Chapter 3:

Acting to Improve Vaccine Access for Adults Enrolled in Medicaid
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Recommendations

3.1 Congress should amend Section 1902(a)(10)(A) of the Social Security Act to make coverage of vaccines recommended by the Advisory Committee on Immunization Practices a mandatory benefit and amend Sections 1916 and 1916A to eliminate cost sharing on vaccines and their administration.

3.2 The Centers for Medicare & Medicaid Services should implement payment regulations for vaccines and their administration. Payment for vaccines should be established at actual acquisition cost and a professional fee for administration, similar to the payment requirements established for outpatient prescription drugs under 42 CFR 447.512(b) and 447.518(a)(2).

3.3 The Centers for Medicare & Medicaid Services should issue federal guidance encouraging the broad use of Medicaid providers in administering adult vaccinations.

3.4 The Secretary of the U.S. Department of Health and Human Services should direct a coordinated effort with the Centers for Medicare & Medicaid Services (CMS), the Office of the Assistant Secretary for Health, and the Centers for Disease Control and Prevention to provide guidance and technical assistance to improve vaccine outreach and education to Medicaid and CHIP beneficiaries. Additionally, CMS should release guidance on how to use existing flexibilities and funding under Medicaid and CHIP to improve vaccine uptake.

3.5 Congress should provide additional federal funds to improve immunization information systems (IIS). In addition, Congress should require the Secretary of the U.S. Department of Health and Human Services to coordinate efforts across relevant agencies within the department to release federal guidance and implement standards to improve IIS data collection and interoperability with electronic health records and state Medicaid Management Information Systems (MMIS). The Centers for Medicare & Medicaid Services should also provide guidance on matching rates available and ways to integrate IIS and MMIS to be eligible for the 90 percent match for the design, development, installation, or enhancement of MMIS and the 75 percent match for the ongoing operation of MMIS.

Key Points

• Adult Medicaid enrollees face access barriers to recommended vaccines, and as a result, vaccination rates are generally lower for Medicaid-enrolled adults than those with private insurance.

• Medicaid has more restrictive vaccine coverage than most other sources of health insurance. For many Medicaid-enrolled adults, vaccine coverage is optional or subject to cost sharing. This creates unequal access to cost-effective, preventive care.

• In addition to limited coverage, other access barriers include low provider payment, limited provider networks, and inadequate support and education for beneficiaries.

• The Commission recommends a set of complementary actions to meaningfully address access barriers and improve vaccination rates.
CHAPTER 3: Acting to Improve Vaccine Access for Adults Enrolled in Medicaid

Vaccines are an important, cost-effective tool to prevent illness, hospitalization, and death (CDC 2021a, 2020; Leidner et al. 2019; Ozawa 2016; McLaughlin et al. 2015; Roush et al. 2007). Yet adult Medicaid enrollees still face substantial access barriers to recommended vaccines. As a result, Medicaid vaccination rates are low, and adults enrolled in other forms of health insurance generally have higher vaccination rates than Medicaid enrollees (MACPAC 2022a, NCQA 2021).

In its March 2022 Report to Congress on Medicaid and CHIP, the Commission discussed the role of vaccines in promoting public health and described how current Medicaid coverage policies create unequal access to recommended vaccines. The March report also described vaccination rates across sources of coverage and racial and ethnic groups and offered policy considerations to improve vaccination rates in Medicaid (MACPAC 2022a).

It is the Commission’s view that mandatory coverage of recommended vaccines for all Medicaid-enrolled adults is fundamental to improving vaccine access. Currently, some adults in Medicaid have limited coverage of recommended vaccines, creating unequal access to cost-effective, preventive care. The Commission also recognizes that low vaccination rates in Medicaid result from a number of other barriers, including inadequate provider payment, limited provider networks, and inadequate support and education for beneficiaries.

The Commission recommends five policy changes to address these barriers. They include the following:

- Congress should amend Section 1902(a)(10)(A) of the Social Security Act to make coverage of vaccines recommended by the Advisory Committee on Immunization Practices a mandatory benefit and amend Sections 1916 and 1916A to eliminate cost sharing on vaccines and their administration.

- The Centers for Medicare & Medicaid Services should implement payment regulations for vaccines and their administration. Payment for vaccines should be established at actual acquisition cost and a professional fee for administration, similar to the payment requirements established for outpatient prescription drugs under 42 CFR 447.512(b) and 447.518(a)(2).

- The Centers for Medicare & Medicaid Services should issue federal guidance encouraging the broad use of Medicaid providers in administering adult vaccinations.

- The Secretary of the U.S. Department of Health and Human Services should direct a coordinated effort with the Centers for Medicare & Medicaid Services (CMS), the Office of the Assistant Secretary for Health, and the Centers for Disease Control and Prevention to provide guidance and technical assistance to improve vaccine outreach and education to Medicaid and CHIP beneficiaries. Additionally, CMS should release guidance on how to use existing flexibilities and funding under Medicaid and CHIP to improve vaccine uptake.

- Congress should provide additional federal funds to improve immunization information systems (IIS). In addition, Congress should require the Secretary of the U.S. Department of Health and Human Services to coordinate efforts across relevant agencies within the department to release federal guidance and implement standards to improve IIS data collection and interoperability with electronic health records and state Medicaid Management Information Systems (MMIS). The Centers for Medicare & Medicaid Services should also provide guidance on matching rates available and ways to integrate IIS and MMIS to be eligible for the 90 percent match
for the design, development, installation, or enhancement of MMIS and the 75 percent match for the ongoing operation of MMIS. Each of these recommendations addresses a different barrier to vaccine access and could be adopted independently. However, because the problem of low vaccination rates in Medicaid is multifaceted, the Commission is recommending a set of complementary actions that together would meaningfully address barriers to access and improve vaccination rates.

In this chapter, the Commission provides an overview of the benefits of and need for adult vaccinations. Then we describe the barriers to vaccine access for adults enrolled in Medicaid. Last, we present the rationale for these recommendations and the implications for federal spending, states, enrollees, plans, and providers.

Overview

Low uptake of recommended adult vaccines has resulted in preventable disease, hospitalization, and death. Many vaccine-preventable diseases (VPDs) are communicable, and low vaccination rates contribute to the spread of these diseases. The Centers for Disease Control and Prevention (CDC) estimates that since 2010, between 140,000 and 710,000 influenza-related hospitalizations and 12,000 to 56,000 influenza-related deaths have occurred per year. Each year, an estimated 150,000 individuals are admitted to the hospital for pneumococcal pneumonia, and 5,000 die from the disease. Chronic hepatitis B affects between 700,000 and 1.4 million people, and human papillomavirus (HPV) causes more than 27,000 cases of cancer each year (CDC 2021a).

