CHAPTER 3

Medicaid and Population Health

Key Points

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- Achieving healthy outcomes for Medicaid enrollees requires allocating resources to more than acute care services. Although Medicaid is primarily a source of health insurance coverage, it also covers services other payers may not cover. Examples include counseling and education, targeted case management, habilitative services, enabling services such as transportation and translation, and health promotion programs.
- Medicaid programs are increasingly using innovative methods to promote better health outcomes, such as rewarding enrollees and providers for improved outcomes and partnering with other agencies and organizations. Many of these efforts also affect the health of the population at large.
- The Patient Protection and Affordable Care Act (P.L. 111-148, as amended) authorizes incentives for preventive care for both the U.S. population in general and Medicaid enrollees in particular, including:
  - a mandate to provide many preventive services with no cost sharing to individuals enrolled in exchange plans, Medicare, and the new adult group under Medicaid;
  - grants to states to provide incentives to Medicaid enrollees of all ages to improve health, including incentives that encourage adoption of healthy behaviors; and
  - funding for state-based demonstrations to improve vaccination rates and state-level grants to develop and evaluate Medicaid initiatives promoting behavioral change.
- Medicaid programs have found innovative ways to improve health rather than simply treating existing disease by working with governmental and private sector partners at the federal, state, and community levels. Among them are:
  - collaborations with public health departments to promote immunizations, provide public health outreach, and reduce sexually transmitted diseases;
  - federal-state partnerships with multiple U.S. Department of Health and Human Services agencies; and
  - partnerships with private organizations and multisector collaboratives to make services available that are not typically provided through Medicaid.
- There are barriers to organizational collaboration, including financing challenges such as separate funding streams, the length of time it takes to see the results of prevention initiatives, and differences in organizational culture and objectives.
- Initiatives to improve the health of the Medicaid—or any—population require the collection of measures to assess the baseline health of that population and changes to health over time. Currently, such efforts require use of multiple datasets. In addition, population health data for Medicaid enrollees also lags behind the data for other populations. The Centers for Medicare & Medicaid Services and others are making considerable strides to improve Medicaid data and outcomes data in general.

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The Medicaid program plays an important role in improving and maintaining the health of the more than 70 million low-income people and people with disabilities it serves. It covers more than a third of all children and almost half of all births in the United States. In addition to inpatient and outpatient medical services, Medicaid provides access to preventive services, screenings to aid in early diagnosis and treatment, and other health education and support services that also affect health status and outcomes.

Medicaid programs are increasingly using innovative methods to pay providers for better health outcomes for their enrollees and to partner with other agencies and organizations to promote health. In particular, Medicaid can improve the overall health of its enrollees by providing services in addition to those usually provided by health insurance and by tracking the overall health status of its enrollees to determine key population groups or geographic areas that warrant targeted interventions. Many of these services, while provided to individuals, affect the health of the population at large, through such practices as immunizations, smoking cessation, and sexually transmitted infection screening and treatment.

This chapter examines Medicaid's role in promoting population health, defined as "the health outcomes of a group of individuals, including the distribution of such outcomes within the group" (Kindig and Stoddart 2007, IOM 2003). When considering health through the lens of a population, if the desired product of a program is health, then resources must be allocated to more than the provision of acute-care medical services. Health care has been estimated to account for only 10 to 25 percent of the variance in health outcomes. The rest is shaped by genetics; health behaviors; social and economic factors such as income, education, employment, and culture; and physical environmental factors, including clean air and water, and the built environment (UWPHI 2014a, McGinnis et al. 2002).

Medicaid enrollees fare worse with respect to many of the social determinants that affect overall health status, relative to wealthier and less disabled populations. For example, over one-third of Medicaid beneficiaries between the ages of 19 and 64 have not completed

a high school education (Chang and Davis 2013). Poorer people are more likely to report fair or poor health status, disability, serious psychological distress, heart disease, stroke, hypertension, and many other health conditions (NCHS 2013). They are more likely to smoke and to be obese than persons above 400 percent of the federal poverty level. Medicaid enrollees are poorer (by definition) and have a poorer health profile compared with both the privately insured and the uninsured, even when the comparison is limited to low-income adults (Paradise and Garfield 2013, Koroukian et al. 2011). Thus, the effects of social determinants on health are substantial in analyses that examine how health status compares between Medicaid enrollees and other populations (Paradise and Garfield 2013).

As a source of health insurance, Medicaid clearly cannot address all social determinants of health. Even so, Medicaid programs—often in partnership with other organizations—have found ways to address factors such as exposure and vulnerability to disease, risk-taking behaviors, unhealthy health habits (e.g., smoking, obesity, poor nutrition), compliance with provider recommendations for medical treatments and preventive care such as prenatal care, and others. State policymakers have determined that there are ways to address some of these factors within the construct of what is primarily a source of insurance coverage, promoting, improving, and maintaining the health of Medicaid enrollees, while improving the health of the population overall. Often the provision of these services can reduce the need for future more costly medical care services.

Population health is often equated with public health, but the two terms are not interchangeable. For the purposes of this chapter, public health is more narrowly defined to consist of the types of activities provided by public health departments to control disease—such as infectious disease surveillance, control of disease outbreaks and epidemics, environmental health surveillance and improvement (e.g., lead paint removal), and control of food and water-borne illnesses. Thus, public health is a component of population health, but not its equivalent.

