# Evaluation Design Technical Assistance Guide for Section 1115 Demonstrations: Reentry Demonstrations

This document provides technical assistance for evaluating section 1115 demonstrations that seek to improve outcomes for individuals moving from carceral settings into the community (reentry demonstration initiatives, hereafter referred to as "reentry demonstrations"). It includes a description of the goals (Section 1), an example logic model linking demonstration initiatives to expected outcomes (Section 2), potential data sources and data considerations (Section 3), example hypotheses and research questions (Sections 4 and 5), suggested analytic methods (Section 6), and analytic approaches (Tables 1 and 2).

If a state has reentry policies and activities beyond those outlined in the SMDL, these should also be captured in the state's evaluation design. CMS provides evaluation technical assistance guides for several other common demonstration policies.[1] States with multiple policies in their demonstration should consult relevant policy-specific evaluation technical assistance guides to develop comprehensive evaluation designs aligned with special terms and conditions (STCs) requirements.

## 1. Demonstration goals

In alignment with the goals outlined in the State Medicaid Director Letter (SMDL) #23-003[2], the purpose of a reentry demonstration is to test whether its policies have the following effects for Medicaid beneficiaries:

1. Increase coverage, continuity of coverage, and appropriate service uptake through assessment of eligibility and availability of coverage for benefits in carceral settings just prior to release
2. Improve access to services prior to release and improve transitions and continuity of care into the community upon release and during reentry
3. Improve coordination and communication between correctional systems, Medicaid systems, managed care plans, and community-based providers
4. Increase additional investments in health care and related services aimed at improving the quality of care for beneficiaries in carceral settings and in the community to maximize successful reentry post-release
5. Improve connections between carceral settings and community services upon release to address physical health, behavioral health, and social determinants of health (SDOH)/health-related social needs (HRSN)
6. Reduce all-cause deaths in the near-term post-release

[1] These resources are available to states on the Medicaid.gov website: https://www.medicaid.gov/medicaid/section-1115-demonstrations/1115-demonstration-monitoring-evaluation/1115-demonstration-state-monitoring-evaluation-resources/index.html.
[2] https://www.medicaid.gov/federal-policy-guidance/downloads/smd23003.pdf

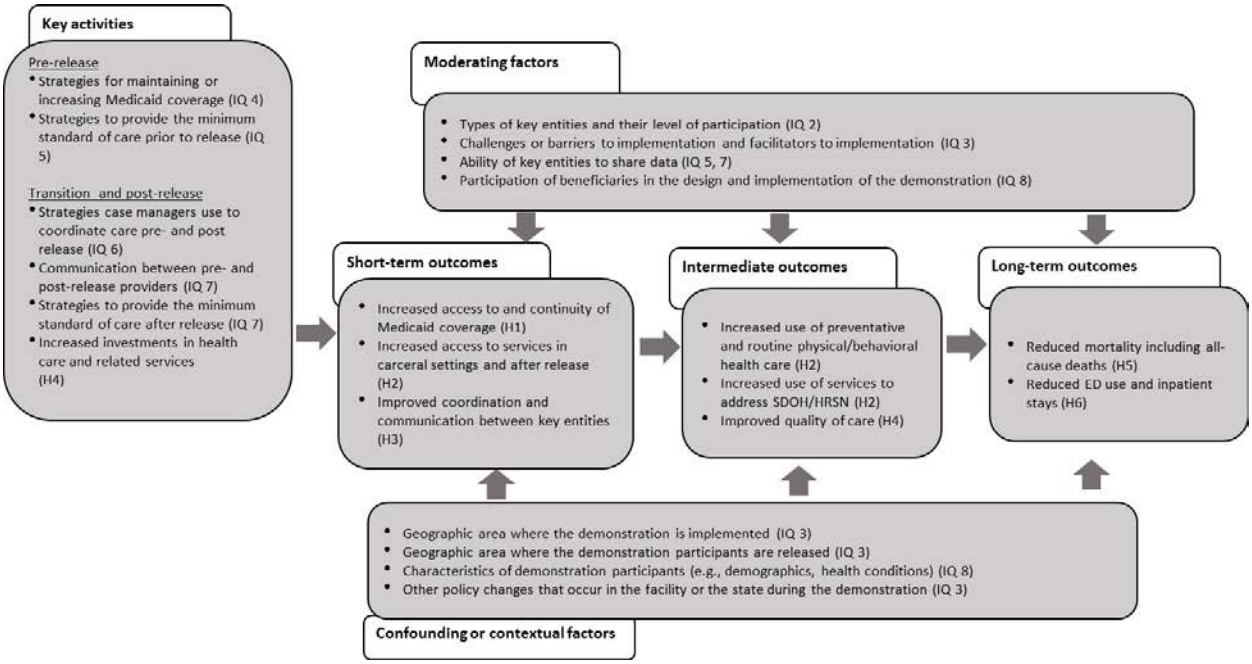
7. Reduce the number of emergency department (ED) visits and inpatient hospitalizations among recently incarcerated Medicaid beneficiaries[3] through increased receipt of preventive and routine physical and behavioral health care

