APPENDIX TO EVALUATION GUIDANCE FOR SECTION 1115 ELIGIBILITY & COVERAGE DEMONSTRATIONS: DEMONSTRATION SUSTAINABILITY AND COST IMPACTS

This appendix to the evaluation design guidance for section 1115 eligibility and coverage demonstrations suggests approaches states can take to use information on cost impacts and other evaluation evidence to assess demonstration sustainability. This appendix also provides specific technical guidance on how to evaluate demonstration cost impacts to the state. State cost impacts are defined to include the administrative costs of demonstration implementation and operation, health service expenditures, and uncompensated care costs for providers, which may accrue to the state in the form of supplemental payments to providers and other costs.

1. Assessing section 1115 demonstration sustainability

Ensuring the sustainability of state Medicaid programs is an important goal for Medicaid policymakers and stakeholders. States should assess sustainability within the context of the stated objectives of their section 1115 demonstrations and the Medicaid program.[1] Doing so requires that states' sustainability and cost calculations consider the full range of consequences of the demonstration's policies, including intended and unintended effects.[2]

Because there is no single, direct measure of sustainability, states must make judgments about (1) the most relevant time horizon to assess sustainability in their policy and budgetary context, (2) acceptable levels of demonstration costs overall and per covered beneficiary, and (3) acceptable levels of demonstration costs given the demonstration's targeted non-cost outcomes.

For example, a state's near-term demonstration costs may be higher than the cost of Medicaid coverage without a demonstration, but state officials and their electorates may judge this expenditure to be worthwhile because the demonstration also results in outcomes that would not otherwise be possible, such as increased access to care, improved health status, or higher employment levels. Such outcomes may have long-term cost benefits within or outside of Medicaid.

[1] For a description of the role of section 1115 demonstrations in advancing Medicaid program goals, see: https://www.medicaid.gov/medicaid/section-1115-demo/about-1115/index.html.

[2] Cost-savings or cost-effectiveness analyses, which draw on cost impact estimates and may be a component of sustainability assessments, require judgments about which costs and savings to include and how to monetize non-cost outcomes associated with the demonstration. For example, Kenney et al. (2007) calculated the cost savings associated with a program that required Children's Health Insurance Program (CHIP) beneficiaries to contribute premiums in two states by varying the assumptions and inputs included in the calculation. Different assumptions produced widely varying cost estimates, which points to the breadth of considerations involved cost-savings calculations and the importance of taking a comprehensive view of program or policy effects. In the context of eligibility and coverage demonstrations, states must consider the full range of consequences of their policies in assessments of sustainability. For example, if a demonstration has the objective of promoting independence from public financial aid by incentivizing beneficiaries to work and obtain employer-sponsored insurance or another form of commercial insurance, then the net cost savings from reductions in Medicaid enrollment due to transitions to commercial insurance would be relevant to the sustainability assessment. States should also measure potential savings resulting from beneficiaries who lose their Medicaid coverage as a result of non-compliance with demonstration policies, although such savings may be considered an unintended consequence and states should carefully account for related impacts on uncompensated care and other indirect costs.

CMS recommends the following general process, which states can customize to align with their relevant definition of sustainability:

1. Test all recommended hypotheses about effects for each policy in the demonstration, including both intended and unintended effects, using available evaluation guidance.
2. Estimate demonstration costs following the suggestions contained in this appendix.
3. Assess costs in the context of the both the magnitude of estimated demonstration impacts and the levels of confidence that can be attached to those results.
4. Assess changes in costs and outcomes against state-selected measures of Medicaid sustainability, according to state priorities. These may include recent or planned changes to Medicaid eligibility groups, benefit packages, provider reimbursement, the number of people covered overall and by the demonstration, and the percentage of state budget spent on Medicaid.

These steps will enable states to decide whether demonstrations are sustainable by putting costs into context—that is, assessing whether Medicaid expenditures achieve the demonstration's stated objectives and overall Medicaid program goals.

2. Guidance on evaluating demonstration cost impacts

Calculating the state cost impacts of section 1115 demonstrations requires a clear understanding of demonstration objectives, mechanisms for achieving those objectives, and intended and potential unintended consequences. States and their evaluation contractors should measure costs at the demonstration level (for all policies contained in the demonstration, in total) and should consider costs associated with (1) implementation and ongoing operations for all demonstration policies and (2) the outcomes of those policies. Thus, suggested research questions ask about a range of cost impacts:

Research question 1: What are the administrative costs incurred by the state to implement and operate the demonstration?