This chapter examines Medicaid programs from a population health perspective. The chapter first describes the different mechanisms that Medicaid currently uses to provide non-treatment-oriented services to promote health, including:

- screening and other services provided through Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) benefits, designed to ensure that children and adolescents receive appropriate dental, mental health, developmental, and specialty services, including services that are preventive and not merely medical;
- screening and preventive services for adults, including coverage of these services when provided by non-traditional providers;
- non-medical enabling and support services such as transportation, health education, and counseling that help ameliorate the health effects of socioeconomic disadvantage;
- incentive programs for enrollees, providers, and plans that promote healthy behaviors and lifestyles;
- telephone counseling on smoking cessation and other services paid for with Medicaid administrative funds; and
- programs targeting pregnant women to improve birth outcomes.

These Medicaid efforts on population health are being augmented by activities under the Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended), which requires that all qualified health plans and many other plans

must cover specific preventive services without charging copayments or coinsurance. The law also authorized new and innovative programs—such as tobacco cessation counseling and chronic disease prevention demonstration programs—that address population health. Some of these provisions relate specifically to Medicaid populations; others are not targeted to Medicaid populations but to low-income groups more generally that include a substantial proportion of Medicaid enrollees.

The chapter then describes selected successful partnerships designed to promote population health that Medicaid programs have had with government agencies and non-governmental organizations. It provides many examples of innovative ways that Medicaid programs—either individually or in concert with others—work to promote health rather than just provide treatment for existing disease. Examples include collaborations with public health departments to provide immunizations, lead abatement, and reduction of sexually transmitted diseases, among others.

The chapter concludes with a discussion of how population health initiatives can be monitored, and in particular, the data available and the data needed to do so. MACPAC will continue to monitor and to track best practices in Medicaid population health programs, the resources needed to promote them, and regulations that may impede or promote their implementation.

Medicaid Population Health Initiatives and Programs

Although Medicaid is primarily a source of health insurance coverage, it also covers many preventive, counseling, and educational health services, as well as certain enabling services (for example, transportation and translation) and special programs to promote health that are not usually provided by other insurers. In part, this is because Medicaid covers vulnerable populations that were historically covered by other public programs, which provided social services, food, institutional and non-institutional housing, and income support not traditionally covered by health insurance but vitally important to the well-being of these populations. Over time, use of waivers and demonstrations have allowed Medicaid programs to provide some of these services in addition to medical care to achieve cost savings and improve outcomes of care—for example, targeted case management and nutritional counseling for pregnant women (MACPAC 2013). Implementation of the ACA will further broaden population health efforts in some Medicaid programs.

Mandatory or optional Medicaid-covered services

State Medicaid programs have the ability to cover certain non-medical services that may promote health, but there are limits on the services they may provide. All mandatory and optional Medicaid services are defined in statute and must be medically necessary. State Medicaid agencies may also "place appropriate limits on a service based on such criteria as medical necessity" (42 CFR 440.230(d)). However, there is no federal statutory or regulatory definition of medical necessity for benefits. It is left to the states to define in their state plans (Schneider and Garfield 2005).

The Medicaid program currently covers some non-medical services associated with access to health services and also with improving health. These services are covered both under explicit Medicaid benefit categories as well as under demonstration projects aimed at improving health and reducing costs through an approach that includes more than medical treatment.

Early and Periodic Screening, Diagnostic, and Treatment program. The EPSDT benefit for children and adolescents was created in 1967

in response to studies that showed that many disabilities in young adults could have been prevented by earlier prevention and treatment while they were children. EPSDT is a key part of Medicaid for children and adolescents: it covers all health care, treatment, and other measures necessary to correct or ameliorate physical or mental conditions found by a screening or a diagnostic procedure, regardless of whether that treatment is part of the state's normal Medicaid benefit package. This includes treatment for any vision and hearing problems, including eyeglasses and hearing aids. For children's oral health, coverage includes regular preventive dental care and treatment to relieve pain and infections, restore teeth, and maintain dental health. Some orthodontia is also covered. States must establish distinct periodicity schedules for screening, vision, dental, and hearing services. In addition, interperiodic screens must be made available based on medical necessity.

In 1989, the Congress significantly strengthened the EPSDT section of the Medicaid statute via amendments to the Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239) to more clearly specify the screening services that states must cover, and also to require states to cover treatment for any problems discovered by those screening services—even if those services are not normally part of the state's Medicaid benefits (§1905(r) of the Social Security Act (the Act)). This makes the EPSDT benefit one of the most generous packages available, with an emphasis on providing all services necessary to promote children's health, including preventive, supportive and habilitative services.

Preventive benefits for adults. Preventing the onset of disease or health conditions is one method of improving health. The distinctions between types of prevention include primary prevention to promote health prior to the development of disease or injuries, secondary prevention to detect disease in early (asymptomatic) stages, and tertiary prevention to reverse, arrest, or delay the progression of disease (Starfield et al. 2008). Medicaid currently pays for most secondary and tertiary prevention, as it is usually considered diagnosis or treatment for an existing disease or condition. However, primary prevention—which takes place before diseases or conditions occur (because they have been prevented)—may not be automatically considered to be medically necessary.

While most preventive benefits for adults are not mandatory services under Medicaid, they are provided by most states. A survey conducted in 2010 found that while there is some variation among states in which services (from among 42 selected preventive services) were covered under Medicaid for adults under 65, each preventive service was covered by at least half and often up to two-thirds of states. Forty-four states reported covering at least 30 of the 42 preventive services, including 25 states that covered 40 or more such services (Snyder 2012).