Low vaccine uptake leads to hospitalizations and other medical costs that could be avoided. Most recommended vaccines are cost effective; that is, the cost of vaccination is less than the eventual cost of untreated disease. One systematic review of cost-effectiveness studies for adult vaccines found that most published studies reported favorable cost-effectiveness profiles for adult vaccinations. Several vaccines (influenza; pneumococcal; tetanus; and tetanus, diphtheria, and pertussis (Tdap)) were found to be cost saving, and other vaccines (HPV and shingles) generally were found to have a cost-effectiveness ratio of $100,000 or less per quality-adjusted life-year saved (Leidner et al. 2019).

Medicaid-enrolled adults have lower vaccination rates than those with private insurance for nearly all vaccines. Vaccination rates for Tdap had the largest gap between Medicaid and private insurance. For the 2015 to 2018 period, the Tdap vaccination rate for those with private insurance was almost 13 percentage points higher than those enrolled in Medicaid (MACPAC 2022a).

When looking at vaccination rates among pregnant women for influenza and Tdap—two vaccines the Advisory Committee on Immunization Practices (ACIP) recommends for this population—the difference was particularly stark. Although the influenza vaccine reduces the risk of hospitalization for pregnant women by an average of 40 percent (CDC 2021b), the influenza vaccination rate was almost 21 percentage points lower for pregnant women enrolled in Medicaid than it was for those enrolled in private insurance. For Tdap, pregnant women enrolled in Medicaid had a vaccination rate about 12 percentage points lower than those privately insured (MACPAC 2022a). It is important to note that these vaccines also provide protection for infants who are too young to be vaccinated (CDC 2021c). Given that Medicaid covers 43 percent of all births in the United States, this disparity in vaccination rates is particularly concerning (MACPAC 2021a).

Low vaccination rates may be of particular concern for people covered by Medicaid. Compared to commercially insured individuals, Medicaid enrollees may have a higher incidence of VPDs for which vaccinations were recommended based on certain risk factors. These include pneumococcal and meningococcal diseases as well as
hepatitis A and B (Krishnarajah et al. 2014). The higher incidence of these conditions among Medicaid beneficiaries compared to those with commercial insurance may reflect differences in demographics, socioeconomic status, and health status of those enrolled under each type of coverage. In addition, low vaccination rates in Medicaid have a disproportionate effect on people of color. More than half (61.6 percent) of Medicaid enrollees identify as Asian American, Black, Hispanic, or another non-white race or ethnicity (MACPAC 2021b).

Barriers to Vaccine Access

Several barriers to vaccine access exist for adults enrolled in Medicaid. Limited coverage of vaccines in Medicaid is a fundamental barrier. Specifically, for those adults eligible due to disability, pregnancy, or being parents or caretakers, vaccine coverage is optional and varies by state. Other barriers to vaccine access include low provider payment and availability and inadequate support and education for beneficiaries.

Limited and unequal coverage

Medicaid has more restrictive vaccine coverage than most other sources of health insurance. The Patient Protection and Affordable Care Act (ACA, PL. 111-148, as amended) requires that private health insurance plans cover preventive services, including vaccines recommended by ACIP without cost sharing (§ 2713 of the ACA). This means that the vast majority of individuals with employer-sponsored health insurance or insurance through the exchange have coverage of vaccines recommended by ACIP without cost sharing. Medicare enrollees, including those dually eligible for both Medicare and Medicaid, receive most vaccines through Medicare Part B and Part D but may be subject to cost sharing for vaccines covered under Part D.

Within Medicaid, all adult beneficiaries do not have equal coverage of recommended vaccines. As part of the coverage expansion to the new adult group (non-disabled adults without dependents with incomes up to 138 percent of the federal poverty level), the ACA required that these beneficiaries receive benchmark or benchmark-equivalent coverage, also known as an alternative benefit plan (§ 1902(k)(1) of the Act), and that alternative benefit plans provide coverage of essential health benefits (§ 1937(b)(5) of the Act). As part of the essential health benefit, preventive services, including coverage of all ACIP-recommended vaccines, must be provided without cost sharing (42 CFR 440.347).

However, for all other adults in Medicaid not receiving coverage through an alternative benefit plan, vaccine coverage is optional, and states can determine which vaccines to cover and whether to apply cost sharing. This includes adults eligible on the basis of disability, those age 65 and older, parents and caretaker relatives, and pregnant women. That is, for almost two out of every five (38.2 percent) Medicaid-enrolled adults, vaccine coverage is optional and varies by state. In addition, these individuals tend to be lower income and are more likely to be people of color than those for whom vaccine coverage is required (MACPAC 2022b).

For those not in the new adult group, coverage varies by state and vaccine. According to a recent survey, half of states (25) did not cover all ACIP-recommended vaccines in 2018–2019. Although the vast majority of states (48) covered at least one vaccine for influenza in addition to Tdap; measles, mumps, and rubella; varicella; and pneumococcal disease, several states did not cover the HPV (9-valent human papillomavirus), haemophilus influenzae type b (Hib), and herpes zoster (shingles) vaccines. Moreover, among the 44 Medicaid programs surveyed, 15 states had cost sharing requirements on adult vaccines, creating a barrier to access even when covered (Granade et al. 2020).
Inadequate provider payment

Inadequate provider payment for vaccines can create access barriers for Medicaid enrollees. To provide vaccines to patients, providers face costs associated with purchasing the vaccine (e.g., up-front purchase cost but deferred payment), storage (e.g., adequate refrigerator or freezer, backup power, insurance), and administration (e.g., staff time, documentation, billing). If providers are not paid adequately to purchase and administer vaccines, they may maintain only a limited supply or not offer vaccines at all. This limits beneficiary access and reduces uptake of recommended vaccines.

Research has shown a positive relationship between Medicaid payment rates and vaccination rates for children. One study found higher Medicaid payment rates were associated with increases in influenza vaccination rates among children (Yoo et al. 2010). Another study found that higher Medicaid payment for vaccine administration was positively associated with immunizations for children, suggesting that increasing Medicaid payment could increase the number of Medicaid-enrolled children getting vaccinations (Tsai 2018).

