services for Traditional and Non-Traditional Medicaid beneficiaries. Nevertheless, certain emergency dental procedures are a least costly alternative to covered services outside of the dental program and can be reimbursed.”
West Virginia	“Covered dental services for adults 21 years of age and older are limited to emergent procedures to treat fractures, reduce pain, or eliminate infection. Prior authorization and service limits may apply.”

**Sources:** MACPAC analysis of AHCCCS 2014, Amerigroup 2014, Peach State Health Plan 2013, WellCare 2014, Hawaii State Med-Quest Division 2011, Idaho DHF 2015, KanCare 2015, Maine Department of Health and Human Services 2014, Maryland DHMH 2015, State of Missouri 2013, Montana DPHHS 2015, New Hampshire Medicaid Program 2013, Okla. Admin. Code § 317:30-5-696 (2014), Texas HHSC 2015, Utah DMHF 2014, West Virginia DHHR 2012, 2015.



CHAPTER 3

# The Intersection of Medicaid and Child Welfare



# The Intersection of Medicaid and Child Welfare

## Key Points

- Children and youth involved in the child welfare system have either been removed from their homes for abuse or neglect or are receiving in-home child welfare services as the result of an allegation of maltreatment. Child welfare agencies, in addition to ensuring the safety of these children, must also ensure that their health needs are met; however, they may not use federal child welfare funds under Title IV-E of the Social Security Act to do so.
- A range of Medicaid-covered services may be necessary and appropriate for meeting the significant health, behavioral, and other needs of these children. Those receiving federal child welfare assistance under Title IV-E are automatically eligible for Medicaid; those who are not receiving Title IV-E assistance may be eligible for Medicaid on another basis, such as low income or disability. Youth who have aged out of foster care also may be eligible for Medicaid, in some cases up to age 26.
- Concerns about continuity of coverage and the provision of timely and appropriate care for children involved in the child welfare system are heightened in light of their substantial health needs and complicated family situations. For example:
  - Despite high coverage rates among children with current child welfare involvement, uninsured rates increase as they age out of the system.
  - Children may experience gaps in needed care if a condition goes unidentified as they move between homes, and services may be duplicated if a caregiver or provider does not have access to their medical histories.
- Service use and access to care present other challenges as well:
  - Missed or delayed health screenings are a concern for children in foster care, some of whose caregivers may be unaware of the availability of services, resulting in health problems going undiagnosed or untreated.
  - Youth in the child welfare system have high levels of unmet need for mental health care and are at risk of inappropriate prescribing of psychotropic medications.
- Given that the vast majority of child welfare-involved children and youth are eligible for Medicaid-financed services, the importance of collaboration among agencies cannot be overstated. However, fragmentation across financing streams and delivery systems, poor interagency coordination and data sharing, and a lack of knowledge among staff about other programs' benefits can hamper collaboration.

## CHAPTER 3: The Intersection of Medicaid and Child Welfare

One of the populations covered by Medicaid is the population of low-income children currently or formerly served by the child welfare system. These children and youth have either been removed from their homes for abuse or neglect or are receiving in-home child welfare services as the result of an allegation of maltreatment. Children who have been removed from their homes may be placed temporarily in foster care, but may also be permanently placed with an adoptive or kinship guardian family. Others may age out of care without having secured a permanent placement.<sup>1</sup> Title IV-E of the Social Security Act provides federal funding for child welfare assistance for low-income children who have been removed from their homes. State child welfare agencies are responsible for the safety and well-being of children under their care and connecting them to a permanent and safe home if they cannot be reunited with their biological parents. Agencies must also ensure that the health needs of these children are met but may not use federal funds under Title IV-E to do so.

Children involved in the child welfare system often have significant health, behavioral, social, and other needs for which a range of Medicaid-covered services may be necessary and appropriate. Children receiving assistance under Title IV-E are automatically eligible for Medicaid. However, children who are not eligible for Title IV-E services, because, for example, they receive in-home services or have family income above the established eligibility standard, are not automatically eligible for Medicaid, although many are eligible through another pathway.

In fiscal year (FY) 2011, nearly 1 million children were eligible for Medicaid based on their receipt of certain child welfare assistance (including but not limited to Title IV-E services). This population generally comprises children who have been removed from their homes. While the population is small relative to the rest of the Medicaid program—accounting for less than 1 percent of all Medicaid enrollees and about 3 percent of non-disabled child enrollees—the complex health needs of these children, which are often a result of the trauma and maltreatment they have experienced, require an array of specialized services. Moreover, their average Medicaid spending is much higher than that of most other children enrolled in Medicaid.

Some child welfare-involved children and youth are eligible for Medicaid based on family income rather than receipt of child welfare assistance. This group includes significant numbers of children who remain in their homes. They also have substantial needs but may have lower levels of health care use and spending than children living in foster care or other out-of-home placements. Because Medicaid eligibility systems do not routinely collect child welfare information as part of an income-based enrollment process, it is difficult to identify these children using Medicaid data alone.

Ensuring receipt of timely and appropriate health care for children receiving foster care or other child welfare assistance is complicated by many factors:

- frequent changes in placement that may affect continuity of care, as well as changes in caregivers who may lack information on their health needs and prior service use and whose ability to provide consent for treatment may vary;
- trauma experienced both prior to and as a result of removal from the home;
- significant behavioral health needs that may not be appropriately addressed, with over-reliance on psychotropic medications and

a shortage of providers trained to diagnose and treat childhood trauma;

- fragmentation across Medicaid, child welfare, and behavioral health financing streams and delivery systems, with a lack of intensive health care management that may be needed to supplement routine caseworker services; and
- poor interagency coordination and data sharing, with a lack of knowledge among program staff about each other's benefit programs (Allen and Hendricks 2013).

For youth who have aged out of foster care, continuity of coverage is a concern, despite the high rates of coverage among children with current child welfare involvement. Identifying and enrolling these youth in Medicaid can be challenging for states, and beneficiaries face varying state eligibility policies with regard to documentation and prior receipt of out-of-state foster care assistance. Access to and use of Medicaid services could also be improved for the child welfare population, for example, by ensuring regular health screenings and reducing unmet needs for mental health care as well as inappropriate psychotropic medication use. Improved collaboration between Medicaid, child welfare, and other agencies is critically important, given that the vast majority of these children are eligible for Medicaid-financed services and care coordination.

To provide context for these issues, this chapter begins with background on the child welfare system and the children it serves. It then describes Medicaid's role in serving this population, and it concludes with a discussion of selected Medicaid policy issues relevant for child welfare-involved youth.

## Child Welfare Overview

Child welfare agencies are tasked with promoting the safety, permanency, and well-being of children. To meet these goals, these agencies provide

services to prevent the abuse and neglect of children and to ensure a child's safety within the home. They also investigate allegations of abuse and neglect, and when necessary for a child's safety, remove the child from the home and place him or her in foster care. After children are removed from the home, child welfare agencies provide maintenance payments to foster families or other caregivers, including those providing foster care in group homes or institutional settings, to help cover the cost of room and board. The agency also provides case management and permanency planning for the child.<sup>2</sup> If possible, the child will be reunited with his or her parents; if not, the goal is to place the child in another permanent family through adoption or legal guardianship. If an agency is unable to place the child with a permanent family, it will work to help him or her successfully transition to adulthood (Stoltzfus 2015a).

Most federal support for state child welfare activities is authorized under Titles IV-B and IV-E of the Social Security Act. As of FY 2015, just over \$8 billion was provided in dedicated federal funding, with states (as a condition of receiving program funds) contributing between 20 percent and 50 percent of the costs of services.<sup>3</sup> Beyond this matching contribution, states are required to abide by federal child welfare standards. Title IV-B provides capped grants to states for a range of child welfare services. There are no federal eligibility criteria because the programs are designed to protect and promote the safety of all children, and states may elect to use the funding for services that meet the broad goals of the agency. Under Title IV-E, which is an open-ended entitlement program, states are entitled to reimbursement for some of the cost of providing foster care, adoption assistance, or kinship guardianship assistance for eligible children. States may also choose to provide support for children who, instead of returning home or finding a permanent placement, leave foster care because they age out; federal Title IV-E funding for these children is provided through a capped grant (Stoltzfus 2015a).

### Characteristics of child welfare-involved children.

In FY 2013, the families of 3.2 million children were investigated or assessed for abuse or neglect. Of those, about 1.3 million received child welfare services, either in the home or in foster care. African American children and younger children comprise a disproportionate share of these children; rates of victimization are similar for boys and girls (Children’s Bureau 2015a). More than half of families investigated for child abuse and neglect had prior reports of child maltreatment. Almost one-quarter had trouble paying for basic needs. The share of families that experienced domestic violence, serious mental health problems, or active drug use was smaller (Table 3-1).

About two-thirds of the children who received services received only in-home family services to allow them to remain safe while staying with their biological families (this might include training for their parents). The remaining third were removed from their homes and received foster care services, most in a family setting (Children’s Bureau 2015a, 2014). The majority of children who

leave foster care return to their biological families, with a smaller share finding permanent adoptive or guardianship placements or aging out of care (Children’s Bureau 2014). Among children who have been removed from their homes, only a subset are eligible for Title IV-E assistance. During FY 2013, on an average monthly basis, 159,000 children were eligible for Title IV-E foster care assistance, 432,000 children received Title IV-E adoption assistance, and about 17,000 received kinship guardianship assistance (Stoltzfus 2015a).<sup>4</sup> (See Figure 3-1 and Table 3-2 for additional data on the characteristics of the child welfare population.)

## Medicaid’s Role for Child Welfare-Involved Children and Youth

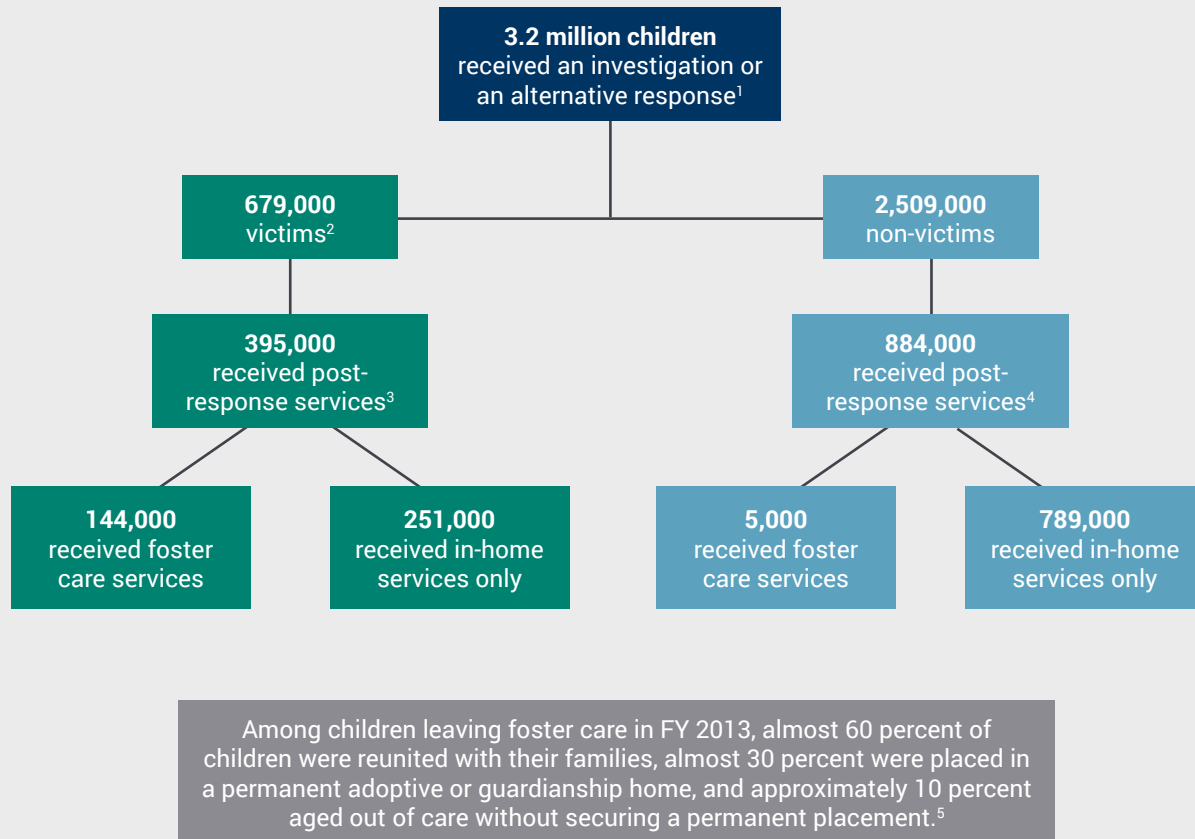
Child welfare-involved children and youth have significant health care needs and Medicaid provides a wide range of services that may address these needs. Between 31 percent and 49 percent of

**TABLE 3-1. Risk Factors Associated with Families Investigated by Child Welfare Agencies**

Risk factor	Percent
Family was subject of prior reports of child maltreatment	60.0%
Family experienced high levels of stress (e.g., unemployment, drug use, poverty, neighborhood violence)	50.5
Caregiver was subjected to domestic violence	27.7
Family had trouble paying for basic needs	23.8
Child had major special needs or behavioral problems	19.3
Primary caregiver had serious mental health problem	14.4
Primary caregiver had recent history of arrests	13.7
Primary caregiver involved in active drug use	10.5
Primary caregiver involved in active alcohol use	4.6
Child involved in delinquent behaviors (e.g., chronic runaway, truant)	4.5

**Notes:** Table based on tabulations of the National Survey of Child and Adolescent Wellbeing (NSCAW) II baseline data received from Department of Health and Human Services, Administration for Children and Families, Office of Planning Research and Evaluation. Prepared by the Congressional Research Service for the *Green Book*, a publication of the Committee on Ways and Means.

**Source:** Committee on Ways and Means 2014.

**FIGURE 3-1. Number of Children in Families Investigated by Child Welfare Agencies, FY 2013**


**Notes:** FY is fiscal year. Unless noted, the data presented here are based on the National Child Abuse and Neglect Data System (NCANDS). As such, they will differ from the data presented from the Adoption and Foster Care Analysis and Reporting System (AFCARS). The total number of children involved in the child welfare system exceeds what is shown here for a number of reasons. For example, the overall number of children in foster care includes both children removed from their homes in FY 2013 (shown here) as well as children who entered foster care in a prior year but continued to receive services in FY 2013 (not shown here). Additionally, children whose families were not investigated in FY 2013 but received adoption or guardianship assistance or services after aging out of care are not included.

<sup>1</sup> In some states, reports of maltreatment may not be investigated but instead given an alternative response because the children were determined to be at low risk or for other reasons. These cases typically include the voluntary acceptance of child welfare services.

<sup>2</sup> A victim is defined in NCANDS as a child for whom the state determined that a case of maltreatment was substantiated or indicated. It also includes those identified as victims through an alternative response.

<sup>3</sup> This count is from the 47 states that reported both foster care and in-home services.

<sup>4</sup> This count is from the 45 states that reported both foster care and in-home services.

<sup>5</sup> The reasons for discharge from foster care are based on Adoption and Foster Care Analysis and Reporting System (AFCARS) data for 2013 (see Table 3-2).

**Source:** Children's Bureau 2015a, 2015b, 2014.

**TABLE 3-2. Characteristics of the Foster Care Population, FY 2013**

	Number	Percent
<b>Children in foster care on the last day of FY 2013</b>	<b>402,378</b>	<b>100.0%</b>
<b>Age</b>		
< 3	86,532	21.5
3 to 5	71,005	17.7
6 to 10	86,551	21.5
11 to 15	86,566	21.5
16 to 20	71,338	17.7
<b>Gender</b>		
Male	210,738	52.4
Female	191,608	47.6
<b>Race/ethnicity</b>		
American Indian/Alaskan Native	8,652	2.2
Asian	2,114	0.5
Black or African American	98,201	24.5
Native Hawaiian/other Pacific Islander	686	0.2
Hispanic (any race)	86,993	21.7
White	168,302	41.9
Two or more races	24,935	6.2
<b>Time in care</b>		
< 1 month	20,901	5.2
1 to 5 months	91,425	22.7
6 to 11 months	78,963	19.6
12 to 17 months	59,105	14.7
18 to 23 months	38,614	9.6
2 years or more	113,332	28.2
<b>Reason for discharge among children leaving foster care during FY 2013</b>	<b>238,280</b>	<b>100.0%</b>
Reunification	121,334	51.2
Living with other relatives	19,385	8.2
Adoption	50,281	21.2
Emancipation/aging out	23,090	9.7
Guardianship	17,664	7.5
<b>Adoptions from foster care occurring during FY 2013 with child welfare agency involvement</b>	<b>50,608</b>	<b>100.0%</b>
<b>Age</b>		
< 3	14,076	27.8
3 to 5	14,837	29.3
6 to 10	13,389	26.5
11 to 15	6,661	13.2
16 to 20	1,640	3.2
<b>Race/ethnicity</b>		
American Indian/Alaskan Native	787	1.6
Asian	241	0.5
Black or African American	10,800	21.3
Native Hawaiian/other Pacific Islander	88	0.2
Hispanic (any race)	10,695	21.1
White	23,594	46.6
Two or more races	3,773	7.5
<b>Relationship to adopted child<sup>1</sup></b>		
Foster parent	29,428	58.1
Stepparent	53	0.1
Other relative	15,524	30.7
Non-relative	13,087	25.9

**Notes:** FY is fiscal year. Data are compiled from the Adoption and Foster Care Analysis and Reporting System (AFCARS) and represent children in foster care, regardless of Title IV-E status. As indicated in Figure 3-1, these children are only a subset of the total child welfare population. Components may not sum to totals due to rounding and missing data.

<sup>1</sup> Prior relationship categories are not mutually exclusive, and states are encouraged to select all that apply. As such, the total exceeds the number of adoptions in FY 2013, and the percentages do not sum to 100 percent.

**Source:** MACPAC calculations based on Committee on Ways and Means 2014 and Children's Bureau 2015b, 2014.



children in families investigated for abuse and neglect had a chronic health condition (Stein et al. 2013). The three most common health conditions were attention deficit hyperactivity disorder (ADHD) (16 percent), asthma (16 percent), and emotional problems (14 percent). Additionally, children with child welfare involvement were more likely to have fewer social skills than those in the general child population (34 percent as opposed to 16 percent), and it was estimated that over two-thirds of those 6 to 17 years old had an elevated risk for cognitive or behavioral problems (Casanueva et al. 2011). Among children eligible for Medicaid based on foster care assistance, 49 percent had diagnoses of mental health disorders and 3 percent had diagnoses of substance use disorders; for other children in Medicaid, the figures were 11 percent and less than 1 percent, respectively (SAMHSA 2013a). Child maltreatment has also been associated with increased risk of a number of longer-term health and social problems. Specifically, childhood trauma can increase alcoholism, illicit drug use, risky sexual behavior, mental health issues, including depression and attempted suicide, as well as cancer, heart, lung, and liver disease (Gilbert et al. 2009, Felitti et al. 1998).

The majority of child welfare-involved children and youth are eligible for Medicaid, either because they receive child welfare assistance or because of their low family incomes. Although it is not possible to identify the entirety of the child welfare population enrolled in Medicaid using readily available federal data (see Appendix Table 3A-1 for more information), about 1 million children were reported as ever enrolled in Medicaid based upon their receipt of child welfare assistance in FY 2011. These children accounted for less than 1 percent of all Medicaid enrollees and about 3 percent of non-disabled child enrollees. However, due to their high health needs and service use, Medicaid benefit spending for these children totaled \$5.8 billion in FY 2010, or about 2 percent of benefit spending for all enrollees and 9 percent of spending for non-disabled children (MACPAC 2015a).

## Medicaid eligibility

For much of Medicaid's early history, children's eligibility for the program remained closely linked to the receipt of cash payments under the former federal-state Aid to Families with Dependent Children (AFDC) program (often referred to as welfare) and, for those with disabilities, the federal Supplemental Security Income (SSI) program. Between 1984 and 1990, Congress made a number of changes that expanded Medicaid for all children based on their low incomes alone, without regard to their eligibility for AFDC or SSI cash assistance payments. However, for children eligible for Medicaid based upon their child welfare status, ties to the former AFDC program (which ended in 1996) or SSI rules continue to apply. Specifically, children enrolled in Title IV-E programs, many of whose eligibility is based on meeting their state's 1996 AFDC standard or receiving SSI, are automatically eligible for Medicaid and connected to coverage without having to complete a Medicaid application. Those children not enrolled in Title IV-E programs may be eligible for Medicaid through another mandatory or optional pathway to enrollment, such as one based on low-income status or disability. (See Table 3-3 for specific Medicaid eligibility pathways based on Title IV-E status.)

**Eligibility pathways for children who receive Title IV-E assistance.** Children and youth enrolled in Title IV-E programs, including foster care, guardianship assistance, and adoption assistance, are automatically eligible for Medicaid (§1902(a)(10)(A)(i)(1) of the Act and 42 CFR 435.145). For those in foster care or those who have left foster care for legal guardianship, eligibility for Title IV-E is determined by the state welfare agency and is based upon the income and assets of the household from which the child is removed, which must meet the state's 1996 AFDC standards.

For those receiving Title IV-E adoption assistance, the eligibility criteria are slightly different, as the financial criteria are being phased out. Specifically, if the state welfare agency finds that a child in foster

care has a special need and the child meets the 1996 AFDC standards or the child qualifies for SSI (if the income standard is still applicable), the child will be eligible for Title IV-E adoption assistance.<sup>5</sup> However, as of October 1, 2017, the financial criteria will no longer apply, and children will be eligible for Title IV-E adoption assistance on the sole basis of their special need (Stoltzfus et al. 2014).<sup>6</sup>

**Eligibility pathways for children who do not receive Title IV-E assistance.** While, as noted above, these non-Title IV-E children may be eligible through a non-child-welfare pathway, such as on the basis of income or disability, there are also two options that allow states to target Medicaid coverage to vulnerable child welfare populations who do not receive Title IV-E assistance. Specifically, states may use the Ribicoff option and the state-funded adoption assistance pathway. The Ribicoff option allows states to cover what is called a “reasonable category” of children, such as those who are in foster care but are not eligible for Title IV-E funding, if they meet the income limits established under AFDC (§1902(a)(10)(A)(ii)(I) of the Act and 42 CFR 435.222). Although not its only use, as of December 2013, 20 states used the Ribicoff pathway to cover non-IV-E children (Stoltzfus et al. 2014).

In addition, the optional state adoption assistance pathway allows states to provide Medicaid coverage to children who are receiving state-funded adoption assistance if they would not be able to be placed without medical assistance due to their significant health needs (§1902(a)(10)(A)(ii)(VIII) of the Act and 42 CFR 435.227). Because federal child welfare policy requires states to provide health coverage to children they have placed in state-funded adoptions, all but one state (New Mexico) has adopted this optional Medicaid pathway. However, it is likely that once the income and asset limits for Title IV-E adoption assistance have been phased out and the number of children eligible for such assistance increases, the optional Medicaid pathway for state-funded adoption assistance will be largely supplanted by the mandatory IV-E category (Stoltzfus et al. 2014).

**Eligibility pathways for youth aging out of foster care.** There are two designated pathways for children who have aged out of foster care—one mandatory and one optional. The mandatory category is a new pathway established by the Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended) to align with another ACA provision that allows young adults to remain on their parents’ health insurance until age 26. It reflects the assumption that coverage through a parent’s insurance would not be available to children who reach adulthood without being reunified with their families or adopted. There is no income or asset standard for this pathway, although a youth must not be eligible for or enrolled in another mandatory Medicaid category. Therefore, some former foster youth may be enrolled on another basis of eligibility, such as being a low-income parent or pregnant woman, instead of this designated foster care pathway (CMS 2013a, 2013c). States have the option to cover former foster youth that aged out in other states, and as of January 1, 2015, 12 states have elected to do so (Brooks et al. 2015).

States also have the option to cover former foster care children up to age 21 through the Chafee option (§1902(a)(10)(A)(ii)(XVII) of the Act). In contrast to the mandatory ACA pathway, the Chafee option is less restrictive with regard to prior coverage and residence; there is no requirement for prior Medicaid enrollment or to have been in foster care in the same state in which the youth is currently residing. Also unlike the ACA pathway, states may establish income or resource criteria, may restrict eligibility to those who received assistance funded under Title IV-E, and may not cover individuals age 21 or older. As of 2012, 30 states had adopted the Chafee option (25 without an income standard) and those states must maintain this coverage until 2019, when the ACA’s maintenance of effort provision expires for children (Pergamit et al. 2012).

**Continuity of health coverage.** Because automatic Medicaid eligibility is tied to Title IV-E status,

**TABLE 3-3. Pathways to Medicaid Eligibility by Child Welfare Population and Title IV-E Status**

Type of child welfare assistance	Child is Title IV-E eligible	Child is not Title IV-E eligible
<p><b>Foster care assistance</b> provides monthly maintenance payments and permanency planning for children placed in a temporary living arrangement that is intended to ensure the child’s safety and well-being after being removed from his or her home due to abuse or neglect. Less than half of all children in foster care are Title IV-E eligible.</p> <p><b>Guardianship assistance</b> is a state option that provides support to relatives who assume legal guardianship for children previously in foster care. By the end of fiscal year 2014, 31 states and the District of Columbia included guardianship assistance in their Title IV-E plans.</p>	<p><b>Mandatory Medicaid Title IV-E pathway based on child welfare agency’s determination that child meets Title IV-E criteria:</b></p> <ul style="list-style-type: none"> <li>• Child is under age 18 (up to age 21 at state option).</li> <li>• Home from which child was removed meets 1996 Aid to Families with Dependent Children (AFDC) need standard, and assets are limited to \$10,000.</li> <li>• Child meets all other Title IV-E foster care or guardianship criteria.</li> </ul>	<p><b>Mandatory or optional Medicaid pathways unrelated to child welfare, based on income or disability</b></p> <p><b>Optional Medicaid Ribicoff pathway for children that may be broad or targeted, based on the following criteria:</b></p> <ul style="list-style-type: none"> <li>• Child is under age 21 (or younger, at state option)</li> <li>• Home from which child was removed meets 1996 AFDC income limits.</li> <li>• Child meets state-defined criteria for “reasonable” category of children (e.g., a child in foster care placement who is not eligible for Title IV-E funding because placement facility is not licensed).</li> </ul>
<p><b>Adoption assistance</b> provides payments to adoptive parents for ongoing support of children whose health care needs or other circumstances make them difficult to place in permanent adoptive homes. Eighty-five percent of children adopted from foster care are found to have special needs, qualifying their adoptive parents for Title IV-E assistance.</p>	<p><b>Mandatory Medicaid Title IV-E pathway, based on child welfare agency determination that child meets Title IV-E criteria:</b></p> <ul style="list-style-type: none"> <li>• Child is under age 18 (up to age 21 at state option).</li> <li>• Child welfare agency determines that the child has a special need.</li> <li>• Home from which child was removed meets the 1996 AFDC need standard, and assets are limited to \$10,000; or child qualifies for Supplemental Security Income (SSI).</li> </ul> <p>Note: All financial standards will be phased out by October 2017.</p>	<p><b>Mandatory or optional Medicaid pathways unrelated to child welfare, based on income or disability</b></p> <p><b>Optional Medicaid state adoption assistance pathway, based on the following criteria:</b></p> <ul style="list-style-type: none"> <li>• Child is under age 21 (or younger, at state option).</li> <li>• Child does not meet applicable Title IV-E income standard, but has special need and would not be adopted without medical assistance.</li> <li>• Child must be eligible for or receiving Medicaid prior to adoption.</li> </ul>
<p><b>In-home services</b> are provided to children and families to protect children in their homes from abuse or neglect and to prevent their entry or re-entry to foster care using Title IV-B or other funds, such as the Social Services Block Grant (SSBG).</p>	<p><b>Not applicable</b></p>	<p><b>Mandatory or optional Medicaid pathways unrelated to child welfare, based on income or disability</b></p>

**TABLE 3-3. (continued)**

Type of child welfare assistance	Child is Title IV-E eligible	Child is not Title IV-E eligible
<p><b>Assistance for youth who have aged out of care</b> provides financial, housing, counseling, education, employment, and other supports directly to youth using the Chafee Foster Care Independence Program or Title IV-B funds.</p>	<p><b>Not applicable</b></p>	<p><b>Mandatory Medicaid former foster youth pathway, based on the following criteria:</b></p> <ul style="list-style-type: none"> <li>• Youth is under age 26 and aged out of foster care (either Title IV-E or non-Title IV-E) at age 18 (or older, at state option) and was receiving Medicaid.</li> <li>• No income or asset standard.</li> <li>• If youth is eligible for Medicaid under pre-Affordable Care Act (ACA) mandatory pathways, must enroll through those instead.</li> <li>• States have the option of covering youth who have aged out in other states.</li> </ul> <p><b>Optional Medicaid Chafee pathway, based on the following criteria:</b></p> <ul style="list-style-type: none"> <li>• Youth is under age 21 and aged out of foster care at age 18 (or older, at state option).</li> <li>• States can exclude non-Title IV-E foster youth.</li> <li>• States have the option to establish income and resource limits.</li> <li>• No requirements for youth to be enrolled in Medicaid or to have been in foster care in the same state in which they are currently residing.</li> </ul>

Source: MACPAC and Stoltzfus 2015.

children leaving the child welfare system lose their mandatory eligibility through this pathway if they no longer receive Title IV-E funding. However, they may be eligible under another category—as a low-income child, for example. Maintaining coverage, even if the pathway changes, could help ensure ongoing care for these children’s health needs. Strong coordination across systems could help these children enroll in and maintain Medicaid coverage as their family situation changes.

Although most child welfare-involved children are covered by Medicaid, their pathway to eligibility and coverage varies by placement type. Estimates from the early 2000s indicate that of children in out-of-home care, 99 percent were covered by Medicaid, with 63 percent eligible because of their Title IV-E

status, and the remainder covered under another pathway, such as one based on their disability or low-income status. Even among children served in their homes, a majority, 84 percent, were covered under Medicaid (Libby et al. 2006).

Despite varying reasons for eligibility, children involved in the child welfare system are highly likely to remain insured. Specifically, one study found that over a three-year period, most (92 percent) of these children maintained some type of coverage even though the source of coverage (e.g., Medicaid or private) may have changed during this time period. Of those entering the child welfare system, 63 percent had Medicaid coverage, 26 percent had private insurance, and 10 percent were uninsured. After three years, the share of those with Medicaid

increased slightly to 67 percent, while the share of those who were uninsured declined to 6 percent (Raghavan et al. 2008). Coverage rates for those who have aged out of the child welfare system, however, have historically been lower. One study found, for example, that two-thirds of those aging out of foster care lost coverage at some point during the first two years following the transition (Raghavan et al. 2009). Another found that at age 26, fewer than 60 percent of youth who had aged out of foster care had insurance coverage; the majority of those who did have coverage were insured through Medicaid or the State Children's Health Insurance Program (CHIP) (Courtney et al. 2011).

States have established connections between Medicaid and child welfare agencies to ensure enrollment of children who are eligible on the basis of child welfare involvement. Almost all states have mechanisms in place to secure coverage immediately for children removed from their homes, such as through presumptive eligibility or through the co-location of agency staff (i.e., a Medicaid eligibility worker located at the child welfare agency office). For children who remain in their homes, however, responsibility for securing coverage often resides with the family, and there are fewer mechanisms in place between child welfare agencies and Medicaid to ensure coverage in such situations (Libby et al. 2006).

Other policies also affect continuity of Medicaid coverage for children with child welfare involvement. In the 23 states currently offering 12-month continuous eligibility, for example, coverage for these children will likely remain stable for at least a year (§1902(e)(12) of the Act and Brooks et al. 2015). Additionally, federal regulations require that states first attempt to renew coverage administratively. As such, for children maintaining connections to Title IV-E, the Medicaid agency should be able to renew their coverage without requiring any additional steps from the enrollees. Federal regulations also require that enrollees be screened for other Medicaid eligibility categories

prior to termination. This means that children who were categorically eligible because of their connection to the child welfare agency should be given an opportunity to enroll under another category before the state can disenroll them (42 CFR 435.916).

Given that the Title IV-E categories are subsumed by the low-income coverage categories, the question arises whether the mandatory child welfare group is still necessary. On the one hand, continuity of coverage may be eased if a child is able to enroll as a low-income child and remain enrolled as such despite child welfare involvement. This ongoing enrollment may also lead to consistent managed care enrollment, as some states have excluded children covered on the basis of child welfare from participating in mandatory managed care. On the other hand, maintaining the automatic ties to child welfare ensures that these children will be enrolled in coverage and eliminates the need for a separate Medicaid application. Additionally, although there is considerable overlap between the new mandatory eligibility pathway for youth aging out, the optional Chafee pathway may cover some youth not otherwise eligible. For example, under the Chafee option, there is no requirement for the youth to have been enrolled in Medicaid when they aged out of care (CMS 2013b).

**Role of Medicaid for parents with child welfare agency contact.** Caregivers, the majority of whom are parents living with their children, may also benefit from the receipt of Medicaid services. Parent caregivers are less likely to report being in good physical or mental health, and are more likely to suffer from depression, alcohol and substance abuse, and domestic violence than other types of caregivers (such as foster parents). These in-home parents also report relying on a number of services to address their family's basic living needs in addition to services required by the child welfare agency, such as parent skills training and treatment for a drug or alcohol problem. Based on data collected in 2008–2009, more than one-quarter (28 percent) of in-home parents reported receiving



mental health treatment—either inpatient or outpatient services or prescription medication, 13 percent said they received parenting skills training, and almost 3 percent reported receiving substance abuse treatment (Ringeisen et al. 2011).