A study by Wilensky and Gray (2013) concluded that Medicaid preventive benefits are not well defined for several reasons. First, there is a lack of detail in Medicaid provider information (such as provider manuals) and beneficiary information about age-appropriate screening. Although groups such as the U.S. Preventive Services Task Force (USPSTF) and Bright Futures have established standards of care, federal Medicaid guidelines often do not include such guidelines.

Second, there is some confusion about which preventive services are medically necessary and therefore able to be covered by Medicaid. As discussed above, all services provided by Medicaid must be medically necessary, but the term is not defined in statute. In general, if services are only covered based on medical necessity after

a patient presents with a specific concern, the coverage simply provides for diagnostic testing, not preventive screening (Wilensky and Gray 2013). For example, a screening colonoscopy would be considered a preventive test if done when a patient has no symptoms or indication of disease. If coverage is limited to cases when an individual has a positive fecal occult blood test, then it would be diagnostic and thus considered medically necessary.

To expand access to preventive services, the Centers for Medicare & Medicaid Services (CMS) issued an information bulletin in November 2013 that clarifies that preventive services do not have to be provided exclusively by physicians or other licensed practitioners. States may choose to also cover preventive services that are provided by individuals such as community health workers or doulas, as long as the service has been recommended by a physician or other licensed practitioner (CMS 2013a). This rule change is effective January 1, 2014, and applies to preventive services, including preventive services furnished pursuant to Section 4106 of the ACA. Previously, services had to be provided by licensed providers.

Non-medical support and education services. One mechanism for providing programs that promote health is through waiver and demonstration programs negotiated with CMS. These waivers are state-specific and can be population-specific. They allow states to target specific populations, limit services, and experiment with new ways of providing services to promote health and contain or reduce costs. Over time, states have been using waiver authority to expand the use of non-medical services and the use of non-traditional providers in Medicaid, including case managers, outreach workers, social workers, doulas, and other practitioners who may promote health but do not provide direct medical care. Numerous Medicaid waivers also provide enabling services, targeted case management, and provider payment incentives to promote enrollee health and reduce unnecessary utilization.

Medicaid managed care plans may also provide benefits over and above what is included in the Medicaid state plan. Specific benefits are specified in their contract with the state. For example, in its contracts with managed care organizations (MCOs), the Commonwealth of Virginia goes beyond mandatory and optional state plan benefits to contract for primary care coordination and disease management programs for enrollees with multiple chronic conditions. Care is delivered through a multidisciplinary team of providers that can include primary care physicians, specialist physicians, nurses, therapists, nutritionists, pharmacists, and others to educate individuals about their condition and manage their care (Virginia DMAS 2014).

Enrollee incentives. New flexibility under the Deficit Reduction Act of 2005 (P.L. 109-171) has enabled states to target and tailor programs for select populations, expand innovative strategies for beneficiary engagement, and identify practices that work. Several states have also proposed innovative programs to encourage Medicaid enrollees to practice healthy behaviors (Blumenthal et al. 2013). Florida's program, for example, provides enrollees with a credit worth $15 to $25 that can be redeemed for health-related products such as over-the-counter medications. The strategy is aimed at both simple preventive behaviors, such as obtaining an influenza immunization, and more complex behaviors, such as quitting smoking (Redmond et al. 2007). Another example is the Healthy Michigan Plan, which includes health behavior incentives, including potential reductions in premiums and cost sharing if enrollees adopt healthy behaviors (MDCH 2014).

Plan or provider financial incentives. Many states offer payment incentives to encourage providers to recommend wellness or preventive

services for enrollees. Two such models are accountable care organizations (ACOs) and coordinated care organizations (CCOs). ACOs are provider-run organizations in which participating providers are collectively responsible for the care of an enrolled population. An ACO may share in any savings associated with improvements in the quality and efficiency of care (Gold et al. 2012). Colorado, Maine, Minnesota, and New Jersey are among the first states to implement ACOs for their Medicaid populations, but the number continues to increase (NASHP 2014).

In Oregon, CCOs are networks of all types of health care providers (physical health care, addictions and mental health care, and sometimes dental care providers) who have agreed to work together in their local communities to serve people who receive health care coverage under the Oregon Health Plan (Medicaid). CCOs are focused on prevention and helping people manage chronic conditions (OHPB 2014). The Oregon CCO is funded by the CMS Center for Medicare & Medicaid Innovation's State Innovation Models Initiative (SIM) grant program. These programs are in their early stages and have not yet been evaluated, but future findings should offer important lessons for others considering this approach.

Tobacco quitlines. In June 2011, CMS issued a State Medicaid Director Letter (June 24, 2011) on tobacco cessation services that, in part, announced a new policy allowing costs related to tobacco telephone quitline activities provided to Medicaid enrollees to be claimed by Medicaid as an administrative expenditure. CMS will regard tobacco quitlines that follow the evidence-based protocols set forth in the U.S. Public Health Service clinical practice guideline on treating tobacco use and dependence as an allowable Medicaid administrative activity, to the extent that the quitline provides support to Medicaid enrollees under the auspices of the state Medicaid agency (CMS 2011a).

Pregnancy benefits. Medicaid's coverage of pregnant women has served an important population health function by providing prenatal and postnatal care for millions of women and babies. Almost all state Medicaid programs have some enhanced benefits for pregnant women. Currently, a state may provide a greater amount, duration, or scope of services to pregnant women than it provides under its plan to other individuals who are eligible for Medicaid (42 CFR 440.210(a)(2), 42 CFR 440.250(p)). For example, several states have extended dental coverage only to pregnant women due to an emerging link between periodontal disease and an increased risk for preterm birth and low birth weight infants (MACPAC 2013). Others provide targeted case management, medical home programs, and nutrition counseling not available to other Medicaid enrollees. At the federal level, the Strong Start for Mothers and Newborns initiative is a joint effort between CMS, the Health Resources and Services Administration (HRSA), and the Administration for Children and Families (ACF). Strong Start goals are to reduce preterm births and improve outcomes for newborns and pregnant women enrolled in Medicaid and the State Children's Health Insurance Program (CHIP) through a variety of programs.

