The Effect of State Approaches to Medicaid Financing on Federal Medicaid Spending

Medicaid financing is a shared responsibility of the federal government and the states, with states receiving federal matching funds toward allowable state expenditures. For most Medicaid expenditures, the state share of costs is determined by each state’s federal medical assistance percentage (FMAP), which is determined each year based on a state’s per capita income relative to the national average.

The Medicaid statute permits states to raise their share of Medicaid expenditures through multiple sources, including state general revenue, contributions from local governments (including providers operated by local governments), and specialized revenue sources such as permissible health care-related taxes. The extent to which states rely on funding sources other than state general revenue varies considerably and may be influenced by how states have historically split financing with localities for functions such as education, social services, indigent care, and corrections.

One criticism of current law is that the use of provider-financed payment arrangements can effectively increase the share of federal spending above the statutorily determined FMAP. These payment arrangements are of particular concern when they increase federal spending without a corresponding improvement in the amount or quality of care provided to Medicaid enrollees.

To better understand how state financing methods may affect the federal share of Medicaid spending, MACPAC reviewed state policies in 10 states to develop a range of assumptions that could be applied to national Medicaid spending and financing data. Previously, we applied these assumptions to state fiscal year (SFY) 2012 spending and financing, and we estimated that the use of sources other than general revenue increased the federal share of Medicaid spending by about 5 percentage points, from 57 percent to 62 percent (MACPAC 2017).

In this brief, we apply our earlier range of assumptions to newly available data for SFY 2018 from the U.S. Government Accountability Office (GAO). Overall, we find a similar effect: after accounting for use of legally permissible sources other than general revenues, we estimate that the federal share of Medicaid spending increased by about 5 percentage points, from 63 percent to 68 percent in SFY 2018.

To provide context for our findings, we begin with relevant background on federal policies for financing, including calculation of the federal matching rate and rules governing how states may raise the non-federal share. Later, we describe the data sources and methods used in our analysis.
Background

The vast majority of state Medicaid spending (95 percent) is for health care services provided to Medicaid enrollees, and the federal share for most of these expenditures is determined by each state’s FMAP.

The FMAP formula provides higher matching rates to states with lower per capita incomes relative to the national average (and vice versa) and is intended to account for states’ differing abilities to fund Medicaid from their own revenues. Statute requires the formula to be reapplied annually to calculate new FMAPs for each state for the following fiscal year using the most recent rolling three-year average per capita income data (§ 1905(b) of the Social Security Act (the Act)). FMAPs have a statutory minimum of 50 percent and a statutory maximum of 83 percent. In fiscal (FY) 2019, Mississippi had the highest FMAP at about 76 percent, and 13 states were at the minimum (MACPAC 2021a).

Several statutory exceptions to the FMAP formula apply, including exceptions for:

- administrative costs, which are generally matched at 50 percent;
- the territories and the District of Columbia, whose FMAPs are set in statute;
- services provided by Indian Health Service facilities or other tribal providers, which are matched at 100 percent;
- specific types of services, including family planning services, health homes, and certain preventive services and immunizations, which receive a higher FMAP than the standard rate;
- the new adult group added by the ACA, which receives an FMAP of at least 90 percent; and
- temporary state fiscal relief, including a 6.2 percentage point FMAP increase during the COVID PHE.¹

Overall, there has been a general shift towards greater federal financing of the Medicaid program, independent of how states raise the nonfederal share. Between SFY 2012 and SFY 2018 the share of Medicaid spending financed by the federal government increased from 57 to 63 percent, primarily because of the Medicaid expansion to the new adult group added under the Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended). The new adult group was initially 100 percent federally funded and now receives a 90 percent FMAP in most states.² In 2020 and 2021, the federal share of Medicaid spending is expected to increase further because of the temporary 6.2 percentage point FMAP increase during the COVID public health emergency (PHE) enacted by the Families First Coronavirus Response Act of 2020 (P.L. 116-127).