Unlike their children who are eligible for Medicaid if they receive services under Title IV-E, parents do not automatically become eligible for Medicaid when their children come in contact with the child welfare system. Since many states continue to use their old AFDC standards to set Medicaid eligibility thresholds for parents, some of them may be income eligible; however, because eligibility for Medicaid as a parent requires the adult to be living with a dependent child, a parent would not be eligible if the child were removed from the home. Additionally, the expansion of Medicaid to low-income adults, a provision of the ACA that has been adopted by more than half of all states, may allow many parents in families who come to the attention of child welfare agencies to gain coverage (MACPAC 2015b). Enrollment in Medicaid provides an opportunity for a child welfare agency to facilitate access to mental health, substance abuse, or other Medicaid-supported services as needed. Even if family members are not eligible for Medicaid, services such as family therapy or parenting education may be covered by the program if they are medically necessary for a Medicaid-enrolled child and are directed exclusively to the treatment of the child (Perkins 2002).

## Medicaid benefits

In light of the significant health care needs of child welfare-involved youth, a wide range of Medicaid-covered services may be necessary and appropriate to treat their physical and behavioral health conditions.

**Covered benefits.** For all children under age 21, whether or not they are involved in the child welfare system, Medicaid’s Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) benefit requires Medicaid coverage of any

service allowed under Section 1905(a) of the Social Security Act that is determined medically necessary to ameliorate a physical or behavioral health condition (CMS 2014a). As discussed later in this chapter, however, low EPSDT screening rates are a concern for both child welfare-involved youth and the broader population of children enrolled in Medicaid. Services delivered to the family, such as family therapy and parenting education, may be covered under EPSDT, but they must be directed exclusively to the treatment of the child (Perkins 2002). The EPSDT benefit is subject to the same rules as most Medicaid services, which generally require states to offer the same coverage to all enrollees (comparability), in all geographic areas (statewideness), and through any participating provider (freedom of choice).<sup>7</sup> States may use waiver authority or other statutory Medicaid provisions to cover the relatively few benefits for children that are above and beyond those required under EPSDT, such as respite services that provide parents with a temporary break from caregiving duties, or to target services in ways that might not otherwise be permitted (CMS 2014g, CMS and SAMHSA 2013).

For all children under age 18, regardless of child welfare status, there are no premiums and no cost sharing for services covered by Medicaid (42 CFR 447.56). For those age 18 or older who are receiving foster care or Title IV-E adoption assistance, the exemption from premiums and cost sharing is extended until their child welfare assistance ends.

**Service delivery and care coordination.** For children involved with the child welfare system, having a care coordinator who is familiar with their ongoing health needs is particularly important in light of the numerous changes in guardianship and living arrangements they may face. Child welfare agencies have specific health care oversight and coordination responsibilities for children in foster care and provide supports for other child welfare-involved youth, such as those who are receiving adoption assistance or services to help their



families avoid an out-of-home placement. However, because Medicaid is the primary payer of health care services for these children, the program's service delivery and care coordination models can play an important role for them.

State Medicaid programs are increasingly contracting with managed care plans to provide a given set of benefits defined by the state. In this arrangement, plans generally take responsibility for provider networks, care coordination activities, utilization management policies, and provider payments. In most cases, the plans are paid a per-member-per-month capitation rate and are at risk of financial loss if their costs exceed their payments from the state. In 2012, eight states had mandatory managed care enrollment of children in foster care (which may include an ability to opt out at any time), while other states had voluntary enrollment or specifically excluded these children from managed care (Gonyea et al. 2015, CMS 2014c). Depending on the circumstances, states may have specific managed care policies and plans may have particular design features aimed at child welfare-involved youth and other children with special health care needs. Examples include the use of dedicated child welfare liaison staff, case managers, and specialized provider networks; establishment of family and community group relationships; and risk adjustment of state payments to plans to reflect higher service use and spending for enrollees with complex conditions (Allen 2008). However, inclusion of these features varies within and across states. For example, a state may require that all of its Medicaid managed care plans meet heightened requirements for children in foster care and other children with special needs, that they enroll these children in a subset of plans that are certified to meet particular requirements, or that they use pediatric special needs plans that have been designed to serve specific child populations (Dutton et al. 2013).

Another approach to service delivery taken by many states is to implement some version of a medical or health home that uses teams of providers to

coordinate care and assist Medicaid beneficiaries in accessing services.<sup>8</sup> States that meet specific Medicaid health home requirements for individuals with chronic conditions—such as children with serious emotional disturbance, including child welfare-involved youth—can receive two years of 90 percent federal match for health home services provided to those individuals (Moses et al. 2014, CMS 2010).<sup>9</sup> However, as with other Medicaid services, in order to avoid duplication of effort, states must take care to differentiate the case management services provided by child welfare agencies from those provided by a health home. In addition, customized approaches may be needed for child welfare-involved youth whose needs extend beyond traditional office-based services to include specialty behavioral health care provided in family or community settings, as well as coordination with child welfare agencies, the juvenile justice system, schools, and other systems and institutions (CHCS 2014). Policies regarding Medicaid's role in facilitating access to these services vary from state to state.

## Medicaid service use

In 2010, the share of children eligible for Medicaid on the basis of foster care assistance who used any type of Medicaid service was 89.3 percent, which is comparable to the 85.0 percent share of other children enrolled in Medicaid (SAMHSA 2013a).<sup>10</sup> However, the amount and types of services used by the child welfare population differ substantially from services used by their peers. For example, children eligible for Medicaid based on foster care assistance had longer inpatient stays than other children in Medicaid (31 days compared to 6 days); this may be due in part to their use of residential treatment centers and other rehabilitation facilities that may provide care for an extended period of time (SAMHSA 2013a).

Additionally, among Medicaid-enrolled children with at least one visit in 2010, those eligible based on foster care assistance had many more outpatient visits per year (an average of 27) compared to

other children (an average of 9) (SAMHSA 2013a). This differential may be driven in part by ongoing contact with behavioral health professionals, given that nearly half (48.2 percent) of children enrolled in Medicaid based on foster care assistance used outpatient services for which mental health was the primary diagnosis, compared to a much smaller share (12.8 percent) of other children in Medicaid (SAMHSA 2013a). Additional data indicate that the share of children in Medicaid with a behavioral health diagnosis is nearly as high among those who are eligible for the program based on child welfare assistance as it is among those who are eligible based on a disability (see Chapter 4).

Among children enrolled in Medicaid on the basis of foster care assistance who used behavioral health services in 2005, individual therapy was the most common outpatient treatment, with 61 percent using it.<sup>11</sup> This was followed by psychotropic medications (49 percent); screening, assessment, and evaluation services (41 percent); medication management visits (28 percent); and family therapy or education and training (20 percent) (Table 3-4). In contrast, a smaller share of these children received non-traditional services that are often family-centered and provided in home- and community-based settings, such as therapeutic foster care (3 percent) and intensive care coordination services through a wraparound model (1 percent). However, due to differences in coding and billing across states, the use of non-traditional services may be understated if they are embedded in other categories, such as psychosocial rehabilitation (Pires et al. 2013b).

In addition, about one-quarter of children enrolled in Medicaid based on child welfare assistance have psychotropic drug prescriptions filled during the year (see Chapter 5). Among children who are enrolled in Medicaid based on foster care assistance, about half of those with psychotropic drug use have prescriptions filled from two or more psychotropic drug classes and nearly 20 percent have prescriptions filled from three or more drug classes. These medications could be

taken simultaneously or at different points during the year (Pires et al. 2013b). One source that examined concurrent use indicates that 13 percent of these children took three or more psychotropic medications at the same time (GAO 2012). Although estimates vary from about 20 to more than 30 percent, a substantial number of children in foster care using psychotropic medications do not receive identifiable behavioral health services in addition to such medication (Pires et al. 2013b, GAO 2012).<sup>12</sup> Others may receive both medication and behavioral health services, but could benefit from more applicable or evidence-based therapies (GAO 2014). (See Chapter 5 for an examination of psychotropic medication use and spending.)

Medicaid eligibility systems do not routinely collect child welfare information as part of the income-based enrollment process, although some states do use such information to create flags that identify children with special needs (Allen et al. 2012). Therefore, using Medicaid data alone, it is difficult to identify child welfare-involved youth for whom Medicaid eligibility is based on family income rather than their receipt of child welfare assistance. These children, many of whom remain in their homes while receiving child welfare services, may have lower levels of health care use and spending than children in foster care or other out-of-home placements. For example, while 80 percent of children in foster care are estimated to have mental health needs, one study found that 48 percent of the overall child welfare population had mental health needs due to emotional or behavioral disorders and that only 16 percent used mental health services (GAO 2012, Burns et al. 2004). In addition, among the overall child welfare population, an estimated 14 percent take psychotropic medications, a much smaller share compared to children in foster care (Raghavan et al. 2005).

**TABLE 3-4. Children in Medicaid Using Behavioral Health Services by Service Type and Basis of Eligibility, 2005**

Service type	Foster care <sup>1</sup>	TANF or low income	SSI or disabled	Total
Outpatient treatment (primarily individual)	61.3%	53.0%	46.6%	53.1%
Psychotropic medication	49.3	37.9	61.2	43.8
Screening/assessment/evaluation	41.4	42.4	34.8	40.9
Medication management	27.7	18.9	30.6	22.3
Family therapy/family education and training	20.2	19.8	17.3	19.4
Substance use outpatient	13.6	10.4	8.7	12.4
Psychological testing	12.7	8.3	10.4	10.5
Psychosocial rehabilitation	11.5	11.5	16.5	13.8
Targeted case management	10.0	5.9	9.2	7.6
Group therapy	9.1	7.1	8.0	8.7
Initial service planning	8.4	8.4	10.8	9.3
Case management	7.6	8.0	12.0	8.8
Residential treatment/therapeutic group homes	6.1	2.7	5.0	3.9
Inpatient psychiatric treatment	5.1	2.8	3.8	3.5
Crisis intervention and stabilization (non-emergency room)	4.5	3.1	3.9	3.6
Partial hospitalization/day treatment	4.2	2.7	4.6	3.3
Behavior management consultation and training	4.1	3.4	5.5	7.1
Substance use screening and assessment	3.6	3.1	1.8	3.1
Therapeutic foster care	3.0	0.3	0.7	0.8
Mental health consultation	2.5	2.8	4.6	3.3
Therapeutic behavioral support	2.4	0.4	0.9	1.1
Wraparound	1.1	0.8	2.4	2.9
Substance use, inpatient	0.3	0.3	0.2	0.3
Respite	0.3	0.2	0.4	0.3
Supported housing	0.2	0.2	0.2	0.2
Emergency room	0.2	0.1	0.1	0.1
Transportation	0.1	0.0	0.2	0.1
Home-based (e.g., in-home services)	0.1	0.1	0.1	0.1
Activity therapies	0.1	0.1	0.1	0.1
Multisystemic therapy	0.1	0.0	0.0	0.0
Peer services	0.0	0.0	0.3	0.1
Telehealth	0.0	0.0	0.0	0.1

**Notes:** TANF is Temporary Assistance for Needy Families. SSI is Supplemental Security Income. Analysis based on Medicaid Analytic eXtract (MAX) data. Includes children with at least one claim for behavioral health services, with or without psychotropic medications use; does not include children with psychotropic medications use and no other behavioral health service claim. See source for full information on data and methods.

<sup>1</sup> Source refers to children with a foster care basis of eligibility. However, additional children eligible for Medicaid based on adoption or certain other child welfare assistance are included in the MAX data analyzed, which are derived from Medicaid Statistical Information System (MSIS) data reported by states to the federal government (see Appendix Table 3A-1).

**Source:** Pires et al. 2013b.

## Medicaid spending for children eligible based on child welfare assistance

Spending on Medicaid benefits for children enrolled based on child welfare assistance totaled \$5.8 billion in FY 2010, or about 2 percent of benefit spending for all enrollees and 9 percent of spending for non-disabled children (MACPAC 2015a). Medicaid benefit spending per child enrolled on the basis of child welfare assistance was \$5,767, compared to \$2,000 per non-disabled child and \$14,216 per child under age 21 enrolled on the basis of disability (MACPAC 2015a). Managed care, including both comprehensive and limited-benefit plans (such as those specializing in behavioral health), accounted for 18 percent of the Medicaid benefit spending for children enrolled based on child welfare assistance in FY 2010, up from 9 percent in FY 2001 (Stoltzfus et al. 2014).

The broader population of children in Medicaid who are identified as maltreated or as being at risk of maltreatment (defined as those who are investigated or assessed by local child protective services agencies regardless of whether their case was substantiated) have higher costs than children who do not come into contact with the child welfare system. Specifically, one study estimated that children who were maltreated or at risk of being maltreated incurred Medicaid expenditures that were on average more than \$2,600 higher per child per year than the expenditures for children not maltreated or at risk of being maltreated. The authors estimated that these higher costs (i.e., additional spending above what would otherwise be expected) reflected 9 percent of Medicaid spending for non-disabled children (Florence et al. 2013).

## Medicaid and child welfare agencies' division of responsibilities for children's health

As noted earlier, child welfare agencies are required to ensure that the health needs of children in foster care are met, but they may not expend

Title IV-B or Title IV-E funds to meet these needs. The state Medicaid agency accepts the Title IV-E determinations of eligibility and funds a wide range of medical, behavioral health, and supportive services for these youth. Medicaid, however, may not pay for room and board costs associated with care in family, group home, or residential treatment settings because these costs are paid for by state child welfare agencies, either through Title IV-E or another funding source.

The child welfare agency is also responsible for regularly reviewing and updating the agency's health record for each child in foster care (§475(1)(C) and 5(D) of the Act). In addition, through Title IV-B, a state must ensure that the child welfare and Medicaid agencies develop a plan for the oversight and coordination of health care services for children in foster care (§422(b)(15) of the Act).<sup>13</sup> Such plans are intended to identify and respond to the health needs—including mental and dental health—of children in foster care, and must outline the schedule for initial and follow-up health screenings and how any needs identified through the screenings will be addressed.<sup>14</sup>

Health oversight plans must also describe how to update and share relevant health information for children in foster care, and how to ensure continuity of care for them. Plans must list the necessary steps that ensure the health needs of youth are addressed if they are transitioning out of the child welfare system. Since 2011, health oversight plans are also required to include details on the oversight of prescription psychotropic medications (Stoltzfus et al. 2014).<sup>15</sup> There is no specific requirement for a health oversight plan for child welfare-involved children who are not in foster care, but many who are receiving adoption assistance would previously have been in foster care, and children who are receiving services to help their families avoid an out-of-home placement may obtain a general needs assessment as part of their contact with the child welfare agency.

As children enter the system, the child welfare agency has overall responsibility for ensuring that their health, behavioral, and social needs are met. The agency conducts a broad child-and-family needs assessment as part of the investigation and develops a case plan to ensure that the child is placed in a safe home and that services are provided to the child, the parents, and the foster parents (if applicable) to improve the conditions within the home to either prevent the child's removal or enable reunification (§475(1) of the Act and 45 CFR 1356.21(g)).

A clinician typically carries out the physical and mental health screenings and assessments. The American Academy of Pediatrics (AAP) recommends that children be seen by a health care professional for a health screening within 72 hours of placement, although ideally within 24 hours of removal. Within 30 days, children should have a comprehensive mental health, developmental, educational, and dental health evaluation and get a follow-up appointment within 60 to 90 days (AAP 2005, Allen 2010).<sup>16</sup>

However, as of 2010, not every state was meeting these guidelines. Nearly all states require physical health screenings and about two-thirds require physical, behavioral, and oral health screenings. Many states do require more thorough, in-depth assessments when necessary, but only 35 require assessments across all three areas. Finally, there is wide variation in terms of whether states have established timelines for the screenings and assessments as well as the length of any prescribed time frame (Allen 2010).

## Selected Policy Issues

There are concerns about continuity of coverage and receipt of timely and appropriate care for all children enrolled in Medicaid, but concerns about children involved in the child welfare system are heightened in light of their substantial health needs. While studies indicate that continuity of

coverage for children currently involved in the child welfare system is high, for youth who have aged out of care, coverage rates are much lower. Identifying these youth and enrolling them in Medicaid can be challenging, and beneficiaries face an array of different state eligibility policies regarding documentation and prior out-of-state foster care placements. In addition, there may be gaps in needed care if a condition goes unidentified as a child moves between homes or duplication of services because a provider is unaware that a screening or assessment has been conducted.

Service use and access to care present other challenges. Missed health screenings are a concern for children in foster care, and state Medicaid agencies can do more to inform caregivers about the availability of services. States can also help to reduce unmet needs for mental health care and inappropriate psychotropic medication use among child welfare-involved youth by implementing explicit Medicaid coverage policies for care that expands beyond traditional services such as outpatient therapy, residential treatment, and prescription drugs. In addition, the importance of collaboration between Medicare and child welfare and other agencies cannot be overstated, given that the vast majority of child welfare-involved youth are eligible for Medicaid-financed services and care coordination.

## Implementation of the new pathway for youth aged out

As discussed earlier, coverage rates for young adults who have aged out of the child welfare system have historically been lower than coverage rates for children currently involved in the child welfare system or young adults the same age, but with no involvement in the child welfare system.<sup>17</sup> Although the new mandatory Medicaid eligibility pathway for former foster youth established under the ACA should increase coverage, problems with implementation could affect the size of these gains.



Identifying and enrolling these youth can be challenging. As youth age out of the system, child welfare agencies are required to develop a transition plan that includes specific options related to health insurance coverage, but there is no requirement that the agency ensure enrollment in Medicaid or another coverage source (Stoltzfus 2014). For those who have already aged out, the process of connecting to Medicaid may be more difficult and require targeted outreach. Additionally, caseworkers (in both child welfare and Medicaid agencies) and youth themselves may be unaware of the new coverage pathway and the requirements for application. A recent examination of the implementation of the Chafee option found that few Medicaid staff were knowledgeable about the pathway, in part, because it represented such a small share of the overall Medicaid program (Pergamit et al. 2012). As such, education for both agency staff and youth involved in the system will be important.

In order to be eligible as a former foster youth under the pathway discussed above, these young adults must not be eligible for or enrolled in another mandatory category. States must therefore confirm that an applicant is not eligible as a low-income child, parent, or pregnant woman prior to enrollment on the basis of being a former foster youth, a requirement that will also need to be met at renewal (CMS 2013a).<sup>18</sup> If the state can check existing data sources, such as for income, the former foster youth may have their eligibility renewed administratively without having to submit any additional information.

The level of documentation required from the youth in order to enroll varies. States have a great deal of flexibility regarding verification of former foster care status, for example, by accepting self-attestation of the youth's status (42 CFR 435.956). The regulations also specify that the paper documentation cannot be required unless electronic data to verify the individual's status as a former foster care individual is not available. States that do not currently have an electronic data source could use the enhanced federal matching

rate (90 percent) to develop such a system as discussed in more detail below. In states relying on documentation for verification of former foster care status, the requirement may be more cumbersome and may result in lower coverage and retention rates, especially for those formerly in foster care who have already left the system and may not have easy access to documentation. For example, under the Chafee option, youth in states that required documentation at renewal had lower recertification rates than youth in states that did not require documentation (Pergamit et al. 2012).

Finally, coverage may not be available to youth who have aged out of care if they move between states. In proposed regulations, the Centers for Medicare & Medicaid Services (CMS) has interpreted the statute to allow, but not require, states to cover former foster youth from other states (CMS 2013a, 2013c).<sup>19</sup> As of January 2015, only 12 states had adopted this option (Brooks et al. 2015). While sharing former foster care status across states may be difficult, states may have a flag on those who are eligible for Medicaid on the basis of Title IV-E within their systems that could facilitate such an exchange. However, this flag only includes those children eligible on the basis of Title IV-E status, and not all those with foster care involvement who would be covered through the new pathway. As found in the managed care environment and discussed elsewhere, it has been challenging for Medicaid to identify all children in foster care (Allen et al. 2012). To facilitate coverage of these youth, CMS could revise its interpretation of the requirement in the final rule, or Congress could amend the statute to require coverage for youth who have aged out in any state or provide incentives for states to cover these youth.

## Receipt of EPSDT screenings

Routine screening services that are required under Medicaid's EPSDT benefit for all individuals under age 21 are separate from child welfare agency-directed screenings that children may receive if they are removed from their homes. These periodic



EPSDT benefit screenings are key to identifying physical and behavioral health conditions and for referring children to follow-up treatment, but are commonly delayed or missed for children in foster care. The Office of Inspector General (OIG) for the U.S. Department of Health and Human Services (HHS) recently reported that nearly a third of children in foster care who were enrolled in Medicaid did not receive at least one required EPSDT health screening, and that just over a quarter received at least one required screening late (OIG 2015).<sup>20</sup> Low EPSDT screening rates are also an issue for the broader population of children enrolled in Medicaid (OIG 2014, 2010).

In interviews with officials from several states, the most frequently cited barriers to receipt of preventive screenings for the overall population of children covered by Medicaid were cultural or family attitudes and circumstances, although problems with provider access and incorrect beneficiary contact information were also noted (OIG 2010). For children in foster care, several OIG reports found that some caregivers were not familiar with the Medicaid program's covered services or its schedule for EPSDT examinations, indicating that better communication regarding Medicaid coverage may be warranted. (See individual reports for states listed in OIG 2005.) Although the OIG indicated that health oversight and coordination for children in foster care is a child welfare agency responsibility, state Medicaid agencies may go beyond the federal minimum requirement to notify parents and caregivers within 60 days of an eligibility determination about the availability of EPSDT services (OIG 2015, 2010).

### Coverage for behavioral health and other specialized services and providers

Based on data collected in 2009–2011, nearly one-third (30 percent) of children in foster care with a potential mental health need had not received any mental health services in the past year or since

the start of their living arrangement, if less than 12 months (GAO 2012). In addition, numerous studies have cited concerns about inappropriate prescribing of psychotropic drugs for child welfare-involved youth (see Chapter 5). The EPSDT benefit requires Medicaid to cover a wide range of services for children—including those that may reduce the need for psychotropic medications—when they are deemed medically necessary, but actual receipt of those services depends on the degree to which states have policies and infrastructure in place to facilitate access.

State Medicaid coverage of behavioral health care that extends beyond traditional services such as outpatient therapy, residential treatment, and psychotropic medication may increase as evidence regarding the clinical, functional, family, and cost impacts of non-traditional or alternative services grows (Pires et al. 2013a). Examples of alternative services for children in the child welfare system include intensive care coordination (often provided through what is referred to as a wraparound model, or ICC/wraparound), family and youth peer supports, mobile crisis response and stabilization teams, intensive in-home services for children remaining with their families, therapeutic foster care for those in out-of-home placements, and trauma-informed screenings and therapies (Davis and Maul 2015, Simons et al. 2014, Boyd 2013, Pires and Stroul 2013). States may also work to ensure that their provider networks include qualified trauma-informed pediatric mental health professionals and other individuals who are knowledgeable about the child welfare population (ACF et al. 2013, AAP 2013). In the case of preventive services, such as home visiting and parenting education programs, CMS recently clarified that a broad set of providers are eligible to receive Medicaid funding as long as their services are recommended by licensed practitioners; regulations previously permitted funding only for preventive services that were delivered by licensed practitioners themselves (CMS 2013b, TFAH and Nemours 2013). Because Medicaid funding is only available for services that are not the legal

obligation of another program or payer, states must take care to differentiate responsibility and costs for services where there may be overlap between required child welfare agency functions and available Medicaid benefits. Medicaid's targeted case management and health home benefits are examples of services for which coordination and overlapping responsibilities must be addressed.

The Medicaid EPSDT benefit has been the subject of litigation brought against states, due in part to variation in state interpretation and implementation of the benefit's requirements (Perkins 2009). In practice, a child's access to Medicaid services—even services that have been identified through an EPSDT screening as medically necessary—may be affected when states lack explicit coverage policies for specific treatments (for example, in provider manuals that contain service descriptions and billing codes), when they impose payment restrictions on covered benefits (including the types of providers who may bill for a service), or when they have shortages of participating clinicians who specialize in particular physical or behavioral health issues. Informational and technical assistance resources are available to states at the federal level to improve behavioral health services (including a variety of guidance letters issued to states in recent years), but it is each state's policies that ultimately govern Medicaid payment of specific services for children and youth with behavioral and other health needs (CMS and SAMHSA 2015, 2013; SAMHSA 2013b; ACF et al. 2013, 2011).

Even when the services Medicaid covers are clearly defined, children in managed care might not receive all of their services through a single plan. Receiving services through a combination of managed care and fee-for-service coverage can be confusing and difficult to navigate. In addition, if provider networks change, child welfare-involved youth may experience disruptions in care or lose access to providers who are most familiar with their needs as they transition between managed care plans (for example, when they move between homes in

different locations) or between fee-for-service and managed care coverage (for example, when they are excluded from managed care enrollment while in foster care but mandatorily enrolled after exiting foster care to reunite with family) (Dutton et al. 2013).

States generally cannot provide certain benefits only to children involved with the child welfare system, despite their high levels of need and potential to benefit from specialized care. Instead, services must be based on individual assessments of medical necessity, and all children with similar health needs must be provided the same level of assistance on a statewide basis. For example, if a state Medicaid program covers therapeutic foster care, which places children who have severe behavioral health issues with specially trained foster families supported by licensed clinical staff, then the state must also indicate how similar services are covered for children who have not been removed from their homes.<sup>21</sup> The ability to offer specific benefits to the child welfare population is one reason that states may maintain non-Medicaid funding of certain services (see discussion of financing later in this chapter).

## Care coordination

Although child welfare agencies are ultimately responsible for monitoring and oversight of the health of children receiving their assistance, Medicaid investments can play a key role given that most of these children are eligible for Medicaid-financed services and care coordination.

As noted earlier, 90 percent federal match is available for Medicaid health homes for individuals with chronic conditions, including children with serious behavioral health needs, but this enhanced match is limited to two years and an increase in state funding is required to maintain the benefit at a regular matching rate beyond that point. Care coordination services may also be covered by Medicaid under other statutory authorities. For example, several states use different Medicaid and

non-Medicaid funding authorities to provide similar services involving ICC/wraparound, an approach that incorporates a dedicated care coordinator working with a small number of children and families to holistically address their health and social needs (Simons et al. 2014, CHCS 2013). Massachusetts, New Jersey, and Wyoming provide ICC/wraparound services financed by Medicaid through the program's targeted case management benefit. Louisiana, Michigan, and two counties in Wisconsin use Medicaid managed care authorities. Others with established ICC/wraparound programs, including Nebraska and one county in Ohio, do not currently employ Medicaid funding for those programs.

### Cross-agency collaboration

While collaboration across systems may be required for Medicaid beneficiaries receiving ICC/wraparound services, collaboration at the agency level is also needed to improve care for the broader population of child welfare-involved youth. For example, Tennessee's Department of Child Services and TennCare, the state Medicaid agency, have an interagency agreement with specific provisions to coordinate the enrollment of and ongoing provision of health services to all children in state custody (Allen and Hendricks 2013). In Michigan, staff members in community mental health agencies receive training on serving children in child welfare, often from child welfare agency staff or foster parents; child welfare agency staff, in turn, receive training from mental health agencies on various behavioral health services and the specifics of the state's Medicaid home and community-based services waiver for children with serious emotional disturbances (Pires et al. 2013a).

Specific efforts have also been undertaken to address inappropriate psychotropic drug use. These include a quality improvement collaborative among six states to develop and implement new approaches to psychotropic medication use, as well as the establishment of a federal interagency working group, the provision of guidance to states,

and a summit that convened state directors of child welfare, Medicaid, and mental health agencies (see Chapter 5). The President's budget for FY 2016 also proposes a joint Administration for Children and Families and CMS effort that would provide funding to encourage evidence-based psychosocial interventions and reduce over-prescription of psychotropic drugs, which could be achieved in part through explicit coverage of specialized behavioral health services by state Medicaid programs.

### Financing

In order to maximize the availability of funding for services provided to child welfare-involved youth, state dollars previously allocated for child welfare programs may be used as nonfederal share to draw down federal Medicaid funding (Pires and Stroul 2013). In Arizona and Michigan, for example, the child welfare system contributed funds to the Medicaid behavioral health system as Medicaid match, allowing the state to draw down additional federal Medicaid dollars to generate more resources for services. New Jersey identified behavioral health services previously supported solely with state dollars that could be incorporated into the Medicaid plan, allowing the state to capture federal funding for these services. Although Medicaid funding is available for a wide variety of services, it can only pay when third parties—including public programs that are not explicitly designated as payers of last resort after Medicaid (such as Ryan White HIV/AIDS, Title V Maternal and Child Health Block Grant, Indian Health Service, and Individuals with Disabilities Education Act programs), private insurers, and certain other entities—do not have a legal obligation to do so (CMS 2014d, 2014f). As a result, states may only claim federal Medicaid funding for services that are not the specific responsibility of a child welfare agency. This limitation is in addition to the requirement that states abide by Medicaid's rules for comparability, statewideness, and freedom of choice noted earlier.

In light of these requirements, states may wish to retain non-Medicaid financing of certain services provided to child welfare-involved youth. Reasons include a desire to provide services to targeted groups of children, to vary services by locality within the state, and to use a limited set of health care providers who specialize in the needs of the child welfare population—all of which may be possible under Medicaid waiver authority, but difficult to achieve without Medicaid and child welfare agency collaboration.

### Data availability and sharing

For children eligible for Medicaid on the basis of child welfare assistance, Medicaid agencies accept child welfare determinations of eligibility. State Medicaid agencies can facilitate data sharing by taking advantage of Medicaid's 90 percent federal match for upgrades to both the Medicaid and non-Medicaid components of integrated eligibility systems. Such upgrades require considerable planning and resources, and only a small number of states may be actively considering the inclusion of child welfare agency systems in their plans for integration.<sup>22</sup> Prior to the ACA, the majority (45) of state Medicaid eligibility systems were integrated with assistance programs such as the Supplemental Nutrition Assistance Program (SNAP) or Temporary Assistance for Needy Families (TANF). As states implemented new ACA eligibility determination and enrollment processes for Medicaid and upgraded or built new eligibility systems, many delinked Medicaid from these other programs due to the large scale of the changes. As of January 2015, 19 states had integrated systems that administered eligibility for Medicaid and other benefit programs and another 12 indicated that they planned to phase in other assistance programs in 2015 or beyond (Brooks et al. 2015).

In April 2015, CMS issued a proposed rule that would permanently extend the availability of 90 percent federal match for the development of new eligibility and enrollment systems (currently set to expire at the end of 2015) and 75 percent match

for their ongoing operations (CMS 2015). CMS also announced an extension through 2018 of a waiver of cost allocation rules that ordinarily require other human services programs, such as child welfare agencies, to share with Medicaid the cost of building integrated eligibility systems. However, the other programs are still responsible for costs associated with non-Medicaid functions that are specific to their particular needs (CMS 2014e).

Other data sharing efforts relate to electronic health records (EHRs), which are used to facilitate electronic health information exchange among health care providers and to provide foster parents and emancipated youth with a complete record of health conditions and service use (Carillo and Ashton 2013). State and local agency staff may also be involved in health information exchange (TCP 2014a, TCP 2014b). Such information can help inform the types of care that may be needed and can help avoid unnecessary services, such as duplicative diagnostic tests and immunizations. Reports by the OIG indicate that foster parents do not always receive information on the medical conditions and previous service use of the children in their care, a problem that could be mitigated in part through EHR and health information exchange efforts (OIG 2005).

However, given the complexity of laws governing the providers and entities who may legally share health information and the situations in which written consent may be required, some have suggested that better models for allowing treatment teams to share information on child welfare-involved youth and other children enrolled in Medicaid are needed (Thorpe and Rosenbaum 2013). Technological issues also need to be addressed because EHR portals may sometimes allow access by only one individual and only to a child's full record, making it difficult to share appropriate levels of information with the multiple caseworkers and caregivers who may have responsibility for the child over time (Szilagyi 2015).

## Conclusion

The needs of child welfare-involved youth are substantial, and state Medicaid programs play a major role in meeting those needs along with child welfare agencies, the juvenile justice system, schools, and other systems and institutions. The Commission supports continued federal oversight and guidance in this area, and encourages states to evaluate how Medicaid policy changes could help to improve the health and well-being of child welfare-involved children and youth. This is a complex area, but given the vulnerability of these children, MACPAC will continue to assess ways in which their care needs could be better addressed by Medicaid.

The Commission also recognizes that the broad challenges Medicaid faces in providing timely, appropriate, and coordinated care for these children are not unique. For example, as noted in this chapter, low EPSDT screening rates are a concern for the overall population of children enrolled in Medicaid. In addition, as described in Chapter 4, the share of Medicaid beneficiaries with behavioral health conditions is large, and many beneficiaries—particularly nonelderly adults with serious mental illness—report not receiving needed mental health services. And similar to child welfare-involved youth who may receive services through multiple programs, beneficiaries who are dually eligible for Medicaid and Medicare make up another population for whom fragmented financing and delivery systems may increase costs and lead to poor health outcomes (MACPAC 2015c, 2015d). As the Commission monitors these issues, it will continue to highlight the needs of particularly vulnerable populations—including child welfare-involved children and youth—and consider areas where Medicaid policy recommendations may be warranted.