Affordable Care Act Programs and Regulations Affecting Population Health and Medicaid Enrollees

The ACA further expands Medicaid's responsibilities by increasing the population it covers. The ACA includes several provisions that promote preventive care, as well as programs designed to improve the health of the U.S.

population in general. Many of these provisions affect Medicaid enrollees and providers indirectly, because they apply to systems and providers who serve both Medicaid and other patients. For example, the ACA seeks to incentivize providers to take responsibility for population health outcomes. Also included are expansions of primary health care training; requirements that health plans and Medicare provide specific preventive services without cost sharing; and incentives for workplace wellness programs, including grants to small businesses to develop comprehensive wellness programs and insurance discounts for employees participating in wellness plans (Stoto 2013).[1] Selected ACA provisions affecting the Medicaid population are described below.

Community health needs assessment for non-profit hospitals. The ACA adds a new Internal Revenue Service (IRS) requirement that has the potential to leverage the strengths and resources of both the health care and public health systems to create healthier communities (Stoto 2013, Rosenbaum and Margulies 2011). Non-profit hospitals must conduct a community health needs assessment (CHNA) once every three years. These reports must describe the community served, identify existing health care resources, and prioritize community health needs. Hospitals must also develop an implementation strategy to meet the needs identified through the CHNA.

The IRS requirements call for two different sets of population health measures: (1) measures of population health outcomes for which health care providers, public health agencies, and many other community stakeholders share responsibility, and (2) performance measures capable of holding these same entities accountable for their contributions to population health goals (Stoto 2013). The assessment must take into account input from people who represent the broad interests of the community served by the hospital facility, including those with special knowledge of or expertise in public health, and is made widely available to the public. In theory, this would include Medicaid agencies and enrollees who use the hospital.

Mandated preventive benefits. The ACA mandates that many preventive services be provided with no cost sharing to individuals enrolled in exchange plans, Medicare, and Medicaid expansions to childless adults (who are often referred to as the new adult group) (HHS 2014). These include:

- routine immunizations recommended by the Advisory Committee on Immunization Practices of the Centers for Disease Control and Prevention (CDC);
- preventive care and screenings for infants, children, women, and adolescents, as recommended in evidence-based guidelines supported by HRSA;
- preventive care and screening for women, as recommended in evidence-based guidelines supported by HRSA;
- evidence-based items or services that have a rating of A or B in the current recommendations of the USPSTF with respect to the individual involved;
- contraceptive methods, sterilization procedures, and patient education and counseling on reproductive health (not including abortifacient drugs), except in health plans sponsored by certain exempt religious employers (HRSA 2014); and
- tobacco cessation counseling for pregnant women (CMS 2011b).[2]

States are eligible for a one percentage point increase in the federal medical assistance percentage (FMAP) effective January 1, 2013, applied to expenditures for adult vaccines and

USPSTF-recommended preventive services if they cover the full list of these services without cost sharing. The increase applies to such expenditures whether or not the services are provided on a fee-for-service or managed care basis, or under a benchmark or benchmark-equivalent benefit package also referred to as an alternative benefit plan (CMS 2013b).

It is not clear whether the ACA financial incentive to cover USPSTF services is sufficient to motivate all states to provide all ACA-mandated preventive services. Nevada, New Hampshire, Hawaii, New Jersey, Kentucky, Ohio, and New York have had Medicaid state plan amendments approved by CMS to receive the increased matching rate (CMS 2014a, CMS 2013c–h).

Public awareness campaigns. The ACA calls for states to design public awareness campaigns to educate Medicaid enrollees on the availability and coverage of preventive services, including obesity-related services. To help states meet this requirement, CMS will host calls and webinars regarding coverage and promotion of preventive services, develop fact sheets that address Medicaid coverage of preventive services, and share examples of state Medicaid program efforts to increase awareness of preventive services.

Incentives for prevention of chronic diseases in Medicaid. Building on the incentive programs that some states were already using, the ACA authorizes grants to states to provide incentives to Medicaid beneficiaries of all ages who participate in prevention programs and who demonstrate changes in health risk and outcomes, including the adoption of healthy behaviors (§4108 of the ACA). The initiatives or programs are to be "comprehensive, evidence-based, widely available, and easily accessible." The programs must use relevant evidence-based research and resources. An application by a state for a grant under the program must address one or more of the following prevention goals: tobacco cessation, controlling or reducing weight, lowering cholesterol, lowering blood pressure, and avoiding the onset of diabetes, or, in the case of a diabetic, improving the management of the condition. Ten states are currently participating in this program (CMS 2014b).

Grants for immunization and other prevention programs. The ACA also authorizes funding for state-based demonstrations to improve vaccination rates and creates state-level grants for the development and evaluation of Medicaid initiatives promoting behavioral change. The Community Transformation Grant program funds health departments implementing community-based preventive initiatives deemed potentially effective by the federal task force (§4201 of the ACA).