Since Medicaid’s inception, states have had flexibility to generate their share of Medicaid expenditures through multiple sources, including state general revenue, contributions from local governments (including providers operated by local governments), and specialized revenue sources such as health care-related taxes. Although 40 percent of non-federal financing must come from the state, up to 60 percent may be derived from local sources (§1902(a)(2) of the Act). The three most common sources of non-federal financing are:

- **General revenue.** Most state financing for Medicaid is through general revenue collected through income taxes, sales taxes, and other state and local sources. These general revenues, including state

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¹ Medicaid and CHIP Payment and Access Commission

² www.macpac.gov
general funds, intra-agency funds, and other state sources, accounted for 68 percent of the non-federal share of financing in SFY 2018 (GAO 2020).

- **Health care-related taxes.** In fiscal year (FY) 2019, all but one state (Alaska) had at least one health care-related tax (sometimes referred to as a provider tax, fee, or assessment) in place (KFF 2019). In SFY 2018, these taxes, typically levied on institutional providers, accounted for about 17 percent of the non-federal share (GAO 2020, MACPAC 2021b).³

- **Other local sources of non-federal share.** Counties, municipalities, and other units of local government contribute to the non-federal share of Medicaid spending in many states through expenditures (such as services at government-owned and operated hospitals) that are eligible for federal match. These local sources—including intergovernmental transfers (IGTs) and certified public expenditures (CPEs)—totaled about 12 percent of the non-federal share in SFY 2018 (GAO 2020).⁴

Federal policy regarding permissible sources of non-federal Medicaid expenditures has its origins in the patchwork of state and local financing of health services for low-income individuals that existed before Medicaid’s enactment. Although the Medicaid program centralized administration at the state level, the program’s financing structure allowed preexisting local programs to maintain primary responsibility for service delivery and to contribute non-federal funding towards services that now qualified for federal matching funds (HCFA 2000, MACPAC 2012).

At various points, particularly beginning in the early 1990s, this multisource approach to financing has been the subject of federal scrutiny (GAO 2014, 2004, 1994). For example, the federal government has acted to limit some strategies, such as putting constraints around the state use of health care-related taxes. In an effort to control federal spending, the federal government has in some cases limited states’ ability to make expenditures that qualify for federal contributions through statutory limits on disproportionate share hospital (DSH) payments and the creation of upper payment limits for hospitals and nursing facilities. However, states have often protested more robust action to limit how they raise funds to support Medicaid, noting that they may find it difficult to raise the non-federal share and balance their state budgets without this flexibility (CBO 2008).

### Analysis of the Split between Federal and Non-Federal Funds

To estimate how financing options affect the split between federal and non-federal funds, MACPAC worked with researchers at The George Washington University in 2016 to develop assumptions about the sources and uses of non-federal share. We based the assumptions on analysis of financing policies and practices in 10 states and review by experts familiar with Medicaid financing.⁵ We applied these assumptions to data on non-federal financing of Medicaid programs for SFY 2018 collected by the U.S. Government Accountability Office (GAO) and Medicaid spending data from CMS-64 financial management reports for each state.

The analysis focuses on the net payment to providers. Because many providers finance some portion of the non-federal share of the Medicaid payments they receive, our analysis posits that the total Medicaid payment received by providers is effectively reduced by the amount of non-federal share they financed. In addition, net payments may consist largely of federal dollars because the provider itself has contributed

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³ Medicaid and CHIP Payment and Access Commission  
⁴ www.macpac.gov
much of the non-federal share. As such, the proportion of federal funds in the net payment to these providers can be higher than the proportion of federal funds indicated by the state’s statutory FMAP.