## Endnotes

- <sup>1</sup> Youth are considered to have aged out of foster care if they are in care as of their 18th birthday or up to their 21st birthday, at state option.
- <sup>2</sup> The goal of permanency is to ensure that children have a stable and loving family. In the child welfare context, this could mean reuniting them with their biological parents or placing them with another permanent family either through an adoptive or guardianship arrangement.
- <sup>3</sup> This \$8 billion represents federal dollars dedicated to child welfare purposes only. States also use other sources of federal funds, such as Temporary Assistance to Needy Families (TANF) and Social Services Block Grant (SSBG), to provide significant support (as much as \$5.3 billion) to child welfare activities. The federal matching rate for state child welfare spending varies depending upon the source. For example, states need to match at least 25 percent of spending for the Stephanie Tubbs Jones Child Welfare Services Program, with a larger share required if the agency does not meet certain performance standards (Stoltzfus 2015a).
- <sup>4</sup> Children are most often ineligible for Title IV-E funding due to the income in the home from which they are removed or because they are placed with an unlicensed caretaker (typically a relative). These children must be provided most of the same protections as those eligible for Title IV-E, but are not entitled to a monthly maintenance payment, and do not have guaranteed Medicaid eligibility. Estimates suggest that between 40 and 50 percent of children in foster care settings are receiving Title IV-E maintenance payments and about three-quarters of children adopted from foster care are receiving Title IV-E payments (ACF 2015, DeVooght et al. 2014).
- <sup>5</sup> Among the children leaving foster care for adoption, 44,000 (85 percent) were determined to have special needs. The primary special needs conditions include: member of a sibling group (31 percent), a medical condition or mental, physical or emotional disability (24 percent), age (16 percent), and racial or ethnic origin (10 percent) (Stoltzfus 2015b).
- <sup>6</sup> Phasing out of the income, asset, and deprivation tests began in FY 2010. States are phasing out the standards



primarily based on age as well as for any child who has been in foster care for at least 60 continuous months. As of FY 2015, the tests do not apply to a child who has been determined to have a special need who is at least 6 years old. Siblings of children who meet the age or length of stay criteria are also exempt from the income standard if they are placed in the same home as their sibling.

<sup>7</sup> For individuals in managed care plans the choice of providers may be limited to those in the plan's network, but individuals generally must be offered a choice of at least two managed care plans when enrolling.

<sup>8</sup> Other examples include primary care case management (PCCM) programs that assign beneficiaries to primary care providers who provide varying levels of assistance with locating, coordinating, and monitoring services in exchange for a small monthly capitation fee, and accountable care organization (ACO) models whose definitions vary but generally reflect provider-based organizations that assume responsibility for clinical and financial outcomes for a defined population (CMS 2014b). These models are not mutually exclusive and may include a variety of contracting and payment arrangements between states, providers, and other entities. For example, managed care plans may pay PCCM fees or use medical homes, and states may use managed care plans and PCCM programs in different geographic areas.

<sup>9</sup> Specifically, a state may receive 90 percent match for the first eight quarters beginning on the effective date of its health home state plan amendment.

<sup>10</sup> The SAMHSA analysis refers to children with a foster care basis of eligibility. However, it is possible that additional children eligible for Medicaid based on adoption or certain other child welfare assistance were included in the MarketScan data obtained from states, as is the case with federal Medicaid Statistical Information System (MSIS) data reported by states to the federal government (see Appendix Table 3A-1).

<sup>11</sup> The source for this figure and those that follow (Pires et al. 2013b) refers to children with a foster care basis of eligibility. However, additional children eligible for Medicaid based on adoption or certain other child welfare assistance are included in the Medicaid Analytic eXtract (MAX) data analyzed, which are derived from Medicaid Statistical

Information System (MSIS) data reported by states to the federal government (see Appendix Table 3A-1).

<sup>12</sup> The 20 percent figure is based on Figure 1 in GAO 2012 and reflects the share of children in foster care with a potential mental health need whose only mental health treatment was administration of medications (9 percent) divided by the share who had either medications only or a combination of medications and services (42 percent). The more than 30 percent figure is based on Exhibit 37 in Pires et al. 2013b and reflects the share of children enrolled in Medicaid based on foster care assistance with psychotropic drug prescription fills who received exclusively physical health services (21 percent) or indeterminate services that were not clearly identifiable as behavioral health or physical health (11 percent).

<sup>13</sup> The Health Oversight and Coordination Plan was established through section 205 of the Fostering Connections to Success and Increasing Adoptions Act of 2008 (P.L. 110-351). Requirements related to youth transitioning out of care were added by the Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended), and provisions that require protocols for the use of psychotropic drugs were added by the Child and Family Services Improvement and Innovation Act (P.L. 112-34).

<sup>14</sup> This differs from the periodicity schedule established under the Medicaid EPSDT benefit, which is required for all Medicaid enrollees. The child welfare-developed schedule of screenings and assessments applies only to those children served by the child welfare agency and would apply regardless of whether the child was enrolled in Medicaid. However, the state child welfare agency may base these guidelines on those that govern EPSDT benefits.

<sup>15</sup> The Administration for Children and Families (ACF) also conducts biennial reviews of child welfare agencies that require each state to have guidelines for initial, ongoing, and periodic health screenings for children entering foster care.

<sup>16</sup> Guidelines have also been developed by the Child Welfare League of America and the American Academy of Child and Adolescent Psychiatry.

<sup>17</sup> Young adults have historically been the most likely to be uninsured. In 2010, the rate of uninsurance among individuals age 19–25 was 29.8 percent. This rate has



declined significantly to 27.7 percent, since implementation of the policy to allow young adults to remain on their parents' health insurance coverage until age 26 (ASPE 2012).

<sup>18</sup> The regulation implementing the provisions regarding the new ACA eligibility pathway for former foster youth to be covered up to age 26 has not yet been finalized.

<sup>19</sup> This interpretation is based on a reading of Section 1902(a)(10)(IX)(cc) of the Act, which says that states must cover children who were in foster care under the responsibility of the state.

<sup>20</sup> An earlier OIG report indicated that not only Medicaid claims data but also child welfare case files were required to accurately assess EPSDT performance among children in foster care because neither source was likely to contain a complete picture of their service use (OIG 2005).

<sup>21</sup> For example, the Centers for Medicare & Medicaid Services recently requested that California provide more information about how a proposed Medicaid state plan amendment for therapeutic foster care would allow for comparable treatment of children not in foster care (CDHCS 2015).

<sup>22</sup> These states include New Mexico and Oklahoma (Shaw et al. 2015) and California (Morales and Woolsey 2014). Current state child welfare information systems (Statewide Automated Child Welfare Information System (SACWIS) and its next generation) require Medicaid eligibility information, and they are moving toward greater interoperability with Medicaid systems; if Medicaid systems permit queries through SACWIS, child welfare workers would be able to access health information, albeit with a need to do so in a way that ensures appropriate privacy protections and translates the information into a usable format (Raghavan 2015).

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# APPENDIX 3A: Child Welfare Population Identified in Selected Data Sources

**TABLE 3A-1. Population Identified in Child Welfare Versus Federal Medicaid Data**

Federal child welfare data	Federal Medicaid data
<p><b>National Child Abuse and Neglect Data System (NCANDS)</b></p> <ul style="list-style-type: none"> <li>• Reports the total population of children in families investigated for child abuse and neglect and whether they received post-response services</li> <li>• Includes the number of children removed to foster care following the child welfare response and the number who received only in-home services</li> </ul> <p><b>Federal Adoption and Foster Care Analysis Reporting System (AFCARS)</b></p> <ul style="list-style-type: none"> <li>• Reports any child who is:                             <ul style="list-style-type: none"> <li>– under the “placement and care” responsibility of the state child welfare agency (generally as ordered by a state court); and</li> <li>– living in a foster care setting (foster family home or congregate) on a 24-hour basis</li> </ul> </li> <li>• Does not count children formally discharged from foster care due to adoption or to legal guardianship or due to age</li> </ul> <p><b>Federal data on Title IV-E reported by states</b></p> <ul style="list-style-type: none"> <li>• States submit quarterly expenditure and average monthly caseload data</li> <li>• Reports the subset of children receiving Title IV-E foster, adoption, and guardianship assistance</li> </ul>	<p><b>Medicaid Statistical Information System (MSIS)</b></p> <ul style="list-style-type: none"> <li>• Data reported by states for FY 1999 to present</li> <li>• Medicaid basis of eligibility is labeled as foster care but includes any child who is eligible via:                             <ul style="list-style-type: none"> <li>– mandatory Title IV-E assistance pathway, including children in foster care and children who left care for adoption or guardianship;</li> <li>– optional state adoption assistance pathway for special needs under an agreement not involving IV-E;</li> <li>– special needs covered by state foster care payments not involving IV-E;<sup>1</sup> or</li> <li>– optional Chafee pathway for former foster youth up to age 21.</li> </ul> </li> <li>• Does not clearly identify those who are not eligible based on child welfare assistance (such as children who are in foster care but not eligible for Title IV-E or state-funded special needs adoption assistance and those receiving in-home services)</li> <li>• Does not clearly identify mandatory former foster children up to age 26</li> <li>• State option to report separate basis of eligibility categories used for T-MSIS, including pathway for mandatory former foster youth</li> </ul> <p><b>Transformed MSIS (T- MSIS)</b></p> <ul style="list-style-type: none"> <li>• Reporting expected to begin in 2015</li> <li>• Similar to MSIS but will include separate basis of eligibility categories for mandatory IV-E, mandatory former foster youth up to age 26, optional adoption assistance, and optional Chafee pathways<sup>1</sup></li> </ul>

**Note:** As shown in this table, federal Medicaid data only identify those involved in the child welfare system if they are eligible based on certain types of child welfare assistance, generally reflecting children who have been removed from their homes, rather than the entirety of the child welfare population. See Table 3-3 for more information on Medicaid eligibility pathways for child welfare-involved youth.

<sup>1</sup> The MSIS reference to children with special needs covered by state foster care payments not involving Title IV-E does not appear in the T-MSIS categories.

**Source:** MACPAC compilation based on CMS 2014h, 2012; Children’s Bureau 2015a, 2015b, 2014; and ACF 2013.



CHAPTER 4

# Behavioral Health in the Medicaid Program—People, Use, and Expenditures

# Behavioral Health in the Medicaid Program— People, Use, and Expenditures

## Key Points

- Medicaid is the single largest payer in the United States for behavioral health services, including mental health and substance use services. Medicaid accounted for 26 percent of behavioral health spending in 2009.
- Medicaid enrollees with behavioral health diagnoses have varied physical and behavioral health needs. They range from young children who need screening, referral, and treatment for attention deficit hyperactivity disorder or depression to chronically homeless adults with serious mental illness.
- In 2011, one in five Medicaid beneficiaries had behavioral health diagnoses but accounted for almost half of total Medicaid expenditures, with more than \$131 billion spent on their care (including physical, behavioral, and other Medicaid-covered services).
- Approximately 3 million, or 11 percent, of children who qualified for Medicaid on a basis other than disability or child welfare assistance had behavioral health diagnoses in 2011; even so, they accounted for one-quarter of Medicaid expenditures for children. Most of these children qualified on the basis of low family income.
- Fewer than half (44 percent) of the children who received child welfare assistance had behavioral health diagnoses, but they accounted for more than three-quarters (78 percent) of expenditures in this eligibility group.
- About half of non-dually eligible enrollees under age 65 (including children) who qualified for Medicaid on the basis of disability had a behavioral health diagnosis in 2011. Total Medicaid expenditures for this group accounted for two-thirds of total Medicaid spending.
  - Severely mentally ill beneficiaries enrolled on the basis of disability incurred the highest cost per person, but comprised a relatively small share of total enrollees.
  - Although just 21 percent of non-dually eligible adults eligible for Medicaid on a basis other than disability had a behavioral health diagnosis, they accounted for 38 percent of expenditures in that group.
- Medicaid beneficiaries enrolled on a basis other than disability still have unmet needs for behavioral health screening, treatment, and referrals. Early intervention and treatment could help delay or prevent loss of function and allow beneficiaries to manage problems before they become disabling.

## CHAPTER 4: Behavioral Health in the Medicaid Program— People, Use, and Expenditures

Medicaid is the single largest payer in the United States for behavioral health services, which include services for mental health and substance use disorders, accounting for 26 percent of such expenditures in 2009 (SAMHSA 2013a). According to the latest Medicaid administrative data available, in 2011 about one-fifth of Medicaid enrollees had a behavioral health diagnosis. Services used by these enrollees—not only services related to their behavioral health condition, but all of their service use—accounted for almost half of all Medicaid spending (Table 4-1).

MACPAC has previously discussed the unique role that Medicaid serves in providing treatment to poor and low-income people with disabilities (MACPAC 2014b, 2013). We are now beginning to focus on the large number of Medicaid enrollees in need of and receiving behavioral health services. This population is diverse and includes both young and old with different physical and behavioral health treatment needs. They range from young children in need of appropriate screening and referral for treatment of attention deficit hyperactivity disorder and depression to chronically homeless adults with serious mental illness. Those with less severe illness may require medication or therapy and have minimal problems with everyday activities, while those with severe illness may require long-term services and supports in the community or in institutions in order to function. People with behavioral health conditions also vary considerably in their comorbid medical conditions and treatment needs. Some can be treated capably by

primary care physicians, while others may require specialized care.

Essential to MACPAC’s examination of Medicaid’s role in the financing and delivery of behavioral health services is a description of the people in need of such care. Therefore, we examined the following:

- the prevalence of behavioral health conditions (identified through survey data and approximated by examining utilization data of people with behavioral health diagnoses);
- enrollee use of health services; and
- expenditures for these services.

Because of the diversity of the affected populations, we looked at children, adults under age 65, and adults age 65 and older separately. We also looked closely at service use among certain groups more likely to need behavioral health care: those eligible based on a disability or child welfare status and those who are dually eligible for Medicare and Medicaid.

This chapter is intended as a starting point for future Commission work to examine how Medicaid pays for and delivers behavioral health services. These descriptive analyses are the first step in what we expect to be an extended inquiry into identifying targeted policies and practices for improving care for subpopulations of Medicaid enrollees with different needs while controlling spending and ensuring that the program operates effectively and efficiently.

### Medicaid Enrollees with Behavioral Health Conditions

The population with behavioral health disorders is diverse with respect to both type of disorder and type of medical treatment needed. We use available data to describe the Medicaid population in need of behavioral health treatment



in terms of the prevalence of specific diagnoses, comorbid medical conditions, and total Medicaid expenditures. When possible, Medicaid populations are compared to privately insured and uninsured populations.

## Data and methods

The analysis presented here draws from several data sources. Data on prevalence of behavioral health conditions come from two federally funded surveys representative of the civilian non-institutionalized population: the National Survey on Drug Use and Health and the National Survey of Children's Health. These surveys are described in Appendix 4A. These data demonstrate the disproportionate share of Medicaid beneficiaries with behavioral health conditions relative to those covered by private insurance and those who are uninsured.

Data on use of services and expenditures for Medicaid enrollees with diagnoses of behavioral health conditions come from the Medicaid Statistical Information System (MSIS). Data are for calendar year 2011, which, when we began this analysis, was the latest available year with reasonably complete data for all states. We identified enrollees with behavioral health diagnoses as those with any fee-for-service claim or managed care encounter record that listed a mental health or substance use disorder diagnosis (except for prescribed medicines).<sup>1</sup> Claims examined were not only for behavioral health services, but for other services as well. We identified behavioral health diagnoses using codes from the *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM),<sup>2</sup> categorized according to Chronic Illness and Disability Payment System (CDPS) payment code methodology (Kronick et al. 2000).<sup>3</sup> See Appendix Table 4A-2 for a list of groupings of ICD-9-CM codes used in tables and figures presented in this chapter.

Our analysis may underestimate the true prevalence of behavioral health conditions among Medicaid enrollees, as well as their aggregate

Medicaid spending, for several reasons. First, our analysis uses Medicaid claims data to identify individuals with behavioral health conditions; therefore, enrollees who did not have any Medicaid service use with the specified diagnoses are not included in use or expenditures estimates presented here. It is possible for an individual to have a behavioral health condition that is not recorded on a claim or encounter. This could be due to the stigma of reporting behavioral health diagnosis codes, or lack of space on the claim or encounter form if the enrollee has multiple conditions associated with the visit.

Second, we excluded from the analysis enrollees in the District of Columbia and 10 states (Illinois, Maryland, Massachusetts, Mississippi, Nevada, Pennsylvania, Ohio, South Carolina, Utah, and West Virginia), due to questionable encounter data. Third, we excluded enrollees with partial benefits, for example, enrollees covered only for family planning services.

Fourth, our analysis underestimates the number of—and aggregate amount of Medicaid spending for—beneficiaries dually enrolled in Medicaid and Medicare with behavioral health conditions because we used only Medicaid data on behavioral health conditions to identify them. To the extent that such diagnoses can be identified only in association with dually enrolled beneficiaries' use of Medicare funded services, our analysis will miss these individuals. Fifth, and finally, another reason these estimates may be understated is that behavioral health conditions are harder to diagnosis and measure in adults age 65 and older (Byers et al. 2012, Bartels et al. 2004). We discuss this later in the chapter.

Dually eligible enrollees account for a large share of Medicaid beneficiaries enrolled on the basis of disability, and given their high total Medicaid expenditures, we have included them in our analysis of total expenditures in Table 4-1, because this table is meant to capture all identifiable Medicaid spending for all Medicaid enrollees.

However, we excluded dually eligible enrollees from our more focused analysis of expenditures, specific behavioral health diagnoses, and comorbid conditions of the specific population of adults under age 65 eligible for Medicaid on the basis of disability.

We discuss individuals dually enrolled in Medicaid and Medicare in the last section of the chapter, which focuses on dually eligible adults age 21 and over. The data presented in the last section, and the discussion of dually eligible enrollees' behavioral health diagnoses, comorbid conditions, and spending, are based on data from linked Medicare and Medicaid datasets and published literature.

The total aggregate and per enrollee expenditure numbers presented here include both full-year Medicaid enrollees, as well as beneficiaries covered for only part of a year. Because about one-quarter of enrollees with a behavioral health diagnosis were covered for only part of the year (as shown in Appendix Table 4A-1) and because spending for this population accounts for about 16 percent of total Medicaid spending for enrollees with behavioral health diagnoses, eliminating part-year enrollees from expenditure totals would not present an accurate picture of aggregate Medicaid spending for individuals with behavioral health conditions. Such enrollees may, for example, become eligible for Medicaid due to an unplanned hospitalization for symptoms of severe mental illness, and this can be associated with considerable expenditures immediately upon entering the program.

Comparisons of expenditures for full-year and part-year children and adults eligible on a basis other than disability are shown in Appendix Table 4A-1. Although part-year enrollees have lower overall total per capita expenditures, such expenditures are still substantially higher among children eligible on the basis of disability and children eligible on the basis of child welfare assistance than they are for other children. For all groups, both full- and part-year enrollees with behavioral health

diagnoses had higher per capita expenditures than those without. Therefore, the per enrollee Medicaid numbers shown in this chapter for enrollees in specific age and eligibility groups generally reflect Medicaid spending covering an average of less than 12 months.

## Overall Medicaid expenditures by age and eligibility group

Almost 9 million Medicaid enrollees under age 65 had a diagnosis of a behavioral health condition on either a Medicaid fee-for-service claim or encounter record in 2011 (Table 4-1). Most affected are children and non-dually eligible adults qualifying on the basis of disability, about half of whom had a mental health diagnosis. Prevalence is next highest among children eligible for Medicaid on the basis of child welfare assistance. (As described in greater detail in Chapter 3, this group includes foster children receiving child welfare services under Title IV-E of the Social Security Act as well as those receiving special-needs adoption assistance.) But 1 in 5 adults eligible on a basis other than disability (2.3 million) and 1 in 10 children eligible on a basis other than disability or child welfare assistance (about 3 million) also had a behavioral health diagnosis.

Among all non-dually eligible enrollees, 4 percent were diagnosed with a substance use disorder—the diagnosis with the least prevalence among all enrollee categories (Figure 4-1). Among enrollees not dually eligible for Medicare and Medicaid, adults eligible on the basis of disability had the highest prevalence of substance use disorder, 19 percent, compared to 10 percent of adults eligible on a basis other than disability.

With respect to expenditures, total Medicaid spending in 2011 for all enrollees with a behavioral health diagnosis came to more than \$131 billion, almost half of total Medicaid expenditures (Table 4-1). This figure includes expenses for all Medicaid covered services for these enrollees, and is not

**TABLE 4-1. Utilization and Spending by Medicaid Enrollees with Behavioral Health Diagnoses by Age and Basis of Eligibility, 2011**

Age group and basis of eligibility	Number of enrollees with a behavioral health diagnosis (millions) <sup>1</sup>	Total Medicaid spending for enrollees with a behavioral health diagnosis (billions) <sup>1</sup>	Enrollees with a behavioral health diagnosis as percent of all enrollees	Spending for enrollees with a behavioral health diagnosis as percent of spending for all enrollees	Total Medicaid spending per enrollee (medical, behavioral health, and long-term services and supports) <sup>2</sup>	
					Enrollees with a behavioral health diagnosis	Enrollees with no behavioral health diagnosis
<b>All enrollees<sup>1,3</sup></b>	<b>9.86</b>	<b>\$131.18</b>	<b>20%</b>	<b>48%</b>	<b>\$13,303</b>	<b>\$3,564</b>
<b>Children (under age 21)<sup>2</sup></b>	<b>4.10</b>	<b>30.70</b>	<b>14</b>	<b>38</b>	<b>7,479</b>	<b>2,004</b>
<b>Basis of eligibility</b>						
Based on disability	.69	13.32	50	62	19,182	11,399
Based on child welfare assistance	.32	3.51	44	78	11,097	2,499
Basis other than disability or child welfare assistance	3.09	13.87	11	25	4,482	1,720
<b>Age group</b>						
0–6 years	1.09	7.90	9	23	7,270	2,236
7–14 years	1.88	12.53	18	48	6,669	1,575
15–20 years	1.14	10.27	19	49	9,013	2,205
<b>Adults not dually eligible for Medicare and Medicaid (age 21–64)</b>	<b>3.75</b>	<b>52.68</b>	<b>27</b>	<b>53</b>	<b>14,066</b>	<b>4,602</b>
<b>Basis of eligibility</b>						
Based on disability	1.53	37.32	47	63	24,466	12,702
Basis other than disability	2.22	15.36	21	38	6,919	2,939
<b>Age group</b>						
21–44 years	2.39	26.27	25	48	11,007	3,848
45–64 years	1.36	26.41	33	59	19,437	6,595

**Notes:** Enrollees with a behavioral health diagnosis are defined as persons who had any Medicaid fee-for-service claim or managed care encounter record where a behavioral health diagnosis was recorded (except for prescribed medicines); these claims and encounter records might have been for specific behavioral health services or for physical health or other services. Behavioral health diagnoses cover *International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM)* codes categorized by the Chronic Illness and Disability Payment System (CDPS) payment code methodology. Amounts shown in the table are a minimum estimate of the true number of Medicaid enrollees with behavioral health conditions and their aggregate Medicaid spending (see Data and methods section of this chapter, for discussion).

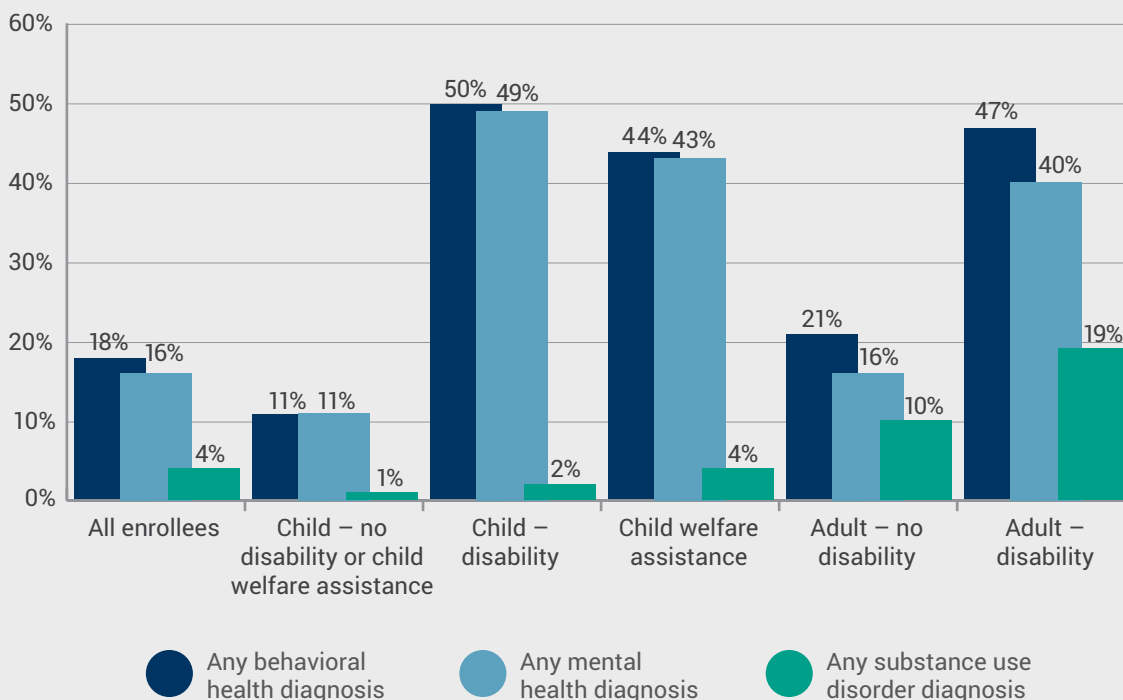
<sup>1</sup> Total includes individuals under age 65 dually enrolled in Medicaid and Medicare who qualify on the basis of disability as well as non-dually eligible enrollees age 65 or older, but these groups are not displayed separately in this table because (1) for dually enrolled individuals, the number of enrollees with behavioral health diagnoses is substantially underestimated if only Medicaid data are used; and (2) for non-dually eligible enrollees age 65 or older, the population reflects a relatively small number of individuals. The total also includes part-year enrollees (see Appendix Table 4A-1 for full-year and part-year enrollee breakouts).

<sup>2</sup> Includes about 7,500 dually eligible children.

<sup>3</sup> Partial-benefit enrollees and states with incomplete or low-quality managed care encounter data (Illinois, Maryland, Massachusetts, Mississippi, Nevada, Pennsylvania, Ohio, South Carolina, Utah, West Virginia, and the District of Columbia) have been excluded from the analysis.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

**FIGURE 4-1. Percentage of Non-Dually Eligible Medicaid Enrollees under Age 65 with a Behavioral Health Diagnosis by Basis of Eligibility, 2011**



**Notes:** Enrollees with a behavioral health diagnosis are defined as persons who had any Medicaid fee-for-service claim or managed care encounter record where a behavioral health diagnosis was recorded (except for prescribed medicines); these claims and encounter records might have been for specific behavioral health services or for physical health or other services. Behavioral health diagnoses cover *International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM)* codes categorized by the Chronic Illness and Disability Payment System (CDPS) payment code methodology. Partial-benefit enrollees and states with incomplete or low-quality managed care encounter data (Illinois, Maryland, Massachusetts, Mississippi, Nevada, Pennsylvania, Ohio, South Carolina, Utah, West Virginia, and the District of Columbia) have been excluded from the analysis.

Individuals dually eligible for Medicare and Medicaid are excluded from this figure for all population groups.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

limited to expenditures associated only with treatment of their behavioral health conditions. It also includes expenditures for enrollees dually eligible for Medicare and Medicaid and both part-year and full-year enrollees. To the extent that individuals newly eligible as a result of expanded eligibility for adults under the Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended) have behavioral health conditions,

this number will increase when more recent administrative data are available.

For every age and eligibility group, enrollees with a behavioral health diagnosis had higher total expenditures per person than enrollees with no behavioral health diagnosis (Table 4-1). When looking at all enrollees, total spending per enrollee with a behavioral health diagnosis was nearly four times higher than those without. Non-dually eligible

adults enrolled on the basis of disability and children eligible on the basis of disability had the highest per capita expenditures, followed by children eligible on the basis of child welfare assistance, with children and adults eligible on a basis other than disability and children eligible on basis other than disability and not receiving welfare assistance having the lowest per person expenditures.

Although we could have restricted our analysis to expenditures associated with the diagnosis and treatment of behavioral conditions only, we chose to look at total expenditures for two reasons. First, behavioral health and medical conditions interact with each other, so it is not always possible to determine whether a particular service is designed to treat a behavioral health condition or a medical comorbidity—for example, medical conditions caused by non-compliance with behavioral health treatment or vice versa. Second, people with behavioral health conditions also have high rates of comorbid conditions (as will be discussed later), raising the cost of their care to the Medicaid program overall. Future analyses may focus on specific behavioral health services.

The remainder of this chapter takes a more detailed look at separate groups of Medicaid enrollees characterized by age and basis of Medicaid eligibility. For each group, we consider the prevalence of behavioral health conditions, Medicaid service use, and expenditures. By focusing on specific age and eligibility groups, we can better understand where to target initiatives that improve care and contain expenditures.

## Children and Youth

In 2011, more than 4 million of the 29 million children and youth under age 21 who were enrolled in the Medicaid program had a diagnosis of a behavioral health condition (Table 4-1). Most of these children (about 3 million) qualified for Medicaid due to their low family incomes, and the

others qualified on the basis of disability or child welfare assistance.

## Prevalence of behavioral health conditions in children and youth

Obtaining an accurate behavioral health diagnosis for children, particularly young children, can be challenging. They differ from adults in that they experience many physical, mental, and emotional changes as they grow and develop (NAMI 2015, NIMH 2009). Symptoms may be difficult to understand and interpret in the context of these rapid changes in their brains and bodies. Behaviors may change dramatically or develop over time. Moreover, children may be unable to effectively describe their feelings or thoughts in a manner that would assist a clinician in making a diagnosis.

A comprehensive analysis of data from different national systems concluded that the percentage of children reported to be experiencing behavioral health conditions varies by condition, survey, and age (Perou et al. 2013). In general, however, looking across different surveillance systems, attention deficit disorder or attention-deficit hyperactivity disorder (ADD/ADHD, also known as hyperkinetic syndrome of childhood) was most prevalent, followed by depression, behavioral or conduct problems, anxiety, substance use disorders, autism spectrum disorders, and Tourette syndrome. Because these conditions often occur together, the estimates for each cannot be combined for an overall estimate of the prevalence of mental disorders among children (Perou et al. 2013).

The prevalence of all conditions and indicators increased with age, with the exception of autism spectrum disorder, which was highest in children age 6–11. Boys were more likely than girls to have most of the disorders, including ADHD, behavioral or conduct problems, autism spectrum disorders, anxiety, Tourette syndrome, and cigarette dependence, and boys were more likely than girls to die by suicide. Girls were more likely to have an

**TABLE 4-2. Overall Health Status and Prevalence of Health Conditions among Children under Age 18 by Insurance Status, 2011–2012**

Health status and health conditions	Percentage of children affected in each coverage category			
	All children	Medicaid or CHIP	Private insurance	Uninsured
<b>All Persons</b>	100%	100%	100%	100%
<b>Health status</b>				
Excellent/very good	84.2*	74.9	91.4*	73.9*
Good	12.7*	19.3	7.5*	20.1*
Fair/poor	3.2*	5.9	1.1*	6.0
<b>Condition<sup>1</sup></b>				
ADD or ADHD	7.0*	9.0	6.1*	3.8*
Current learning disability	6.7*	9.8	5.0*	4.5*
Current speech or language problem	4.3*	6.0	3.3*	2.9*
Current anxiety disorder	3.0*	3.6	2.7*	2.1*
Current developmental delay	3.2*	4.8	2.3*	1.6*
Current conduct disorder	2.8*	5.2	1.4*	2.0*
Current depression	1.9*	3.1	1.2*	2.0
Autism spectrum disorder	1.6*	1.9	1.5*	0.5*
Current mental disability or mental retardation	0.9*	1.6	0.6*	0.3*
Current epilepsy or seizure disorder	0.7*	1.1	0.4*	0.1*
Current brain injury or concussion	0.3	0.4	0.2	0.2
Current Tourette syndrome	0.1	0.2	0.1	0.1

**Notes:** ADD is attention deficit disorder. ADHD is attention deficit hyperactivity disorder.

<sup>1</sup> Parent or guardian respondents are asked about the children's conditions as of the date of the interview for children age 2–17, with the exception of current learning disability which is asked about for children age 3–17, and current epilepsy or seizure disorder, which is asked for children age 0–17.

\* Difference from Medicaid or CHIP is statistically significant at the 0.05 level.

**Source:** MACPAC analysis of the National Survey of Children's Health, 2011–2012.

alcohol use disorder, and adolescent girls were more likely to have depression (Perou et al. 2013). This analysis also showed that all subgroups of the racial and ethnic, age, and income categories were affected by mental disorders in childhood, although the prevalence estimates varied by population.

Data from the National Survey of Children's Health showed that children covered by Medicaid or the State Children's Health Insurance Program (CHIP) had worse overall reported health status and were more likely to report having ADHD, current conduct disorder, current mental disability or intellectual

disability, current learning disability, or current speech or language problem than either privately insured or uninsured children (Table 4-2).<sup>4</sup> For some children, these findings are intuitive. Children qualifying for Medicaid on the basis of disability would be expected to have a higher prevalence of behavioral health conditions than privately insured children, to the extent that behavioral health conditions cause functional limitations that lead to Medicaid eligibility. Similarly, children who qualified for Medicaid on the basis of foster care or other child welfare assistance also had a high prevalence of behavioral health conditions as a result of



exposure to abuse and neglect and being removed from their homes (AAP 2005; also see Chapter 3 of this report).

## Use of behavioral health services by all children and youth with behavioral health conditions

Children diagnosed with behavioral conditions benefit from treatment that may involve a combination of medications, therapies, and inpatient and outpatient visits. In addition, multiple expert panels and advocates have stressed the importance of prevention and health promotion, early intervention, and treatment for behavioral health conditions to help manage problems before they become disabling (NIHCM 2009). In fact, Medicaid requires that enrollees under age 21 receive all mandatory or optional but medically necessary services, including mental health services, under the Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) benefit.