Evidence also indicates that some Medicaid providers may not be adequately paid for vaccinations. A 2014 survey of family and general internal medicine physicians found that the majority of respondents (55 percent) reported that they lost money administering vaccines to adult Medicaid beneficiaries, whereas 25 percent or less reported having lost money administering vaccines to adults covered by other public and private payers (Lindley et al. 2018).

Payment for vaccine purchase. To offer vaccines to their patients, providers must purchase vaccines from drug wholesalers or manufacturers. Providers have little control over vaccine prices, and if Medicaid payments do not adequately cover acquisition costs, this can result in a financial loss for providers. Researchers found that the median Medicaid payment amounts for vaccines were below the reported private sector price for 7 of 13 vaccines. The greatest differences between the median Medicaid payment and the private sector price were for the varicella, HPV, and Tdap vaccines (Granade et al. 2020).

Vaccine prices are not constant and may increase over time. If states do not update the fee schedule periodically to account for these price changes, then providers may face a larger shortfall between the cost of the vaccine and the payment received from Medicaid.

Adult vaccine providers have smaller economies of scale than pediatric providers because vaccine recommendations for adults include factors other than age, and demand is less predictable (Shen 2017). Given the uncertainty of demand among adults, some providers choose not to stock all recommended vaccines, viewing it as a financial liability.

Administration payments. The average estimated cost to providers to administer adult vaccines is between $15 and $23 (Yarnoff et al. 2019). However, in 2018, the median Medicaid payment to health professionals to administer a single adult vaccination was $13.62 for an injection (Granade et al. 2020). Eight state Medicaid programs did not provide a separate payment for vaccine administration. In states that paid an administration fee, it ranged from $3.72 to $28.18. By contrast, Medicare paid an average administration fee of about $18 per injection in 2019 (MedPAC 2021). Furthermore, CMS established a higher payment rate for COVID-19 vaccine administration (approximately $40 per dose) to reflect the additional cost and resources necessary, including storage, handling, and reporting, to ensure the vaccine is administered safely and appropriately (CMS 2021). Some experts have suggested that the growth of vaccine hesitancy has led to providers spending more time counseling patients, thus increasing providers’ administrative costs.
Limited provider networks

To ensure vaccine access, vaccinations should be available in a broad range of settings, beyond primary care or physicians’ offices. In MACPAC interviews with stakeholders and immunization experts, many interviewees noted that adults are less likely than children to have medical homes and more likely to access the health care system through providers such as a pharmacy, an emergency room, or a specialist. While many states allow pharmacies and providers other than physicians to administer vaccines, this is not universal. A recent CDC survey found that 31 state Medicaid programs paid pharmacists to administer vaccines. Twenty-nine state Medicaid programs paid nurse practitioners and four states paid midwives to administer vaccines (Granade et al. 2021).

Pharmacies can be an important point of access for adult vaccinations, but some state policies may be limiting pharmacies’ ability or willingness to participate in vaccinating Medicaid-enrolled adults. Some states and managed care organizations (MCOs) allow pharmacists to administer vaccines and bill for the same administration fee given to providers through the medical benefit, while others may pay only the dispensing fee established for prescription drugs. Pharmacies may encounter operational challenges to billing through the medical benefit if it is not part of their standard operating procedures.

Inadequate beneficiary support and education

To improve access and increase vaccine uptake, adults enrolled in Medicaid need additional outreach, support, and education. The adult vaccine schedule is complex. While some vaccines are universal for adults, the recommended schedule for most vaccines depends on factors such as age, medical conditions, and vaccine history. A recent survey suggests that even for the influenza vaccine, which is universally recommended for all individuals six months and older, there is still confusion. Only 19.6 percent of survey respondents were aware that the influenza vaccine is recommended for all individuals six months and older, and about 62 percent were aware of the influenza vaccine but did not know the recommended age group (Lu et al. 2017). Providers play an important role in educating beneficiaries about the value of immunization and identifying which vaccinations are recommended based on the beneficiary’s health status and medical history.

Given the complexity of the adult vaccine schedule and patients’ limited familiarity with it, enrollees would benefit from increased outreach and reminders on upcoming vaccinations. These messages could be delivered by texts, phone calls, and paper mail. General public health campaigns could also help by increasing public awareness of recommended vaccines. Experts suggest that these efforts are most effective when they come from trusted sources in local communities.

In interviews with MACPAC, experts expressed concern about the growth in vaccine hesitancy and opposition. They noted that addressing this barrier may require additional educational efforts, particularly from providers and trusted community members.

Immunization information systems. State and local IISs can store and exchange vaccination records across payers and providers to support vaccination efforts. Providers can use these systems to verify a patient’s vaccination history and identify recommended vaccines. This is particularly important for adults who are less likely to have a medical home and may receive vaccines in a variety of settings, such as from a pharmacist or specialist. The IIS can also be used by public health officials, Medicaid agencies, health plans, and providers to conduct targeted outreach and education efforts to encourage vaccinations.

One of the major challenges with IISs is that providers do not consistently report many adult immunizations. IISs were initially developed to capture childhood immunizations, and jurisdictions
have only recently started to prioritize capturing adult vaccinations. Adult vaccination data are still not captured to the same extent as childhood vaccinations. In 2020, 68 percent of adults participated in an IIS, compared to 94 percent of children younger than six years of age (CDC 2021d). In 2010, only 25 percent of adults had immunization records in an IIS. These percentages vary greatly by state and locality.

Now, all states and jurisdictions have an IIS with the functional capabilities to collect and use adult immunization data, although only 63 percent of jurisdictions reported actively and routinely (e.g., real time, daily, weekly) capturing adult vaccination data in 2020 (AIRA 2021). In 2017, only 53.4 percent of clinicians (including internists, obstetricians and gynecologists, and other specialists) and 53.2 percent of pharmacists reported documenting vaccinations in an IIS (AIRA 2020).