Partnering to Improve Population Health

Medicaid is designed as a federal-state partnership in which state Medicaid programs work with CMS to pay for health services for enrollees. State Medicaid programs also work in concert with other federal and state agencies and non-governmental organizations to promote the health of their enrollees. In recent years, funds for public health have been decreasing, putting a greater responsibility on the Medicaid program to find ways to work with public health departments to promote health for its enrollees (Trust for America's Health 2013). Some examples of these partnerships, as well as some barriers to partnering with other organizations, are described here.

CMS and other federal agency partnerships

Most state Medicaid programs partner with CMS, other federal agencies, and non-governmental organizations to promote access to and use of

health services to improve the health of their enrollees. Notably, the Center for Medicare & Medicaid Innovation awards grants to organizations to test various payment and service delivery models that aim to achieve better care for patients, better health for communities, and lower costs. Some other examples include:

- **CDC: Newborn Screening Programs.** State newborn screening programs routinely test blood spots collected from newborns for more than 30 metabolic and congenital conditions, with initial short-term follow-up services to ensure that families are informed of suspect results and linked to additional testing to confirm the child's condition. Medicaid contributes to newborn screening by providing about 10 percent of the costs—either in direct funding or through reimbursement for the screening fees that hospitals pay to public health laboratories that provide these screenings (Johnson et al. 2006).

- **CDC: Breast and Cervical Cancer Detection Program.** The Breast and Cervical Cancer Prevention and Treatment Act (P.L. 106-354), passed in 2000, gave states the option to offer women who are diagnosed with cancer access to treatment through Medicaid. To date, all 50 states and the District of Columbia have taken up this option. In 2012, the CDC Breast and Cervical Cancer Detection Program funded a five-year cooperative agreement with the Minnesota and New York state departments of health to carry out innovative programs to increase population-level colorectal, breast, and cervical cancer screening rates. The Minnesota Department of Health is collaborating with the state Medicaid program to increase screening among the state's unscreened Medicaid enrollees through direct mail reminders and a modest financial incentive.

- **HRSA: Maternal and Child Health Block Grants.** HRSA administers federal block grants to states to support comprehensive services to women and children with limited access to health care services under Title V of the Act. Successful coordination of Title V programs with Medicaid and CHIP programs assists in maximizing federal, state, and local funds to meet the health care needs of low-income women and children and to assist in the identification of pregnant women and infants eligible for Medicaid. State Title V and Medicaid programs must coordinate EPSDT activities to minimize duplication of effort. Medicaid programs may pay Title V agencies for providing Medicaid-covered services (§505(a)(F)(iv) of the Act). They also must enter into cooperative agreements to share information and education on pediatric vaccinations and delivery of immunization services (§1902(a)(11)(B) of the Act).

State partnerships with public health and other state agencies

State Medicaid programs also partner with other state agencies to share resources, data, and staff to promote population health. Such partnerships allow both partners to have a better understanding of the social determinants of health experienced by state residents, as well as better information about services received outside of the Medicaid program. For example, immunization rates can be better determined through population-based registries than through claims or encounter data using only Medicaid data because enrollees may have received immunizations at public health departments or other locations. Examples of interstate agency partnerships follow.

Washington state. At the February 2013 MACPAC meeting, representatives from Washington state presented on collaborative efforts between the

state's Department of Health (DOH) and its Health Care Authority (HCA), which administers their Medicaid program (Selecky and Porter 2013). The DOH and HCA are working together to improve access to preventive services and integrated health care for the state's Medicaid enrollees. Some examples of key collaborations include:

- The state's immunization registry shares data with Medicaid and social services to facilitate reports on immunization rates. The DOH shares immunization data with managed care plans to help them meet their Healthcare Effectiveness Data and Information Set (HEDIS) performance measure contract requirements for Medicaid.
- The state provides about $1.8 million a year to pay for tobacco cessation benefits for Medicaid enrollees, including free quitline calls and nicotine replacement therapy.
- The DOH trains "health home care coordinators" on counseling, patient activation, and stepped-up treatment for enrollees in Medicaid's health home program for chronically ill individuals.
- A statewide prescription monitoring program was launched in 2011 to monitor commonly abused controlled substances to ensure Medicaid enrollees are not taking narcotics in dangerous amounts or combinations.

Wyoming. Another example of a state agency partnership is the Wyoming integrated data program (NWCPHP 2014). This is a program for all Wyoming providers (most accept Medicaid payment) that provided access, at no cost, to an electronic health record system called the Total Health Record. Wyoming has had a functioning health information exchange for over four years that links various Wyoming Department of Health databases, such as Medicaid claims and immunization data, with the Total Health Record.

In the area of maternal and child health, Medicaid personnel notify public health nurses when Medicaid clients become pregnant, and the nurses can set up home visits with the newly pregnant mothers. Depending on the situation, nurses can then refer expectant mothers to services that promote the health of the mother and the child. The information flow works the other way as well. For example, if a nurse knows that a pregnant or new mother smokes, this information is shared in the record so the physician is aware and can promote smoking cessation. At times, the clinician may seek information from a public health nurse if there is information he or she is not able to get during an appointment.

The partnership also allows data available through the Wyoming Immunization Registry to be analyzed to show where immunization rates are low. This information can be given to Medicaid providers and public health nurses for follow-up. Efforts to increase immunizations can be targeted to the areas or vaccines that need them the most (NWCPHP 2014).

State partnerships with health plans and providers

Medicaid MCOs must specify the services they provide in their contracts with state Medicaid programs. In these contracts, they may provide services not included as mandatory or optional Medicaid services, as long as they are willing to pay for them under their negotiated payment rate or capitated rate. Many Medicaid managed care programs provide education, case management, counseling, and other non-treatment-oriented services not provided through traditional fee-for-service Medicaid.