Research question 2: What are the short- and long-term effects of eligibility and coverage policies on Medicaid health service expenditures?

Research question 3: What are the impacts of eligibility and coverage policies on provider uncompensated care costs?

Administrative costs. States and their evaluators should compute administrative costs associated with demonstration startup as well as ongoing administrative costs of demonstration operations. Specific administrative costs to examine include the cost of (1) contracts or contract amendments to implement demonstration policies, as well as those for monitoring and evaluation, and (2) staff time equivalents required to implement, administer, and communicate with beneficiaries about demonstration policies, such as premium collection, health behavior incentives, and/or community engagement requirements. Estimates of administrative costs should include Medicaid agency staff time for those hired to support the demonstration, as well as time redirected to the demonstration from other Medicaid operations in whole or in part. States should take a lead role in gathering information on these costs and should facilitate evaluators' access to this information. Qualitative interviews by evaluators may also help to

systematically gather information on administrative costs, particularly for understanding the allocation of state staff time required to launch and then maintain demonstration operations.[3] Depending on the role of managed care plans in implementing the demonstration policies, states may also need to include managed care administrative costs, gathering information through interviews and potentially through secondary data sources. Finally, for the purpose of assessing overall program sustainability, states should also consider costs or cost savings accruing to other state agencies that partner with Medicaid to implement and operate the demonstration. For example, increased state spending for job readiness programs should be estimated and enter into sustainability analyses. No comparison group is expected for analyses of administrative costs.

Service expenditures. States should also seek to measure changes in the costs of providing health care services to Medicaid beneficiaries included in the demonstration (in the aggregate, and per member, per month [PMPM]). As with administrative costs, states should ensure that evaluators have access to necessary administrative data on service expenditures. To isolate changes in service expenditures for the demonstration, states and their evaluators will need beneficiary-level information derived from claims or encounter data. States and their evaluators should compare expenditures before and after demonstration implementation if pre-period data are available for a similar population (for example, if the state expanded coverage before implementing a demonstration), or to trends in expenditure data for similar populations in other states.

Examining changes in both total service expenditures and PMPM expenditures is important, as the two measures may move in opposite directions depending on the demonstration's effects on enrollment. For example, beneficiaries with chronic conditions or higher health needs may be most likely to maintain Medicaid coverage over time, and states may observe that PMPM costs rise even if total enrollment and therefore total service costs decrease. States should construct a comparison group using similar beneficiaries in non-demonstration states or similar within-state beneficiaries not subject to the demonstration. If pre-period data are available, states can estimate a difference-in-differences model.[4]

Financial effects on providers. States can use publicly available provider data to evaluate whether eligibility and coverage policies affect uncompensated care. Data sources in the table below include:

- The Healthcare Cost and Utilization Project, State Inpatient Databases (HCUP-SID), which contain information on the source of payment (including "no charge" [charity care] and "self-pay") for hospital inpatient stays by state.[5] Demonstration states using SID data should

[3] The evaluation of Express Lane Eligibility (ELE), mandated by the Children's Health Insurance Program (CHIP) Reauthorization Act of 2009, provides an example of this approach. To measure administrative costs, the ELE evaluator reviewed publicly available documentation and conducted qualitative interviews with policy, program, information systems, frontline eligibility, and ELE partner agency staff. The evaluator collected data on administrative costs associated with the upfront investments needed to establish ELE processes and the ongoing costs associated with operating ELE processes. See Hoag et al. 2013 at https://www.mathematica-mpr.com/our-publications-and-findings/publications/chipra-mandated-evaluation-of-express-lane-eligibility-final-findings.

[4] See the evaluation guidance for eligibility and coverage demonstrations for further discussion of comparison groups and analytic methods. This document is an appendix to the primary guidance document.

[5] https://www.hcup-us.ahrq.gov/sidoverview.jsp

compare to other states that have similar Medicaid eligibility criteria but do not operate a similar demonstration, and that also contribute SID data. Some states do not contribute SID data, but they do maintain their own inpatient and emergency department discharge databases. CMS encourages states to facilitate evaluators' access to these data by coordinating with relevant state agencies.