In interviews conducted by MACPAC, Medicaid medical directors, health plans, and immunization experts shared that IISs need considerable improvements related to interoperability, data quality, and timeliness. In particular, the lack of consistent reporting and limited data sharing across states, providers, and settings limits the role of an IIS in improving vaccination rates. These limitations have become particularly evident when tracking COVID-19 vaccinations, which are administered in both regular medical and non-traditional locations. Many states have built stopgap solutions to track COVID-19 vaccinations, but these workarounds may not be optimal for long-term data exchange for all vaccines. In a recent 2020 survey, 74 percent of IISs exchanged data with Medicaid programs, and only 20.8 percent exchanged data with other states or regions (AIM 2020, NGA 2021). This means that many state Medicaid agencies do not have access to data that could help them monitor vaccination rates and conduct targeted outreach. Stakeholders have also noted interoperability challenges with electronic health records, which prevent providers from having updated and accurate information (NGA 2021).

### Commission Recommendations

Below we present five recommendations to ensure vaccine coverage for all adults enrolled in Medicaid, ensure payment adequacy, expand provider networks, and improve support and education for beneficiaries.

#### Recommendation 3.1

Congress should amend Section 1902(a)(10)(A) of the Social Security Act to make coverage of vaccines recommended by the Advisory Committee on Immunization Practices a mandatory benefit and amend Sections 1916 and 1916A to eliminate cost sharing on vaccines and their administration.

#### Rationale

Current federal law does not ensure equal coverage of all recommended vaccines for all Medicaid-enrolled adults. Those in the new adult group have coverage without cost sharing of all vaccines recommended by ACIP. However, coverage for all other adults enrolled in Medicaid is optional, and states can determine which vaccines to cover and whether to apply cost sharing. As a result, vaccine coverage for some adults in Medicaid is often limited and often more restrictive than vaccine coverage under other sources of health insurance. Adults with optional coverage tend to have lower incomes and are more likely to be people of color (MACPAC 2022b). Current coverage policies contribute to lower vaccination rates for adults with Medicaid coverage compared to those with private insurance and may further perpetuate racial disparities in vaccination rates.

This recommendation would make vaccine coverage a mandatory benefit for adults regardless of eligibility pathway, matching existing requirements for the new adult group and most individuals with private insurance. Currently, individuals with higher incomes enrolled in the new adult group have coverage of all recommended vaccines without cost sharing, while those with
lower incomes may not have coverage or may be subject to cost sharing. In addition, it would ensure coverage for those beneficiaries who may be particularly vulnerable, such as pregnant women or individuals qualifying on the basis of disability, preventing disease, hospitalization, and death. The recommendation would also ensure that all Medicaid-enrolled adults have coverage of vaccines that ACIP may recommend in the future, guaranteeing access to appropriate and necessary public health measures in any future pandemic. It would also ensure coverage of the COVID-19 vaccine without cost sharing once the requirements under the American Rescue Plan Act (ARPA, P.L. 117-2) expire one year after the public health emergency ends.

Ensuring equal coverage of all recommended vaccines for Medicaid enrollees would promote public health and reduce racial and ethnic disparities within the program. Vaccines prevent illness, hospitalization, and death, and they also reduce the spread of disease in communities. Mandating coverage of recommended vaccines would help reduce VPDs, particularly for communities of color, since they are less likely to have broad coverage of vaccines.

Expanded coverage would also address the economic costs of VPDs. One study found that VPDs cost the United States approximately $9 billion annually, and another study estimated the annual cost for influenza, alone, was $16 billion (Ozawa et al. 2016, McLaughlin et al. 2015). While there is limited research on the cost of VPDs to Medicaid specifically, researchers estimated in the first 19 months of a hepatitis A outbreak in West Virginia, related medical costs ranged from $1.4 million to $5.6 million. As of February 2021, the outbreak was still ongoing and had resulted in hospitalizations for about half of the individuals with hepatitis A and 23 reported deaths (Batdorf et al. 2021).

The Commission initially discussed including vaccines in the Medicaid Drug Rebate Program (MDRP) as a way to expand coverage of adult vaccines. While coverage under the MDRP would essentially mandate coverage and apply a statutory rebate on vaccines, some adults could still face cost sharing barriers that do not exist for other adults in the program or with other forms of coverage. Instead, making vaccines a mandatory benefit offers consistency of coverage across populations.

**Implications**

**Federal spending.** Requiring coverage of recommended vaccines for all Medicaid-enrolled adults would increase federal spending. The Congressional Budget Office (CBO) estimates that this recommendation would increase federal spending by $250 to $750 million in the first year and $1 to $5 billion over five years, compared with the current baseline.

**States.** In a CDC survey, all 49 states surveyed offered some vaccine coverage for adults, and 24 states covered all ACIP-recommended vaccines. Under this policy, we would not expect any change in spending for those 24 states that already offer coverage of all ACIP-recommended vaccines. For the remaining states that currently do not cover all recommended vaccines, we would expect to see an increase in spending for those vaccines not previously covered. However, almost all of these remaining states cover 10 or more vaccines currently and would only need to add coverage for an additional 1 to 3 vaccines. Twelve state Medicaid programs cover 12 of the 13 recommended vaccines, and 10 states cover 10 or 11 vaccines (Granade et al. 2020).

Fifteen states surveyed indicate that they place cost sharing requirements on some vaccines (Granade et al. 2020). This would no longer be allowed. The effect would result in a slight increase in state spending. We do not have information on how this policy would affect spending on vaccine-preventable illnesses and hospitalizations.

**Enrollees.** Under this recommendation, all Medicaid beneficiaries would have coverage of ACIP-recommended vaccines. Vaccine coverage would no longer vary by eligibility category, state, and

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vaccine. Those standing to gain coverage include adults eligible on the basis of disability, those age 65 and older, parents and caretaker relatives, and pregnant women. In addition, it would result in more comprehensive coverage of the HPV, Hib, and herpes zoster (shingles) vaccines (Granade et al. 2020). This recommendation would also remove confusion for beneficiaries who may be unsure about what vaccines are covered by Medicaid.

**Plans.** Plans would be required to offer coverage of all ACIP-recommended vaccines without cost sharing. States would estimate the expected change in utilization and build this estimate into managed care capitation rates.

**Providers.** The current vaccine coverage requirements in Medicaid can be confusing for providers. It can be unclear whether a Medicaid enrollee has coverage of a recommended vaccine, and as a result, this could be leading to fewer vaccinations for Medicaid beneficiaries overall. Equalizing vaccine coverage requirements across eligibility groups would remove uncertainty and allow providers to focus on whether patients need vaccines based on clinical indications rather than coverage status.