Minnesota. In Minnesota, health insurers must file collaboration plans every four years (and updates every two years) that show how they will support high-priority public health goals, measure and evaluate progress, and collaborate with local public health and other community organizations. The collaboration plans focus on the under-65 population (Silow-Carroll and Rodin 2013).

Pennsylvania. In 2011, Pennsylvania's Medicaid agency began including in its MCO contracts what it calls pillars to promote community involvement, although these do not include numerical targets or financial incentives. The four pillars are: (1) embed care managers in medical practices, (2) develop transitions of care, (3) help primary care physicians achieve medical home status, and (4) work with collaborative learning networks. The state Medicaid agency also uses efficiency adjustments that increase or decrease payments to health plans if their regions do better or worse than expected on measures of population health (Silow-Carroll and Rodin 2013).

United Healthcare. United Healthcare offers JOIN for ME—a community-based childhood obesity lifestyle intervention program—to Medicaid enrollees who live in several states, including Louisiana, Texas, and Kansas. The program engages overweight and obese children and adolescents age 6 to 17, along with their parents, in a series of learning sessions to achieve healthier weights through healthier family nutrition choices, increased activity, and lifestyle improvement tracking (United HealthCare 2012).

Multisector partnerships and collaboratives

For public health issues that are of major importance to a large number of stakeholders, federal, state, and private organizations can partner to improve health for a defined population. These consortiums may pool funding, or private organizations may contribute funds or other resources to provide services not covered by Medicaid. Examples of these consortiums include:

- **The Ohio Perinatal Quality Collaborative's 39-Week Project.** One component of this initiative was to publicly share hospital-level data on the prevalence of scheduled deliveries less than 39 weeks (MACPAC 2013).
- **Strong Start for Mothers and Newborns.** The Strong Start for Mothers and Newborns Initiative is a joint effort between CMS, HRSA, and ACF that aims to reduce preterm births and improve outcomes for newborns and pregnant women. One component is a public-private partnership and awareness campaign to reduce the rate of early elective deliveries prior to 39 weeks for all populations (MACPAC 2013).[3]
- **Text4baby.** Several states are collaborating in a pilot program that involves public-private collaboration to target pregnant Medicaid enrollees with health messages sent by text (Text4baby 2014). Messages include reminders on prenatal care and immunization, information about nutrition and smoking cessation, and tips on developmental milestones and warning signs, all keyed to a mother's due date.

Challenges in partnering to promote population health

The many partnerships between federal agencies, state Medicaid programs, and other organizations demonstrate that some progress is being made in breaking down silos and moving to a more population-oriented approach to improving the health status of Medicaid enrollees. Barriers to organizational collaboration to implement population health initiatives remain, however (Richardson 2012).

These barriers include:

- the standards for proving cost-effectiveness sometimes placed on these interventions;
- the belief that, in the long run, prevention may cost more than treatment;
- the lengthy time frames required for some population health interventions (in particular ones that require behavioral change for individuals); and
- the inability to identify specific individuals who are prevented from developing the disease or condition (Richardson 2012).

These and other barriers are discussed in more detail below.

Separate funding streams and other financing challenges. A longstanding barrier to coordinating care has been the misalignment of funding streams among potential or actual partners. For example, for individuals dually enrolled in Medicare and Medicaid, Medicaid pays for most long-term services and supports and case-management services, while Medicare sees the savings from keeping these individuals out of the hospital. To address this particular issue, CMS's Financial Alignment demonstration is currently testing models that better align the financing of these two programs and integrate primary care, acute care, behavioral health, and long-term services and supports for their dually eligible Medicare-Medicaid enrollees (CMS 2014c).

Federally Qualified Health Centers (FQHCs) are also a major player in the safety net that provides a comprehensive set of services to uninsured and low-income populations, including many Medicaid enrollees. FQHCs often partner with Medicaid agencies on various preventive and other initiatives designed to improve overall health, notably oral and behavioral health services. FQHCs also may participate in Medicaid ACOs and other financing demonstration programs.

However, the FQHC payment system sometimes raises questions regarding health centers' eligibility to participate in incentive-based payment models such as ACOs that necessitate more aggressive financial integration. These models may also require information about performance that may go beyond what is captured on FQHC cost reports, which focus on health center costs but not necessarily on costs to which payment incentives apply. At the same time, CMS has stated in guidance that the FQHC payment structure does not require MCOs to recoup incentives such as shared savings. Rather, FQHCs are entitled to the full amount of their Medicaid payment rate, regardless of whether and the extent to which shared savings are achieved (Burton et al. 2013).

Different time frames for evaluating effectiveness. Population health programs generally create future benefits rather than helping someone immediately. They also may benefit the public at large more significantly than targeted individuals. Prevention in particular, as one mechanism for promoting population health, does not always save money, particularly in the short-term (Richardson 2012, Russell 2009).

Thus, different goals and time horizons may create barriers to collaboration among organizations. The length of time necessary to benefit from the cost-saving potential of prevention services may be longer than necessary for MCOs to get a return on their investment, for example, or outside of the five-year time frame generally used by the Congressional Budget Office in its estimates (Richardson 2012).