## 2. Example logic model for reentry demonstrations

Figure 1 shows an example logic model. It depicts how the demonstration's initiatives are expected to affect outcomes, accounting for moderating, confounding, and contextual factors. For definitions of moderating, confounding, and contextual factors, refer to *Evaluation Design and Reporting for Section 1115 Demonstrations.*[4]

Each state should tailor the sample logic model to the specific reentry services offered within the section 1115 demonstration. If the reentry demonstration has multiple programs or plans to implement the demonstration differently for distinct populations (for example, youth in correctional facilities), the state can consider developing separate logic models for each program.

**Figure 1: Example logic model for reentry demonstrations**




Note: Hypothesis and research question numbers in parentheses refer to the research questions in Sections 4 and 5 below. If states are phasing in facilities or additional services over time, they should also consider whether to include the implementation phase as a contextual variable.

H = hypothesis; IQ = implementation question; SDOH/HRSN = social determinants of health/ health-related social needs

[3] "Recently incarcerated Medicaid beneficiaries" refers to beneficiaries who were released from a carceral setting within the past year.

[4] This resource is available to states on the Medicaid.gov website: https://www.medicaid.gov/medicaid/section-1115-demonstrations/1115-demonstration-monitoring-evaluation/1115-demonstration-state-monitoring-evaluation-resources/index.html

## 3. Data sources and data considerations

To answer the research questions presented below, the state will need to employ mixed research methods and use multiple data sources, including Medicaid enrollment and claims data, data from correctional facilities (prisons, jails, youth correctional facilities, and/or tribal correctional facilities), and qualitative interviews and/or surveys of providers and participants. The state should consider collecting similar data across all carceral facilities that will eventually participate in the demonstration, even when a facility is not an early implementor. This will enable the state to use the facilities starting implementation later in the demonstration as a source of comparison groups in evaluating the demonstration. If a state is implementing the demonstration at the same time across all facilities, then it will need to recruit additional comparison facilities and establish data use agreements to collect corrections and pre-release services data (health services and SDOH/HRSN referrals).[5]

This section describes potential data sources for evaluations of reentry demonstrations and important data considerations. A state may need to vary its approach to data collection for different facility types.

- **Corrections data** from facilities participating in the demonstration and, if applicable, facilities that will serve as a comparison group for the evaluation of demonstration impacts. Potential data elements to collect will include person-level data on the date of incarceration, sentence length, and projected and actual release dates, and facility-level data on the number of people incarcerated. The source, availability, and quality of these data might vary by state and by facility type:
  - Local jails. In most states, jails are managed at the county or local levels and data are maintained by the facility. States should work to establish data use agreements with each local jail that will be part of the demonstration or will serve as a comparison group. Obtaining data from jails can be challenging due to their decentralized and fragmented systems, which often rely on outdated or paper-based recordkeeping. Moreover, because most jail populations consist of individuals awaiting trial or serving short sentences, there is frequent turnover and uncertainty around release dates. Limited staff and resources within jails can further complicate data collection for evaluation purposes. To prepare for these challenges, states should begin by conducting an early assessment of data readiness across participating jails to identify existing systems, data elements, and gaps. Establishing standardized data collection templates and providing technical assistance to support jail staff can improve data quality and consistency. Additionally, building strong relationships with jail administrators and incorporating clear data-sharing protocols into formal agreements will help ensure timely and reliable access to necessary information throughout the evaluation.
  - State prisons. Some data elements necessary for evaluation will be available from the state's Department of Corrections (DOC), such as date of incarceration, projected release date, and actual release date. The state can enter into a single data use agreement with the DOC to get these data for individuals across state prison facilities.