**Recommendation 3.2**

The Centers for Medicare & Medicaid Services should implement payment regulations for vaccines and their administration. Payment for vaccines should be established at actual acquisition cost and a professional fee for administration, similar to the payment requirements established for outpatient prescription drugs under 42 CFR 447.512(b) and 447.518(a)(2).

**Rationale**

Throughout the Commission’s work on vaccine access, low provider payment rates were commonly cited as a reason for low vaccination rates. Low Medicaid payment rates may discourage some providers from administering vaccines and thus reduce access for beneficiaries, a concern supported by the research literature (Granade et al. 2020, Lindley et al. 2018).

Medicaid statute requires that payments are consistent with efficiency, economy, and quality of care and are sufficient to provide access to providers similar to that available to the general population in the geographic area (§ 1902(a)(30) (A) of the Social Security Act). Although states generally have flexibility in setting payment rates and determining whether these rates are sufficient for access, CMS has implemented payment regulations for certain services. For example, for outpatient prescription drugs, CMS requires states to pay providers based on the actual prices available in the marketplace (CMS 2016). Federal regulations require that the payment methodology for prescription drugs in the state plan reflect actual acquisition costs (AAC) (i.e., the agency’s determination of the pharmacy providers’ actual prices paid to acquire drug products) and a professional dispensing fee to cover reasonable costs associated with dispensing the drug to a Medicaid beneficiary (42 CFR 447.518(a)(2)).

Because vaccines are excluded from the definition of covered outpatient drugs used for inclusion in the MDRP, these payment regulations do not apply to vaccines. However, vaccines are analogous to prescription drugs in that providers must purchase vaccines from drug wholesalers or manufacturers and have little control over the price of these products. If Medicaid payment is not sufficient to cover the acquisition cost of these vaccines, providers will experience a financial loss and may choose to not offer vaccines. Furthermore, the prices for vaccines are not constant and may increase over time. If states do not update the fee schedule periodically to account for these price changes, then providers may face a larger shortfall between the cost of the vaccine and the payment received from Medicaid. Paying at AAC would ensure that providers do not lose money on the purchase of vaccines for the Medicaid population.

Additionally, the outpatient prescription drug regulations set AAC and a professional dispensing
fee as an upper payment limit to ensure that states do not pay excessively for drugs (42 CFR 447.512(b)). Some states may be paying more than the private sector price for some vaccines. For example, the median Medicaid payment for pneumococcal vaccines and some hepatitis B vaccines was greater than the private sector price (Granade et al. 2020).

This recommendation aims to ensure adequate payment for providers by addressing concerns related to both vaccine acquisition and administration payments. Consistent with federal regulations for prescription drugs, states would pay AAC to cover the cost of the vaccines and a professional fee for administering the vaccine. The professional administration fee would cover reasonable costs associated with vaccination.

Ensuring adequate payment rates could increase provider willingness to deliver vaccines, thus improving access. This recommendation would ensure payment adequacy by aligning vaccine payment methodologies with those of other prescription drugs. It would ensure that vaccine payment is comparable to prevailing market prices and not over- or underpay providers for the acquisition of vaccines. Furthermore, providers have additional costs beyond the time and labor associated with patient care such as special storage and handling requirements (e.g., refrigerator or deep freezer) and recording vaccinations into an IIS. Aligning vaccine administration payment methodology to a definition similar to that of a professional dispensing fee would help ensure that payment covers all reasonable costs for administering a vaccine.

During the Commission’s deliberations, it also considered another approach to addressing concerns about payment adequacy: allowing providers to purchase vaccines at a federally contracted price similar to the approach used by CDC when it negotiates contracts with vaccine manufacturers for the Vaccines for Children and the Section 317 Immunization programs. In short, such a policy would address payment adequacy concerns by reducing the purchase cost burden on providers. However, it could be operationally complex to implement this policy option since providers would need to receive a discount directly or indirectly from the vaccine manufacturer that is equal to the discount negotiated under the federal contract.

Ultimately, many Commissioners viewed this policy as operationally complex with an uncertain effect. However, nothing in this recommendation would prevent states from pursuing discounts or rebates with drug manufacturers to reduce the net cost of vaccines to the state. For example, Rhode Island has implemented a universal statewide purchasing program for all child and most adult vaccines. Under the program, the state has reduced costs by negotiating bulk purchasing at federal contract rates.

Implications

Federal spending. Implementing payment regulations for vaccines and their administration would increase federal spending in some states. Current Medicaid regulations do not set a minimum standard for the vaccine payment or administration, a policy inconsistent with that for other prescription drugs. Based on the existing literature, several states are paying rates that cover neither the average acquisition cost for several vaccines nor the provider’s cost of administration. CBO did not provide a score because it views this recommendation as an administrative action that CMS can implement under existing law.

States. Similar to federal spending, state spending would increase in some states. This policy could also increase the administrative burden on states if they need to conduct a survey to determine the average acquisition cost for vaccines and a study to determine the cost to administer vaccines.

Enrollees. By improving payment adequacy, more Medicaid-enrolled providers may choose to store and administer vaccines for Medicaid enrollees. As a result, beneficiaries may have greater access to recommended vaccines.
Plans. Plans would not be required to use the payment methodology described under these federal rules. Plans are required to make payments sufficient to ensure appropriate access. States could use the directed payment option allowable under managed care regulations to establish minimum payment requirements for managed care plans for vaccines and their administration.

Providers. This recommendation would increase payment for many providers and would provide greater certainty that they would receive adequate payment to cover their costs. Depending on a state’s existing fee schedules, it is possible that some providers could be paid less for some vaccines as payment would not be allowed to exceed AAC and a professional administration fee.

Recommendation 3.3

The Centers for Medicare & Medicaid Services should issue federal guidance encouraging the broad use of Medicaid providers in administering adult vaccinations.

Rationale

Vaccine access could be improved by making vaccines available in more settings and from more providers. During MACPAC interviews, experts noted the success of allowing COVID-19 vaccination administration at multiple locations and commented that other adult vaccinations should be similarly accessible for adults.

Some states do not allow pharmacists to bill for vaccines for Medicaid-enrolled adults. A few states changed their policies to allow pharmacists to administer and bill for the COVID-19 vaccine and are considering expanding the scope of allowable services provided by pharmacists and pharmacy technicians to allow for the administration of additional vaccines. However, state scope of practice laws may limit the types of vaccinations or the populations that can receive vaccines at pharmacies, and it would require state legislation to make these changes.