To illustrate how provider-financed payments can increase the effective FMAP, consider the example of a provider tax arrangement in a state with a 60 percent statutory FMAP (Figure 1). The provider pays $8 in a provider tax to the state in order to help offset the $40 in non-federal share that is required for the state to make a $100 payment to the provider. Although the federal government provides 60 percent of the gross payment based on the statutory FMAP, 65 percent of the net payment to the provider ($92) is financed by federal funds.

**FIGURE 1. Illustration of Provider Financed Payments that Increase the Effective FMAP**

 ![Diagram of provider financed payments](image)

**Note:** FMAP is federal matching assistance percentage.

**Methods**

We developed a spreadsheet model of Medicaid spending by state grouped into the four payment categories (fee-for-service, managed care, disproportionate share hospital (DSH), and non-DSH...
supplemental payments) that were used in the GAO study. For each of these spending groups, we used the GAO findings to calculate how much of the non-federal share was financed by different sources:

- general funds,
- intra-agency transfers,
- provider taxes,
- IGTs,
- CPEs, and
- other sources.

For purposes of the analysis, we estimated the percent of each source of financing that contributed to the net payments made to providers, which represents our best-informed guess about how much of the reported non-federal share either:

- comes from providers (e.g., taxes or donations) or on behalf of locally owned or operated providers (e.g., IGTs, CPEs) and is not used to make payments to the same providers; or
- originates from a state (e.g., general funds, intra-agency transfers) or local authority (e.g., IGTs, CPEs) and is not offset by the state or local authority retaining some or all of the resulting federal matching funds.

We assume that 100 percent of state general funds contribute to net provider payments. For other sources of non-federal share, we estimate that between 20 and 95 percent of each source contributes to net provider payment. Specific estimates for each source and the rationale are described in more detail below.

We then classified the remainder of the non-federal share as funds that were provided by or on behalf of providers and used to make payments to the same providers in aggregate, and thus do not end up as a net payment to Medicaid providers. We estimated the amount of federal matching funds that are attributable to these remaining funds based on each state's reported federal spending in FY 2018.6

For example, using the scenario in Figure 1, the hospitals paid the state $40 through a provider tax. In our analysis, we would consider the $8 (20 percent) in non-federal share from the hospital provider tax that was used to pay other health care providers to contribute to the net payment of those providers since they did not pay the tax. The rest of the provider tax, $32 (80 percent), was used to generate the non-federal share of payments to the hospitals that paid the tax, and thus, we would not consider this non-federal share to contribute to the net payment to those hospitals.

Next, we removed the non-federal amount provided by and returned to the same providers from total Medicaid spending, and then computed a new federal share for each state by dividing the total amount of federal funding by the amount of total Medicaid spending after subtracting any provider-returned funds from the non-federal share. We also conducted sensitivity analyses by changing the default assumptions to estimate high and low scenarios.
Summary of default assumptions

We developed default assumptions for each source of non-federal share. Because we do not have a data source that identified how funds from each source are used at the state level, we applied the assumptions for each of the funding sources equally to each state and each of the four payment categories used by the GAO. Thus, the impact for any particular state may be under- or overestimated.

**State general funds.** Based on a review of available information, our assumption is that 100 percent of state general funds contribute to net provider payment.

**Intra-agency funds.** Our default assumption is that 95 percent of intra-agency funding provides a net payment to providers. A 100 percent assumption would also be reasonable and consistent with the notion that intra-agency transfers are analogous to general funds, and we take this into account as part of our sensitivity analyses.

**Provider taxes.** States generally use provider taxes to either increase payments to providers or offset potential cuts to provider payment that otherwise would be made to fill budget gaps. In the 10 states we researched, state laws on provider taxes usually require that the resulting revenues are used solely to finance Medicaid payments to the particular type of provider that paid the tax. Therefore, we assume that most of the non-federal share financed by provider taxes is used to make payments to the same class of providers who paid the tax (e.g., hospitals, nursing facilities).