[5] If a state is implementing the demonstration across all facilities at the same time, it will want to identify facilities with similar characteristics from which to select a comparison group. States should consider the following facility-level characteristics when identifying comparable facilities: (1) facility type (must be the same type as the demonstration facility being compared); (2) facility size; and (3) facility security level. If the demonstration facility is a jail, states should ideally select a facility from a similar county based on characteristics such as the average socioeconomic status, crime rates, percent of the population at or below the federal poverty level, employment rates, and/or prevalent economic sectors (for example, manufacturing, construction, or food services).

- Youth correctional facilities.[6] Each state typically has a juvenile justice agency or department that collects and reports data on system-involved youth, court proceedings, and correctional outcomes. The name of the agency that manages these data will vary by state, but common names include the Division or Department of Juvenile Justice or the Division of Youth Services. These agencies are typically housed within larger departments such as the Department of Corrections, Department of Human Services, Department of Children and Families, or the Department of Public Safety.

  If the sources above do not provide the necessary incarceration data needed to build a comparison group, states might consider using aggregated databases like those listed below. However, states should be aware of and account for limitations with these data sources, such as significant time lags due to processing delays and, in some cases, fees for acquiring the data.

- The State Verification and Exchange System (SVES) database is a batch query system established by the Social Security Administration (SSA) to provide state and federal agencies with verification of Social Security numbers and benefits information used to establish eligibility for income and health maintenance programs. States can request Prisoner Update Processing System (PUPS) data through SVES, which provides prisoner record information that can be used to establish eligibility or ineligibility for various programs.[7] The data include an individual's initial date of confinement, facility location, and, in cases where the individual has been released, the date that the facility subsequently released them.

- Third-party, private vendors such as Appriss, VINELink, and CLEAR compile data from multiple sources, such as the Bureau of Prisons, public websites for state and local incarceration facilities, and sometimes private data exchanges with facilities. The available data elements vary based on the third-party vendor, but state agencies can purchase this data for a fee and use it to determine incarceration status. States sometimes use this information to determine eligibility for benefits.

- Criminal Justice Administrative Records System (CJARS) is a project to collect and harmonize administrative criminal justice records. The data are not available for all states and years, but for states that do submit data to CJARS, the repository might be useful for building comparison groups.[8]

- **Pre-release case management data.** States will likely need to partner with each facility to collect additional information necessary for evaluating the demonstration, such as Medicaid eligibility screening and determination and services provided pre-release, including case management services

[6] States implementing the reentry demonstrations in youth correctional facilities should also consider the data required to understand implementation of sections 5121 and optional section 5122 of the Consolidated Appropriations Act, 2023. Given the significant overlap with the requirements in the section 1115 reentry demonstration, states should consider collecting the data needed for the evaluation of both initiatives. Section 5121 mandates that states provide screening, diagnostic, and case management services to eligible incarcerated youth (post-adjudication) starting 30 days before release and continuing for at least 30 days after release. Optional section 5122 extends full Medicaid/CHIP benefits to youth pending adjudication.

[7] For example, state child support agencies partner with corrections agencies and use tools like SVES to identify parents with child support orders who become incarcerated and need a modification to their child support order. For states' lessons about partnerships and data, see Aharpour, D, L. Ochoa, J. Stein, and M. Zukiewicz (2020). "*State Strategies for Improving Child Support Outcomes for Incarcerated Parents." ASPE Research Brief*. Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. Available at https://aspe.hhs.gov/sites/default/files/private/pdf/263901/cs-cj-issue-brief.pdf

[8] For more information on what states are included in the CJARS data library, see CJARS data documentation. Available at: https://cjars.org/documentation/

and referrals for SDOH/HRSN. Other data elements that might be useful for ensuring comparison group members are similar to demonstration group members include individuals' demographic information, criminal history, and employment status prior to incarceration. The state might also consider leveraging criminogenic needs and risks assessments, if available, to assess the equivalence of treatment and comparison group members.