During the COVID-19 pandemic, the Secretary of the U.S. Department of Health and Human Services (the Secretary, HHS) issued a PREP Act declaration that allowed a wide range of health professionals, including qualified pharmacy technicians, emergency medical technicians, physician assistants, and midwives, to administer COVID-19 vaccines. Additionally, the Secretary has allowed state-licensed pharmacists, and pharmacy interns or technicians acting under supervision of such pharmacists, to administer vaccines for children age 3 through 18 and seasonal influenza vaccines to adults (ASPR 2022). States could assess how the PREP Act declaration increased vaccine access and to what extent some of these additional providers should be allowed to administer and bill for other adult vaccines.

States can use existing authority to expand the types of providers eligible to administer and bill for vaccinations, but federal guidance could encourage additional states to adopt or expand these policies. This recommendation would be strengthened if enacted with policies to ensure adequate payment; even if states allow a wider range of providers to administer vaccines, providers may not opt to participate if the payment is not adequate to cover their costs. Because Medicaid payment rules for federally qualified health centers (FQHCs) differ from those of other providers, states should also consider working with FQHCs to address potential barriers that prevent them from increasing adult vaccinations.

Implications

Federal spending. The CBO did not score this recommendation because states already have the authority to determine the types of providers able to administer and bill Medicaid for vaccines. Depending on how states respond to this guidance, federal spending could increase. The extent to which federal spending increases is challenging to predict and would depend on the extent to which states expand scope of practice and vaccination rates subsequently increase.
States. State spending would increase as vaccinations increase. States could incur some administrative burden if they need to submit state plan amendments or enroll new providers into the program.

Enrollees. Beneficiary access to vaccinations would improve if new providers begin to administer vaccines. This recommendation could address racial disparities if the expanded provider network serves a greater share of people of color or underserved geographic areas.

Plans. To the extent that there are any state laws limiting the scope of practice of certain providers from administering vaccinations, this policy could allow health plans to expand their provider networks.

Providers. Some providers may be able to expand the scope of their services to include vaccinations.

Recommendation 3.4

The Secretary of the U.S. Department of Health and Human Services should direct a coordinated effort with the Centers for Medicare & Medicaid Services (CMS), the Office of the Assistant Secretary for Health, and the Centers for Disease Control and Prevention to provide guidance and technical assistance to improve vaccine outreach and education to Medicaid and CHIP beneficiaries. Additionally, CMS should release guidance on how to use existing flexibilities and funding under Medicaid and CHIP to improve vaccine uptake.

Rationale

Beneficiary advocates and other experts have noted that federal and state agencies could be doing more to educate and encourage Medicaid and CHIP enrollees to become vaccinated. The COVID-19 pandemic has highlighted the need for public health infrastructure to provide education on the benefits of vaccines and conduct outreach to address growing vaccine hesitancy. Because this messaging could be directed by different federal agencies, the Secretary should coordinate efforts to avoid duplication and identify ways for state Medicaid agencies, public health departments, and immunization programs to target outreach to Medicaid and CHIP beneficiaries.

Several agencies within HHS have functions that relate to vaccinations and could be responsible for funding and activities related to vaccine outreach and education. For example, the CDC oversees national, public awareness campaigns on the importance of vaccines. This includes combating misinformation and providing evidence-based information to help increase vaccination rates. Recently, Congress passed the Consolidated Appropriations Act, 2022 (P.L 117-103), which required that the Secretary specifically consider pregnant and postpartum women and infants when developing these public awareness campaigns.

Coordinated federal guidance and technical assistance across HHS agencies could help states identify the options that could be used to improve beneficiary education and outreach and the various federal funding streams that may be available (e.g., 317 Immunization Program funding, federal match available for different Medicaid allowable activities). Some of the approaches used to increase vaccinations for COVID-19 could be applied to other recommended vaccines. The guidance could detail how states can partner with managed care plans and trusted, community-based organizations for targeted educational or outreach campaigns. For example, this could include how state Medicaid programs could use existing managed care contracting tools (e.g., withholds, performance improvement projects, bonuses) to achieve higher vaccination rates among adult enrollees. CMS can provide guidance and examples of how states could use existing Medicaid authorities such as Section 1115 demonstration waivers to fund these types of public health initiatives.
Chapter 3: Acting to Improve Vaccine Access for Adults Enrolled in Medicaid

Implications

Federal spending. CBO did not score this recommendation because states already have the authority to implement education and outreach programs to encourage vaccinations. Depending on how states respond to this guidance, federal spending could increase. The extent to which it might increase vaccinations is challenging to predict and would depend on which programs states implement and whether they increase utilization of vaccines.

States. Federal guidance could help states identify and tailor vaccine education and outreach programs. Since guidance would be coordinated at the federal level, it would help prevent state Medicaid officials from duplicating efforts of other agencies. State spending could increase, particularly if use of other services such as non-emergency transportation also increases. But states may be able to offset some of that spending by claiming federal match on some activities that were previously funded with state-only dollars or by leveraging MCOs to provide some of these programs through non-benefit spending or value-added services.

Enrollees. Additional outreach and education could result in more beneficiaries receiving recommended vaccines. For adults, the vaccine schedule is somewhat complex and based on multiple factors including age, medical conditions, and vaccine history. For example, some vaccines such as the influenza vaccine are universal for adults, while others, such as the pneumococcal vaccine, are dependent on risk factors and age. Outreach efforts can supplement the provider’s role in educating beneficiaries and help remind beneficiaries when they become eligible for a recommended vaccine. These efforts could also be tailored to address racial and other disparities if the state focuses additional resources on barriers that disproportionately affect people of color and other underserved communities.

Plans. Federal guidance is likely to include options on how states could effectively work with managed care plans to improve outreach and education on vaccines. Some of these options could include performance incentives to encourage plans to improve the vaccination rate among its members.

Providers. Providers play an important role in ensuring that beneficiaries receive recommended vaccines. Any federal guidance is likely to include options that support provider-led efforts to provide vaccine education and targeted outreach.

Recommendation 3.5

Congress should provide additional federal funds to improve immunization information systems (IIS). In addition, Congress should require the Secretary of the U.S. Department of Health and Human Services to coordinate efforts across relevant agencies within the department to release federal guidance and implement standards to improve IIS data collection and interoperability with electronic health records and state Medicaid management information systems (MMIS). The Centers for Medicare & Medicaid Services should also provide guidance on matching rates available and ways to integrate IIS and MMIS to be eligible for the 90 percent match for the design, development, installation, or enhancement of MMIS and the 75 percent match for the ongoing operation of MMIS.