Medicaid pays a large share of treatment costs for behavioral health conditions for children overall. To put these Medicaid expenditures in context, data from the Medical Expenditure Panel Survey estimate that total expenditures for care and treatment of mental disorders (as opposed to total expenditures as presented in Table 4-1) of all non-institutionalized children in 2011 was \$13.8 billion. As well, in a comparison of expenditures according to illness or condition treated, mean expenditures per child for treatment of mental disorders (\$2,465 per child) were higher than expenditures for treatment of any of the other conditions examined (Soni 2014). For children age 5–17, on average, 44.0 percent of mental health expenditures were for prescription medicines (\$4.8 billion) and 34.9 percent were for ambulatory visits (\$3.8 billion). Nearly half (46.8 percent) of average annual total expenditures for the treatment of mental health disorders for school-age children in 2009–2011 was paid by Medicaid, while 31.9 percent was paid by private insurance, and 13.6 percent was

paid out of pocket by families or other individuals (Davis 2014).

The category of mental and behavioral disorders made up the second highest share of hospital admissions and the highest readmission rate. Data from the Healthcare Cost and Utilization Project show a high rate of readmissions for mental and behavioral disorders among adolescents. For youth age 13–20, one readmission in three was for a mental and behavioral disorder. Younger children also had high rates of admission and readmission for mental and behavioral disorders (Trudnak et al. 2014).

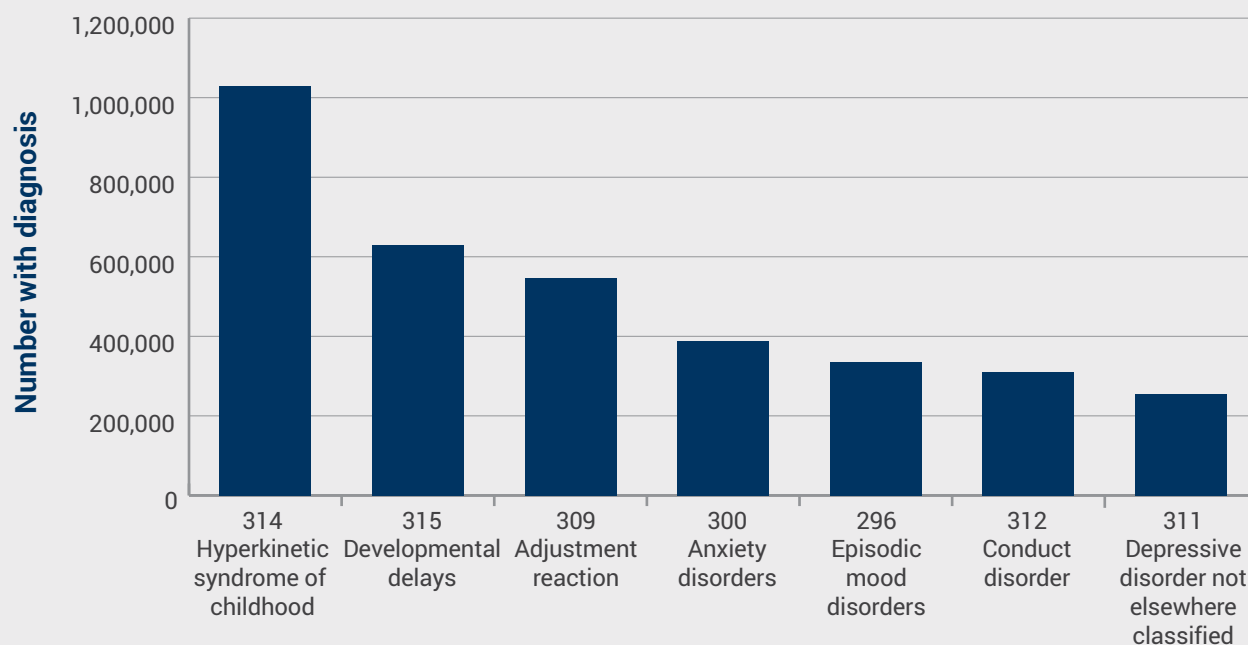
## Children qualifying for Medicaid on a basis other than disability or child welfare assistance

Most children under age 21 who were eligible for Medicaid on a basis other than disability or child welfare assistance qualified on the basis of low family income. Of these, 11 percent had a behavioral health diagnosis, representing about 3 million children (Table 4-1).

The most common behavioral health diagnoses for this group were hyperkinetic syndrome of childhood (ADD/ADHD, about 1 million children), developmental delays, and adjustment reaction disorders (Figure 4-2). Significant numbers also had diagnoses for episodic mood disorders, including major depression (more than 300,000 children), and the category of anxiety, dissociative, and somatoform disorders (about 400,000 children).

All told, children with behavioral health diagnoses who qualified for Medicaid on a basis other than disability or child welfare assistance (e.g., based on low family incomes) accounted for one-quarter of all spending for all children in this category, incurring an average annual expenditure per child of \$4,500 (Table 4-1). This was more than 2.5 times the average expenditure for a child with the same eligibility basis who has no behavioral health diagnosis (\$1,700). The distribution of expenditures

**FIGURE 4-2.** Most Common Behavioral Health Diagnoses of Children Eligible for Medicaid on a Basis Other than Disability or Child Welfare Assistance, 2011



**Notes:** Enrollees with a behavioral health diagnosis are defined as persons who had any Medicaid fee-for-service claim or managed care encounter record where a behavioral health diagnosis was recorded (except for prescribed medicines); these claims and encounter records might have been for specific behavioral health services or for physical health or other services. Behavioral health diagnoses cover *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) codes categorized by the Chronic Illness and Disability Payment System (CDPS) payment code methodology. Partial-benefit enrollees and states with incomplete or low-quality managed care encounter data (Illinois, Maryland, Massachusetts, Mississippi, Nevada, Pennsylvania, Ohio, South Carolina, Utah, West Virginia, and the District of Columbia) have been excluded from the analysis.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

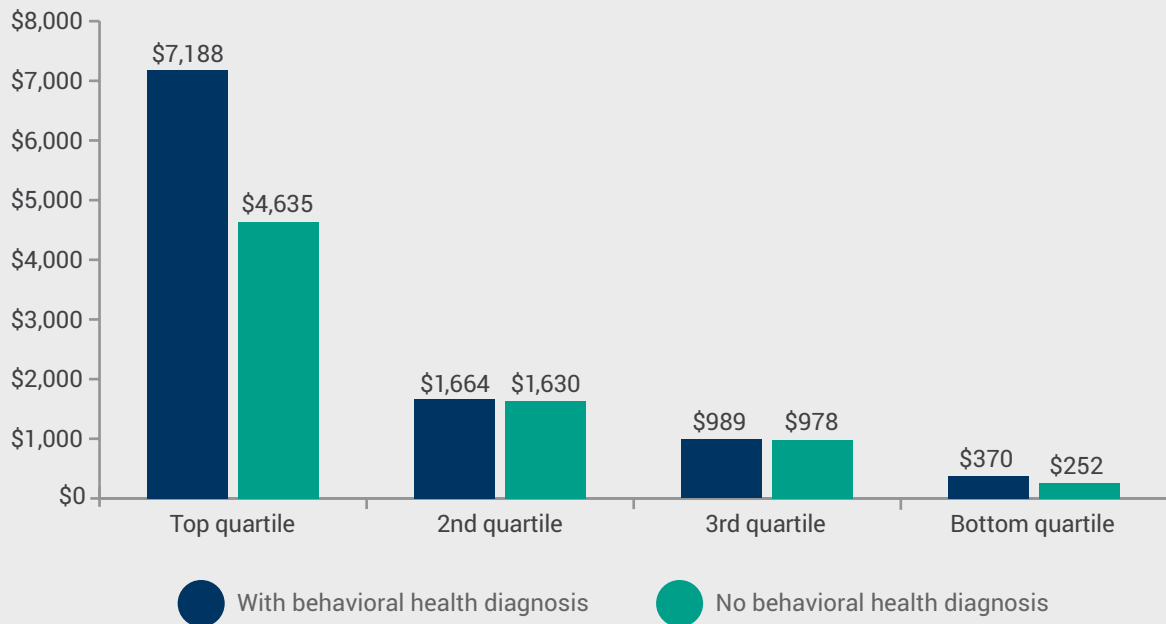
for this group ranged from less than \$400 among children in the lowest quartile of total Medicaid expenditures to about \$7,000 for children in the top quartile (Figure 4-3).

### Children qualifying for Medicaid on the basis of child welfare assistance

Children qualifying for Medicaid on the basis of child welfare assistance—including foster children, children under legal guardianship, children receiving adoption assistance, children served at home, and youth who have aged out of

care—have significant health care needs, including physical, dental, and especially behavioral health care needs. (See Chapter 3 for more information about this population.) About 55 percent have two or more chronic conditions. The most common physical health issues in this population include skin conditions, asthma, anemia, malnutrition, and manifestations of abuse (Allen and Hendricks 2013; AAP 2005). In addition, health care received prior to welfare agency involvement is often inadequate, with many children entering foster care with multiple unmet health care needs, often exceeding even those of other low-income children. These

**FIGURE 4-3.** Total Medicaid Spending Per Enrolled Child Eligible for Medicaid on a Basis Other than Disability or Child Welfare Assistance, with and without a Behavioral Health Diagnosis, 2011



**Notes:** Enrollees with a behavioral health diagnosis are defined as persons who had any Medicaid fee-for-service claim or managed care encounter record where a behavioral health diagnosis was recorded (except for prescribed medicines); these claims and encounter records might have been for specific behavioral health services or for physical health or other services. Behavioral health diagnoses cover *International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM)* codes categorized by the Chronic Illness and Disability Payment System (CDPS) payment code methodology. Partial-benefit enrollees and states with incomplete or low-quality managed care encounter data (Illinois, Maryland, Massachusetts, Mississippi, Nevada, Pennsylvania, Ohio, South Carolina, Utah, West Virginia, and the District of Columbia) have been excluded from the analysis.

Dually eligible Medicare and Medicaid-enrolled children (n = approximately 2,000) are excluded from the denominator when calculating spending per child.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

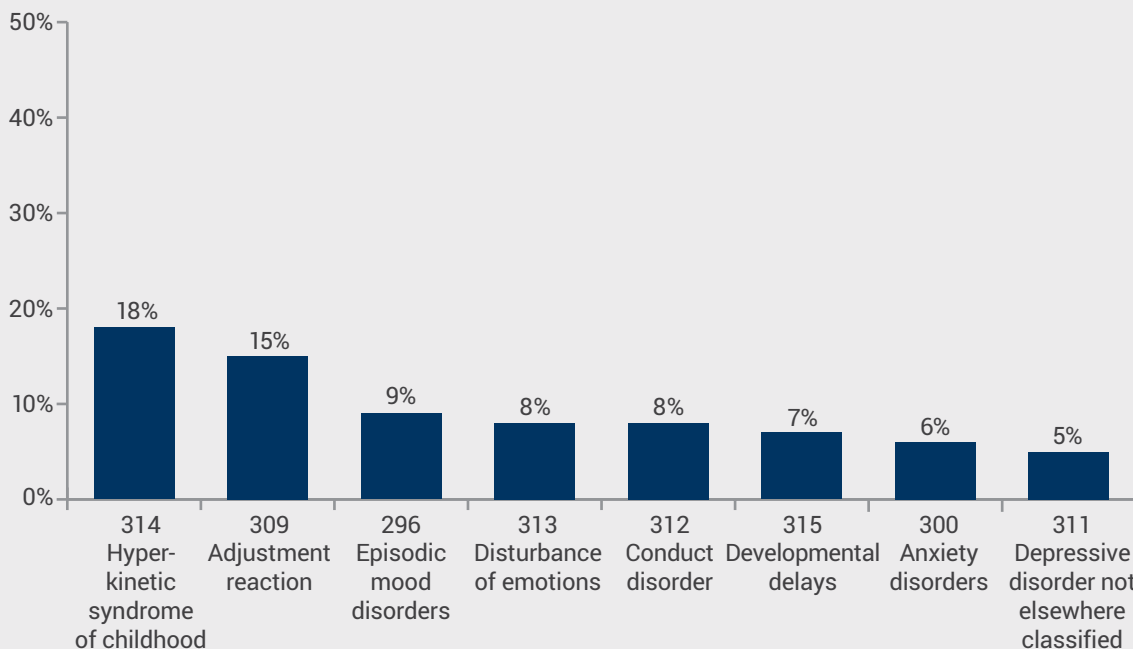
problems are likely exacerbated by exposure to frequent relocations (from home to foster home placements or legal guardianships), ongoing issues of separation and loss, and the complexities of the welfare system (AAP 2005).

Over 40 percent of more than 700,000 children under age 21 who qualified for Medicaid based on child welfare assistance had a behavioral health diagnosis, accounting for about three-quarters of total Medicaid spending among these children

(Table 4-1). The most common diagnoses were hyperkinetic syndrome of childhood (ADD/ADHD) and adjustment reaction disorder (Figure 4-4). In addition, more than 5 percent of these children and youth had disturbances of emotions specific to childhood and adolescence, conduct disorders, anxiety disorders, depressive disorders, or episodic mood disorders.

Average total expenditures for children eligible for Medicaid on the basis of child welfare assistance,

**FIGURE 4-4. Most Common Behavioral Health Diagnoses of Children Eligible for Medicaid on the Basis of Child Welfare Assistance, 2011**



**Notes:** Enrollees with a behavioral health diagnosis are defined as persons who had any Medicaid fee-for-service claim or managed care encounter record where a behavioral health diagnosis was recorded (except for prescribed medicines); these claims and encounter records might have been for specific behavioral health services or for physical health or other services. Behavioral health diagnoses cover *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) codes categorized by the Chronic Illness and Disability Payment System (CDPS) payment code methodology. Partial-benefit enrollees and states with incomplete or low-quality managed care encounter data (Illinois, Maryland, Massachusetts, Mississippi, Nevada, Pennsylvania, Ohio, South Carolina, Utah, West Virginia, and the District of Columbia) have been excluded from the analysis.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

both for those with and those without a behavioral health diagnosis, were much higher than for children eligible on a basis other than disability or child welfare assistance (Figures 4-3 and 4-5). In the most expensive quartile of total Medicaid expenditures, the average per capita expenditure for children with behavioral health diagnoses who qualified on the basis of child welfare assistance came to \$21,000 on average, compared to about \$7,000 for children eligible on a basis other than disability or child welfare.

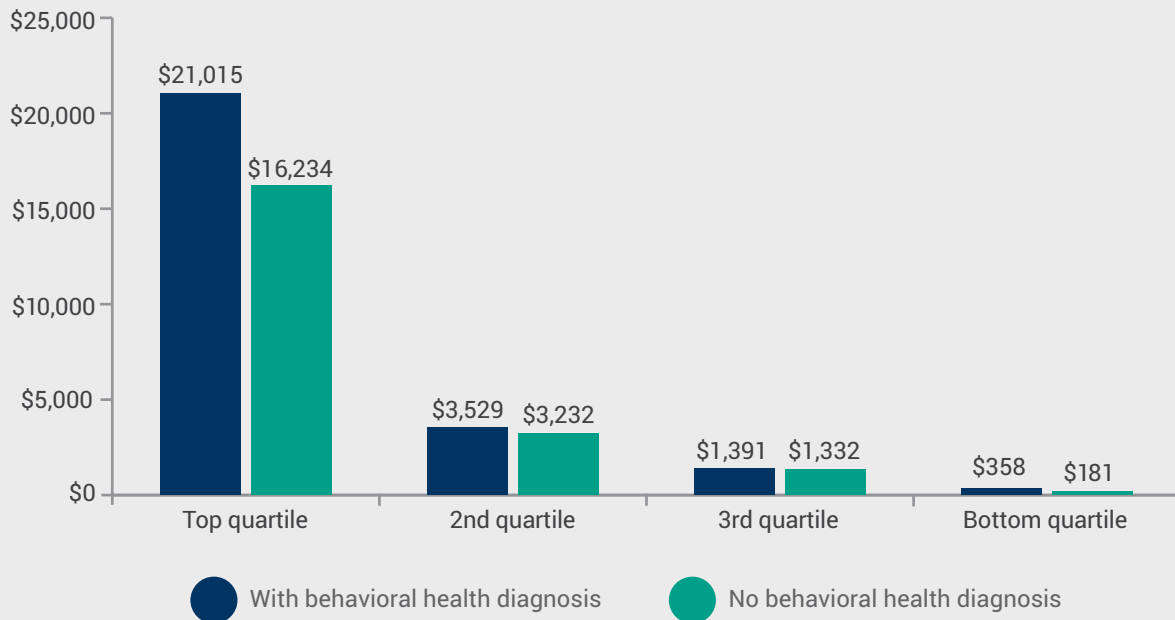
There was a spending differential of about \$5,000 between children with and without a behavioral

health diagnosis in the top expenditure quartile (Figure 4-5). Among children in the middle two quartiles of the expenditure distribution, spending was similar between children with and without behavioral health diagnoses.

### Children qualifying on the basis of disability

About 5 percent of Medicaid-enrolled children under age 21, or 1.4 million children, qualified on the basis of disability in 2011 (MACPAC 2015). Almost half of these children had a behavioral

**FIGURE 4-5.** Total Medicaid Spending Per Enrolled Child Eligible for Medicaid on the Basis of Child Welfare Assistance, with and without a Behavioral Health Diagnosis, 2011



**Notes:** Enrollees with a behavioral health diagnosis are defined as persons who had any Medicaid fee-for-service claim or managed care encounter record where a behavioral health diagnosis was recorded (except for prescribed medicines); these claims and encounter records might have been for specific behavioral health services or for physical health or other services. Behavioral health diagnoses cover *International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM)* codes categorized by the Chronic Illness and Disability Payment System (CDPS) payment code methodology. Partial-benefit enrollees and states with incomplete or low-quality managed care encounter data (Illinois, Maryland, Massachusetts, Mississippi, Nevada, Pennsylvania, Ohio, South Carolina, Utah, West Virginia, and the District of Columbia) have been excluded from the analysis.

Analysis includes about 450 children dually eligible for Medicare and Medicaid.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

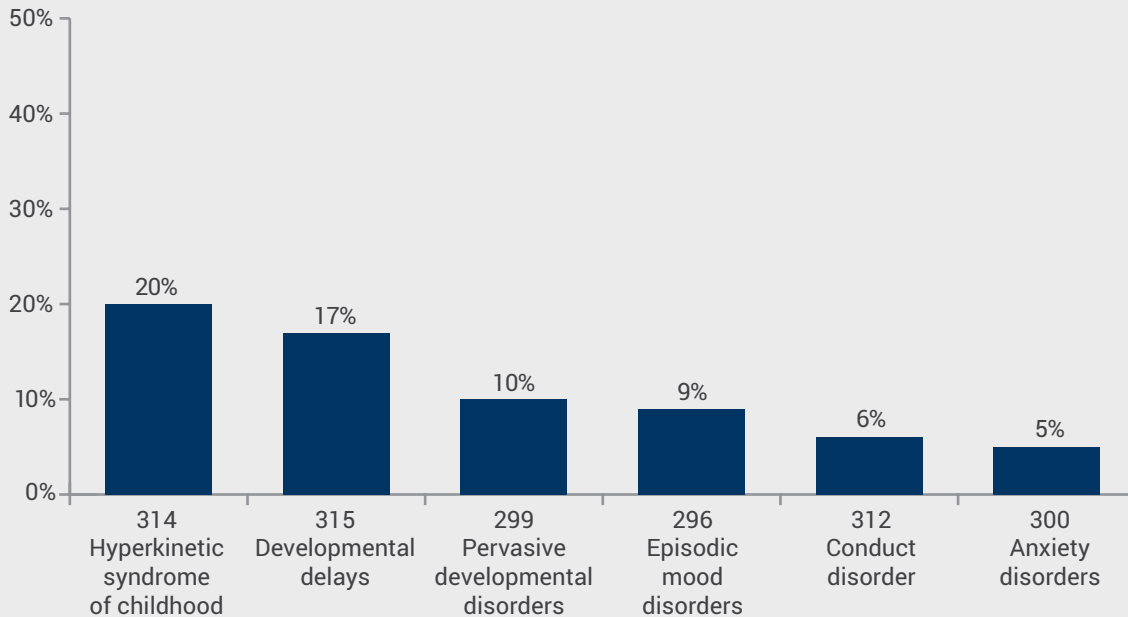
health diagnosis, representing nearly 700,000 children. Using a different subset of Medicaid-enrolled children under age 21, among those qualifying for Supplemental Security Income (SSI) in 2013, 69 percent qualified based on a mental disorder (SSA 2014).

The most common diagnoses for children who qualified for Medicaid on the basis of disability in 2011 were hyperkinetic syndrome of childhood (ADD/ADHD), specific developmental delays, pervasive developmental disorders, including autism spectrum disorders, and episodic mood

disorders (which includes bipolar disorder and major depressive disorder) (Figure 4-6). More than 5 percent had anxiety or conduct disorders or adjustment reaction disorders (Figure 4-6). To qualify for Medicaid on the basis of disability, these children would have to have had substantial physical or intellectual limitations.

Of all Medicaid-enrolled children with behavioral health diagnoses, those eligible for Medicaid on the basis of disability had higher average total Medicaid expenditures than children in the other eligibility groups—about \$19,000 per child, compared to

**FIGURE 4-6. Most Common Behavioral Health Diagnoses of Children Eligible for Medicaid on the Basis of Disability, 2011**



**Notes:** Enrollees with a behavioral health diagnosis are defined as persons who had any Medicaid fee-for-service claim or managed care encounter record where a behavioral health diagnosis was recorded (except for prescribed medicines); these claims and encounter records might have been for specific behavioral health services or for physical health or other services. Behavioral health diagnoses cover *International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM)* codes categorized by the Chronic Illness and Disability Payment System (CDPS) payment code methodology. Partial-benefit enrollees and states with incomplete or low-quality managed care encounter data (Illinois, Maryland, Massachusetts, Mississippi, Nevada, Pennsylvania, Ohio, South Carolina, Utah, West Virginia, and the District of Columbia) have been excluded from the analysis.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

about \$11,000 per child eligible based on child welfare assistance and \$4,500 per child eligible on a basis other than disability or child welfare assistance (Table 4-1). In the top quartile, average per capita spending for children with a behavioral health diagnosis and eligible for Medicaid on the basis of disability was in the range of \$45,000; however, average per capita spending for children eligible for Medicaid on the basis of disability with no behavioral health diagnosis was even higher. Almost by definition, these children have service needs that are expensive to treat whether or not they have behavioral health conditions.

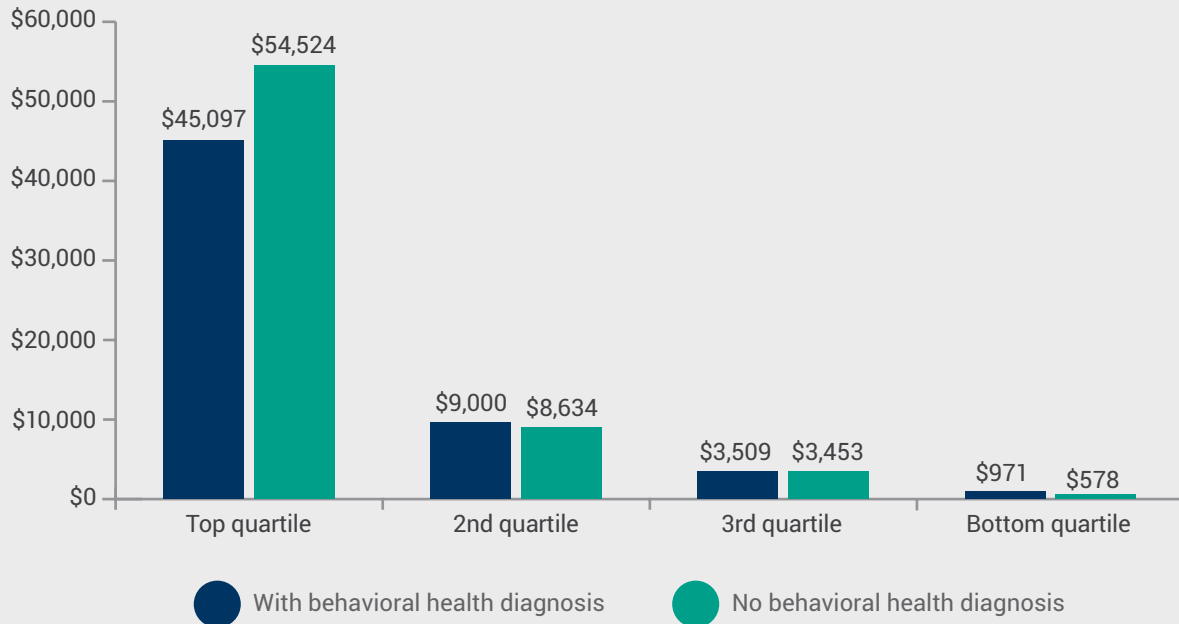
## Adults Under Age 65

Among adults not dually eligible for Medicare and Medicaid, about 3.8 million adult Medicaid enrollees had a behavioral health diagnosis in 2011 (Table 4-1). About 40 percent (1.5 million) of non-dually eligible adults qualified on the basis of disability; the remainder (2.2 million) qualified through having low household income, pregnancy status, or some other basis of eligibility, such as a medically needy pathway.

The demand for Medicaid behavioral health services may increase in states that have chosen to expand Medicaid eligibility under the ACA to more adults under age 65. This would be both due to increased



**FIGURE 4-7. Total Medicaid Spending Per Enrolled Child Eligible for Medicaid on the Basis of Disability, with and without a Behavioral Health Diagnosis, 2011**



**Notes:** Enrollees with a behavioral health diagnosis are defined as persons who had any Medicaid fee-for-service claim or managed care encounter record where a behavioral health diagnosis was recorded (except for prescribed medicines); these claims and encounter records might have been for specific behavioral health services or for physical health or other services. Behavioral health diagnoses cover *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) codes categorized by the Chronic Illness and Disability Payment System (CDPS) payment code methodology. Partial-benefit enrollees and states with incomplete or low-quality managed care encounter data (Illinois, Maryland, Massachusetts, Mississippi, Nevada, Pennsylvania, Ohio, South Carolina, Utah, West Virginia, and the District of Columbia) have been excluded from the analysis.

Analysis includes about 14,000 children dually eligible for Medicare and Medicaid.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

enrollment overall and because the expansion extends Medicaid eligibility to low-income adults under age 65 who did not previously have health insurance. Some of these adults may be homeless or have experiences with the criminal justice, social welfare, or substance use treatment systems—populations in which there are a disproportionate share of people with behavioral health conditions (NHCCC 2013; Garfield et al. 2011).

### Prevalence of behavioral health conditions in all adults under age 65

About 26 percent of all noninstitutionalized adults age 18–64 were considered to have a behavioral health disorder (Table 4-3). About 20 percent had a mental disorder. Medicaid enrollees were more likely to have moderate, mild, or serious mental illness than privately insured or uninsured people in that age group. They were also more likely to have had a major depressive episode or suicidal plans in the prior year.

**TABLE 4-3. Mental Health Status and Treatment for Non-Institutionalized Adults Age 18–64 by Insurance Status, 2010–2012**

	All adults age 18–64 years <sup>3</sup>	Percentage of adults by insurance status		
		Private	Medicaid	Uninsured
<b>Categorical mental illness indicator<sup>1,2</sup></b>				
None	80.4	83.3*	68.6	78.6*
Mild mental illness	9.8	9.0*	13.3	10.4*
Moderate mental illness	5.2	4.5*	8.4	5.5*
Serious mental illness	4.6	3.3*	9.7	5.4*
Major depressive episode in past year	7.7	6.2*	13.8	8.1*
Suicidal plans in past year	1.2	0.8*	2.9	1.7*
Concurrent serious mental illness and drug or alcohol dependence or abuse	1.2	0.8*	2.5	1.8*
Any mental illness or drug abuse (mutually exclusive)	25.7	22.3*	36.9	29.5*
Ever received drug or alcohol treatment	7.1	5.2*	11.8	10.0*
Received any mental health treatment in past year	14.7	14.2*	23.7	10.1*
<b>Type of mental health treatment received in past year (categories below sum to 100%)</b>				
Inpatient only	0.2	0.1*	0.5	0.3*
Outpatient only	2.1	2.4	2.0	1.4*
Prescription medications only	7.0	7.1*	9.3	4.7*
Inpatient and outpatient only	0.1	0.0†	0.2	0.1
Inpatient and medications only	0.2	0.1*	0.5	0.2*
Outpatient and medications only	4.8	4.4*	9.2	3.1*
Inpatient, outpatient, and medications	0.4	0.2*	2.0	0.4*
No mental health treatment	85.3	85.8*	76.3	89.9*
<b>Perceived need but did not receive mental health treatment in past year</b>	5.6	4.4*	9.3	7.0*

**Notes:** Insurance categories are mutually exclusive using a hierarchy: Respondents reporting private insurance and Medicaid at the time of their survey are considered to have Medicaid. Respondents with Medicare coverage are excluded because of the small sample of these people who are under age 65.

<sup>1</sup> Indicators were determined using the 2012 revised model for estimates of the prevalence of any mental illness and serious mental illness. (For a discussion of methodology, see Kott et al. 2013).

<sup>2</sup> Mental illness is based on a series of survey questions that are correlated with having mental illness and that are incorporated into a scale. A statistical model was developed to determine what point on the scale would be used to assign the category of mental illness to each respondent. Respondents whose answers for specific questions have a scale value above the cut point and whose responses to additional questions meet certain criteria are designated as having mental illness. Respondents with serious mental illness also have serious functional impairment (Kott et al. 2013).

<sup>3</sup> Includes adults with other coverage, including any type of military health plan (TRICARE, CHAMPUS, CHAMPVA) or other government-sponsored programs.

† Estimate is greater than zero but less than 0.05.

\* Difference from Medicaid is statistically significant at the 0.05 level.

**Source:** MACPAC analysis of the National Survey on Drug Use and Health, 2010–2012.

**TABLE 4-4. Sociodemographic Characteristics of Non-Institutionalized Adults Age 18–64 with Any Mental Illness or Substance Use Disorder by Insurance Status, 2010–2012**

Sociodemographic characteristics	Adults age 18–64 with any mental illness or substance use disorder				
	Total population <sup>1,2</sup>		Percentage by insurance status		
	Number <sup>1,2</sup> n = 43,096,512	Percent	Private	Medicaid	Uninsured
<b>Age</b>					
18–49	31,796,902	73.8%	73.1	72.2	82.6*
50–64	11,299,610	26.2	26.9	27.8	17.4*
<b>Sex</b>					
Male	18,632,812	43.2	41.8*	32.2	50.0*
Female	24,463,700	56.8	58.2*	67.8	50.0*
<b>Race/ethnicity</b>					
White	29,588,844	68.7	76.3*	53.2	60.9*
Black	4,929,385	11.4	7.5*	22.6	13.3*
Native American	356,052	0.8	0.4*	1.6	0.6*
Pacific Islander	206,699	0.5	0.5	0.6	0.5
Asian	1,638,393	3.8	4.4*	1.9	3.4
More than one race	726,347	1.7	1.5*	2.3	1.4*
Hispanic	5,650,792	13.1	9.4*	17.8	19.7
<b>Education</b>					
< High school	6,525,468	15.1	6.9*	32.9	24.1*
High school graduate	12,738,867	29.6	25.1*	35.9	34.2
Some college	12,579,750	29.2	30.4*	25.6	27.6
College graduate	11,252,427	26.1	37.6*	5.6	14.0*
<b>Health status</b>					
Excellent	6,395,632	14.8	17.8*	8.1	13.7*
Very good	14,384,949	33.4	39.6*	19.1	30.4*
Good	12,862,993	29.8	29.7	29.0	32.3*
Fair/poor	9,452,263	21.9	12.9*	43.7	23.6*
<b>Marital status</b>					
Married	17,533,776	40.7	51.2*	19.9	28.4*
Widowed	1,053,474	2.4	2.1*	4.1	1.5*
Divorced or separated	8,341,799	19.4	13.8*	31.6	22.8*
Never married	16,167,463	37.5	32.9*	44.4	47.2
<b>Federal poverty level</b>					
< 100% FPL	9,106,680	21.3	7.1*	58.6	30.4*
100%–199% FPL	9,678,248	22.6	14.2*	28.4	36.9*
≥ 200% FPL	24,053,786	56.1	78.7*	13.0	32.7*
<b>Employment status</b>					
Work full time	20,346,723	47.2	63.1*	12.9	38.3*
Work part time	7,030,479	16.3	15.7*	13.7	19.0*
Unemployed	3,982,118	9.2	4.3*	12.0	20.3*
Other	11,737,192	27.2	16.9*	61.4	22.4*
<b>Family receives SSI</b>	4,900,521	11.4	4.7*	38.7	8.0*

**Notes:** FPL is federal poverty level. SSI is Supplemental Security Income. Insurance categories are mutually exclusive using a hierarchy. Respondents reporting private insurance and Medicaid at the time of their survey interview are considered to have Medicaid. Respondents with Medicare coverage are excluded because of the small sample of these people who are under age 65.

<sup>1</sup> Includes adults with other coverage, including any type of military health plan (TRICARE, CHAMPUS, CHAMPVA) or other government-sponsored programs.

**TABLE 4-4. (continued)**

<sup>2</sup> Mental illness is based on a series of survey questions that are correlated with having mental illness and that are incorporated into a scale. A statistical model was developed to determine what point on the scale would be used to assign the category of mental illness to each respondent. Respondents whose answers for specific questions have a scale value above the cut point and whose responses to additional questions meet certain criteria are designated as having mental illness. Respondents with serious mental illness also have serious functional impairment (Kott et al. 2013).

\* Difference from Medicaid is statistically significant at the 0.05 level.

**Source:** MACPAC analysis of three years of the National Survey on Drug Use and Health, 2010–2012.

Adult Medicaid enrollees with behavioral health problems differed socioeconomically from both their privately insured and their uninsured counterparts. Their income was lower and they were more likely to be female and to have less than a high school education. They were also less likely to be married or employed (Table 4-4). They were more likely to be black than either their privately insured or uninsured counterparts. And they were substantially more likely to report having SSI than other insured or uninsured people, which is logical given that SSI confers Medicaid eligibility.