- **Post-release case management and SDOH/HRSN services data**. Important data elements include a record of case management provided and SDOH/HRSN referrals or services for the demonstration's participants. These might be accessible via a closed-loop social referral platform if used among key entities implementing the demonstration. Collecting these data for the comparison group members will likely be infeasible.
- **Health care services data.** The health care provided to demonstration participants pre-and post-release should be available in the Medicaid claims data; however, states will likely need to partner with pre-release health care providers in facilities not (or not yet) participating in the demonstration to understand what health care services are provided to non-demonstration participants. Many state prisons and jails provide health services through contractors rather than providing services directly, so data use agreements should be established with these independent providers. States might have electronic health records (EHRs) or other billing systems that can be leveraged to collect this information. Collecting health care service data for comparison group members who are not enrolled in Medicaid might require payment for the use of an all-payer claims database.
- **State mortality records.** Each U.S. state has a Vital Records Office (often part of the Department of Health or Department of Public Health). These offices are the primary custodians of birth and death records, and they maintain databases of mortality data.

Because the reentry demonstration necessitates cross-system collaboration, obtaining data from both the health care and corrections sectors will be essential to assessing the efficacy of the demonstration. The following are key considerations when planning to obtain data for the demonstration and evaluation:

*Data-sharing considerations:*

- **Identify which agencies have the needed data and whether new or amended data-sharing agreements are necessary.** Depending on the facilities engaged in the demonstration and the existing data exchange infrastructure, the state might need to establish or improve approaches to sharing data across the state Department of Corrections, local or county jail systems, and/or the state and local courts. The state should assess if there are existing data exchange agreements between correctional facilities and the courts to suspend or reinstate public benefits based on an individual's incarceration status. If so, the state can build on these existing agreements. If not, states can reference an example memorandum of understanding (MOU) from other states that have embarked on similar initiatives.[9]
- **Assess whether corrections data will include the identifiers necessary to link individuals across Medicaid and corrections data.** Although correctional agencies generate a unique identifier to track an individual in the correctional system, it might not always include high-quality identifiers that will

[9] For more information on the process of identifying potential data elements, partners, and data sharing agreements needed to evaluate reforms, including an example MOU, see Mallik-Kane, K, Jannetta, J. and Hatry, H. *Measuring Progress in Connecting Criminal Justice to Health*. (2018). https://www.urban.org/sites/default/files/publication/97031/measuring_progress_in_connecting_criminal_justice_to_health.pdf

allow linking across data sets. As a result, the state should coordinate across agencies to ensure the feasibility of linking Medicaid claims data and corrections data using other identifiers such as name, date of birth, and sex, using matching techniques that link identifiers based on similar but inexact matches (probabilistic or "fuzzy" matching).[10,11]

- **Develop secure methods for sharing sensitive information and protecting individual privacy.** States must establish safe and responsible methods to share health and justice data that uphold privacy and ensure ethical use of that data. Establishing interoperability or real-time, bidirectional data sharing across systems is ideal; however, this requires advanced IT infrastructure, planning, and testing, which takes time to implement. Partners can begin with low-tech solutions such as secure file transfers and the use of shared portals to exchange critical data.[12] Once the data are securely shared, access to that data should be restricted to only individuals who need access.

*Considerations about data availability and quality:*

- **States can work with their facility and community partners to track the data needed for monitoring and evaluation.** Data needed for evaluations may not be readily available from existing sources. In these cases, participating partners will need to track and share data across the pre- and post-release phases. For example, measuring SDOH/HRSN, such as housing, will likely require self-reported data.
- **States should be prepared for challenges accessing data from corrections partners.** Corrections agencies often use legacy data management systems that make it hard to modify and share data with external partners. This, paired with staffing shortages at facilities and state agencies, might result in states facing additional challenges in obtaining data from corrections agencies, especially if the facility is not participating in the demonstration but will serve as a comparison facility. To limit the burden on corrections agencies, states should develop a short list of the most critical data elements to request, limit the number of data requests made of corrections agencies, and be flexible in how they receive the data from corrections agencies.
- **States should anticipate data quality, availability, and accessibility to differ significantly between prisons and jails.** Jails have a more transient population, with many more people cycling in and out each year compared to prisons. Additionally, local or state agencies manage jails, and the data systems are often separate from the state prison system. As such, there might be more variation in jail data, and it can be more cumbersome to collect the data unless the state has a centralized system where local corrections agencies report to the state Department of Corrections.