- The Healthcare Cost Report Information System (HCRIS), which contains relatively current and comprehensive data for Medicare-participating institutional providers.[6] HCRIS data are captured through Medicare costs reports (Worksheet S-10) and include charity care (uninsured and insured, separately), non-Medicare and non-reimbursable Medicare bad debts, indigent care costs (for patients covered by state or local government programs), and Medicaid shortfalls (after Medicaid supplemental payments). CMS recommends inclusion of Medicaid shortfalls because there are interactions between uninsured uncompensated care and Medicaid shortfalls when states experience Medicaid coverage changes.[7] States using HCRIS data should compare to other states that have similar Medicaid eligibility criteria but do not operate a similar demonstration. Medicaid Disproportionate Share audit reports are another potential data source but are less current than HCRIS.
- State-specific provider surveys, which could provide information about uncompensated care costs incurred by hospital and nonhospital providers, such as federally qualified health centers. States should field such a survey at baseline to understand changes after demonstration implementation.

[6] https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/Cost-Reports/

[7] See Chapter 3 of the Medicaid and CHIP Payment and Advisory Commission's 2018 Report to Congress: https://www.macpac.gov/wp-content/uploads/2018/03/Report-to-Congress-on-Medicaid-and-CHIP-March-2018.pdf

Suggested comparison strategies, measures, data sources, and analytic approaches for cost analyses

Note: CMS expects that states will work with their evaluators to choose among and adapt suggested evaluation approaches based on comparison group opportunities and data availability.

Comparison strategy	Outcome measures	Data sources	Analytic approach
Research question 1: What are the administrative costs to implement and operate the demonstration?			
n.a.	Administrative cost of demonstration **implementation**, including cost of contracts or contract amendments and staff time equivalents required to establish demonstration policies, typically incurred in the years prior to and including the initial year of the demonstration	State and managed care administrative records Interviews with state agency staff and partner organizations	Descriptive analysis of administrative costs
n.a.	Administrative cost of ongoing demonstration **operation**, including cost of contracts or contract amendments and staff time equivalents required to administer demonstration policies	State and managed care administrative records E&C monitoring metric AD_44 (if reported by state) Interviews with state agency staff and partner organizations	Descriptive analysis of administrative costs
n.a.	Administrative costs to state agencies partnering with Medicaid to implement and operate the demonstration	Interviews with state agency staff and partner organizations	Descriptive analysis of administrative costs
Research question 2: What are the short- and long-term effects of eligibility and coverage policies on health service expenditures?			
1. Similar beneficiaries in other states that do not operate a similar demonstration 2. Within-state beneficiaries not subject to demonstration based on implementation strategy (staged by geographic area, age group, or other beneficiary characteristic) and/or eligibility criteria	Total health service expenditures for demonstration population	State administrative data on beneficiary-level expenditures and enrollment in the demonstration	Descriptive analysis comparing to other states, with pre-period trend analysis, and/or to pre-demonstration period in demonstration state

Comparison strategy	Outcome measures	Data sources	Analytic approach
1. Similar beneficiaries in other states that do not operate a similar demonstration 2. Within-state beneficiaries not subject to demonstration based on implementation strategy (staged by geographic area, age group, or other beneficiary characteristic) and/or eligibility criteria	Change in PMPM health service expenditures	State administrative data on beneficiary-level expenditures and enrollment in the demonstration	Differences-in-differences or regression discontinuity model of PMPM service expenditures[a]
Research question 3: What are the impacts of eligibility and coverage policies on provider uncompensated care costs?			
States that have similar Medicaid eligibility criteria but do not operate a similar demonstration	Proportion of hospital discharges for which primary payer was uninsured individuals	HCUP-SID variable PAY1 (values “no charge” and “self-pay”), if state reports HCUP-SID data	Difference-in-differences regression model of uncompensated care costs
States that have similar Medicaid eligibility criteria but do not operate a similar demonstration	Reported hospital costs of charity care, non-Medicare non-reimbursable bad debts, indigent care costs, and Medicaid shortfalls	HCRIS worksheet S-10	Difference-in-differences regression model of uncompensated care costs
n.a.	Reported uncompensated care by hospitals and other providers, including FQHCs	State-specific provider survey	Descriptive quantitative and/or qualitative analysis of changes in uncompensated care costs, measured at baseline and annually thereafter

[a] If no baseline (pre-demonstration) data are available, for example because demonstration implementation coincides with a coverage expansion to the population of interest, a difference-in-differences model is not possible. However, if the state stages (rolls out) implementation based on a continuous beneficiary characteristic such as age or income, or varies policy according to a continuous beneficiary characteristic, a regression discontinuity design may be used.

E&C = eligibility and coverage; FQHC = federally qualified health center; HCRIS = Healthcare Cost Report Information System; HCUP-SID = Healthcare Cost and Utilization Project, State Inpatient Databases; PMPM = per member per month; n.a. = not applicable.

References

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