Adult Medicaid enrollees with any mental illness or substance use disorder are more likely to report having worse overall health status than those with private coverage or who are uninsured (MACPAC 2014a). Forty-four percent of adult Medicaid enrollees age 18–64 reported having fair or poor overall health status compared to 24 percent of uninsured and 13 percent of privately insured adults with any mental illness or substance use disorder (Table 4-4). Among adults age 18–64 with reported Medicaid coverage who were designated as having serious mental illness, 56 percent reported having fair or poor overall health status (MACPAC 2014a).

### Comorbid medical and behavioral health conditions

Many people with serious behavioral health disorders have a substantial number of comorbid acute or chronic medical conditions. This is true regardless of insurance coverage (Parks et al.

2006). They also have worse health outcomes than privately insured or uninsured adults. People with serious mental illness die approximately 25 years earlier than the general population in part due to preventable conditions, including cardiovascular disease, smoking-related conditions, obesity, and lack of attention to health. While suicide and injury account for about 30 percent to 40 percent of excess mortality, 60 percent of premature deaths in persons with schizophrenia are estimated to be due to medical conditions such as cardiovascular, pulmonary and infectious diseases (Parks et al. 2006). Polypharmacy, the use of multiple prescription drugs, is common among those with behavioral conditions; substance use can also produce poor health outcomes and metabolic syndrome. While these factors are concentrated among those with serious mental illness, symptoms and disorders caused by polypharmacy in particular can also be problematic for those with less severe behavioral health disorders (see Chapter 5 of this report).

Medical and behavioral health conditions may interact to exacerbate both sets of conditions. For example, behavioral health medications may cause medical side effects. Moreover, medical conditions or treatment may cause behavioral health disorders or make them worse. Some drugs prescribed for medical conditions may cause dementia or mood disorders (Parks et al. 2006; MHPA 2012).

Not surprisingly, a high prevalence of comorbid behavioral health and medical conditions is associated with high use of health services. For example, beneficiaries with chronic physical

conditions are also more likely to be hospitalized when they have a mental illness or drug and alcohol disorder. A study by Boyd and colleagues estimated that the addition of a mental illness to one or more common chronic physical conditions is associated with a 60 percent to 75 percent increase in health care costs for an individual. Adding a co-occurring mental illness plus a drug or alcohol disorder results in a two- to three-fold increase in health care (Boyd et al. 2010).

Adult Medicaid enrollees not dually enrolled in Medicare and Medicaid with behavioral health diagnoses were considerably more likely to have a number of concurrent chronic medical conditions than adult enrollees with no behavioral health diagnosis, regardless of eligibility basis. Common chronic conditions included cancer, cardiac disease, hypertension, kidney disease, and arthritis (Table 4-5). Adults with behavioral health diagnoses also had higher rates of chronic diseases associated with tobacco and alcohol use, such as chronic obstructive pulmonary disease, asthma, and chronic liver disease and cirrhosis.

## Use of health services by adults age 18–64 with behavioral health conditions

To put adult Medicaid expenditures in context, it should be noted that behavioral health expenditures, and mental health expenditures in particular, are high for adults in general. Based on data from the Medical Expenditure Panel Survey, prescription medications accounted for 45 percent, or \$21.7 billion in 2011 dollars, of mental health expenditures for all non-institutionalized adults age 18–64 in 2009–2011. Another 27.2 percent of mental health spending for adults age 18–64, or \$13.1 billion in 2011 dollars, was attributed to outpatient and office-based medical visits. The remaining share of spending on mental health care for adults age 18–64 in 2009–2011 was for emergency room visits, at 1.8 percent (\$853 million); home health care, at 9.6 percent (\$4.62

billion); and inpatient stays due to mental health disorders, at 16.5 percent (\$7.95 billion) (Zibman 2014).

Nearly one-quarter (24.2 percent) of expenditures for treatment of mental health disorders for adults age 18–64 was paid for by Medicaid. (Note the specific expense category across all adult enrollees is different from our calculations of total Medicaid expenditures for specific enrollees with behavioral health diagnoses.) Private insurance paid almost one-third of expenses, at 32.9 percent, patients paid 16.7 percent out of pocket, and Medicare paid for 14.3 percent (Zibman 2014).

Based on the National Survey on Drug Use and Health, almost one-quarter (24 percent) of adults age 18–64 with Medicaid coverage reported receiving some mental health treatment during the past year, compared to 14 percent of privately insured and 10 percent of uninsured adults under age 65 (Table 4-3). Given that more than half of adult Medicaid enrollees with behavioral health conditions qualify on the basis of disability, it is perhaps not surprising that a higher percentage of people with Medicaid coverage have behavioral health conditions than do those with private coverage. A study of 2009–2011 data found that adults who only had public insurance (27.7 percent) were more likely than adults with any private insurance (14.1 percent) or uninsured adults (7.0 percent) to have had a mental health-related expense (Zibman 2014).

Despite the fact that Medicaid enrollees were more likely than privately insured adults to have received mental health treatment in the past year, they were also more likely to report not receiving needed mental health treatment (Table 4-3). Almost one-quarter of adults under age 65 with either mental illness or substance use disorders reported not receiving needed mental health care; among adult Medicaid enrollees under age 65 with serious mental illness—the group most in need of services—41 percent reported not receiving needed mental health treatment (MACPAC 2014a).

**TABLE 4-5. Comorbid Medical Conditions among Non-Dually Eligible Adults Age 21–64 with and without a Behavioral Health Diagnosis by Basis of Eligibility, 2011**

Medical condition	Non-dually eligible adult Medicaid enrollees age 21–64			
	Eligible on basis of disability		Eligible on basis other than disability	
	Percent with behavioral health diagnosis	Percent without behavioral health diagnosis	Percent with behavioral health diagnosis	Percent without behavioral health diagnosis
Cardiac disease	54%	38%	28%	13%
Hypertension	41	30	17	8
Rheumatism, excluding the back	33	17	25	8
Kidney disease	29	18	22	10
Diabetes	22	18	8	5
Arthritis	19	11	9	3
Cancer	14	10	9	5
Asthma	14	6	10	3
Cerebrovascular disease	10	5	3	1
Chronic liver disease and cirrhosis	5	2	2	1
<b>Average number of chronic conditions (of those listed above) per enrollee (sum of above)</b>	<b>2.7</b>	<b>1.7</b>	<b>1.5</b>	<b>0.6</b>

**Notes:** Enrollees with a behavioral health diagnosis are defined as persons who had any Medicaid fee-for-service claim or managed care encounter record where a behavioral health diagnosis was recorded (except for prescribed medicines); these claims and encounter records might have been for specific behavioral health services or for physical health or other services. Behavioral health diagnoses cover *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) codes categorized by the Chronic Illness and Disability Payment System (CDPS) payment code methodology. Partial-benefit enrollees and states with incomplete or low-quality managed care encounter data (Illinois, Maryland, Massachusetts, Mississippi, Nevada, Pennsylvania, Ohio, South Carolina, Utah, West Virginia, and the District of Columbia) have been excluded from the analysis.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

## Non-Dually Eligible Adults under Age 65

About 20 percent of adults with behavioral health diagnoses who qualify for Medicaid on any basis are eligible for Medicare as well—that is, they are dually eligible for both Medicare and Medicaid. Among adults with a behavioral health diagnosis who qualify for Medicaid on the basis of a disability, 40 percent are dually eligible. Because dually eligible Medicaid enrollees receive services from Medicare as well as from Medicaid, and because of the high percentage of dually eligible adults who qualify for Medicaid on the basis of a disability, using only Medicaid service data to calculate

spending for behavioral health care services for this population is likely to result in incorrect and incomplete expenditure data. Therefore in the following analysis of behavioral health care service use by adults, we present findings for non-dually eligible adults and dually eligible adults separately.

### Non-dually eligible adults age 21–64 qualifying on the basis of disability

Eligibility for SSI confers Medicaid eligibility in most states, and about one-third of SSI recipients in this age group qualify on the basis of a mental health condition (SSA 2014). These mental health conditions include not only depressive, bipolar,



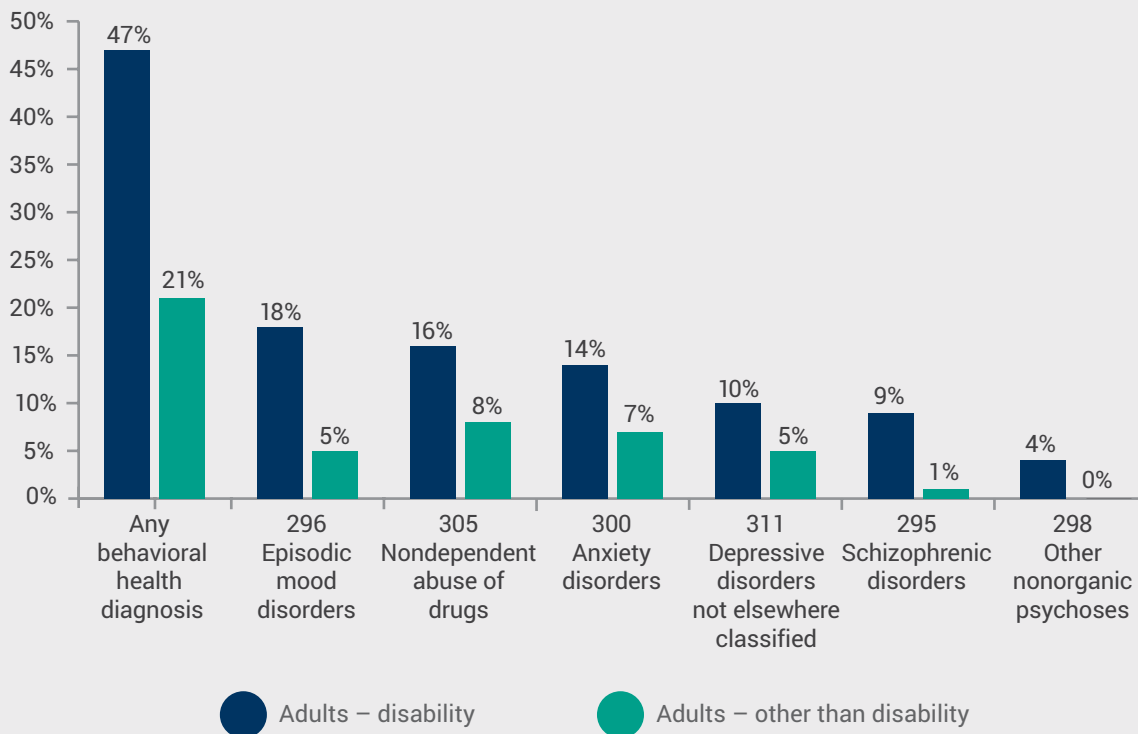
and psychotic disorders, but also autism spectrum, intellectual, and developmental disorders (SSA 2014). Almost half of non-dually eligible adults under age 65 eligible for Medicaid on the basis of disability had a behavioral health diagnosis (1.5 million), accounting for 63 percent of total expenditures for this eligibility category (Table 4-1 and Figure 4-8).

One out of every 10 persons in this group had a schizophrenic disorder, the highest prevalence of any age and eligibility group in our analysis (Figure 4-8). Eighteen percent had a diagnosis of an

episodic mood disorder (including bipolar disorder and major depressive disorders) and 14 percent had a diagnosis associated with an anxiety disorder.

Non-dually eligible adults qualifying on the basis of disability have expenditures similar to children who qualify on the basis of disability, with considerably higher expenditures than other adult enrollees (Figure 4-9). The distribution of total expenditures between enrollees with a behavioral health diagnosis and those without is similar in all quartiles.

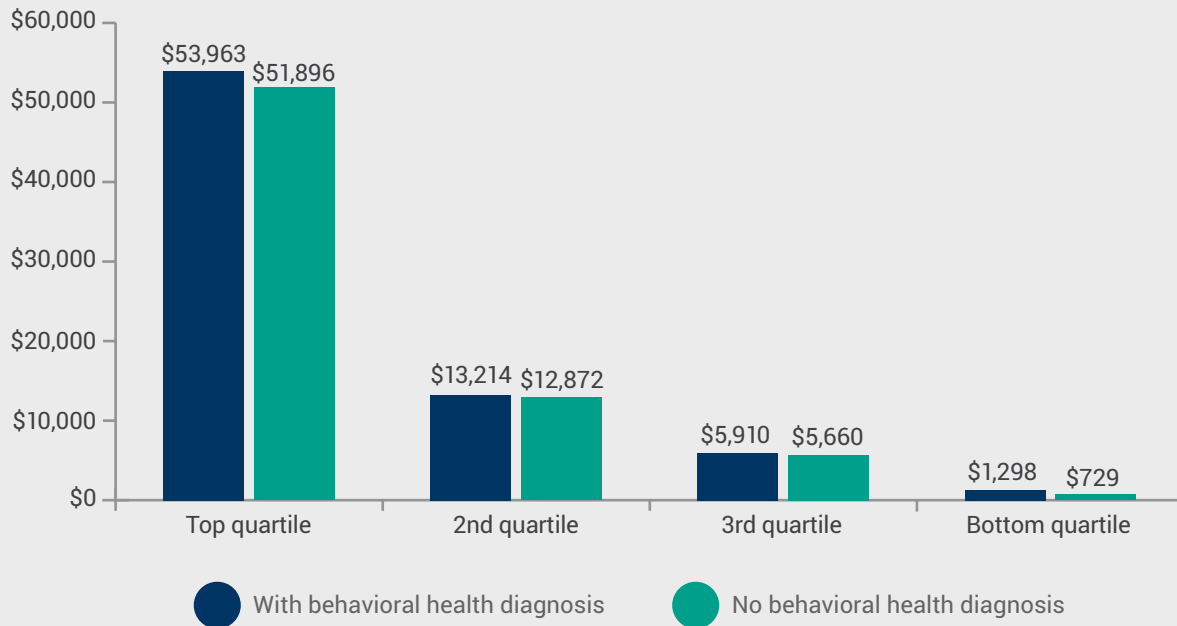
**FIGURE 4-8. Most Common Behavioral Health Diagnoses for Non-Dually Eligible Adults Age 21–64 Enrolled in Medicaid, by Basis of Eligibility, 2011**



**Notes:** Enrollees with a behavioral health diagnosis are defined as persons who had any Medicaid fee-for-service claim or managed care encounter record where a behavioral health diagnosis was recorded (except for prescribed medicines); these claims and encounter records might have been for specific behavioral health services or for physical health or other services. Behavioral health diagnoses cover *International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM)* codes categorized by the Chronic Illness and Disability Payment System (CDPS) payment code methodology. Partial-benefit enrollees and states with incomplete or low-quality managed care encounter data (Illinois, Maryland, Massachusetts, Mississippi, Nevada, Pennsylvania, Ohio, South Carolina, Utah, West Virginia, and the District of Columbia) have been excluded from the analysis.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

**FIGURE 4-9.** Total Medicaid Spending Per Non-Dually Eligible Adult Age 21–64 Enrolled in Medicaid on the Basis of Disability, with and without a Behavioral Health Diagnosis, 2011



**Notes:** Enrollees with a behavioral health diagnosis are defined as persons who had any Medicaid fee-for-service claim or managed care encounter record where a behavioral health diagnosis was recorded (except for prescribed medicines); these claims and encounter records might have been for specific behavioral health services or for physical health or other services. Behavioral health diagnoses cover *International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM)* codes categorized by the Chronic Illness and Disability Payment System (CDPS) payment code methodology. Partial-benefit enrollees and states with incomplete or low-quality managed care encounter data (Illinois, Maryland, Massachusetts, Mississippi, Nevada, Pennsylvania, Ohio, South Carolina, Utah, West Virginia, and the District of Columbia) have been excluded from the analysis.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

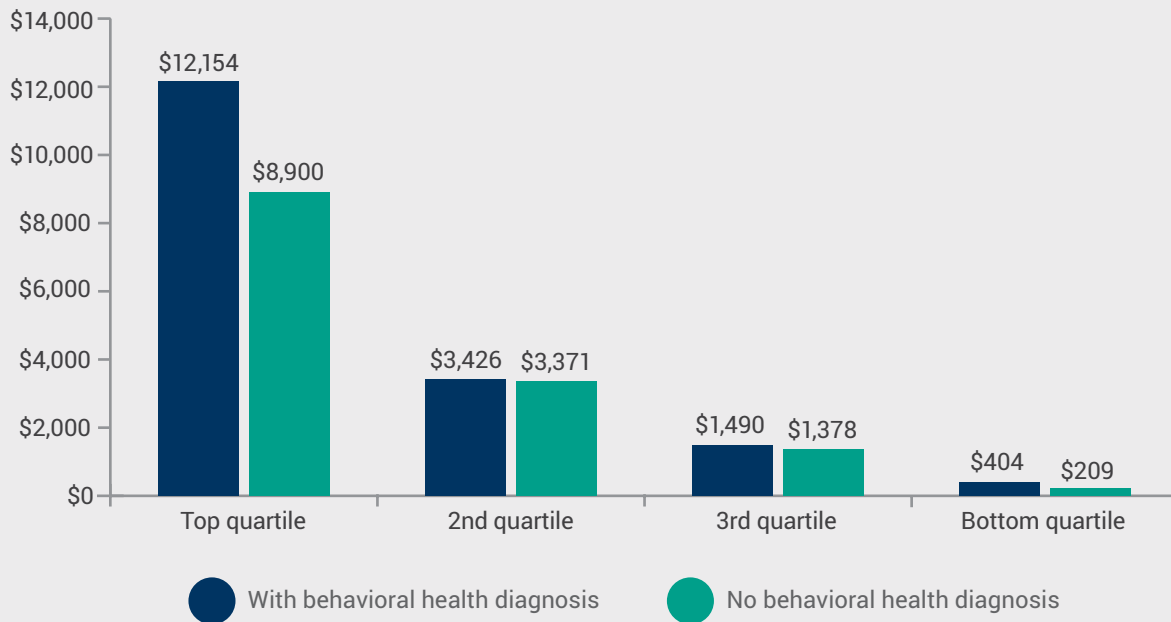
### Adults age 21–64 qualifying on a basis other than disability

This group of Medicaid beneficiaries includes pregnant women, people qualifying on the basis of low family income alone, and people eligible through other pathways. About 2.3 million, or 21 percent, of the adults in this category had a behavioral health diagnosis, accounting for 39 percent of total expenditures for this group. The most common diagnoses in this population were anxiety disorders and non-dependent abuse of drugs (Figure 4-8). Many states have implemented Medicaid initiatives to improve identification and treatment of behavioral

health conditions among pregnant women—primarily through psychosocial counseling and substance use disorder treatment—in order to improve perinatal outcomes (Johnson and Witgert 2010).

Adults in this category who had behavioral health diagnoses had higher total expenditures than those who did not (\$7,000 versus \$3,000) and this relationship holds throughout the total expenditure distribution (Table 4-1 and Figure 4-10). Not surprisingly, enrollees in this category, regardless of mental health diagnosis status, had considerably lower total expenditures than did non-dually eligible adults enrolled on the basis of disability.

**FIGURE 4-10.** Total Medicaid Spending Per Adult Age 21–64 Enrolled in Medicaid on a Basis Other than Disability, with and without a Behavioral Health Diagnosis, 2011



**Notes:** Enrollees with a behavioral health diagnosis are defined as persons who had any Medicaid fee-for-service claim or managed care encounter record where a behavioral health diagnosis was recorded (except for prescribed medicines); these claims and encounter records might have been for specific behavioral health services or for physical health or other services. Behavioral health diagnoses cover *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) codes categorized by the Chronic Illness and Disability Payment System (CDPS) payment code methodology. Partial-benefit enrollees and states with incomplete or low-quality managed care encounter data (Illinois, Maryland, Massachusetts, Mississippi, Nevada, Pennsylvania, Ohio, South Carolina, Utah, West Virginia, and the District of Columbia) have been excluded from the analysis.

Data include approximately 104,000 dually eligible enrollees.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

## Enrollees Dually Eligible for Medicare and Medicaid

About 20 percent of the full-benefit Medicaid enrollees that we identified as having a behavioral health condition using Medicaid data alone also qualify for Medicare (MACPAC 2015). As discussed above, because dually eligible enrollees receive services from both Medicare and Medicaid, assessing whether they have a behavioral health condition based on Medicaid data alone likely underestimates the prevalence of these conditions

in this group. For example, among adults under age 65 with fee-for-service coverage in 2010, when only Medicaid claims were examined, the prevalence of depressive disorders based on service use was the same for non-dually eligible adults enrolled on the basis of disability as it was for dually eligible enrollees—11 percent. However, when Medicare claims were also examined, the prevalence among dually eligible enrollees under age 65 increased to 27 percent (MedPAC and MACPAC 2015).

## Dually eligible for Medicare and Medicaid enrollees age 65 and older

Behavioral health disorders among adults age 65 and older are associated with functional disability, cognitive impairment, compromised quality of life, increased health care utilization and costs, barriers to preventive care, poor health outcomes, and mortality. As summarized in a 2012 Institute of Medicine report, the many complex interactions among behavioral health conditions, coexisting physical health conditions, and cognitive, functional, and sensory impairments complicate efforts to produce prevalence estimates of behavioral health conditions for older populations (IOM 2012).

Adults age 65 and older in need of behavioral health services include those with serious and persistent mental illnesses; those with mental health problems that develop later in life, such as dementia, late onset schizophrenia, alcohol and prescription drug abuse, anxiety, and depression; and those facing the developmental challenges of old age, such as role changes, loss of friends and relatives, and declining functional abilities. Like others with mental health conditions, adults age 65 and older face challenges of stigma, discrimination, poverty, and isolation. But there are also concerns unique to this age group, including false beliefs that depression is a normal part of aging, that adults age 65 and older cannot recover from mental illnesses or substance use disorders, and that adults age 65 and older are no longer productive members of society (NAMHPAC 2007). This contributes to under-diagnosis, or misdiagnosis, of behavioral health conditions in this population.

Because of the high prevalence of comorbid behavioral health and medical conditions in this population, mental health has a strong impact on physical health and vice versa. For example, adults age 65 and older with physical health conditions such as heart disease have higher rates of depression than those who are medically well. Conversely, untreated depression in an older

person with heart disease can negatively affect health outcomes and increase the costs of treating the physical disease due to factors such as the person not complying with treatment regimens or making suggested lifestyle changes (WHO 2013; Blazer 2003).

## Prevalence of behavioral health and comorbid medical diagnoses among dually eligible Medicare and Medicaid enrollees

Even given the caveats noted above about underestimating the prevalence of behavioral health conditions in the population age 65 and older, more than one-quarter of dually eligible enrollees age 65 and older had a fee-for-service claim with a diagnosis of Alzheimer's disease or related dementia, and almost one-fifth had a diagnosis of depression (Table 4-6). These percentages are considerably higher than for the non-dually eligible Medicare-only population age 65 and older (adults age 65 and older who do not have Medicaid coverage, including those with private supplemental coverage). In particular, the percentage of schizophrenia and other psychotic disorders among dually eligible enrollees, at 7 percent, is higher than most other groups (at 9 percent, Table 4-6).

The under-65 dually eligible population also has a high prevalence of many behavioral health conditions. Based on Medicare and Medicaid data, 15 percent of this population had a diagnosis of schizophrenia, a higher percentage than even non-dually eligible adults under age 65 enrolled in Medicaid on the basis of disability (at 9 percent, Table 4-6). Other common behavioral health diagnoses are depressive disorders and anxiety disorders. In addition, 14 percent of dually eligible adults under age 65 had a diagnosis of bipolar disorder.

**TABLE 4-6. Behavioral Health Conditions of Adults Dually Enrolled in Fee-for-Service Medicaid and Medicare and Non-Dually Eligible Adults Enrolled in Fee-for-Service Medicare, 2010**

Behavioral health conditions	Adults dually eligible for Medicare and Medicaid		Non-dually eligible Medicare beneficiaries	
	Number	Percent	Number	Percent
<b>Adult enrollees age 65 and older (total)</b>	<b>3,596,395</b>		<b>22,582,221</b>	
Alzheimer's or related dementia	849,628	24%	1,698,680	8%
Anxiety disorders	411,442	11	1,264,621	6
Bipolar disorder	97,542	3	149,626	1
Depressive disorders	685,555	19	1,753,441	8
Schizophrenia and other psychotic disorders	246,647	7	276,451	1
<b>Adult enrollees under age 65 (total)</b>	<b>2,784,308</b>			
Alzheimer's or related dementia	103,594	4	—	—
Anxiety disorders	567,648	20	—	—
Bipolar disorder	400,009	14	—	—
Depressive disorders	759,997	27	—	—
Schizophrenia and other psychotic disorders	403,756	15	—	—

**Notes:** Fee-for-service population excludes individuals with at least one month of enrollment in a Medicare Advantage plan or a comprehensive Medicaid managed care plan. Behavioral health conditions were identified by running Centers for Medicare & Medicaid Services (CMS) Chronic Condition Warehouse (CCW) flag algorithms on Medicare fee-for-service claims for non-dually eligible beneficiaries and on Medicare and Medicaid fee-for-service claims for dually eligible beneficiaries.

**Source:** MACPAC analysis of data sources described in MedPAC and MACPAC 2015.

Dually eligible adults enrolled in Medicare and Medicaid and receiving full benefits were about twice as likely as non-dually eligible Medicare-only beneficiaries to have at least three chronic conditions, and they were nearly three times more likely to have been diagnosed with a mental illness (CBO 2013). In 2009, 43.8 percent of dually eligible Medicare and Medicaid enrollees had at least one mental or cognitive condition compared to 18.5 percent of all other Medicare beneficiaries. About half of dually eligible Medicare and Medicaid enrollees age 18–64 and 80 or older had at least one mental or cognitive condition; the percentage with at least one mental or cognitive condition was closer to one-third for those age 65–79 (Kasper et al. 2010). Late-life mood and anxiety disorders are common and often co-occurring among older non-institutionalized adults.

### Medicaid use and expenditures for dually eligible Medicare and Medicaid enrollees age 65 and older with behavioral health conditions

Over 50 percent of adults age 65 and older who are symptomatic for a clinical diagnosis do not use mental health services (Byers et al. 2012). Little is known about why these adults, despite symptoms of mood and anxiety disorders, do not seek services. High levels of spending notwithstanding, behavioral health services are under-utilized by this group. Fewer than 3 percent of all adults age 65 and older report seeing a mental health professional for treatment, a rate lower than that of any other adult age group. Instead, adults age 65 and older tend to seek mental health treatment in primary care, a system stressed by the demands of complex medical disorders and severe time constraints (Bartels et al. 2004).

Adults age 65 and older with both Medicare and Medicaid coverage have higher expenditures than those without Medicaid coverage, particularly those using long-term services and supports. A Congressional Budget Office study found that in 2009, total Medicare and Medicaid spending was much higher for full-benefit dually eligible enrollees who had a mental illness and at least one other chronic condition than for other fully eligible dually enrolled beneficiaries (\$48,200, on average, versus \$28,600) (CBO 2014). For the 20 percent of dually eligible individuals with more than one mental health diagnosis, annual spending per capita averaged more than \$38,000—twice as high as average annual per capita spending for the dually eligible population as a whole (Hamblin 2011).

This chapter is a first step in quantifying the importance of behavioral health to Medicaid enrollees as well as in exploring the diversity of diagnoses and treatment needs. Although severely mentally ill beneficiaries enrolled on the basis of disability incur the highest cost per person, they comprise a relatively small share of total enrollees. On the other hand, many Medicaid beneficiaries enrolled on a basis other than disability may nevertheless be in need of behavioral health screening, treatment, and referral; more specialized services would help them delay or prevent future loss of function. MACPAC will continue to focus on the specific needs of each of these groups, targeting policies and interventions designed to improve care and contain costs.

## Conclusion

Providing services to Medicaid enrollees with behavioral health conditions in the most cost-effective manner is of great interest to state and federal policymakers. Overall, enrollees with a behavioral health diagnosis account for 20 percent of enrollees but almost half of all Medicaid spending (including spending for medical, behavioral health and other covered Medicaid services). For some age and eligibility groups, enrollees with behavioral health diagnoses account for an even higher percentage of enrollees and total Medicaid costs. For instance, almost half of non-dually eligible adults enrolled in Medicaid on the basis of a disability had a behavioral health diagnosis in 2011, as did almost half of Medicaid-enrolled children qualifying on the basis of disability (Table 4-1). Children qualifying for Medicaid on the basis of child welfare assistance who had behavioral health diagnoses accounted for 44 percent of all children but 78 percent of total expenditures in that eligibility group. And about half of dually eligible Medicare and Medicaid enrollees age 18–64 and 80 or older had at least one mental or cognitive condition.



## Endnotes

- <sup>1</sup> As discussed in Chapter 5 of this report, beneficiaries may be prescribed behavioral health drugs even without a behavioral health diagnosis, and drugs categorized as behavioral health drugs may be used for non-behavioral health conditions (e.g., seizures).
- <sup>2</sup> The *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) is the official system of assigning codes to diagnoses and procedures associated with health care utilization in the United States.
- <sup>3</sup> Studies vary in terms of the actual diagnoses used to identify behavioral health conditions. The CDPS includes all ICD-9-CM diagnosis codes that are classified as mental disorders (codes 290–319), and substance use disorder codes are included in the mental disorder classification. Some studies do not count persistent developmental disabilities as behavioral health disorders. The most common specific behavioral health diagnoses are broken out for each age and disability group.
- <sup>4</sup> Although the National Survey of Children’s Health asks separate questions about whether children are covered by Medicaid or CHIP, these two categories are combined because validation studies have determined that respondents cannot accurately distinguish between these two programs.

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## APPENDIX 4A: Background on Data and Methods

Statistics presented in this chapter are based on several data sources. MACPAC conducted its own analysis of the National Survey of Children's Health, the National Survey on Drug Use and Health, and the Medicaid Statistical Information System (MSIS).

**National Survey of Children's Health (NSCH).** The NSCH is a random-digit dial telephone survey sponsored by the Health Resources and Services Administration and administered by the National Center for Health Statistics. The 2010–2012 survey had 95,677 respondents for non-institutionalized children between the ages of 0 and 17 years. Although the survey asks separately about participation in Medicaid and the State Children's Health Insurance Program (CHIP), estimates for the programs generally are not reported separately, in part due to concerns that respondents may not always know which program provides their coverage.

**National Survey on Drug Use and Health (NSDUH).** The NSDUH is an annual nationwide survey involving interviews with approximately 70,000 randomly selected individuals age 12 and older from residents of households and non-institutional group quarters (e.g., shelters, rooming houses, dormitories) and from civilians living on military bases. It is the primary source of national estimates of substance use disorder and mental health status and services utilization in the United States. Among adults, estimates include rates and numbers of persons with any mental illness, serious mental illness, suicidal thoughts and behavior, and major depressive episode, as well as rates of treatment for depression among adults with major depressive episode and mental health service utilization. The NSDUH, however, cannot be used to estimate the presence of diagnosable mental disorders such as mild, moderate, or serious mental illness among youth (SAMHSA 2013b).

**Medicaid Statistical Information System (MSIS).** Data for utilization and expenditures for the Medicaid population in this report come from the 2011 MSIS. The MSIS contains demographic and enrollment-related information on each person enrolled in Medicaid and, at state option, separate CHIP programs, as well as a record of each claim paid for most services an enrollee receives.

**Chronic Illness and Disability Payment System (CDPS).** The CDPS, a well-known methodology developed at University of California San Diego, is a classification system that clusters Medicaid claims types by illness category and assigns corresponding claim expense. CDPS has been widely used to provide information about which categories of chronic illness are most responsible for high costs in adult populations. The CDPS includes 20 major categories of *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) diagnoses, which correspond to body systems or type of diagnosis.

**TABLE 4A-1. Utilization and Spending for Full-Year and Part-Year Medicaid Enrollees with Behavioral Health Diagnoses by Age and Basis of Eligibility, 2011**

Age group and basis of eligibility	Number of enrollees with a behavioral health diagnosis (millions) <sup>1,2</sup>	Total Medicaid spending for enrollees with a behavioral health diagnosis (billions) <sup>1</sup>	Enrollees with a behavioral health diagnosis as percentage of all enrollees	Spending for enrollees with a behavioral health diagnosis as percentage of spending by all enrollees	Total Medicaid spending per enrollee (medical, behavioral health and long-term services and supports)	
					Enrollees with a behavioral health diagnosis	Enrollees with no behavioral health diagnosis
<b>Full-year enrollees</b>						
<b>Children (less than age 21)</b>	<b>3.20</b>	<b>\$26.22</b>	<b>18%</b>	<b>44%</b>	<b>\$8,201</b>	<b>\$2,295</b>
<b>Basis of eligibility</b>						
Based on disability	0.63	12.28	53	64	19,565	12,141
Based on child welfare assistance	0.25	2.93	46	79	11,774	2,656
Basis other than disability or child welfare assistance	2.32	11.01	14	30	4,745	1,886
<b>Age group</b>						
0–6 years	0.85	6.38	12	30	7,506	2,290
7–14 years	1.53	11.28	22	50	7,371	1,985
15–20 years	0.82	8.56	24	52	10,482	2,966
<b>Adults (age 21–64)<sup>1</sup></b>						
<b>Basis of eligibility</b>						
Basis other than disability	1.31	10.32	27	43	7,904	4,018
<b>Age group<sup>1</sup></b>						
21–44 years	1.85	26.53	35	53	14,368	6,831
45–64 years	1.55	32.48	41	58	20,953	10,541
<b>Part-year enrollees</b>						
<b>Children (under age 21)</b>	<b>0.91</b>	<b>\$4.47</b>	<b>8%</b>	<b>21%</b>	<b>\$4,932</b>	<b>\$1,598</b>
<b>Basis of eligibility</b>						
Based on disability	.07	1.03	31	46	15,568	8,521
Based on child welfare assistance	.07	0.58	38	72	8,613	2,082
Basis other than disability or child welfare	.77	2.86	7	16	3,695	1,494
<b>Age group</b>						
0–6 years	0.24	1.52	4	12	6,424	2,168
7–14 years	0.35	1.24	10	34	3,580	811
15–20 years	0.32	1.71	12	35	5,294	1,346
<b>Adults (age 21–64)<sup>1</sup></b>						
<b>Basis of eligibility</b>						
Basis other than disability, not dually eligible for Medicare and Medicaid	0.95	5.39	16	33	5,656	2,203
<b>Age group<sup>1</sup></b>						
21–44 years	0.92	6.05	18	38	6,567	2,309
45–64 years	0.44	6.30	24	54	14,457	3,903

**Notes:** Enrollees with a behavioral health diagnosis are defined as persons who had any Medicaid fee-for-service claim or managed care encounter record where a behavioral health diagnosis was recorded (except for prescribed medicines); these claims and encounter records might have been for specific behavioral health services or for physical health or other services. Behavioral health diagnoses cover *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) codes categorized by the Chronic Illness and Disability Payment System (CDPS) payment code methodology.