Rationale

IIS improvements will be needed for these systems to support vaccination efforts for adults; this includes both financial investments to help states and localities make system changes as well as guidance and standards to improve interoperability across providers and states. States have implemented different functional standards based on their specific priorities and resources available, and many have not achieved full functional standardization (NGA 2021). Additionally, IIS improvements would support broad public health functions and benefit all payers, not just Medicaid. This has become increasingly important as more adults receive routine vaccinations from their pharmacists and other providers outside.
of a medical home. As such, Congress should allocate additional federal funding for IISs and interoperability improvements.11

Congress should direct the Secretary to coordinate efforts within the relevant agencies and develop and refine guidance and standards to improve IISs. Several HHS agencies have functions that relate to vaccination strategy and operations of IIS. The Office of the Assistant Secretary for Health (OASH) oversees key public health offices and programs, including the Office of Disease Prevention and Health Promotion and Office of Infectious Disease and HIV/AIDS Policy. OASH released its strategic vaccine plan, which included an objective to strengthen data infrastructure, including IISs, to track vaccine coverage and conduct surveillance of vaccine-preventable diseases. The CDC sets the functional standards for these systems, and state and local governments develop and administer them. The Office of the National Coordinator for Health Information Technology (ONC) develops requirements and standards for health information technology and interoperability between electronic health record (EHR) platforms.

Coordinating federal guidance and technical assistance across HHS agencies would help states and localities identify ways to strengthen their IIS and improve interoperability and bidirectional data exchange with other state systems and EHRs. For example, the Administration for Children and Families and CMS recently published a tool kit on data sharing for child welfare agencies and Medicaid. This tool kit outlines the benefits of data sharing and provides technical assistance regarding data exchange models and legal frameworks for sharing and accessing data, and discusses the process of how states have developed interagency agreements to support this type of exchange (HHS 2022). This guidance and technical assistance could also improve coordination between state Medicaid agencies and public health departments to identify needs and resources to improve IISs. The CDC, OASH, CMS, and ONC could work together to create tool kits and provide technical assistance on how to successfully structure the integration of the MMIS and IIS and interoperability between provider EHRs and IISs. In addition, the Secretary could ensure that any guidance supports improved collection of race and ethnicity data by IISs. This could help states, MCOs, and providers address racial disparities in vaccinations.

Furthermore, CMS should provide guidance on the matching rates available to state Medicaid programs regarding IISs. Currently, state Medicaid programs can receive a 90 percent federal match rate for the design and development of immunization systems that are part of the state’s MMIS and a 75 percent match for its ongoing maintenance.12 In states in which the IIS is developed, owned, and operated by a public health or other non-Medicaid agency, match is available at 50 percent (HCFA 2000). CMS could provide guidance and technical assistance to help states understand what types of activities may be eligible for the enhanced matching rate as states develop an IIS or make additional improvements to integrate their MMIS and IIS.

**Implications**

**Federal spending.** This recommendation would increase federal spending by the amount provided by Congress. Federal Medicaid spending could increase for some states if they make changes to their MMIS and IIS that allow them to access a higher matching rate. Additionally, federal Medicaid spending could increase to the extent that state activities improve vaccination rates, but this is difficult to quantify.

**States.** This recommendation would help states to improve their IIS and take advantage of additional federal funding. It would increase state spending if states need to make system changes. However, over the long term, this could reduce state spending if the state can claim the 75 percent federal match for ongoing maintenance instead of the regular 50 percent match if the IIS is operated by a non-Medicaid agency. This policy
could be operationally complex to implement depending on the system changes that would be required to integrate the MMIS and IIS and develop interoperability with provider EHRs.

**Enrollees.** An improved IIS would offer providers a more complete and accurate record of a beneficiary’s immunization history, which would help ensure that beneficiaries receive appropriate vaccines. It could also facilitate targeted outreach and reminders and increase the likelihood that beneficiaries receive recommended vaccines.

**Plans.** Plans could benefit if states make IIS improvements that allow or improve exchange of information with their providers. Plans could better target their outreach to get their enrollees vaccinated.

**Providers.** If the federal guidance leads to improvements in IISs, it would be easier for providers to identify which vaccines are needed for their patients, to target messaging to their patients, and to enter vaccination records into the IIS.

### Next Steps

Vaccinations play a critical role in promoting public health and preventing costs to people and the health care system in terms of unnecessary illness, hospitalization, and death. Adoption of the recommendations discussed previously have the potential to improve the currently low rates of vaccination among Medicaid-enrolled adults. Expanding coverage, improving payment, and providing outreach would also address current inequities across states and Medicaid eligibility groups.

Looking ahead, the Commission will also monitor issues related to childhood vaccination. Evidence suggests that vaccination rates for routine childhood immunizations have declined since the start of the COVID-19 pandemic (Murthy et al. 2021). The Commission may consider future work that will examine these trends and better understand the specific challenges affecting children enrolled in Medicaid and CHIP.

### Endnotes

1. MACPAC uses the term “pregnant women” as this is the term used in the statute and regulations. However, other terms are being used increasingly in recognition that not all individuals who become pregnant and give birth identify as women. Vaccine coverage may be mandated through other requirements such as the early and periodic screening, diagnostic, and treatment (EPSDT) benefit for adults 19 to 20 years old or if provided as part of pregnancy-related care (KFF 2017).

2. This applies to all health insurance plans offered on the exchange and non-grandfathered plans.

3. In response to the COVID-19 pandemic, Congress passed legislation to ensure that all Medicaid beneficiaries have coverage of COVID-19 vaccines during the public health emergency and for a period of time thereafter. The American Rescue Plan Act of 2021 (ARPA, P.L. 117-2) made coverage of COVID-19 vaccines and the administration of such vaccines mandatory for the period ending on the last day of the first calendar quarter that begins one year after the last day of the COVID-19 public health emergency (§ 9811(a)(1) of ARPA). During this period, cost sharing is prohibited for COVID-19 vaccines and the administration of such vaccines (§ 9811(a)(3) of ARPA).

4. In fiscal year 2019, approximately 51.8 million adults were enrolled in Medicaid, of which 19.5 million (37.6 percent of adults) were in the new adult group and had mandatory coverage of vaccines without cost sharing (MACPAC 2021c). An additional 12.5 million adults (24.1 percent of adults) were dually eligible for Medicare and Medicaid and would have received vaccine coverage through Medicare.