Conflicting eligibility rules and program coordination issues. In some cases, different programs have conflicting eligibility rules for benefits. This can make collaborations difficult,

because it is not always clear which program's regulations or eligibility standards take precedence. For example, Medicaid and block grant programs may cover overlapping populations, but not all of their participants are eligible for both programs. An enrollee with both a mental disorder and a substance abuse problem may be found eligible for services under either one Medicaid eligibility pathway or a block grant, but not for services through both, creating conflicts between the programs when some services authorized by one program cannot be provided or paid for by the partner program. Similarly, Medicaid may fund only services provided to a child (but not the family) when the parents are not themselves Medicaid-eligible, which could conflict with partners who provide family counseling or other services (Koyanagi and Boudreaux 2003).

Incompatible data systems. In several population health partnerships, a core activity is the linkage of different data systems that can be used to monitor health care and health outcomes. For example, all-payer immunization registries are useful in determining whether low immunization rates for Medicaid enrollees are real, or whether some enrollees are actually receiving their immunization outside of the Medicaid program. But such registries require a common identifier for the population covered. Linking these data at the individual level requires that the data be physically linked by identifiers and that the data be in a common format. Many states, as well as federal initiatives to standardize electronic data exchange, are actively working to overcome the many barriers to effective health information exchange.

Differences in organizational culture or goals. Managed care offers considerable flexibility in providing non-medical benefits that are not offered by traditional Medicaid, as discussed above. However, some MCOs have proprietary approaches to care management that make it challenging to collaborate with competitors on community-based initiatives (Bovbjerg et al. 2011).

Contracting between plans and public health providers may be complicated because these providers may not have traditionally contracted with private health plans. They may lack the experience necessary to work through contracting requirements such as billing, credentialing, or rate negotiations.

It can also be difficult for national plans to adapt to the unique needs of a local environment and have the flexibility to work with local partners to leverage community-based public health initiatives (Burton et al. 2013). Alternatively, national plans may have the capital to invest in communities that small plans do not.

Monitoring Population Health among Medicaid Enrollees

A large part of improving the health of any population is determining what the current health of that population is, assessing what its target level should be, and tracking progress towards those goals. As described for the U.S. Department of Health and Human Services (HHS) Healthy People 2010 and 2020 initiatives, setting measurable targets for process objectives requires judgment and is not an exact science. HHS has recommended that to set process targets, planners should (1) identify the population at risk, (2) identify care gaps, (3) identify and target high-risk groups, (4) consider the current status (baseline), (5) seek stakeholder input on the desired level of improvement, and (6) make a realistic assessment of what can be accomplished (HHS 1997). Many of these tasks are informed by data that is collected by CMS, CDC, and other agencies.

Need for data to monitor population health

Initiatives to improve the health of the Medicaid (or any) population require collection of measures and methodologies that can be used to assess: (1) the baseline health of that population, and (2) changes to health over time. Such information can be used to identify populations with poor health that could benefit from some sort of intervention, and also to identify and reduce disparities in health across population groups.

Currently, there are few Medicaid datasets that can be used for this purpose, although CMS has a considerable amount of work underway to improve its Medicaid data files. Medicaid data issues and CMS efforts to improve them are discussed in detail in MACPAC's June 2013 report to the Congress (MACPAC 2013).

Some reasons for this lack of data—for Medicaid enrollees but also for populations in general—include:

- hesitancy to ask for data from enrollees or patients;
- misinformation about how health status and determinants data will be used (including privacy concerns), which may make enrollees reluctant to cooperate in surveys or data collection efforts;
- lack of agreement on which measures to collect;
- lack of standardization of health status measures for specific population groups of interest (In part, this stems from different data elements collected on different surveys. However, there is a considerable amount of work in the research community that is attempting to define and standardize measures of mental health and disability, but these standardized measures are not yet consistently used in data collection efforts.); and
- lack of funding for data initiatives, but specifically for data initiatives with information on both Medicaid and non-Medicaid populations at the community level.

Current datasets

Because no single data source provides a national picture of access to health services in Medicaid, monitoring the health of Medicaid enrollees requires multiple sources of data that measure different aspects of health status and its determinants. The major sources of Medicaid data that could help measure and track health status and social determinants of health for Medicaid enrollees include:

Claims and encounter data (MSIS, MAX, T-MSIS). Medicaid's administrative data are available in systems known as the Medicaid Statistical Information System (MSIS) and the Medicaid Analytic eXtract (MAX). The agency is working with states on an improved system known as the Transformed Medicaid Statistical Information System (T-MSIS). These administrative and claims data can be used to identify enrollees with specific diagnoses or conditions available from claims data. However, they have limited usefulness for self-rated health, functional status, health behaviors, or socioeconomic and environmental characteristics that could be classified as social determinants of health.

EPSDT reporting data (Form CMS-416). Form CMS-416 is used by CMS to collect basic information on state Medicaid programs to assess the effectiveness of certain EPSDT services. States must provide CMS data on screening, corrective treatments, dental services, and a few selected other indicators (OIG 2010).

Attempts have been made to improve the quality of CMS-416 data, but problems persist with the completeness, accuracy, and standardization of the data. In a U.S. Government Accountability Office report, state and national health association officials noted inconsistencies in how states report data, data inaccuracies, and problems with the data captured that preclude calculating accurate rates of the provision of dental and other required EPSDT services (Cosgrove 2007). Further, the usefulness of the CMS-416 for federal oversight purposes is limited by the data currently requested, which consists of a very limited set of measures mandated by law.

National health surveys. Nationally representative health surveys—such as the National Health Interview Survey, the Medical Expenditure Panel Survey, the National Survey of Children's Health, and others—are commonly used to examine the health of different groups of people, including persons with Medicaid compared to those with other types of coverage. The surveys contain health behaviors, sociodemographic information, and other health determinants. However, they have limited ability to do subnational analyses or to evaluate the effect of specific Medicaid programs or initiatives.