**TABLE 4A-1. (continued)**

<sup>1</sup> Data for total number of enrollees, individuals under age 65 dually enrolled in Medicaid, and Medicare who qualify on the basis of disability as well as non-dually eligible enrollees age 65 or older are not displayed separately in this table because (1) for dually enrolled individuals, the number of enrollees with behavioral health diagnoses is substantially underestimated if only Medicaid data are used; and (2) for non-dually eligible enrollees age 65 or older, the population reflects a relatively small number of individuals. The total also includes part-year enrollees (see Appendix Table 4A-1 for full-year and part-year enrollee breakouts).

<sup>2</sup> Partial-benefit enrollees and states with incomplete or low-quality managed care encounter data (Illinois, Maryland, Massachusetts, Mississippi, Nevada, Pennsylvania, Ohio, South Carolina, Utah, West Virginia, and the District of Columbia) have been excluded from the analysis.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

**TABLE 4A-2. Chronic Illness and Disability Payment System (CDPS) Behavioral Diagnosis Categories**

ICD-9-CM code and description	
<b>Behavioral health disorders common in childhood</b>	
314	Hyperkinetic syndrome of childhood (e.g., ADD/ADHD)
315	Specific delays in development (includes speech disorders, dyslexia, and other learning disorders)
313	Disturbance of emotions specific to childhood and adolescence
309	Adjustment reaction
312	Disturbance of conduct not elsewhere classified
299	Pervasive developmental disorders (includes autism spectrum disorders)
<b>Depression, anxiety and mood disorders</b>	
300	Anxiety, dissociative and somatoform disorders
311	Depressive disorder not elsewhere classified (major depressive disorder falls under episodic mood disorder)
296	Episodic mood disorders (includes bipolar disorder; major depressive disorder)
<b>Substance use disorders</b>	
303	Alcohol dependence syndrome
305	Nondependent abuse of drugs (e.g., antidepressant abuse)
304	Drug dependence
307	Special symptoms or syndromes not elsewhere classified
291	Alcohol-induced mental disorders
292	Drug-induced mental disorders
<b>Psychotic and personality disorders</b>	
295	Schizophrenic disorders
298	Other nonorganic psychoses
301	Personality disorders
<b>Other disorders</b>	
293	Transient mental disorders due to conditions classified elsewhere
294	Persistent mental disorders due to conditions classified elsewhere

**Notes:** ICD-9-CM is *International Classification of Diseases, Ninth Revision, Clinical Modification* (the official system of assigning codes to diagnoses and procedures associated with hospital utilization in the United States).





CHAPTER 5

# Use of Psychotropic Medications among Medicaid Beneficiaries

# Use of Psychotropic Medications among Medicaid Beneficiaries

## Key Points

- Overall, about 14 percent of Medicaid beneficiaries used a psychotropic medication during calendar year 2011. In 2011, Medicaid spent about \$8 billion in fee for service for psychotropic medications—30 percent of the program’s total fee-for-service drug spending.
- Because different age and eligibility groups vary in terms of their behavioral health diagnoses, severity of condition, functional status, and medical needs, their use of psychotropic medications differs accordingly.
  - Almost half (48 percent) of children and adults who qualified for Medicaid on the basis of disability used psychotropic medications. Although such individuals accounted for about 10 percent of Medicaid enrollees, they accounted for more than 50 percent of the psychotropic drug claims and 60 percent of fee-for-service spending on these medications.
  - Nearly one-quarter (24 percent) of children eligible based on child welfare assistance used a psychotropic medication, almost five times the rate of children eligible on a basis other than disability or child welfare assistance (5 percent).
- On average, children eligible for Medicaid based on child welfare assistance and children and adults eligible on the basis of disability used more psychotropic medications during the year and were more likely to use psychotropic medications throughout the entire year than beneficiaries in other eligibility categories. They averaged 16–17 psychotropic drug claims per user and almost half had a psychotropic claim in 10 or more months during the year. In comparison, children and adults eligible on a basis other than disability or child welfare assistance averaged 8–9 claims per user and about a quarter had a psychotropic claim in 10 or more months during the year.
- The high rates of psychotropic medication use in the Medicaid population, risks associated with these drugs, and research documenting inappropriate prescribing, have raised concerns, especially for children involved in the child welfare system and older adults with dementia. Given these concerns, federal and state agencies have developed several initiatives to improve prescribing practices for psychotropic medications (such as prior authorization and peer review for prescriptions that do not conform to standard clinical guidelines) and to provide educational and expert consultation services to prescribers of these medications.
- The Commission will continue to explore issues related to the use of psychotropic medications among Medicaid beneficiaries and whether these drugs are being prescribed appropriately. This includes analyzing psychotropic medication use at the individual level to identify occurrences of potential inappropriate use and reviewing federal and state Medicaid initiatives that are focused on improving prescribing practices for psychotropic medications.

## CHAPTER 5: Use of Psychotropic Medications among Medicaid Beneficiaries

The Commission has previously discussed the unique role that Medicaid serves in providing access to treatment for poor and low-income people who are disabled by mental illness and other behavioral health conditions (MACPAC 2014, 2013a, 2013b, 2012a). In addition, the Commission has started to focus on the large number of Medicaid beneficiaries in need of and receiving behavioral health services (Chapter 4). This chapter examines one such behavioral health service, the use of psychotropic medications. Psychotropic medications are generally used to treat conditions such as depression, anxiety, schizophrenia, bipolar disorder, and attention deficit hyperactivity disorder (ADHD) and are an important component in the treatment of behavioral health conditions.

In the Commission's view, there are two compelling reasons to take a deeper look at psychotropic drug use in Medicaid. First, Medicaid spending on these drugs is substantial. Second, researchers have raised concerns about whether the high proportion of Medicaid enrollees using psychotropic medications and the number of medications used are appropriate (Chen et al. 2010, Essock et al. 2009, Zito et al. 2013).

Because different age and eligibility groups vary in terms of their behavioral health diagnoses, severity of condition, functional status, and medical needs, their use of psychotropic medications differs accordingly. This chapter examines beneficiary utilization of and program spending on psychotropic medications in Medicaid. We begin by reviewing overall psychotropic medication use and spending in Medicaid by eligibility group, age, and therapeutic drug class. We review the

risks to children and adults of using psychotropic medications as well as current psychotropic prescribing guidelines from the U.S. Food and Drug Administration (FDA) and professional organizations. We then highlight research that provides evidence of potentially inappropriate prescribing patterns in Medicaid and describe federal and state activities aimed at improving the use of psychotropic medications, particularly for children in foster care and older adults with dementia. We conclude by briefly discussing the Commission's plans to conduct further analyses of the use of psychotropic medications in Medicaid.

### Medicaid Psychotropic Utilization and Spending

Medicaid spent an estimated \$8 billion in calendar year (CY) 2011 prior to the application of drug rebates for selected psychotropic medications prescribed to Medicaid enrollees in fee-for-service (FFS) arrangements. This represents 30 percent of all Medicaid FFS spending on prescription medications (Table 5-1).<sup>1</sup> While psychotropic medications are an integral part of current evidence-based treatment for mental illness, studies have found high levels of inappropriate psychotropic drug use by Medicaid enrollees that places these individuals at increased risk for adverse health events and death, particularly for children and older adults with dementia (Chen et al. 2010, Essock et al. 2009, Zito et al. 2013).

We analyzed outpatient pharmacy data from CY 2011 in the Medicaid Statistical Information System (MSIS), a federal source of administrative data that provides demographic, spending, service use, and other enrollment-related information on all individuals enrolled in the Medicaid program. We calculated baseline statistics on the number of users, number of prescription drug claims, and FFS spending for psychotropic medications by eligibility group, age group, and therapeutic drug class. We included anticonvulsants in our

definition of psychotropic medications because, although typically used to treat seizures, they are also frequently prescribed for bipolar disorder. (See Appendix 5A for a complete list of the medications included in our analysis and their therapeutic drug class.)<sup>2</sup>

The analysis included FFS as well as managed care organization (MCO) encounter claims. With the exception of calculations for Table 5-1, we excluded dually eligible, full-year institutionalized, and limited benefit enrollees from our analysis.<sup>3</sup> Due to the differences in psychotropic utilization among children eligible on a basis other than disability, these children were further separated into eligible on the basis of child welfare assistance and other non-disabled basis of eligibility. Children eligible on the basis of child welfare assistance include children in foster care or under legal guardianship and children receiving adoption assistance (Chapter 3).

Measures of utilization, such as counts of users and claims, combine FFS claims and MCO encounter data. Because MSIS managed care encounter claims do not report payment amounts, any spending information presented is for only those claims paid through FFS arrangements. The FFS drug spending in MSIS and presented in this analysis reflects the states' payments to pharmacies before the application of any drug rebates.<sup>4</sup> A more complete description of the analytic methodology is included in Appendix 5B.

Our analysis identified users of outpatient psychotropic medications whether or not they also had a diagnosis of a mental health condition, potentially leading to results that differ from those of studies using the presence of a mental health diagnosis to estimate the number of individuals with mental illness. For example, our pharmacy analysis found that about 14 percent of individuals used a psychotropic medication (Table 5-3). A separate MACPAC analysis of 2011 MSIS data found that approximately 16 percent of Medicaid enrollees had a mental health diagnosis

associated with use of Medicaid services other than prescription drugs (Chapter 4).

There are a few reasons for the differences between these two estimates:

- First, some individuals with a behavioral health diagnosis may not have received a psychotropic medication. This suggests that using pharmacy data to estimate number of enrollees with mental illness could result in a lower number than using the presence of a behavioral health diagnosis. Using the Chronic Illness and Disability Payment System to identify individuals with a behavioral health diagnosis, we found that 56 percent of Medicaid beneficiaries with a mental health diagnosis also had a claim for a psychotropic medication.
- Second, Medicaid enrollees may have received psychotropic medications not paid for by Medicaid, such as medications obtained at community mental health centers that receive funding from other sources or through a provider that covers prescription drugs as part of an overall visit rate (e.g., a nursing home per diem rate).
- Finally, some individuals may receive a prescription for a psychotropic medication without having a recorded diagnosis for a mental illness. About 30 percent of psychotropic medication users in our analysis did not have a corresponding mental health or substance abuse diagnosis. This could be due to the drug being prescribed for a condition other than mental illness. For example, as noted above, anticonvulsants are used for the treatment of epilepsy and other seizure disorders as well as for bipolar disorder. One study estimated that 13 percent of Medicaid-enrolled children who were prescribed anticonvulsants had a seizure disorder and 6 percent had both a seizure disorder and a psychiatric disorder (Zito et al. 2006).

Because we used pharmacy data and included the use of anticonvulsants without any diagnostic limitations, our estimate of mental illness captures some individuals who would not have been included in any estimates that rely on behavioral health diagnosis data.

We note that our analysis was conducted at the aggregate level and did not look at utilization patterns of individuals. We have highlighted the proportion of beneficiaries using psychotropic medications within certain eligibility groups, but this analysis cannot address the appropriateness of the utilization for specific individuals within the group. Our analysis does not identify overuse or underuse of psychotropic medications, medication adherence, excessive duration or doses, or polypharmacy (that is, being prescribed more than one psychotropic medication at a time). Subsequent analyses may be conducted with a narrower focus, for instance, tracking the use of psychotropic medications by beneficiaries with mental health diagnoses and examining utilization patterns at the individual level. These analyses might help identify situations, such as polypharmacy or excessive doses, that indicate

potentially inappropriate use and inform strategies for improving medication management.

## Overview

Overall, psychotropic medications accounted for 18 percent of all FFS and managed care Medicaid drug claims and 30 percent of overall FFS Medicaid drug expenditures in 2011 prior to the application of drug rebates (Table 5-1). One reason for the difference in the amount of psychotropic medications as a share of all drug claims between FFS (21 percent) and managed care (11 percent) is that a few states carve out behavioral health drugs from managed care, so that some of the FFS psychotropic claims were attributable to managed care enrollees whose other drug claims were included in the managed care total. The difference between FFS and managed care may also be due to the different populations covered by each delivery system. Many states continue to cover individuals who are eligible on the basis of disability—which includes many individuals with behavioral health conditions—primarily under fee for service.

**Eligibility group.** Individuals who qualified for Medicaid on the basis of disability represented the

**TABLE 5-1. Medicaid Prescription Drug Utilization and Spending, CY 2011**

	All drugs (millions)	Psychotropic drugs (millions)	Psychotropic drugs as a share of all drugs
<b>Total claims</b>	570.5	103.5	18.1%
Fee for service	419.7	86.7	20.7
Managed care	150.8	16.8	11.1
<b>Total spending<sup>1</sup></b>	NA	NA	NA
Fee for service	\$28,270.8	\$8,429.3	29.8%
Managed care <sup>1</sup>	NA	NA	NA

**Notes:** NA is not available. CY is calendar year.

<sup>1</sup> Managed care payment amounts are not available in the Medicaid Statistical Information System (MSIS). Due to the lack of managed care payment information, we do not report total spending in this table.

**Source:** MACPAC analysis of 2011 MSIS data.



**TABLE 5-2. Medicaid Psychotropic Drug Utilization and Spending by Eligibility Group, CY 2011**

Eligibility group	Enrollees (millions)	Psychotropic claims (millions)			FFS psychotropic spending (millions) <sup>1</sup>
		Total	FFS	MCO	
<b>Total</b>	<b>50.9</b>	<b>81.4</b>	<b>66.4</b>	<b>15.0</b>	<b>\$7,438.6</b>
Children eligible on basis other than disability	32.7	16.3	13.8	2.5	1,769.8
Based on child welfare	0.9	3.4	3.2	0.2	454.3
Other non-disabled basis	31.8	12.9	10.6	2.3	1,315.5
Adults eligible on basis other than disability	12.8	22.6	16.4	6.2	1,179.2
Children and adults eligible based on disability	5.1	41.9	35.8	6.1	4,451.0

**Notes:** FFS is fee for service. MCO is managed care organization. CY is calendar year. Excludes Hawaii, Massachusetts, Nevada, Pennsylvania, and South Carolina due to insufficient managed care pharmacy data. Also excludes individuals dually eligible for Medicare and Medicaid, limited benefit enrollees, and full-year institutionalized individuals. Because the exclusions listed above result in the majority of enrollees in the aged eligibility category being removed, this category is not displayed separately, but is represented in the total. Children eligible on the basis of child welfare include children in foster care, under legal guardianship, and in adoption situations.

<sup>1</sup> Managed care payment amounts are not available in the Medicaid Statistical Information System (MSIS). Due to the lack of managed care payment information, total spending has been omitted from this table.

**Source:** MACPAC analysis of 2011 MSIS data.

majority of utilization and spending (Table 5-2). Although such individuals accounted for about 10 percent of Medicaid enrollees, they accounted for more than 50 percent of the psychotropic claims (42 million) and almost 60 percent (\$4.5 billion) of FFS psychotropic drug spending. The high number of psychotropic claims and spending for individuals who qualified for Medicaid on the basis of disability reflects, in part, the fact that mental illness is frequently the qualifying condition for the disability pathway (MACPAC 2012a).

For individuals enrolled only in FFS-based delivery systems (i.e., who were not enrolled in a comprehensive managed care or separate behavioral health plan during the year), psychotropic spending per user was about \$1,415 (Table 5-3). Spending per user for children eligible based on child welfare (\$2,212) and children and adults eligible on the basis of disability (\$2,064)

were similar, and both of these populations had expenditures almost twice that of children eligible on a basis other than disability or child welfare (\$1,028) and almost four times that of adults eligible on a basis other than disability (\$590).

All eligibility groups had more than 5 percent of enrollees using psychotropic medications (Table 5-4); however, the use of psychotropic medications within each eligibility group differed considerably because of differences in behavioral health diagnoses, severity of condition, functional status, and other medical needs. Nearly one-quarter (24 percent) of children eligible based on child welfare used psychotropic medications, almost five times the rate of the other category of children eligible on a basis other than disability (5 percent). Similarly, children eligible based on child welfare had more claims than children eligible on a basis other than disability (16 vs. 8 claims per user). Almost half of

**TABLE 5-3. Medicaid Psychotropic Drug Utilization and Spending by Eligibility Group for Fee-for-Service Only Enrollees, CY 2011**

Eligibility group	Enrollees (millions)	Percent using psychotropic drugs	Claims per user	Spending per user
<b>Total</b>	<b>16.6</b>	<b>14.4%</b>	<b>12.7</b>	<b>\$1,415</b>
Children eligible on basis other than disability	10.5	6.2	9.6	1,228
Based on child welfare	0.5	24.2	15.8	2,212
Other non-disabled basis	10.0	5.4	8.3	1,028
Adults eligible on basis other than disability	3.6	18.3	8.6	590
Children and adults eligible based on disability	2.3	45.2	17.2	2,064

**Notes:** CY is calendar year. Fee-for-service (FFS) only enrollees includes individuals who did not have a single month of enrollment in either a comprehensive managed care or separate behavioral health plan during the year. Because some managed care enrollees may have psychotropic drug use paid through FFS arrangements due to a behavioral health drug carve out, the figures presented here do not match other tables that show FFS claims and spending. Excludes Hawaii, Massachusetts, Nevada, Pennsylvania, and South Carolina due to insufficient managed care pharmacy data. Also excludes individuals dually eligible for Medicare and Medicaid, limited benefit enrollees, and full-year institutionalized individuals. Because the exclusions listed above result in the majority of enrollees in the aged eligibility category being removed, this category is not displayed separately, but is represented in the total. Children eligible on the basis of child welfare include children in foster care, under legal guardianship, and in adoption situations.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

**TABLE 5-4. Medicaid Psychotropic Drug Utilization by Eligibility Group, CY 2011**

Eligibility group	Enrollees (millions)	Psychotropic users (millions)	Psychotropic claims (millions)	Percent using psychotropic drug	Claims per user
<b>Total</b>	<b>50.9</b>	<b>6.9</b>	<b>81.4</b>	<b>13.6%</b>	<b>11.8</b>
Children eligible on basis other than disability	32.7	1.8	16.3	5.5	9.1
Based on child welfare	0.9	0.2	3.4	24.4	16.0
Other non-disabled basis	31.8	1.6	12.9	5.0	8.1
Adults eligible on basis other than disability	12.8	2.6	22.6	20.6	8.6
Children and adults eligible based on disability	5.1	2.4	41.9	47.7	17.2

**Notes:** CY is calendar year. Excludes Hawaii, Massachusetts, Nevada, Pennsylvania, and South Carolina due to insufficient managed care pharmacy data. Also excludes individuals dually eligible for Medicare and Medicaid, limited benefit enrollees, and full-year institutionalized individuals. Because the exclusions listed above result in the majority of enrollees in the aged eligibility category being removed, this category is not displayed separately, but is represented in the total. Children eligible on the basis of child welfare include children in foster care, under legal guardianship, and in adoption situations.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

all children and adults who qualified for Medicaid on the basis of disability used psychotropic medications in 2011. These enrollees averaged 17 claims per user.

Medicaid enrollees using psychotropic medications include those using such drugs continually throughout the year as well as those using the drugs for a short period of time. To identify short-term versus long-term users, we looked at the distribution of users relative to the number of psychotropic drug claims they had during the year (Table 5-5) and the frequency of psychotropic medication use as measured by the number of enrolled months in which an individual had a claim (Table 5-6).<sup>5</sup>

Overall, about a quarter of Medicaid enrollees had one or two psychotropic drug claims during the year (Table 5-5). However, this varied by eligibility group. About a third of children eligible on a basis other than disability or child welfare (30 percent) and adults eligible on a basis other than disability

(34 percent) had one or two drug claims during the year compared to 13 percent of children eligible on the basis of child welfare assistance and 14 percent of children and adults eligible on the basis of disability (Table 5-5). Twenty-two percent of children eligible on the basis of child welfare assistance and 25 percent of children and adults eligible on the basis of disability had 25 or more drug claims during the year, indicating both long-term use and multiple medications. While our analysis did not specifically show that different medications were used concurrently, other research has shown that almost 20 percent of Medicaid-enrolled children eligible on the basis of child welfare assistance or disability had concurrent use of psychotropic medications in three or more psychotropic drug classes (CHCS 2013).

To account for how different lengths of enrollment spans could distort our measure of frequency of use (e.g., one month with a drug claim out of one month of enrollment is not as indicative of frequent use as 12 months with a drug claim out of

**TABLE 5-5.** Distribution of Medicaid Psychotropic Drug Users by Number of Drug Claims and Eligibility Group, CY 2011

Number of claims during the year	Total	Children eligible on basis other than disability			Adults eligible on basis other than disability	Children and adults eligible based on disability
		All non-disabled children	Based on child welfare	Other non-disabled basis		
1 claim	15.6%	17.1%	7.2%	18.4%	21.7%	8.3%
2 claims	9.9	11.1	5.8	11.8	12.7	6.1
3–12 claims	43.3	49.5	41.7	50.6	44.4	37.5
13–24 claims	17.5	14.7	23.3	13.5	14.0	23.1
25–36 claims	7.6	4.9	12.0	3.9	4.7	12.7
Over 36 claims	6.1	2.8	10.0	1.8	2.5	12.2

**Notes:** CY is calendar year. Excludes Hawaii, Massachusetts, Nevada, Pennsylvania, and South Carolina due to insufficient managed care pharmacy data. Also excludes individuals dually eligible for Medicare and Medicaid, limited benefit enrollees, and full-year institutionalized individuals. Because the exclusions listed above result in the majority of enrollees in the aged eligibility category being removed, this category is not displayed separately, but is represented in the total. Children eligible on the basis of child welfare include children in foster care, under legal guardianship, and in adoption situations.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

12 months of enrollment), we only included those individuals who were enrolled in Medicaid for the entire year (Table 5-6). Children eligible on the basis of child welfare assistance and children and adults eligible on the basis of disability were more likely to use psychotropic medications throughout the entire year. Almost half of the psychotropic drug users in the category of children eligible on the basis of child welfare assistance (46 percent) and in the category of children and adults eligible on the basis of disability (48 percent) had a psychotropic drug claim in ten or more months during the year, twice the share of children eligible on a basis other than child welfare or disability (23 percent) and adults eligible on a basis other than disability (24 percent) (Table 5-6).

**Therapeutic class.** We further analyzed psychotropic utilization and spending by therapeutic drug class. Antidepressants were the most commonly used class of psychotropic drugs, making up one-third (33 percent) of all FFS and managed care psychotropic claims but accounting for 11 percent of FFS spending on psychotropic drugs (Table 5-7). Antipsychotics

were the most costly psychotropic drug class; they accounted for 18 percent of all FFS and managed care psychotropic claims but over half (56 percent) of FFS spending on psychotropic drugs. Within the antipsychotic class, over 70 percent of prescriptions were for brand-name drugs, which helps explain the higher spending on antipsychotics even though antidepressants were more widely prescribed. In comparison, 26 percent of antidepressant prescriptions were brand-name drugs.<sup>6</sup> A previous MACPAC analysis found that the top three drugs based on Medicaid FFS drug expenditures were antipsychotics (Abilify, Seroquel, and Zyprexa) and comprised over 10 percent of total FFS drug spending before rebates.<sup>7</sup> Generic versions of many of these antipsychotic medications became available only after 2011, the time period represented in our analyses, and so our data do not reflect their use. If other variables remain constant, spending within the antipsychotic drug class will likely decrease in subsequent years.

The share of enrollees using psychotropic medications in each drug class varied by eligibility group (Table 5-8). The drug class used by the

**TABLE 5-6.** Share of Psychotropic Drug Users by Eligibility Group and Number of Months with Claim for Full-Year Medicaid Enrollees, CY 2011

Number of months with a psychotropic claim	Total	Children eligible on basis other than disability			Adults eligible on basis other than disability	Children and adults eligible based on disability
		All non-disabled children	Based on child welfare	Other non-disabled basis		
1–3 months	31.6%	36.6%	19.4%	39.2%	42.7%	20.1%
4–6 months	17.2	20.0	16.1	20.6	18.1	14.7
7–9 months	16.5	17.3	18.3	17.2	15.4	16.9
10–12 months	34.7	26.1	46.2	23.1	23.8	48.3

**Notes:** CY is calendar year. Excludes Hawaii, Massachusetts, Nevada, Pennsylvania, and South Carolina due to insufficient managed care pharmacy data. Also excludes individuals dually eligible for Medicare and Medicaid, limited benefit enrollees, full-year institutionalized individuals, and individuals not enrolled in Medicaid for the entire year. Because the exclusions listed above result in the majority of enrollees in the aged eligibility category being removed, this category is not displayed separately, but is represented in the total. Children eligible on the basis of child welfare include children in foster care, under legal guardianship, and in adoption situations.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

**TABLE 5-7. Distribution of Medicaid Psychotropic Drug Utilization and Spending by Drug Class, CY 2011**

Drug class	Share of psychotropic claims			Share of FFS psychotropic spending
	Total	FFS	MCO	
ADHD drugs	13.0%	13.5%	11.0%	18.3%
Antianxiety drugs	11.1	10.6	13.1	0.8
Anticonvulsants	24.3	23.9	25.9	13.2
Antidepressants	32.9	31.8	37.5	11.4
Antipsychotics	17.7	19.0	11.7	55.9
Bipolar disorder drugs	1.0	1.1	0.8	0.2
Other psychotropic drugs	0.1	0.1	0.1	0.2

**Notes:** ADHD is attention deficit hyperactivity disorder. FFS is fee for service. MCO is managed care organization. CY is calendar year. Excludes Hawaii, Massachusetts, Nevada, Pennsylvania, and South Carolina due to insufficient managed care pharmacy data. Also excludes individuals dually eligible for Medicare and Medicaid, limited benefit enrollees, and full-year institutionalized individuals.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

**TABLE 5-8. Share of Medicaid Beneficiaries Using Psychotropic Drugs by Drug Class and Eligibility Group, CY 2011**

Therapeutic drug class	Total	Children eligible on basis other than disability			Adults eligible on basis other than disability	Children and adults eligible based on disability
		All non-disabled children	Based on child welfare	Other non-disabled basis		
<b>Total</b>	<b>13.6%</b>	<b>5.5%</b>	<b>24.4%</b>	<b>5.0%</b>	<b>20.6%</b>	<b>47.7%</b>
ADHD drugs	2.9	3.3	15.3	2.9	0.7	6.1
Antianxiety drugs	3.5	0.4	1.1	0.3	7.2	14.0
Anticonvulsants	4.9	1.0	5.2	0.8	7.3	23.5
Antidepressants	7.8	1.9	10.0	1.7	14.8	28.1
Antipsychotics	3.3	1.2	10.4	0.9	2.9	17.9
Bipolar disorder drugs	0.3	0.1	0.8	0.0	0.3	1.4
Other psychotropic drugs	0.0	0.0	0.0	0.0	0.0	0.1

**Notes:** ADHD is attention deficit hyperactivity disorder. CY is calendar year. Excludes Hawaii, Massachusetts, Nevada, Pennsylvania, and South Carolina due to insufficient managed care pharmacy data. Also excludes individuals dually eligible for Medicare and Medicaid, limited benefit enrollees, and full-year institutionalized individuals. Because the exclusions listed above result in the majority of enrollees in the aged eligibility category being removed, this category is not displayed separately, but is represented in the total. Children eligible on the basis of child welfare include children in foster care, under legal guardianship, and in adoption situations.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

greatest percentage of children eligible on a basis other than disability was the ADHD therapeutic class, at 3 percent; however, the share of children eligible based on child welfare taking ADHD medications was five times that of children eligible on a basis other than disability or child welfare. The antidepressant drug class was the therapeutic class used by the largest percentage of all Medicaid beneficiaries as well as by adults eligible on a basis other than disability (15 percent) and children and adults eligible on the basis of disability (28 percent).

### Children

The use of psychotropic medications by children has been of particular interest to policymakers and researchers due to the limited evidence available regarding short- and long-term safety and efficacy of these medications in children (GAO 2012). This concern has been particularly high for children eligible for Medicaid on the basis of child welfare assistance because they often have emotional and behavioral challenges as a result of maltreatment

and trauma. Approximately 43 percent of these children received a mental health-related service in 2011 (Chapter 4). There is a high prevalence of behavioral health conditions in this population, and many are treated with psychotropic medications.

We examined the use of psychotropic medications by children under age 21 by their basis of eligibility and age (Table 5-9). Overall, and across all age groups, children eligible on the basis of disability had the highest proportion of psychotropic medication users, followed by non-disabled children eligible based on child welfare. For the older children age 7–18 years, the use of psychotropic drugs among children eligible based on child welfare (32–34 percent) was more similar to that of children eligible on the basis of disability (39–40 percent) than to children eligible on a basis other than disability or child welfare (7–9 percent). Children eligible based on child welfare as well as those eligible based on disability who used psychotropic medications had about 15–16 claims per user. Other children who used psychotropic medications had about half the number of claims per user.

**TABLE 5-9. Medicaid Psychotropic Drug Use among Children by Eligibility and Age Group, CY 2011**

Age group	Percent using psychotropic drugs			Psychotropic claims per user		
	Based on child welfare, non-disabled	Other non-disabled basis	Based on disability	Based on child welfare, non-disabled	Other non-disabled basis	Based on disability
<b>Total, 0–20 years</b>	<b>24.6%</b>	<b>5.0%</b>	<b>34.1%</b>	<b>16.0</b>	<b>8.2</b>	<b>15.1</b>
0–2 years	1.3	0.3	6.9	8.0	4.3	9.9
3–6 years	8.9	1.8	17.9	10.3	6.3	11.6
7–14 years	31.7	7.8	40.1	16.6	9.0	14.9
15–18 years	34.2	9.1	39.0	16.6	7.8	16.0
19–20 years	20.9	7.9	36.9	14.2	5.6	16.6

**Notes:** CY is calendar year. Excludes Hawaii, Massachusetts, Nevada, Pennsylvania, and South Carolina due to insufficient managed care pharmacy data. Also excludes individuals dually eligible for Medicare and Medicaid, limited benefit enrollees, and full-year institutionalized individuals. Children eligible on the basis of child welfare include children in foster care, under legal guardianship, and in adoption situations.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.



## Individuals eligible on the basis of disability

The use of psychotropic medication for beneficiaries who were eligible for Medicaid on the basis of disability differed between children and adults. For these individuals, the use of psychotropic medications generally increased with age.

About one-third (34 percent) of children under age 21 who were eligible for Medicaid on the basis of disability used a psychotropic medication, and children with this eligibility basis had higher rates of psychotropic use than other children across all age groups (Table 5-9). In comparison, when combining the two categories of adults age 21 to 64 years old who were eligible on the basis of disability, 53 percent used a psychotropic medication (Table 5-10), over twice the rate of other adults, who used psychotropic medications at a rate of 21 percent (Table 5-4). Additionally, with 18 claims per user, adults eligible on the basis of disability who used psychotropic medications had twice as many drug claims as other adults, who

had nine claims per user (Table 5-10 and Table 5-4, respectively).

## Risks of Psychotropic Medications

Psychotropic medications, when prescribed appropriately, are an integral part of current evidence-based treatment for mental illnesses in adults and children (Seixas et al. 2012, Smith et al. 2007). However, there are risks associated with the use of psychotropic medications, and these vary by medication and age group. Second generation antipsychotics (also called atypical antipsychotics), such as Zyprexa and Clozaril, increase the risks of weight gain and metabolic disorders that can lead to diabetes, obesity, heart disease, and other health conditions in adults and children (Musil et al. 2015, De Hert et al. 2011).

Psychotropic medications have been found to pose special risks to children and adolescents.

**TABLE 5-10.** Psychotropic Drug Use among Individuals Eligible on the Basis of Disability by Age Group, CY 2011

Age group	Enrollees (millions)	Psychotropic drug users (millions)	Psychotropic claims (millions)	Percent using psychotropic drugs	Claims per user
<b>Total</b>	5.1	2.4	41.9	47.7%	17.2
0–6 years	0.3	0.0 <sup>^</sup>	0.5	14.9	11.4
7–14 years	0.7	0.3	3.9	40.1	14.9
15–20 years	0.5	0.2	3.2	38.2	16.2
21–44 years	1.4	0.7	13.6	50.3	18.7
45–64 years	2.2	1.2	20.6	55.4	17.2

**Notes:** CY is calendar year. Excludes Hawaii, Massachusetts, Nevada, Pennsylvania, and South Carolina due to insufficient managed care pharmacy data. Also excludes individuals dually eligible for Medicare and Medicaid, limited benefit enrollees, and full-year institutionalized individuals. The total may not equal the sum of the age groups below because it includes some individuals of unknown ages that are not displayed due to small sample size.

<sup>^</sup> Indicates an amount less than 0.05 million that rounds to zero.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System (MSIS) data.