5. Based on our analysis of 26 states with usable race and ethnicity data in the Transformed Medicaid Statistical Information System (T-MSIS) (representing 65 percent of Medicaid and CHIP enrollment nationally), white, non-Hispanic individuals account for 44 percent of the new adult group but only 36 percent of all other enrollees. Black, non-Hispanic individuals account for a smaller share of the
new adult group (19 percent) than all other enrollees (23 percent). Hispanic individuals account for 27 percent of the new adult group but 35 percent of all other enrollees.

6 This recommendation is similar to a provision included in H.R. 5376, the Build Back Better Act, which passed the U.S. House of Representatives on November 19, 2021. At the time of this writing, the U.S. Senate has not yet acted on this legislation. The bill would extend the requirement to cover recommended vaccines without cost sharing to all adults in Medicaid except that the bill would also phase out the 1 percentage point increase in the federal medical assistance percentage (FMAP) on vaccines and their administration available under Section 4106 of the ACA. The Commission has not recommended changes in the FMAP.

7 Medicaid managed care plans are not required to pay for ingredient costs based on AAC but must make payments sufficient to ensure appropriate access for their enrollees (CMS 2016).

8 This may be particularly true if states are following Medicare Part B payment principles, which pay for preventive vaccines at 95 percent of average wholesale price. The Medicare Payment Advisory Commission has found that the average wholesale price-based formula exceeds other measures of acquisition cost such as wholesale acquisition cost or average sales price used to determine payment for all other Part B drugs and has recommended that Medicare payment be based on wholesale acquisition cost or average sales price to more accurately reflect the market price and providers’ costs to acquire the drug (MedPAC 2021).

9 The Rhode Island Vaccine Assessment Program (RIVAP) is funded through assessments paid by most payers (e.g., health plans and third-party administrators) and Medicaid MCOs. RIVAP purchases vaccines at a discounted bulk rate and distributes them statewide to providers at no cost. Providers bill only for the administration cost. The Vaccine for Children program funds and provides vaccines for eligible children (RIVAP 2015).

PREP Act declaration establishing that the COVID-19 pandemic constitutes a public health emergency warranting liability protections for the administration of medical countermeasures against COVID-19. Under subsequent amendments to the declaration, HHS has allowed a wide range of health professionals, including qualified pharmacy technicians, emergency medical technicians, and midwives, to administer COVID-19 vaccines. Additionally, the Secretary has allowed state licensed pharmacists—and pharmacy interns or technicians acting under supervision of such pharmacist—to administer childhood vaccines for children age 3 through 18 or seasonal influenza vaccines to adults. The PREP Act declaration expressly preempts any state or local law that prohibits any covered persons who satisfy the requirements from ordering or administering COVID-19 vaccines, childhood vaccines, or seasonal influenza for adults. The PREP Act declaration extends protection for covered COVID-19 countermeasures through October 1, 2024 (ASPR 2022).

11 For example, the U.S. House of Representatives passed H.R. 550, the Immunization Infrastructure Modernization Act of 2021, on November 30, 2021. The bill directs the Secretary to award grant funding to improve state and local IISs, among other things. The Secretary would establish funding criteria with a focus on achieving standardization. This bill authorizes $400 million in federal spending. This bill has not yet been considered in the Senate.

12 Under the Health Information Technology for Economic and Clinical Health Act of 2009 (HITECH Act, Title XIII of P.L. 111-5), states were eligible to receive a 90 percent match through HITECH funding to plan, design, develop, and implement systems that connect health care providers to IISs (ASTHO 2018). However, HITECH funding is not available after 2021.

References


Commission Vote on Recommendations

In MACPAC’s authorizing language in Section 1900 of the Social Security Act, Congress requires the Commission to review Medicaid and CHIP policies and make recommendations related to those policies to Congress, the Secretary of the U.S. Department of Health and Human Services, and the states in its reports to Congress, which are due by March 15 and June 15 of each year. Each Commissioner must vote on each recommendation, and the votes for each recommendation must be published in the reports. The recommendations included in this report, and the corresponding voting record below, fulfill this mandate.

Per the Commission’s policies regarding conflicts of interest, the Commission’s conflict of interest committee convened prior to the vote to review and discuss whether any conflicts existed relevant to the recommendations. It determined that, under the particularly, directly, predictably, and significantly standard that governs its deliberations, no Commissioner has an interest that presents a potential or actual conflict of interest.

The Commission voted on these recommendations on April 8, 2022.

Acting to Improve Vaccine Access for Adults Enrolled in Medicaid

3.1 Congress should amend Section 1902(a)(10)(A) of the Social Security Act to make coverage of vaccines recommended by the Advisory Committee on Immunization Practices a mandatory benefit and amend Sections 1916 and 1916A to eliminate cost sharing on vaccines and their administration.

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3.2 The Centers for Medicare & Medicaid Services should implement payment regulations for vaccines and their administration. Payment for vaccines should be established at actual acquisition cost and a professional fee for administration, similar to the payment requirements established for outpatient prescription drugs under 42 CFR 447.512(b) and 447.518(a)(2).

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3.3 The Centers for Medicare & Medicaid Services should issue federal guidance encouraging the broad use of Medicaid providers in administering adult vaccinations.

3.4 The Secretary of the U.S. Department of Health and Human Services should direct a coordinated effort with the Centers for Medicare & Medicaid Services (CMS), the Office of the Assistant Secretary for Health, and the Centers for Disease Control and Prevention to provide guidance and technical assistance to improve vaccine outreach and education to Medicaid and CHIP beneficiaries. Additionally, CMS should release guidance on how to use existing flexibilities and funding under Medicaid and CHIP to improve vaccine uptake.

3.5 Congress should provide additional federal funds to improve immunization information systems (IIS). In addition, Congress should require the Secretary of the U.S. Department of Health and Human Services to coordinate efforts across relevant agencies within the department to release federal guidance and implement standards to improve IIS data collection and interoperability with electronic health records and state Medicaid Management Information Systems (MMIS). The Centers for Medicare & Medicaid Services should also provide guidance on matching rates available and ways to integrate IIS and MMIS to be eligible for the 90 percent match for the design, development, installation, or enhancement of MMIS and the 75 percent match for the ongoing operation of MMIS.

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