Even so, there are situations where provider tax revenue is not used finance payments to the providers who were taxed. For example, in Colorado, a portion of the hospital provider fee was used to implement Health First Colorado eligibility for adults up to 133 percent FPL and Child Health Plan Plus eligibility for children and pregnant women up to 250 percent FPL (HCPF 2016). The hospital provider fee in Colorado would be used to make payments to providers other than hospitals through these eligibility expansions. Thus, we assumed that 20 percent of non-federal share generated by provider taxes was used to finance payments to other types of providers who did not pay the tax.

**Provider donations.** Given federal restrictions on provider donations that prohibit hold harmless arrangements that directly or indirectly return some or all of the donation to the provider, it is unlikely that providers making donations receive the full amount of their donations back, although it seems reasonable to assume that providers receive at least some portion back to justify the donations. Because only two states report substantive use of provider donations and we were not able to find any public documentation regarding their purpose and use, we applied the same 20 percent that we used for provider taxes. Due to the limited use of such donations, this assumption has almost no impact on national estimates.

**Intergovernmental transfers.** In the 10 states we researched, we found little publicly available information on IGTs regarding the participating governments, institutions or other provider entities participating in the transfers, or the amounts of money involved. In many states, the IGT is from a local government on behalf of providers that are owned or operated by the local government, and the IGT is used to support DSH or non-DSH supplemental payments. Based on this information, we assume that 25 percent of the non-federal financing represents a net payment to the providers.

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However, in the case of IGTs, it may be appropriate to vary the default assumption for different categories of services. The most likely scenario in which the non-federal share would largely be paid back to the providers owned or operated by a local government that made the IGT would be through DSH and non-DSH supplemental payments where the payments are not directly tied to services and can be targeted to a specific group of providers. By contrast, for fee-for-service (FFS) payments and payments to managed care organizations (MCOs), the non-federal share coming from IGTs is more likely to fund payments to providers that are not owned or operated by local governments because the payments are directly tied to a service that was rendered and less likely to be targeted to specific providers. For part of our sensitivity analyses, we varied the percentages applied for DSH and non-DSH supplemental payments from the percentages used for FFS and MCO payments. We applied the same percentage used for provider taxes and donations to IGT funding for all supplemental payments, but assume that a higher percentage of IGTs (e.g., 100 percent) of IGTs for FFS and MCO payments contribute to the net payment of providers.

**Certified public expenditures.** Similar to IGTs, we found it difficult to find any publicly available information on CPEs regarding the participating governments, institutions, or other provider entities participating in CPE arrangements, or the amounts of money involved. In many states, CPEs are most commonly used by local education agencies to provide the non-federal share for Medicaid school-based services. Because the local government has initially funded these local education agencies, the CPEs allow the local education agency to claim federal funds to pay for the allowable Medicaid services provided. We assumed that 75 percent of the non-federal share of CPEs contributes to the net payment of providers. However, CPEs may also be used to fund DSH and non-DSH supplemental payments that are not directly tied to a service that was rendered and targeted to providers owned or operated by the local governments that provided the CPE. Similar to IGTs, we varied the percentages applied for DSH and UPL payments from the percentages used for FFS and MCO payments in our sensitivity analyses.

**Other state and local sources.** GAO’s analysis of state and local sources of Medicaid financing showed significant amounts of funds from tobacco taxes and settlements such as the 1998 Master Tobacco Settlement Agreement, drug rebates, and trust funds. Because we did not have specific information on how these sources of funds were used in our review of 10 states, we assumed that these funds were analogous to state general funds and assumed that 100 percent of these funds contributed to the net payment of providers.