Behavioral Risk Factor Surveillance System (BRFSS). BRFSS is a state-run telephone survey of non-institutionalized adults age 18 and older. It includes topics such as health status, risk behaviors, health care access, and prevalence of chronic conditions. While the survey includes questions on insurance, there was no question specific to Medicaid or CHIP until 2013. The 2013 data are not yet available; however, when they are, states should be able to use them to identify localities with a high prevalence of health risk factors, health behaviors, and health conditions that could be targeted for programmatic interventions (for example, areas with high smoking rates, high obesity rates, or high rates of hypertension). It is unclear if the Medicaid and CHIP questions will be retained in future years.

Medicaid Consumer Assessment of Healthcare Providers and Systems (CAHPS) for adults. While many states currently conduct a CAHPS survey of adults covered by Medicaid, they do not collect the data in a standardized way that can be used to compare enrollees across states. The goal of this new national survey (to be fielded in the fall of 2014) is to attain national and state-by-state estimates of adult Medicaid enrollees' access and experiences and satisfaction with care across different financing and delivery models (e.g., managed care and fee for service) and population groups (e.g., enrollees with physical or mental disabilities, enrollees dually enrolled in Medicare and Medicaid, all other enrollees). The questionnaire contains several health status measures, measures of functioning, information on sociodemographics (e.g., age, sex, race/ethnicity), and some information on health behaviors (e.g., smoking). However, it does not contain questions to assess economic circumstances such as family income or size.

Looking Forward

Many Medicaid programs have realized that a traditional, narrow definition of medical assistance may not be the most effective way to improve the health of their enrollees. Multiple examples of how Medicaid programs provide services in addition to medical treatment to promote the health of their enrollees are presented in this chapter. These initiatives and services range from providing screening and preventive services and education and counseling, to partnering with providers and others to provide financial and other incentives for improving the health status of defined populations. These initiatives are consistent with the Institute of Medicine report *Primary Care and Public Health: Exploring*

Integration to Improve Population Health, which stresses the importance of CMS and other collaborations to improve the nation's health (IOM 2012).

These initiatives are part of an ongoing trend to measure health for specific groups (in this case Medicaid enrollees); target populations for whom health status is poor or social determinants of health are problematic and could be improved (e.g., areas with no grocery stores, areas with high rates of communicable disease, areas with no playgrounds or other places to exercise); and develop interventions to help improve health for those identified populations.[4] Medicaid ACOs and CCOs in particular are often grounded in the Triple Aim model developed by the Institute for Healthcare Improvement, which has a focus on population health—improving the patient experience of care (including quality and satisfaction), improving the health of populations, and reducing the per capita cost of health care (IHI 2014, OHPB 2014).

Medicaid programs have many additional opportunities and vehicles for enhancing the health of enrollees in addition to providing acute medical care. Most of these vehicles do not require any changes to current legislation or regulations. States can, for example, use waivers to develop demonstration programs—such as ACOs and CCOs—that provide incentives to providers to improve the health of their enrolled populations.

CMS can also continue to take steps to promote the value of Medicaid for improving population health. The agency can clarify existing regulations and laws (e.g., prevention, EPSDT, and ACA regulations) to assure that states maximize the benefits under Medicaid to promote access to preventive benefits. CMS and states can improve data collection and data dissemination on the health status, social determinants of health, and utilization of health services by enrollees. States can also develop new partnerships to share data with other organizations, including other federal, state, and private partners and relevant providers. CMS's Center for Medicare & Medicaid Innovation in particular supports the development and testing of innovative health care payment and service delivery models to improve the health of covered populations, improve quality of care, and control costs.

Medicaid expansions under the ACA provide an unprecedented opportunity for states to find ways to maintain and improve population health. Looking forward, MACPAC will continue to track these initiatives and to support efforts to improve the overall health of Medicaid enrollees.

Endnotes

[1] Workplace wellness programs are not without controversy and risks; for example, they have the potential to shift costs to sicker people (a backdoor way around the ban on health status rating) or violate the ACA's antidiscrimination provisions (James 2012).

[2] Section 4107 of the ACA amends Section 1905 of the Social Security Act to require coverage of counseling and pharmacotherapy for cessation of tobacco use by pregnant women. For pregnant individuals, the U.S. Public Health Service guideline recommends that because of the serious risk of smoking to the pregnant smoker and the fetus, whenever possible, pregnant smokers should be offered person-to-person counseling that goes beyond minimal advice to quit. The guideline does not recommend pharmacotherapy for pregnant women because there is insufficient evidence of the specific safety and effectiveness of pharmacotherapy in pregnant women. However, such use may be evaluated on a case-by-case basis as determined by the woman and her physician (CMS 2011a).

[3] See MACPAC 2013 for a discussion of other state programs to reduce preterm births.

[4] Initiatives such as Mobilizing Action Toward Community Health focus on assessing population health and working with communities to help them (1) identify opportunities for improving community health, and (2) find and implement evidence-based programs and policies to address these issues (UWPHI 2014b). The HHS Healthy People 2020 initiative is tracking population health and measuring progress towards goals, which include: attaining high-quality, longer lives free of preventable disease, disability, injury, and premature death; achieving health equity, eliminating disparities, and improving the health of all groups; creating social and physical environments that promote good health for all; and promoting quality of life, healthy development, and healthy behaviors across all life stages (HHS 2010). Many other examples of similar initiatives are sponsored by foundations and government agencies at all levels.

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