The FDA has not approved atypical antipsychotics for use in children younger than age five and only five atypical antipsychotics are approved for use in children and adolescents older than age five (CMS 2013a).<sup>8</sup> Anticonvulsants, antidepressants, and ADHD medications can increase the risk of suicidal thinking and behavior in adolescents (CMS 2013b, 2013c, 2013d).

Beyond the risks of psychotropic medications associated with adults, some psychotropic medications pose a special risk to elderly adults. Conventional (first-generation) and atypical antipsychotics pose an increased risk of illness and death in older adults with dementia. For this reason, the FDA requires that these drugs be labeled with a boxed warning about the increased risk of death, the strongest warning that a medication can carry and remain on the market (FDA 2008, 2005).

## Psychotropic Prescribing Guidelines

Given the risks associated with psychotropic medications, the FDA and professional organizations provide guidance to prescribers about their use. The FDA both approves prescription drugs for sale and provides guidance about the conditions and the age groups for which such drugs are approved. When a physician prescribes a medication for an indication (i.e., use of a drug for treating a particular disease or condition), dose level, or member of a population not specified in the FDA-approved packaging label, the medication is considered to have been prescribed off-label. Because most medications have been tested and approved for adults but not for children, many prescriptions written for children are considered off-label use. While off-label use is considered accepted medical practice in many cases, such off-label prescribing could lead to some children receiving ineffective medications or dosage levels that are too high or too low, or to

side effects unique to children, including effects on growth and development (CRS 2012). In rare cases, the FDA may issue a warning that a drug should not be prescribed for particular groups due to potentially lethal side effects (Frank et al. 2014).

Professional organizations issue guidelines for diagnosis and treatment based on the systematic review of scientific evidence, including FDA guidance (IOM 2011). For example, the American Academy of Child and Adolescent Psychiatry (AACAP) has published a series of practice parameters for prescribers on the benefits and risks of prescribing antianxiety medications, antidepressants, antipsychotics, bipolar medications, and psychotropic medications to children and adolescents (AACAP 2012, 2009; Birmaher et al. 2007; Connolly et al. 2007; McClellan et al. 2007). Clinical practice guidelines issued by the American Academy of Pediatrics (AAP) emphasize behavioral therapy as the first choice of treatment for ADHD in children age 4–5, before prescribing psychotropic medication; for children age 6–11, the academy recommends both psychotropic medication and behavioral therapy (AAP 2011).

## Evidence of Inappropriate Psychotropic Use

The studies reviewed below suggest that appropriate prescribing practices, that is, adhering to FDA-approved use and accepted clinical guidelines, may not always be followed for certain Medicaid populations. Most of these studies have focused on the high-risk populations of children in foster care and older adults with dementia in nursing homes.

### Children

The AACAP and AAP emphasize that psychotropic medications should be used as one component of a comprehensive treatment plan that includes effective psychosocial, psychotherapeutic, and

behavioral treatments such as outpatient therapy and trauma-focused care (AACAP 2012, 2009; AAP 2011). One study found that almost half of the children in Medicaid who were prescribed a psychotropic medication did not have any identifiable concomitant behavioral health treatment (CHCS 2013).

Some studies focusing on all Medicaid-enrolled children have found high use of multiple psychotropic medications and increased risk of diabetes as a result of antipsychotic use (Bobo et al. 2013, Constantine et al. 2011). Another study found quality-of-care concerns in two-thirds of claims for atypical antipsychotics prescribed to children covered by Medicaid (OIG 2015). Because antipsychotics are associated with increased risk of weight gain and metabolic disorders that can lead to diabetes, obesity, and heart disease, laboratory monitoring before and during use is recommended. However, studies have shown that rates of recommended laboratory monitoring are lower among children and adolescents than among adults (Morato et al. 2010, Essock et al. 2009, Haupt et al. 2009).

**Children in foster care.** Many of the studies on psychotropic use by Medicaid-enrolled children have been focused on foster children because these children have high rates of behavioral health conditions and most of these children are enrolled in Medicaid (Allen and Hendricks 2013). A study on psychotropic medications provided to foster children in Medicaid in six states in 2008 (Florida, Maryland, Massachusetts, Michigan, Oregon, and Texas) found that all states fell short in the areas of consent, oversight, consultation, and information as described in the AACAP's best principles guidelines (GAO 2012). Other studies have found that some foster children are prescribed two or more antipsychotics, often without the prescriber trying one antipsychotic at a time first (dosReis et al. 2011, Gören et al. 2008, Zito et al. 2008).

## Adults

Fewer studies have focused on adults enrolled in Medicaid. A few studies have found that adult Medicaid enrollees are receiving multiple psychotropic medications or receiving psychotropic medications for potentially off-label use (Essock et al. 2009, Leslie and Rosenheck 2012, Rigler et al. 2009). Medicaid-enrolled adults in residential care facilities have also been found to have high rates of polypharmacy and poor management of antipsychotic medication (OIG 2009, Lakey et al. 2006).

**Adults in nursing homes.** An estimated 8 percent of all nursing home residents had inappropriate psychotropic medication use as indicated by high dose, unjustified long-term use, incorrect medication for a particular diagnosis, and duplicative medication therapy in 2000 (OIG 2001). A study of nursing home residents in eight states from 1999 and 2006 found that most of the antipsychotic use was for residents without an FDA diagnostic indication (Crystal et al. 2009). Another study of older adults in nursing homes who were eligible for Medicaid and Medicare found an increased risk of death for those on conventional antipsychotic medications when compared with atypical antipsychotics, supporting the FDA boxed warnings that conventional antipsychotics share the increased risk of death that has been observed for the atypical ones (Aparasu et al. 2012).

## Activities to Improve Use of Psychotropic Medications

Federal agencies and states have implemented several activities designed to improve prescribing practices for psychotropic medications. These include drug utilization review and monitoring, performance measurement, informed consent, prescriber education and consultation, and prior authorization for prescriptions that do not conform to clinical guidelines. Because the risks

of psychotropic medication use are increased for children and older adults, policymakers have also targeted quality improvement activities specifically for these populations. Activities are particularly focused on children in foster care and elderly adults with dementia in nursing facilities because of their high rates of behavioral health conditions and psychotropic use.

## Federal activities

The Centers for Medicare & Medicaid Services (CMS) has multiple activities to monitor and measure the use of psychotropic medications by Medicaid beneficiaries. CMS has established the Medicaid Drug Utilization Review program, which requires states to report on the prescribing habits of Medicaid participating providers, on patient safety, and on state-administered utilization management tools and systems.<sup>9</sup> As part of the annual Drug Utilization Review report, states must provide information about their programs and policies for ensuring the appropriate use of psychotropic medications (CMS 2014a). For example, the Drug Utilization Review State Comparison/Summary Report for federal fiscal year 2013 shows that 41 states have programs in place to monitor the use of psychotropic medications in children, with 37 states monitoring all children and not just those in foster care (CMS 2014b). CMS and the Agency for Healthcare Research and Quality (AHRQ) funded the National Collaborative for Innovation in Quality Measurement, a center of excellence, to develop a set of performance measures to assess the use of antipsychotic medications in children and adolescents (AHRQ 2014). They also jointly funded the voluntary Pediatric Quality Measures Program (PQMP) that included a follow-up measure of care for children prescribed ADHD medications (CMS 2014c, 2011a). CMS has worked with other federal agencies such as the Administration for Children and Families (ACF) and the Substance Abuse and Mental Health Services Administration (SAMHSA) to strengthen oversight and monitoring of psychotropic medication use among children.

## State activities

States are also undertaking efforts to ensure that psychotropic medications are used appropriately. For example, state Medicaid programs have implemented the following initiatives to improve psychotropic prescribing practices:

- **Prior authorization and peer review.** In most states, Medicaid programs use prior authorization to prevent prescriptions that do not conform to standard clinical guidelines from being filled at the pharmacy without further review and approval. A recent study found that 31 states have implemented prior authorization policies for atypical antipsychotic prescriptions to children, and 15 states have incorporated a peer review process (Zito et al. 2015). For example, Maryland Medicaid uses a prior authorization process when antipsychotics are prescribed to children under 18 years of age who are younger than the FDA-approved age for that medication; before the drugs are dispensed by the pharmacy, a peer review must be completed by either a clinical pharmacist or a child psychiatrist (MDHMH 2014). Washington Medicaid requires a second opinion from a community psychiatrist when prescriptions for ADHD medications exceed consensus-defined safety thresholds (PALW 2014).
- **Informed consent requirement from parents, guardians, or state child welfare representatives when children are prescribed psychotropic medications.** Florida Medicaid will not pay for antidepressants, antianxiety medications, mood stabilizers, or psychotropic medications for children under 13 years of age without the informed consent of a parent or legal guardian (FM 2012).
- **Distribution of utilization management reports and performance report cards to providers.** Utilization reports and report

cards are meant to improve prescribers' awareness of their own practices and how they compare to peers. Missouri Medicaid distributes utilization management reports that analyze psychotropic medication prescription patterns for children and adults at the individual provider and agency levels (MDMH 2014).

- **Educational efforts and consultation services that provide expert advice to primary care doctors and other prescribers on the complexities of prescribing psychotropic medications.** Since 2003, Massachusetts Medicaid has run the Massachusetts Child Psychiatry Access Project to provide telephone consultative support by child psychiatry specialists to pediatricians about Medicaid enrollees and patients insured by other payers (MCPAP 2014). The primary care provider may be referred to a face-to-face consultation with the MCPAP child psychiatrist if further support is needed.

## Activities focused on children in foster care

Due to the emotional and behavioral challenges and high rate of psychotropic use among children in foster care, and because children in foster care are in the custody of the state, this population has received specific attention from federal and state agencies. Creating, coordinating, and implementing monitoring protocols to ensure appropriate prescribing of medication to children in child welfare requires the participation of various agencies, such as child welfare, Medicaid, and mental health systems, as well as their associated contractors (e.g., health plans). These initiatives are frequently joint efforts.

**Federal activities.** Concern about the safe, appropriate, and effective use of psychotropic medications among children in foster care has

prompted CMS, ACF, and SAMHSA to coordinate initiatives across agencies (CMS 2011b). Examples of federal activities that focus on improving psychotropic prescribing patterns for these children include the following:

- The Fostering Connections to Success and Increasing Adoptions Act of 2008 (P.L. 110-351) created a requirement for a health oversight and coordination plan between child welfare and Medicaid that includes oversight of prescription medications. Enacted in 2011, the Child and Family Services Improvement and Innovation Act (P.L. 112-34) built upon this requirement by specifying that the health oversight and coordination plan must explicitly address the oversight of psychotropic medications. State child welfare agencies must include in their annual progress and services reports descriptions of state efforts to monitor the use of psychotropic medications by foster children (ACF 2012).
- In 2012, CMS, SAMHSA, and ACF issued an informational bulletin that informed states about strategies and resources to improve the management of psychotropic medications in vulnerable Medicaid populations. That same year, these agencies convened a working meeting to bring together representatives from state child welfare, Medicaid, and mental health systems from all 50 states and the District of Columbia and Puerto Rico to provide an opportunity for state leaders to exchange information on state and local initiatives and facilitate development and implementation of oversight plans (CMS 2012).
- In 2014, CMS issued an informational bulletin that provided a summary of state programs that address the use of psychotropic medications for children in foster care. The bulletin highlighted programs that utilize a comprehensive,



collaborative approach to oversight of the use of psychotropic medications in these children and provided links to these programs as well as to resources from AACAP, ACF, and AHRQ (CMS 2014d).

- The proposed fiscal year 2016 budget for the U.S. Department of Health and Human Services (HHS) includes a five-year demonstration between CMS and the ACF to encourage states to implement evidence-based psychosocial interventions targeting children and youth in the child welfare system as an alternative to the use of psychotropic medications (HHS 2015).

**State activities.** Many state Medicaid programs, in part due to federal prioritization of children in foster care, are also focused on improving psychotropic medication prescription practices for this population. For example:

- Connecticut Medicaid requires that prescribers of psychotropic medications obtain informed consent for children in foster care under age 18 from the child welfare agency (DCF 2010).
- Illinois Medicaid employs a board-certified psychiatric consultant to review all psychotropic medication requests for children in foster care that fall within set parameters of medication type, age, and dosage and to formulate guidelines about the administration of psychotropic medications to children in child welfare (JCAR 2012).
- The Texas Department of Family and Protective Services (DFPS), Department of State Health Services (DSHS), and Health and Human Services Commission (HHSC) have released a resource guide that provides recommendations for the appropriate use of psychotropic medications for children in foster care; it includes nine situations that

indicate a need for a further review of the child's clinical status (DFPS 2013).

## Activities focused on adults in nursing homes

The federal government has a longstanding and continuing concern about excessive use of medications for adults in nursing homes. As part of the Omnibus Budget Reconciliation Act of 1987 (P.L. 100-203), Congress passed the comprehensive Nursing Home Reform Act (NHRA) that mandated nursing home residents be free from “physical or chemical restraints imposed for the purposes of discipline or convenience.” In response to the NHRA, CMS and states have developed programs aimed at reducing the use of psychotropic medications in nursing homes.

**Federal activities.** In 2012, CMS established the National Partnership to Improve Dementia Care with the initial goal of reducing the use of antipsychotic medications in residents of long-stay nursing homes by 15 percent nationally (CMS 2012). The partnership led to the formation of coalitions of consumers, state agencies, quality improvement organizations, advocacy organizations, nursing home staff, and professional associations to improve dementia care in every state. The partnership distributed educational materials to all nursing homes and also developed a website that offers training and other educational materials (Bonner 2013). In 2014, CMS announced it met its initial goal in reducing antipsychotic medication use in residents of long-term nursing homes and set new goals of a 25 percent reduction, as compared to the 2011 baseline, by the end of 2015 and a 30 percent reduction by the close of 2016 (CMS 2014e).

**State activities.** All state Medicaid agencies are involved in coalitions to improve the appropriate administration of antipsychotics to nursing home residents in response to the National Partnership to Improve Dementia Care (Bonner 2013). Examples



of state initiatives to improve the appropriate use of antipsychotics in nursing home residents include the following:

- Ohio Medicaid is part of a coalition to reduce antipsychotic use by providing data and feedback reports to nursing homes (OSU 2014).
- Washington Medicaid contracts with the University of Washington to create prescriber feedback reports on clinical quality indicator flags such as dosage levels above the FDA maximum and polypharmacy, including physicians treating Medicaid enrollees in institutional care (WSHCA 2014).
- Connecticut Medicaid is part of a coalition that operates a website to provide resources to nursing homes to improve antipsychotic prescribing (CCC 2014).

## Looking Forward

The Commission will continue to explore issues related to the use of psychotropic medications among Medicaid beneficiaries and whether these drugs are being prescribed appropriately. We will examine the use of psychotropic medications at the individual level to identify occurrences of potential overuse, polypharmacy within and across psychotropic drug classes, excessive duration or doses, and other prescribing patterns that may reflect the inappropriate use of psychotropic medications. The Commission will also continue to review federal and state activities that are focused on ensuring the appropriate use of psychotropic medications in the Medicaid population. Future analyses may also review psychotropic medication utilization across states, which, in conjunction with a review of state psychotropic medication policies, may help identify states that have been able to improve psychotropic prescribing patterns.

## Endnotes

- <sup>1</sup> The 2011 pharmacy spending is only for prescriptions covered through FFS arrangements because managed care encounter data do not include payment information.
- <sup>2</sup> Psychotropic drugs are also used to treat conditions that are not related to mental illness. For example, Cymbalta, a commonly prescribed antidepressant, is sometimes used to treat fibromyalgia and chronic musculoskeletal pain.
- <sup>3</sup> Reasons for exclusion can be found in Appendix 5B.
- <sup>4</sup> In general, a drug manufacturer must enter into a Medicaid drug rebate agreement with the U.S. Department of Health and Human Services in order for its products to be eligible for federal funding under Medicaid. Drug manufacturers pay a statutorily defined rebate to Medicaid for drugs from their portfolios that are dispensed to Medicaid enrollees. In addition, manufacturers may negotiate supplemental rebate agreements with states to ensure that their products get placed on a state's preferred drug list. These supplemental rebates may differ from state to state. Overall, total drug rebates were just over 50 percent of gross (pre-rebate) drug spending in fiscal year 2011 (MACPAC 2012b).
- <sup>5</sup> There are different ways to characterize duration of psychotropic drug use. Our analysis looks at the number of months that an individual had a psychotropic drug claim, which does not take into account whether a claim was for a prescription that covered more than one month (e.g., a 90-day supply).
- <sup>6</sup> A study of Medicaid enrollees, excluding dually eligible enrollees, using the Medicaid Analytic Extract (MAX) files found that antipsychotics accounted for 15 percent of total Medicaid drug expenditures for all beneficiaries in 2009 and for 25 percent of the total growth in these expenditures between 1999 and 2009 (Verdier and Zlatinov, 2013).
- <sup>7</sup> MACPAC analysis of 2009 MSIS data. Abilify, Seroquel, and Zyprexa were the top three drugs in terms of FFS drug spending in 2009, accounting for 11.2 percent of total FFS drug expenditures. In 2011, these three drugs accounted for over \$3.2 billion in FFS spending, over 11 percent of total FFS drug expenditures.

<sup>8</sup> The five atypical antipsychotics that currently have FDA-approved indications for use in children and adolescents are Aripiprazole (Abilify), olanzapine (Zyprexa), paliperidone (Invega), quetiapine (Seroquel), and risperidone (Risperdal).

<sup>9</sup> As part of the Drug Utilization Review program, states describe their process of identifying problems such as therapeutic duplication, drug-disease contraindications, incorrect dosage or duration of treatment, drug allergy, and clinical misuse or abuse. States also examine past claims data to identify patterns of fraud, abuse, gross overuse, or medically unnecessary care.

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## APPENDIX 5A: Psychotropic Drugs Included in MACPAC Analysis

**TABLE 5A-1. Psychotropic Drug Classes and Representative Drugs**

Therapeutic Drug Class	Generic Drug Name (Brand Name)
<b>Attention deficit hyperactivity disorder drugs</b>	Armodafinil (Nuvigil), atomoxetine hydrochloride (Strattera), clonidine hydrochloride (Kapvay), dexamethylphenidate hydrochloride (Focalin), guanfacine hydrochloride (Intuniv), lisdexamfetamine dimesylate (Vyvanse), methylphenidate hydrochloride (Concerta), modafinil (Provigil)
<b>Antianxiety drugs</b>	Alprazolam (Xanax), buspirone hydrochloride (Buspar), chlordiazepoxide hydrochloride (Librium), clorazepate dipotassium, diazepam (Valium), lorazepam (Ativan), meprobamate, oxazepam
<b>Anticonvulsants</b>	Carbamazepine (Tegretol), clobazam (Onfi), clonazepam (Klonopin), diazepam (Diastat), divalproex sodium (Depakote), ethosuximide (Zarontin), ethotoin (Peganone), felbamate (Felbatol), fosphenytoin sodium (Cerebyx), gabapentin (Neurontin), lacosamide (Vimpat), lamotrigine (Lamictal), levetiracetam (Keppra), mephobarbital (Mebaral), methsuximide (Celontin), oxcarbazepine (Trileptal), phenytoin (Dilantin), pregabalin (Lyrica), primidone (Mysoline), rufinamide (Banzel), tiagabine hydrochloride (Gabitril), topiramate (Topamax), valproate sodium (Depakene), vigabatrin (Sabril), zonisamide (Zonegran)
<b>Antidepressants</b>	Amitriptyline hydrochloride, amoxapine, bupropion hydrochloride (Wellbutrin), citalopram hydrobromide (Celexa), clomipramine hydrochloride, desipramine hydrochloride (Norpramin), desvenlafaxine succinate (Pristiq), doxepin hydrochloride, duloxetine hydrochloride (Cymbalta), escitalopram oxalate (Lexapro), fluoxetine (Prozac), fluvoxamine maleate (Luvox), imipramine, isocarboxazid (Marplan), maprotiline hydrochloride, mirtazapine (Remeron), nortriptyline hydrochloride (Pamelor), nefazodone hydrochloride, paroxetine (Paxil), phenelzine sulfate (Nardil), protriptyline hydrochloride (Vivactil), selegiline (Emsam), sertraline (Zoloft), tranylcypromine sulfate (Parnate), trazodone (Olepto), trimipramine maleate (Surmontil), venlafaxine hydrochloride (Effexor), vilazodone hydrochloride (Viibryd)
<b>Antipsychotics</b>	Aripiprazole (Abilify), asenapine maleate (Saphris), chlorpromazine hydrochloride, clozapine (Clozaril), droperidol (Inapsine), fluphenazine, haloperidol (Haldol), iloperidone (Fanapt), loxapine succinate (Loxitane), lurasidone hydrochloride (Latuda), molindone hydrochloride (Moban), olanzapine (Zyprexa), paliperidone (Invega), perphenazine, pimozide (Orap), quetiapine fumarate (Seroquel), risperidone (Risperdal), thioridazine hydrochloride, thiothixene (Navane), trifluoperazine hydrochloride, ziprasidone (Geodon)
<b>Bipolar drugs</b>	Carbamazepine (Equetro), lithium carbonate
<b>Other psychotropic drugs</b>	Amitriptyline hydrochloride and chlordiazepoxide (Limbitrol), olanzapine and fluoxetine hydrochloride (Symbax), perphenazine and amitriptyline hydrochloride

**Notes:** Psychotropic drugs were identified using drug and therapeutic class information from the First Databank FDB MedKnowledge drug compendium. Drugs in the general therapeutic class of psychotropic drugs were included in the analysis. Specific drug class and drug name were used to further classify drugs into broad categories: medications for attention deficit hyperactivity disorder, antianxiety drugs, antidepressants, antipsychotics, bipolar disorder drugs, and other psychotropic drugs. Drugs with the specific drug class of anticonvulsants also were included in this analysis because they may be used for the treatment of bipolar disorder. Other research and analyses may use different selection criteria for psychotropic medications.

**Source:** MACPAC analysis of 2011 Medicaid Statistical Information System data and First Databank FDB Medknowledge database.

## APPENDIX 5B: Analysis Methodology

MACPAC conducted an analysis of outpatient pharmacy data in the Medicaid Statistical Information System (MSIS), a federal source of administrative data that provides demographic, spending, service use, and other enrollment-related information on all individuals enrolled in the Medicaid program. We calculated baseline statistics on the number of users, number of prescription drug claims, and spending for psychotropic drugs by eligibility group (non-disabled child, non-disabled adult, disabled under age 65, and age 65 or older), age group, and therapeutic drug class. Due to the differences in psychotropic utilization for children eligible on the basis of child welfare assistance, the children who are eligible on a basis other than disability were further separated into eligible based on child welfare and other non-disabled basis of eligibility. Children eligible on the basis of child welfare assistance include children in foster care or under legal guardianship and children receiving adoption assistance (Chapter 3).

**Data.** Our study examined MSIS data for 2011, the most recent year of complete MSIS data available for all states. The MSIS data were linked to drug identification and classification data from the First Databank FDB MedKnowledge drug compendium to provide information on drug name, brand/generic status, and therapeutic classification. The analysis focused on outpatient pharmacy services; any drug that was provided and billed as part of another service, such as an inpatient hospital stay or nursing facility day, was not included in the analysis. Drug claims were defined by a combination of beneficiary ID, billing provider ID, prescription fill date, and national drug code. A user was defined as an enrollee with at least one claim for a psychotropic medication, or at least one prescription in a particular drug class when usage was examined at the drug class level.

The analysis included fee-for-service (FFS) as well as managed care organization (MCO) encounter claims. Measures of utilization, such as counts of users and drug claims, combine FFS and MCO encounter data. Because MSIS managed care encounter claims do not report payment amounts, any spending information presented is for only those claims paid for through FFS arrangements. The FFS drug spending in MSIS, and presented in this analysis, reflects the states' payments to pharmacies before the application of any drug rebates.

Psychotropic medications were identified based on drug identification and therapeutic class information from First Databank. Drugs with a general therapeutic class of psychotropic drugs were included in the analysis. Specific drug class and drug name were used to further classify drugs into broad categories: medications for attention deficit hyperactivity disorder (ADHD), antianxiety drugs, antidepressants, antipsychotics, bipolar disorder drugs, and other psychotropic medications (Appendix 5A, Table 5A-1). Drugs in the specific drug class of anticonvulsants were also included in this analysis because they are used frequently for the treatment of bipolar disorder. Although sedatives and hypnotics may be used for psychotherapeutic indications, most of the drugs in this class are typically used to treat insomnia and were not included in this analysis. Additionally, medications used to assist in the treatment of substance abuse were not included, in part because many of these drugs are also prescribed as analgesics. When these medications, such as methadone, are used to assist in the treatment of substance abuse, they are frequently administered by providers at clinics or treatment centers, rather than being dispensed to beneficiaries at pharmacies, and are more difficult to identify in claims data.

With the exception of calculations for Table 5-1, we excluded individuals in a few eligibility categories that are characterized by limited coverage of outpatient prescription drugs through Medicaid. Additionally, we excluded a few states that

appeared to have incomplete pharmacy encounter data submissions for 2011 (see state exclusion section below).

Michigan, North Carolina, Nebraska, New Mexico, Oregon, Pennsylvania, Tennessee, Texas, Utah, Washington, and Wisconsin.

**Population exclusions.** In general, the analysis included individuals with at least one month of full-benefit Medicaid enrollment and zero months of dual-eligible enrollment. We excluded individuals dually eligible for Medicare and Medicaid because the majority of their prescriptions are obtained through the Medicare Part D benefit and not through Medicaid. We excluded limited benefit enrollees as they may have limited or no coverage of outpatient prescription drugs. We also excluded individuals who resided in an institution throughout the year (e.g., nursing facility) because their medications are often covered through the facility payment and do not generate a pharmacy claim. Of an initial pool of 72 million enrollees, approximately 16.8 million enrollees were excluded from the analysis.

**State exclusions.** Based on MACPAC's knowledge of the completeness of encounter data within MSIS and an analysis of prescriptions per enrolled month for both FFS and encounter pharmacy claims at the state level, we excluded Hawaii, Massachusetts, Nevada, Pennsylvania, and South Carolina from the analysis for not having sufficient pharmacy encounter data in 2011. An additional 4.1 million enrollees from these five states were dropped from the analysis. Eighteen states have separate behavioral health managed care plans that our prior work on MCO encounter data did not include, so we did not have prior benchmarks with which to compare. We did not know the extent to which these behavioral health plans might pay for behavioral health drugs. The majority of these states did appear to have psychotropic utilization rates across FFS and managed care that were similar to the rates in other states, so we retained them in the analysis unless they were one of the five states already excluded for not having sufficient pharmacy data. The 18 states that have separate behavioral health plans are Arizona, Colorado, Florida, Hawaii, Iowa, Kansas, Massachusetts,

# Appendix

## Authorizing Language from the Social Security Act (42 USC 1396)

### Medicaid and CHIP Payment and Access Commission

- (a) ESTABLISHMENT.—There is hereby established the Medicaid and CHIP Payment and Access Commission (in this section referred to as “MACPAC”).
- (b) DUTIES.—
- (1) REVIEW OF ACCESS POLICIES FOR ALL STATES AND ANNUAL REPORTS.—MACPAC shall—
- (A) review policies of the Medicaid program established under this title (in this section referred to as “Medicaid”) and the State Children’s Health Insurance Program established under title XXI (in this section referred to as “CHIP”) affecting access to covered items and services, including topics described in paragraph (2);
  - (B) make recommendations to Congress, the Secretary, and States concerning such access policies;
  - (C) by not later than March 15 of each year (beginning with 2010), submit a report to Congress containing the results of such reviews and MACPAC’s recommendations concerning such policies; and
  - (D) by not later than June 15 of each year (beginning with 2010), submit a report to Congress containing an examination of issues affecting Medicaid and CHIP, including the implications of changes in health care delivery in the United States and in the market for health care services on such programs.
- (2) SPECIFIC TOPICS TO BE REVIEWED.—Specifically, MACPAC shall review and assess the following:
- (A) MEDICAID AND CHIP PAYMENT POLICIES.—Payment policies under Medicaid and CHIP, including—
    - (i) the factors affecting expenditures for the efficient provision of items and services in different sectors, including the process for updating payments to medical, dental, and health professionals, hospitals, residential and long-term care providers, providers of home and community based services, Federally-qualified health centers and rural health clinics, managed care entities, and providers of other covered items and services;
    - (ii) payment methodologies; and
    - (iii) the relationship of such factors and methodologies to access and quality of care for Medicaid and CHIP beneficiaries (including how such factors and methodologies enable such beneficiaries to obtain the services for which they are eligible, affect provider supply, and affect providers that serve a disproportionate share of low-income and other vulnerable populations).
  - (B) ELIGIBILITY POLICIES.—Medicaid and CHIP eligibility policies, including a determination of the degree to which Federal and State policies provide health care coverage to needy populations.

- (C) ENROLLMENT AND RETENTION PROCESSES.—Medicaid and CHIP enrollment and retention processes, including a determination of the degree to which Federal and State policies encourage the enrollment of individuals who are eligible for such programs and screen out individuals who are ineligible, while minimizing the share of program expenses devoted to such processes.
  - (D) COVERAGE POLICIES.—Medicaid and CHIP benefit and coverage policies, including a determination of the degree to which Federal and State policies provide access to the services enrollees require to improve and maintain their health and functional status.
  - (E) QUALITY OF CARE.—Medicaid and CHIP policies as they relate to the quality of care provided under those programs, including a determination of the degree to which Federal and State policies achieve their stated goals and interact with similar goals established by other purchasers of health care services.
  - (F) INTERACTION OF MEDICAID AND CHIP PAYMENT POLICIES WITH HEALTH CARE DELIVERY GENERALLY.—The effect of Medicaid and CHIP payment policies on access to items and services for children and other Medicaid and CHIP populations other than under this title or title XXI and the implications of changes in health care delivery in the United States and in the general market for health care items and services on Medicaid and CHIP.
  - (G) INTERACTIONS WITH MEDICARE AND MEDICAID.—Consistent with paragraph (11), the interaction of policies under Medicaid and the Medicare program under title XVIII, including with respect to how such interactions affect access to services, payments, and dually eligible individuals.
  - (H) OTHER ACCESS POLICIES.—The effect of other Medicaid and CHIP policies on access to covered items and services, including policies relating to transportation and language barriers and preventive, acute, and long-term services and supports.
- (3) RECOMMENDATIONS AND REPORTS OF STATE-SPECIFIC DATA.—MACPAC shall—
- (A) review national and State-specific Medicaid and CHIP data; and
  - (B) submit reports and recommendations to Congress, the Secretary, and States based on such reviews.
- (4) CREATION OF EARLY-WARNING SYSTEM.—MACPAC shall create an early-warning system to identify provider shortage areas, as well as other factors that adversely affect, or have the potential to adversely affect, access to care by, or the health care status of, Medicaid and CHIP beneficiaries. MACPAC shall include in the annual report required under paragraph (1)(D) a description of all such areas or problems identified with respect to the period addressed in the report.
- (5) COMMENTS ON CERTAIN SECRETARIAL REPORTS AND REGULATIONS.—
- (A) CERTAIN SECRETARIAL REPORTS.—If the Secretary submits to Congress (or a committee of Congress) a report that is required by law and that relates to access policies, including with respect to payment policies, under Medicaid or CHIP, the Secretary shall transmit a copy of the report to MACPAC. MACPAC shall review the report and, not later than 6 months after the date of submittal of the Secretary’s report to Congress, shall submit to the appropriate committees of Congress and the Secretary written comments on such report. Such comments may include



such recommendations as MACPAC deems appropriate.

- (B) REGULATIONS.—MACPAC shall review Medicaid and CHIP regulations and may comment through submission of a report to the appropriate committees of Congress and the Secretary, on any such regulations that affect access, quality, or efficiency of health care.

(6) AGENDA AND ADDITIONAL REVIEWS.—

- (A) IN GENERAL.—MACPAC shall consult periodically with the chairmen and ranking minority members of the appropriate committees of Congress regarding MACPAC's agenda and progress towards achieving the agenda. MACPAC may conduct additional reviews, and submit additional reports to the appropriate committees of Congress, from time to time on such topics relating to the program under this title or title XXI as may be requested by such chairmen and members and as MACPAC deems appropriate.

(B) REVIEW AND REPORTS REGARDING MEDICAID DSH.—

- (i) IN GENERAL.—MACPAC shall review and submit an annual report to Congress on disproportionate share hospital payments under section 1923. Each report shall include the information specified in clause (ii).
- (ii) REQUIRED REPORT INFORMATION.—Each report required under this subparagraph shall include the following:
  - (I) Data relating to changes in the number of uninsured individuals.
  - (II) Data relating to the amount and sources of hospitals' uncompensated care costs, including the amount of such costs that are the result of providing unreimbursed or under-reimbursed services, charity care, or bad debt.
  - (III) Data identifying hospitals with high levels of uncompensated care that also provide access to essential community services for low-income, uninsured, and vulnerable populations, such as graduate medical education, and the continuum of primary through quaternary care, including the provision of trauma care and public health services.
  - (IV) State-specific analyses regarding the relationship between the most recent State DSH allotment and the projected State DSH allotment for the succeeding year and the data reported under subclauses (I), (II), and (III) for the State.
- (iii) DATA.—Notwithstanding any other provision of law, the Secretary regularly shall provide MACPAC with the most recent State reports and most recent independent certified audits submitted under section 1923(j), cost reports submitted under title XVIII, and such other data as MACPAC may request for purposes of conducting the reviews and preparing and submitting the annual reports required under this subparagraph.
- (iv) SUBMISSION DEADLINES.—The first report required under this subparagraph shall be submitted to Congress not later than February 1, 2016. Subsequent reports shall be submitted as part of, or with, each annual report required under paragraph (1)(C) during the period of fiscal years 2017 through 2024.