**Results**

Using the default assumptions, we estimate that nationally, providers and local governments contributed and received back in payments about $47.5 billion of the $223.8 billion in non-federal funding in SFY 2018, about 21 percent of the total non-federal share. Reducing total spending by the amount of non-federal share that we estimate was provided by providers and used to make payments to the same providers, we compute a new federal share of 68.0 percent nationwide, compared to roughly 62.6 percent for the national average federal share of Medicaid spending prior to those adjustments, or a 5.4 percentage point increase (Table 1).
### TABLE 1: Estimated Federal Share of Net Provider Payments

<table>
<thead>
<tr>
<th>Spending and federal share calculation</th>
<th>SFY 2012</th>
<th>SFY 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Total spending</td>
<td>$418.3 B</td>
<td>$599.2 B</td>
</tr>
<tr>
<td>b) Federal spending</td>
<td>$238.3 B</td>
<td>$374.5 B</td>
</tr>
<tr>
<td>c) Non-federal spending</td>
<td>$180.0 B</td>
<td>$223.8 B</td>
</tr>
<tr>
<td>d) Non-federal share financed and paid back to providers</td>
<td>$31.6 B</td>
<td>$47.5 B</td>
</tr>
<tr>
<td>e) Federal share (b/a)</td>
<td>57.0%</td>
<td>62.6%</td>
</tr>
<tr>
<td>f) Federal share on net provider payments [b/(a-d)]</td>
<td>61.7%</td>
<td>68.0%</td>
</tr>
<tr>
<td>g) Percentage point increase in federal share (f-e)</td>
<td>4.7%</td>
<td>5.4%</td>
</tr>
</tbody>
</table>

**Note:** SFY is state fiscal year.  
**Source:** MACPAC 2017 and MACPAC, 2021, analysis of GAO 2021, and CMS-64 net financial management report data.

Compared to MACPAC’s prior estimate of the effective FMAP in SFY 2012, the percentage point increase in the federal share was similar (about 5 percent) but the federal share of spending was higher in SFY 2018 (MACPAC 2017). As noted above, there has been a general shift towards greater federal financing of the Medicaid program since 2014, independent of how states raise the nonfederal share the federal share of Medicaid spending, due to the higher FMAP rate for the new adult group.7

The increase in the effective FMAP varies by state based on variations in state financing methods (Figure 2). The majority of states (28 states and the District of Columbia) have between a 0 to 4 percent increase in the federal share over their statutory FMAP rate. This variation is similar to what we observed in SFY 2012 and reflects historic state choices among legally permissible funding mechanisms to generate revenue to support their Medicaid programs.
FIGURE 2: Estimated Number of States by Percentage Point Increase in Effective Federal Share of Net Provider Payments over Statutory FMAP Rates, SFY 2018

Notes: SFY is state fiscal year. Number of states includes the District of Columbia.

Sensitivity analysis

Our results are sensitive to variations in the assumptions, especially for larger non-federal sources of funding (e.g., provider taxes, IGTs). To provide bounds around our default assumptions, we analyzed additional scenarios to establish a lower and upper bound (Table 2).

Under the lower bound assumptions, the new federal share was 65.1 percent, a 2.5 percentage point increase over the national average of 62.6 percent prior to any adjustments (Table 3). For the lower bound, we assumed 100 percent of federal, state general funds, intra-agency funds, and other local sources contributed to net provider payments (Table 2). For provider taxes and donations, we assumed 50 percent. For IGTs and CPEs, we varied the percentages by type of payment. For the fee for service and managed care categories, we assumed 100 percent of these funds contributed to net provider payments, but only 50 percent of IGTs and 75 percent of CPEs for DSH and non-DSH supplemental payments.

For our upper bound, the new federal share was 70.6 percent, an 8 percentage point increase over the national average of 62.6 percent prior to any adjustments (Table 3). For the upper bound assumptions, we changed the default assumptions for provider taxes, provider donations, IGTs, and CPEs to assume that...
none of these sources contributed to net provider payments in the analysis and lowered other local sources to 50 percent (Table 2).