- (7) AVAILABILITY OF REPORTS.—MACPAC shall transmit to the Secretary a copy of each report submitted under this subsection and shall make such reports available to the public.
- (8) APPROPRIATE COMMITTEE OF CONGRESS.—For purposes of this section, the term “appropriate committees of Congress” means the Committee on Energy and Commerce of the House of Representatives and the Committee on Finance of the Senate.
- (9) VOTING AND REPORTING REQUIREMENTS.—With respect to each recommendation contained in a report submitted under paragraph (1), each member of MACPAC shall vote on the recommendation, and MACPAC shall include, by member, the results of that vote in the report containing the recommendation.
- (10) EXAMINATION OF BUDGET CONSEQUENCES.—Before making any recommendations, MACPAC shall examine the budget consequences of such recommendations, directly or through consultation with appropriate expert entities, and shall submit with any recommendations, a report on the Federal and State-specific budget consequences of the recommendations.
- (11) CONSULTATION AND COORDINATION WITH MEDPAC.—
- (A) IN GENERAL.—MACPAC shall consult with the Medicare Payment Advisory Commission (in this paragraph referred to as “MedPAC”) established under section 1805 in carrying out its duties under this section, as appropriate and particularly with respect to the issues specified in paragraph (2) as they relate to those Medicaid beneficiaries who are dually eligible for Medicaid and the Medicare program under title XVIII, adult Medicaid beneficiaries (who are not dually eligible for Medicare), and beneficiaries under Medicare. Responsibility for analysis of and recommendations to change Medicare policy regarding Medicare beneficiaries, including Medicare beneficiaries who are dually eligible for Medicare and Medicaid, shall rest with MedPAC.
- (B) INFORMATION SHARING.—MACPAC and MedPAC shall have access to deliberations and records of the other such entity, respectively, upon the request of the other such entity.
- (12) CONSULTATION WITH STATES.—MACPAC shall regularly consult with States in carrying out its duties under this section, including with respect to developing processes for carrying out such duties, and shall ensure that input from States is taken into account and represented in MACPAC’s recommendations and reports.
- (13) COORDINATE AND CONSULT WITH THE FEDERAL COORDINATED HEALTH CARE OFFICE.—MACPAC shall coordinate and consult with the Federal Coordinated Health Care Office established under section 2081 of the Patient Protection and Affordable Care Act before making any recommendations regarding dually eligible individuals.
- (14) PROGRAMMATIC OVERSIGHT VESTED IN THE SECRETARY.— MACPAC’s authority to make recommendations in accordance with this section shall not affect, or be considered to duplicate, the Secretary’s authority to carry out Federal responsibilities with respect to Medicaid and CHIP.
- (c) MEMBERSHIP.—
- (1) NUMBER AND APPOINTMENT.—MACPAC shall be composed of 17 members appointed by the Comptroller General of the United States.

(2) QUALIFICATIONS.—

- (A) IN GENERAL.—The membership of MACPAC shall include individuals who have had direct experience as enrollees or parents or caregivers of enrollees in Medicaid or CHIP and individuals with national recognition for their expertise in Federal safety net health programs, health finance and economics, actuarial science, health plans and integrated delivery systems, reimbursement for health care, health information technology, and other providers of health services, public health, and other related fields, who provide a mix of different professions, broad geographic representation, and a balance between urban and rural representation.
- (B) INCLUSION.—The membership of MACPAC shall include (but not be limited to) physicians, dentists, and other health professionals, employers, third-party payers, and individuals with expertise in the delivery of health services. Such membership shall also include representatives of children, pregnant women, the elderly, individuals with disabilities, caregivers, and dually eligible individuals, current or former representatives of State agencies responsible for administering Medicaid, and current or former representatives of State agencies responsible for administering CHIP.
- (C) MAJORITY NONPROVIDERS.—Individuals who are directly involved in the provision, or management of the delivery, of items and services covered under Medicaid or CHIP shall not constitute a majority of the membership of MACPAC.
- (D) ETHICAL DISCLOSURE.—The Comptroller General of the United States shall establish a system for public disclosure by members of MACPAC of financial and other potential conflicts of interest relating to such members. Members of MACPAC shall be treated as employees of Congress for purposes of applying title I of the Ethics in Government Act of 1978 (Public Law 95–521).

(3) TERMS.—

- (A) IN GENERAL.—The terms of members of MACPAC shall be for 3 years except that the Comptroller General of the United States shall designate staggered terms for the members first appointed.
  - (B) VACANCIES.—Any member appointed to fill a vacancy occurring before the expiration of the term for which the member’s predecessor was appointed shall be appointed only for the remainder of that term. A member may serve after the expiration of that member’s term until a successor has taken office. A vacancy in MACPAC shall be filled in the manner in which the original appointment was made.
- (4) COMPENSATION.—While serving on the business of MACPAC (including travel time), a member of MACPAC shall be entitled to compensation at the per diem equivalent of the rate provided for level IV of the Executive Schedule under section 5315 of title 5, United States Code; and while so serving away from home and the member’s regular place of business, a member may be allowed travel expenses, as authorized by the Chairman of MACPAC. Physicians serving as personnel of MACPAC may be provided a physician comparability allowance by MACPAC in the same manner as Government physicians may be provided such an allowance by an agency under section 5948 of title 5, United States Code, and for such purpose subsection (i) of such section shall apply to MACPAC in the same manner as it applies to the Tennessee Valley Authority. For purposes of pay (other than pay of members of MACPAC) and employment benefits, rights, and privileges, all personnel of MACPAC shall be treated as if they were employees of the United States Senate.

- (5) CHAIRMAN; VICE CHAIRMAN.—The Comptroller General of the United States shall designate a member of MACPAC, at the time of appointment of the member as Chairman and a member as Vice Chairman for that term of appointment, except that in the case of vacancy of the Chairmanship or Vice Chairmanship, the Comptroller General of the United States may designate another member for the remainder of that member’s term.
- (6) MEETINGS.—MACPAC shall meet at the call of the Chairman.
- (d) DIRECTOR AND STAFF; EXPERTS AND CONSULTANTS.—Subject to such review as the Comptroller General of the United States deems necessary to assure the efficient administration of MACPAC, MACPAC may—
- (1) employ and fix the compensation of an Executive Director (subject to the approval of the Comptroller General of the United States) and such other personnel as may be necessary to carry out its duties (without regard to the provisions of title 5, United States Code, governing appointments in the competitive service);
  - (2) seek such assistance and support as may be required in the performance of its duties from appropriate Federal and State departments and agencies;
  - (3) enter into contracts or make other arrangements, as may be necessary for the conduct of the work of MACPAC (without regard to section 3709 of the Revised Statutes (41 USC 5));
  - (4) make advance, progress, and other payments which relate to the work of MACPAC;
  - (5) provide transportation and subsistence for persons serving without compensation; and
  - (6) prescribe such rules and regulations as it deems necessary with respect to the internal organization and operation of MACPAC.
- (e) POWERS.—
- (1) OBTAINING OFFICIAL DATA.—MACPAC may secure directly from any department or agency of the United States and, as a condition for receiving payments under sections 1903(a) and 2105(a), from any State agency responsible for administering Medicaid or CHIP, information necessary to enable it to carry out this section. Upon request of the Chairman, the head of that department or agency shall furnish that information to MACPAC on an agreed upon schedule.
  - (2) DATA COLLECTION.—In order to carry out its functions, MACPAC shall—
    - (A) utilize existing information, both published and unpublished, where possible, collected and assessed either by its own staff or under other arrangements made in accordance with this section;
    - (B) carry out, or award grants or contracts for, original research and experimentation, where existing information is inadequate; and
    - (C) adopt procedures allowing any interested party to submit information for MACPAC’s use in making reports and recommendations.

- (3) ACCESS OF GAO TO INFORMATION.—The Comptroller General of the United States shall have unrestricted access to all deliberations, records, and nonproprietary data of MACPAC, immediately upon request.
  - (4) PERIODIC AUDIT.—MACPAC shall be subject to periodic audit by the Comptroller General of the United States.
- (f) FUNDING.—
- (1) REQUEST FOR APPROPRIATIONS.—MACPAC shall submit requests for appropriations (other than for fiscal year 2010) in the same manner as the Comptroller General of the United States submits requests for appropriations, but amounts appropriated for MACPAC shall be separate from amounts appropriated for the Comptroller General of the United States.
  - (2) AUTHORIZATION.—There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this section.
  - (3) FUNDING FOR FISCAL YEAR 2010.—
    - (A) IN GENERAL.—Out of any funds in the Treasury not otherwise appropriated, there is appropriated to MACPAC to carry out the provisions of this section for fiscal year 2010, \$9,000,000.
    - (B) TRANSFER OF FUNDS.—Notwithstanding section 2104(a)(13), from the amounts appropriated in such section for fiscal year 2010, \$2,000,000 is hereby transferred and made available in such fiscal year to MACPAC to carry out the provisions of this section.
  - (4) AVAILABILITY.—Amounts made available under paragraphs (2) and (3) to MACPAC to carry out the provisions of this section shall remain available until expended.

## Biographies of Commissioners

**Sharon Carte, MHS**, has served as executive director of the West Virginia Children's Health Insurance Program since 2001. From 1992 to 1998, Ms. Carte was deputy commissioner for the Bureau for Medical Services, overseeing West Virginia's Medicaid program. Previously, she was an administrator of skilled and intermediate care nursing facilities and a coordinator of human resources development in the West Virginia Department of Health. Ms. Carte's experience includes work with senior centers and aging programs throughout West Virginia as well as with policy issues related to behavioral health and long-term services and supports for children. She received her master of health science from the Johns Hopkins University School of Hygiene and Public Health.

**Donna Checkett, MPA, MSW**, is vice president of business development for Aetna's Medicaid division. Previously, she was Aetna's vice president for state government relations, focusing on the company's response to the Patient Protection and Affordable Care Act (ACA) at the state insurance and Medicaid level. As chief executive officer of Missouri Care, a managed Medicaid health plan owned by the University of Missouri-Columbia Health Care, Ms. Checkett originated and directed all aspects of the plan. For eight years, Ms. Checkett directed the Missouri Division of Medical Services (Medicaid), where she implemented a managed care program for more than 50 percent of the beneficiaries and oversaw several significant optional eligibility expansions. Ms. Checkett's peers elected her chair of the National Association of State Medicaid Directors and she also was a member of the National Governors Association Medicaid Improvements Working Group, where the initial focus was on the use of Section 1115 waivers for health system reform purposes. She received a master of public administration from the University of Missouri-Columbia and a master of social work from The University of Texas at Austin.

**Andrea Cohen, JD**, is senior vice president for program at the United Hospital Fund, a nonprofit health services research and philanthropic organization whose mission is to shape positive change in health care for New Yorkers. She directs the fund's program work and oversees grant making and conference activities. From 2009 to 2014, she served as director of health services in the New York City Office of the Mayor, where she coordinated and developed strategies to improve public health and health services. Prior professional positions include counsel with Manatt, Phelps & Phillips, LLP; senior policy counsel at the Medicare Rights Center; health and oversight counsel for the U.S. Senate Committee on Finance; and trial attorney with the U.S. Department of Justice. She received her law degree from Columbia University School of Law.

**Gustavo Cruz, DMD, MPH**, is an oral health policy consultant and senior advisor to Health Equity Initiative, a professional membership organization in New York City that brings together community leaders and professionals in diverse fields to promote innovations in health equity. He also serves as resident advisor to the Dental Public Health Residency at Lutheran Medical Center and as adjunct associate professor in the Department of Epidemiology and Health Promotion at New York University College of Dentistry (NYUCD). Dr. Cruz was a Robert Wood Johnson Foundation Health Policy Fellow from 2009–2010, working in the office of the Secretary of the U.S. Department of Health and Human Services. Subsequently, he served as chief of the Oral Health Branch, Bureau of Health Professions, at the Health Resources and Services Administration. He previously served as director of public health and health promotion at NYUCD and as governing faculty of New York University's Master in Global Public Health. Dr. Cruz has conducted numerous research studies on the oral health of U.S. immigrants, oral health disparities, oral and pharyngeal cancers, access to



oral health care among underserved populations as well as the effects of race, ethnicity, acculturation, and culturally influenced behaviors on oral health outcomes and health services utilization. He received his degree in dentistry from the University of Puerto Rico and his master of public health from Columbia University's School of Public Health. He is a diplomate of the American Board of Dental Public Health.

**Patricia Gabow, MD**, was chief executive officer of Denver Health from 1992 until her retirement in 2012, transforming it from a department of city government into a successful, independent governmental entity. She is a trustee of the Robert Wood Johnson Foundation, serves on the Institute of Medicine (IOM) Roundtable on Value and Science Driven Health Care, and on the National Governors Association Health Advisory Board. Dr. Gabow is a professor of medicine at the University of Colorado School of Medicine and the author of *The Lean Prescription: Powerful Medicine for Our Ailing Healthcare System*, as well as over 150 articles and book chapters. She has received the American Medical Association's Nathan Davis Award for Outstanding Public Servant, the Ohtli Award from the Mexican government, the National Healthcare Leadership Award, the David E. Rogers Award from the Association of American Medical Colleges, and the Health Quality Leader Award from the National Committee for Quality Assurance (NCQA). She was elected to the Association for Manufacturing Excellence Hall of Fame for her work on applying the Toyota Production Systems lean manufacturing principles to health care. Dr. Gabow received her medical degree from the University of Pennsylvania School of Medicine.

**Marsha Gold, ScD**, is a senior fellow emeritus at Mathematica Policy Research, where she previously served as a lead investigator and project director on research in the areas of Medicare, Medicaid, managed care design and delivery system reform in both public and private health insurance, and access to care. Other prior positions include director of research and analysis at the

Group Health Association of America, assistant professor with the Department of Health Policy and Administration at The University of North Carolina at Chapel Hill, and director of policy analysis and program evaluation at the Maryland Department of Health and Mental Hygiene. Dr. Gold is on the editorial board of *Health Affairs* and *Health Services Research*. She received her doctorate of science in health services and evaluation research from Harvard School of Public Health.

**Herman Gray, MD, MBA**, is executive vice president for pediatric health services for the Detroit Medical Center (DMC). Prior to assuming this responsibility in 2013, he served as CEO/president of the DMC Children's Hospital of Michigan (CHM) for eight years. At CHM, Dr. Gray also served as chief operating officer, chief of staff, and vice chief of education in the department of pediatrics. He also served as vice president for graduate medical education (GME) at the DMC and associate dean for GME at Wayne State University School of Medicine. Dr. Gray has served as the chief medical consultant at the Michigan Department of Public Health, Children's Special Health Care Services, as well as vice president/medical director of clinical affairs at Blue Care Network, a subsidiary of Blue Cross Blue Shield of Michigan. He has received the Michigan Hospital Association Health Care Leadership Award, *Modern Healthcare's* Top 25 Minority Executives in Healthcare Award, and is a member of the board of trustees for the Children's Hospital Association and the Skillman Foundation. He received his medical degree from the University of Michigan, a master of business administration from the University of Tennessee, and completed his pediatrics training at the Children's Hospital of Michigan/Wayne State University.

**Mark Hoyt, FSA, MAAA**, was the national practice leader of the Government Human Services Consulting group of Mercer Health & Benefits, LLC, until his retirement in 2012. This group, which has worked with over 30 states, helps states purchase health services for Medicaid and the State Children's Health Insurance Program (CHIP).

Mr. Hoyt joined Mercer in 1980 and, starting in 1987, worked on government health care projects, including developing strategies for statewide health reform, evaluating the impact of different managed care approaches, and overseeing program design and rate analysis for Medicaid and CHIP. Mr. Hoyt is a fellow in the Society of Actuaries and a member of the American Academy of Actuaries. He received a bachelor of arts in mathematics from the University of California, Los Angeles and a master of arts in mathematics from the University of California, Berkeley.

**Yvette Long** is the parent of a 16-year old with chronic health issues who is covered by Medicaid. Ms. Long serves as a case manager with the Philadelphia Welfare Rights Organization. She is chair of the Consumer Subcommittee of the Pennsylvania Medical Assistance Advisory Committee, which advises the state about major initiatives of the Pennsylvania Medicaid program. She also is on the board of the Pennsylvania Legal Aid Network, which oversees administration of the state's legal aid programs.

**Charles Milligan, JD, MPH**, is CEO of United Healthcare Community Plan of New Mexico, a Medicaid MCO with enrolled members in all Medicaid eligibility categories (including dually eligible beneficiaries and adults in Medicaid expansion programs) that provides somatic, behavioral, and managed long-term services and supports. Mr. Milligan was a former state Medicaid and CHIP director in New Mexico and Maryland. He also served as executive director of the Hilltop Institute, a health services research center at the University of Maryland, and as vice president at the Lewin Group. Mr. Milligan directed the 2005–2006 Commission on Medicaid and has conducted Medicaid-related research projects in numerous states. He received his master of public health from the University of California, Berkeley and his law degree from Harvard Law School.

**Sheldon Retchin, MD, MSPH**, was recently appointed executive vice president for health sciences and chief executive officer of The Ohio State University Wexner Medical Center in Columbus. Dr. Retchin's research and publications have addressed the costs, quality, and outcomes of care as well as workforce issues. From 2003 until he began his appointment at Ohio State, he served as senior vice president for health sciences at Virginia Commonwealth University (VCU), and CEO of the VCU Health System, in Richmond, Virginia. Dr. Retchin also led a Medicaid health maintenance organization with approximately 200,000 covered lives through which, for 15 years, he and his colleagues helped manage care for 30,000 uninsured individuals in the Virginia Coordinated Care program. Dr. Retchin received his medical degree from The University of North Carolina School of Medicine and his master of science in public health from The University of North Carolina School of Public Health.

**Patricia Riley, MS**, is executive director of the National Academy for State Health Policy. Previously, she was a senior fellow of health policy and management at the Muskie School of Public Service, University of Southern Maine. Following her tenure as director of the Maine Governor's Office of Health Policy and Finance, she was the first distinguished visiting fellow in state health policy at The George Washington University, where she served as a lecturer. She was a principal architect of the Dirigo Health Reform Act of 2003, which was enacted to increase access, reduce costs, and improve quality of health care in Maine. Under four Maine governors, she held appointed positions, including executive director of the Maine Committee on Aging, director of the Bureau of Maine's Elderly, associate deputy commissioner of health and medical services, and director of the Bureau of Medical Services, which is responsible for the Medicaid program and health planning and licensure. Ms. Riley served on Maine's Commission on Children's Health, which planned the state's CHIP. She is a member of the Kaiser Commission on Medicaid and the Uninsured and has served

as a member of the IOM's Subcommittee on Creating an External Environment for Quality and its Subcommittee on Maximizing the Value of Health. Ms. Riley also has served as a member of the board of directors of NCQA. She received her master of science in community development from the University of Maine.

**Norma Martínez Rogers, PhD, RN, FAAN**, is a professor of family nursing at The University of Texas (UT) Health Science Center at San Antonio. She has held clinical and administrative positions in psychiatric nursing and at psychiatric hospitals, including the William Beaumont Army Medical Center in Fort Bliss during Operation Desert Storm. She is dedicated to working with those who face health disparities and is the founder and president of the National Latino Nurse Faculty Association. She has initiated a number of programs at the UT Health Science Center at San Antonio, including a mentorship program for retention of minorities in nursing education. She was a founding board member of a non-profit organization, Martínez Street Women's Center, designed to provide support and educational services to women and teenage girls. Dr. Martínez Rogers is a fellow of the American Academy of Nursing and a past president of the National Association of Hispanic Nurses. She received a master of science in psychiatric nursing from the UT Health Science Center at San Antonio and her doctorate in cultural foundations in education from The University of Texas at Austin.

**Sara Rosenbaum, JD**, is founding chair of the Department of Health Policy and the Harold and Jane Hirsh Professor of Health Law and Policy at The George Washington University Milken Institute School of Public Health. She also serves on the faculties of The George Washington Schools of Law and Medicine. Professor Rosenbaum's research has focused on how the law intersects with the nation's health care and public health systems, with a particular emphasis on insurance coverage, managed care, the health care safety net, health care quality, and civil rights. She is a member of the IOM and has served on the boards

of numerous national organizations, including AcademyHealth. Professor Rosenbaum is a past member of the Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices and also serves on the CDC Director's Advisory Committee. She has advised Congress and presidential administrations since 1977 and served on the staff of the White House Domestic Policy Council during the Clinton administration. Professor Rosenbaum is the lead author of *Law and the American Health Care System*, published by Foundation Press (2012). She received her law degree from Boston University School of Law.

**Diane Rowland, ScD**, is executive vice president of the Henry J. Kaiser Family Foundation and executive director of the Foundation's Kaiser Commission on Medicaid and the Uninsured. She is a nationally recognized health policy expert with a distinguished career in public policy and research focusing on health insurance coverage, access to care, and health care financing for low-income, elderly, and disabled populations. She has directed the Kaiser Commission on Medicaid and the Uninsured since 1991 and overseen the Foundation's health policy work on Medicaid, Medicare, private insurance, global health and HIV, women's health, and disparities since 1993. A noted authority on Medicaid, Medicare, and health care policy, Dr. Rowland frequently testifies and has published widely on these issues. Appointed in 2009 as the inaugural chair, Dr. Rowland continues to serve as the chair of MACPAC. Dr. Rowland is an elected member of the IOM and holds a bachelor's degree from Wellesley College, a master of public administration from the University of California, Los Angeles, and a doctor of science in health policy and management from The Johns Hopkins University.

**Peter Szilagyi, MD, MPH**, was recently named vice chair for clinical research in the Department of Pediatrics at the University of California, Los Angeles. Until that appointment, he served as chief of the division of general pediatrics and professor of pediatrics at the University of

Rochester and as associate director of the Center for Community Health within the University of Rochester's Clinical Translational Research Institute. His research has addressed CHIP and child health insurance; access to care; quality of care; and health outcomes, including the delivery of primary care with a focus on immunization delivery, health care financing, and children with chronic disease. For the past 18 years, he was chairman of the board of the Monroe Plan for Medical Care, a large Medicaid and CHIP managed care plan in upstate New York. He is editor in chief of *Academic Pediatrics* and has served as the president of the Academic Pediatric Association. Dr. Szilagyι received his medical and public health degrees from the University of Rochester.

**Steven Waldren, MD, MS**, is director of the Alliance for eHealth Innovation at the American Academy of Family Physicians. He sits on several advisory boards dealing with health information technology (IT), and he was a past co-chair of the Physicians Electronic Health Record Coalition, a group of more than 20 professional medical associations addressing issues around health IT. He received his medical degree from the University of Kansas School of Medicine. While completing a post-doctoral National Library of Medicine medical informatics fellowship, he completed a master of science in health care informatics from the University of Missouri-Columbia. Dr. Waldren is a co-founder of two start-up companies dealing with health IT systems design: Open Health Data, Inc., and New Health Networks, LLC.

## Biographies of Staff

**Annie Andrianasolo, MBA**, is executive assistant. She previously held the position of special assistant for global health at the Public Health Institute and was a program assistant for the World Bank. Ms. Andrianasolo has a bachelor of science in economics and a master of business administration from Johns Hopkins Carey Business School.

**Amy Bernstein, ScD, MHSA**, is a policy director and contracting officer. She manages and provides oversight and guidance for all MACPAC research, data, and analysis projects, including statements of work, research plans, and all deliverables and products. She also directs and conducts policy analyses. Her previous positions have included director of the Analytic Studies Branch at the U.S. Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics and senior analyst positions at the Alpha Center, the Prospective Payment Assessment Commission, the National Cancer Institute, and the Agency for Healthcare Research and Quality (AHRQ). Dr. Bernstein earned a master of health services administration from the University of Michigan School of Public Health and a doctor of science from the School of Hygiene and Public Health at Johns Hopkins University.

**James Boissonnault, MA**, is chief information officer. Prior to joining MACPAC, he was the information technology (IT) director and security officer for OnPoint Consulting. At OnPoint, he also worked on several federal government projects, including those for the Missile Defense Agency, the U.S. Department of the Treasury, and the U.S. Department of Agriculture. He has nearly two decades of IT and communications experience. Mr. Boissonnault holds a master of arts in Slavic languages and literatures from The University of North Carolina and a bachelor of arts in Russian from the University of Massachusetts.

**Kathryn Ceja** is director of communications. Previously, she served as lead spokesperson for Medicare issues in the Centers for Medicare & Medicaid Services (CMS) press office. Prior to her tenure in the press office, Ms. Ceja was a speechwriter for the Secretary of the U.S. Department of Health and Human Services (HHS) as well as the speechwriter for a series of CMS administrators. Ms. Ceja holds a bachelor of arts in international studies from American University.

**Veronica Daher, JD**, is a senior analyst. Previously, she was a health policy analyst for the Health Safety Net program at the Massachusetts Executive Office of Health and Human Services, where she focused on developing policy in response to the Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended). Her work now focuses on how the ACA will affect Medicaid and the State Children's Health Insurance Program (CHIP). Ms. Daher received her law degree from the University of Richmond and a bachelor of arts from the University of Virginia.

**Nicholas Elan** is research assistant. Prior to joining MACPAC, he interned with the Congressional Research Service, where he analyzed costs for individual market health insurance plans offered on the ACA exchanges. Mr. Elan has a bachelor's degree in philosophy from Princeton University.

**Benjamin Finder, MPH**, is a senior analyst. His work focuses on benefits and payment policy. Prior to joining MACPAC, he served as an associate director in the Health Care Policy and Research Administration at the District of Columbia Department of Health Care Finance, and as an analyst at the Henry J. Kaiser Family Foundation. Mr. Finder holds a master of public health from The George Washington University, where he concentrated in health policy and health economics.



**Moira Forbes, MBA**, is a policy director, focusing on payment policy and the design, implementation, and effectiveness of program integrity activities in Medicaid and CHIP. Previously, she served as director of the division of health and social service programs in the Office of Executive Program Information at HHS and as a vice president in the Medicaid practice at The Lewin Group. At Lewin, Ms. Forbes worked with every state Medicaid and CHIP program on issues relating to program integrity and eligibility quality control. She has extensive experience with federal and state policy analysis, Medicaid program operations, and delivery system design. Ms. Forbes has a master of business administration from The George Washington University and a bachelor's degree in Russian and political science from Bryn Mawr College.

**April Grady, MPAff**, is a policy director. Prior to joining MACPAC, Ms. Grady worked at the Congressional Research Service and the Congressional Budget Office, where she provided non-partisan analyses of Medicaid, private health insurance, and other health policy issues. She has held positions at the LBJ School of Public Affairs at The University of Texas at Austin and at Mathematica Policy Research. Ms. Grady received a master of public affairs from the LBJ School of Public Affairs and a bachelor of arts in policy studies from Syracuse University.

**Benjamin Granata** is finance and budget specialist. He reviews financial documents to ensure completeness and accuracy for processing and recording in the financial systems. Mr. Granata graduated from Towson University with a bachelor's degree in business administration, specializing in project management.

**Martha Heberlein, MA**, is a principal analyst. Prior to joining MACPAC, she was the research manager at the Georgetown University Center for Children and Families, where she oversaw a national survey on Medicaid and CHIP eligibility, enrollment, and renewal procedures. Ms. Heberlein received a master of arts in public policy with a concentration

in philosophy and social policy from The George Washington University and a bachelor of science in psychology from James Madison University.

**Joanne Jee, MPH**, is a principal analyst focusing on CHIP and children's coverage. Prior to joining MACPAC, she was a program director at the National Academy for State Health Policy, where she focused on children's coverage issues. Ms. Jee also has been a senior analyst at the U.S. Government Accountability Office (GAO), a program manager at The Lewin Group, and a legislative analyst in the HHS Office of Legislation. Ms. Jee has a master of public health from the University of California, Los Angeles, and bachelor of science in human development from the University of California, Davis.

**Sarah Melecki, MPAff**, is an analyst providing support on a variety of issues, including the ACA's Medicaid expansion, Medicaid adult dental coverage, and Medicaid behavioral health services. Prior to joining MACPAC, she worked on the health team at Consumers Union, where she covered ACA implementation and health care cost drivers. Ms. Melecki also has served as district director to Texas state representative Jessica Farrar. She holds a master of public affairs from the LBJ School of Public Affairs at The University of Texas at Austin and a bachelor of arts in political science from the University of Nebraska.

**Robert Nelb, MPH**, is a senior analyst. Prior to joining MACPAC, he served as a health insurance specialist at CMS, leading projects related to CHIP and Medicaid Section 1115 demonstrations. Mr. Nelb has a master of public health and a bachelor's degree in ethics, politics, and economics from Yale University.

**Saumil Parikh, MBA**, is an IT specialist. Previously, he was a network and system administrator at CBH Health, and an IT support specialist at Emergent Biosolutions, focusing on IT system administration, user and network support, general projects, and team leadership. He also worked at Vesta, Inc., in a similar role. Mr. Parikh holds a master of



business administration in information systems and a bachelor of arts in computer networking from Strayer University.

**Chris Park, MS**, is a senior analyst. He focuses on issues related to managed care payment and Medicaid drug policy and provides data analysis using Medicaid administrative data. Prior to joining MACPAC, he was a senior consultant at The Lewin Group, where he provided quantitative analysis and technical assistance on Medicaid policy issues, including Medicaid managed care capitation rate setting and pharmacy reimbursement and cost-containment initiatives. Mr. Park holds a master of science in health policy and management from the Harvard School of Public Health and a bachelor of science in chemistry from the University of Virginia.

**Laura Beth Pelner** is communications and graphic design specialist. Prior to coming to MACPAC, Ms. Pelner worked in the Washington, DC, non-profit sector in the fields of communications and design. She also worked on the creative team of a New York City advertising agency. Ms. Pelner is a former Peace Corps Volunteer who served in Ghana, West Africa, where she taught IT at the college level. She holds a bachelor of fine arts in advertising from Syracuse University.

**Chris Peterson, MPP**, is a principal analyst. Prior to joining MACPAC, he was a specialist in health care financing at the Congressional Research Service, where he worked on major health legislation. Prior to that, he worked for the AHRQ and the National Bipartisan Commission on the Future of Medicare. Mr. Peterson has a master of public policy from Georgetown University and a bachelor of science in mathematics from Missouri Western State University.

**Ken Pezzella** is chief financial officer. He has more than 10 years of federal financial management and accounting experience in both the public and private sectors. Mr. Pezzella also has broad operations and business experience, and is a veteran of the

U.S. Coast Guard. He holds a bachelor of science in accounting from Strayer University.

**Anne L. Schwartz, PhD**, is executive director. She previously served as deputy editor at *Health Affairs*; vice president at Grantmakers In Health, a national organization providing strategic advice and educational programs for foundations and corporate giving programs working on health issues; and special assistant to the executive director and senior analyst at the Physician Payment Review Commission, a precursor to the Medicare Payment Advisory Commission (MedPAC). Earlier, she held positions on committee and personal staff for the U.S. House of Representatives. Dr. Schwartz earned a doctorate in health policy from the School of Hygiene and Public Health at Johns Hopkins University.

**Anna Sommers, PhD, MS, MPAff**, is a principal analyst. Previously, she held research positions at the Center for Studying Health System Change (HSC), the Hilltop Institute, University of Maryland, and the Urban Institute. At HSC, she published Medicaid briefs on high-cost use, specialty care access, and physician workforce, and led design of the Autoworkers Health Care Survey. At Hilltop, she led an evaluation of New Mexico's CHIP program and served as senior consultant on a range of analyses for Maryland's Medicaid program and the Maryland Health Services and Cost Review Commission. Dr. Sommers has a doctorate and a master of science in health services research, policy, and administration from the University of Minnesota School of Public Health, and a master of public affairs from its Hubert H. Humphrey Institute of Public Affairs.

**Mary Ellen Stahlman, MHSA**, is policy and congressional affairs director. Previously, she held positions at the National Health Policy Forum, focusing on Medicare issues including private plans and the Medicare drug benefit. She served at CMS and its predecessor agency, the Health Care Financing Administration, for 18 years, including as deputy director of policy. Ms. Stahlman received a master of health services administration from The

George Washington University and a bachelor of arts from Bates College.

**James Teisl, MPH**, is a principal analyst focused on issues related to Medicaid payment and financing. Previously, he was a senior consultant with The Lewin Group and worked for the Greater New York Hospital Association and the Ohio Medicaid program. Mr. Teisl received a master of public health from the Johns Hopkins Bloomberg School of Public Health.

**Kristal Vardaman, MSPH**, is a principal analyst focused on long-term services and supports and on high-cost, high-need populations. Previously, she was a senior analyst at the GAO and a consultant at Avalere Health. Ms. Vardaman holds a master of science in public health from The University of North Carolina at Chapel Hill and a bachelor of science from the University of Michigan. She currently is pursuing a doctorate in public policy from The George Washington University.

**Ricardo Villeta, MBA**, is deputy director for operations, finance, and management with overall responsibility for management of the MACPAC budget and resources. Mr. Villeta directs all operations related to financial management and budget, procurement, human resources, IT, and contracting. Previously, he was the senior vice president and chief management officer for the Academy for Educational Development, a private non-profit educational organization that provided training, education and technical assistance throughout the United States and in more than 50 countries. Mr. Villeta holds a master of business administration from The George Washington University and a bachelor of science from Georgetown University.

**Katie Weider, MPH**, is a senior analyst. She focuses on issues related to individuals who are eligible for both Medicaid and Medicare. Prior to joining MACPAC, she served as a senior research assistant at The George Washington University and as a health policy intern for Senator Chuck Grassley

(R-IA). Ms. Weider received a master of public health from The George Washington University and a bachelor's degree in health science and public health from Boston University.

**Eileen Wilkie** is administrative officer and is responsible for coordinating human resources, office maintenance, travel, and Commission meetings. Previously, she held similar roles at National Public Radio and the National Endowment for Democracy. Ms. Wilkie has a bachelor's degree in political science from the University of Notre Dame.








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