**TABLE 2. Sensitivity Analysis on Assumptions of Amount of Funds Contributing to Net Payments by Source of Funds**

<table>
<thead>
<tr>
<th>Source of Funds</th>
<th>Lower bound assumptions</th>
<th>Default assumptions</th>
<th>Upper bound assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FFS and MCO</td>
<td>DSH and non-DSH supplemental</td>
<td>All payment categories</td>
</tr>
<tr>
<td>Federal</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>State general funds</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Intra-agency transfers</td>
<td>100%</td>
<td>100%</td>
<td>95%</td>
</tr>
<tr>
<td>Provider taxes</td>
<td>50%</td>
<td>50%</td>
<td>20%</td>
</tr>
<tr>
<td>Provider donations</td>
<td>50%</td>
<td>50%</td>
<td>20%</td>
</tr>
<tr>
<td>IGTs</td>
<td>100%</td>
<td>50%</td>
<td>25%</td>
</tr>
<tr>
<td>CPEs</td>
<td>100%</td>
<td>75%</td>
<td>75%</td>
</tr>
<tr>
<td>Other local and state sources</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Notes:** FFS is fee for service. MCO is managed care organization. DSH is disproportionate share hospital. IGT is intergovernmental transfer. CPE is certified public expenditure.

**Source:** MACPAC and George Washington University, 2021, analysis of GAO 2021 and CMS-64 net financial management report data.

**TABLE 3. Sensitivity Analysis on Federal Share of Medicaid Spending on Net Provider Payments, 2018**

<table>
<thead>
<tr>
<th></th>
<th>Lower bound assumptions</th>
<th>Default assumptions</th>
<th>Upper bound assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal share on net provider payments</td>
<td>65.1%</td>
<td>68.0%</td>
<td>70.6%</td>
</tr>
<tr>
<td>Percentage point increase over historical average federal share</td>
<td>2.5%</td>
<td>5.4%</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

**Source:** MACPAC and George Washington University, 2016, analysis of GAO 2014 and CMS-64 net financial management report data.
Endnotes

1 A complete list of federal match rate exceptions is provided on MACPAC’s website: https://www.macpac.gov/federal-match-rate-exceptions/.

2 The new adult group was 100 percent federally financed in fiscal years (FY) 2014 – 2016 and then gradually transitioned to a 90 percent FMAP in FY 2020. For states newly expanding coverage to the new adult group after March 11, 2021, the new adult group is financed at a 95 percent FMAP for the first eight quarters the expansion is in effect.

3 Health care-related taxes are defined by federal statute as taxes of which at least 85 percent of the burden falls on health care providers, and are permitted by federal rule for 18 separate provider classes (§ 1903(w)(3)(A) of the Act and 42 CFR 433.56). Provider donations are also permitted as a source of the non-federal share, but the stringent conditions placed on donations have effectively prohibited their use.

4 Federal statute permits the use of funds transferred from or certified by units of government within a state as the non-federal share of Medicaid expenditures regardless of whether the unit of government is also a health care provider (§ 1903(w)(6)(A) of the Act). Unit of local government is defined as a city, county, special purpose district, or other governmental unit in the state (§ 1903(w)(7)(G) of the Act).

4 We reviewed publicly available information from Alabama, California, Colorado, Florida, Illinois, Michigan, Mississippi, Missouri, Oklahoma, and Wisconsin.

5 We reviewed publicly available information from Alabama, California, Colorado, Florida, Illinois, Michigan, Mississippi, Missouri, Oklahoma, and Wisconsin.

6 Because the new adult group added by the ACA is matched at 90 percent, the average federal matching rate reported on CMS-64 expenditure reports for expansion states is slightly higher than the state’s statutory FMAP.

7 Because the new adult group has a higher matching rate than most other Medicaid expenditures, the provider and local government financing of the non-federal share of these payments has the potential to result in a relatively larger increase in federal spending than similar financing of other Medicaid expenditures. However, we are not able to account for this difference in our analysis because the GAO financing data does not distinguish financing for the new adult group from financing for other Medicaid beneficiaries.

References


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