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[10] Christen, P. "The Data Matching Process." In: *Data Matching. Data-Centric Systems and Applications*. Springer, Berlin, Heidelberg (2012). https://doi.org/10.1007/978-3-642-31164-2_2

[11] Burns, M. E., et al. "Association between assistance with Medicaid enrollment and use of health care after incarceration among adults with a history of substance use." *JAMA Network Open 5*, no. 1 (2022): e2142688-e2142688. https://jamanetwork.com/journals/jamanetworkopen/article-abstract/2787710

[12] For more information on the challenges and potential solutions for effectively sharing data across the corrections and healthcare sectors, see this issue brief: Kaeser, E. *Equitable and Effective Data Sharing to Support Healthy Transitions for Youth During Reentry*. (2024). Network for Public Health Law. https://www.networkforphl.org/resources/equitable-and-effective-data-sharing-to-support-healthy-transitions-for-youth-during-reentry/

- **States might need to partner with facilities and pre-release healthcare providers to obtain data on health-related services provided during incarceration.** Many state prisons and most jails provide health services through contractors rather than providing services directly. States should plan for extra time to identify the appropriate partners and to navigate the complexity of obtaining health care data. Obtaining this pre-release health care information is critical for assessing the pre-release benefit package and concepts such as continuity of care.
- **Collecting evaluation data directly from beneficiaries who are incarcerated will likely require clearance by corrections agencies and an institutional review board (IRB).** Different justice agencies have unique requirements for working with people who are incarcerated in their facilities. IRBs protect research subjects and have enhanced protections for some populations, including incarcerated individuals.
- **Consider partnering with corrections entities such as probation or parole to obtain post-release information about participants of the demonstration.** State parole agencies might have data for individuals on parole, but reporting requirements vary by state, and the comprehensiveness of data might differ by parole officer. For example, parole officers might systematically track and record a parolee's education, employment, and housing status, but not track whether a parolee is following up with substance use disorder treatment and recovery support. Because probation is usually managed at a local level, states might need to coordinate with different entities to obtain community supervision data for individuals on probation.
- **States should consider ways to encourage individuals to participate in data collection activities after release.** People recently released from incarceration face structural challenges that can make engaging in research or evaluation difficult. For example, they might face housing challenges and thus be more transient and harder to reach for follow-up data collection. In addition, individuals released without community supervision often avoid interaction with formal systems, including the health care and justice systems. People who were formerly incarcerated might also hesitate to engage in research or respond to questions about their personal health. Potential strategies to address these challenges include providing incentives for completing data collection activities post-release and gathering ample contact information for the individual and one to three people who would know how to get in touch with them.

### Evaluation Data Readiness Activities

Below are suggested data readiness activities the state may undertake prior to or early in demonstration implementation to prepare for evaluation.

1. **Identify all participating facilities and potential comparison facilities.** Document facility characteristics and identify facilities that will implement in later phases to support comparison group selection (see Section 6 for suggested comparison strategies). Identify existing systems and data gaps in data collection processes and capabilities at correctional facilities.
2. **Identify all key entities to be involved in data coordination activities and any external data sources.** Identify partnerships needed to acquire health care service and case management data pre- and post-implementation and assess the feasibility of including external data sources if needed. Maintain ongoing coordination among correctional facilities, Medicaid agencies, reentry partners, and evaluators. Transparent and timely communication fosters engagement and sustained collaboration.
3. **Develop a centralized data governance framework.** Establish clear roles, responsibilities, and decision-making authority for data partners. Define processes for managing data quality, submission timelines, and issue resolution. Use standardized definitions and reporting formats to support comparability. Implement regular audits, feedback loops, and validation checks to monitor completeness, accuracy, and timeliness
4. **Establish data-sharing and data use agreements.** Leverage existing agreements where possible. Include the independent evaluator in DUAs to allow access to the data for evaluation. Review federal and state privacy laws (e.g., HIPAA, 42 CFR Part 2) to ensure all data-sharing and linkage activities comply with applicable regulations. Engage legal counsel early to avoid downstream delays.
5. **Begin building out or enhancing data capabilities and standards between correctional facilities, Medicaid agencies, and other community resources.** Develop systems for consistent, person-level and facility-level tracking to facilitate pre- and post-release data collection. Establish secure methods for sharing sensitive information that includes identifiers needed to link individuals across datasets. Consider creating master person indices or adopting probabilistic matching approaches to facilitate merging data across sources.
6. **Plan for direct data collection from participants, where needed.** Begin process for obtaining IRB approvals and/or facility clearances and develop strategies to encourage participation.
7. **Begin collecting baseline data, where possible.** Collect pre-implementation data from participating facilities and data from comparison facilities, as feasible. For demonstrations operating in youth correctional facilities, consider also collecting data on the provision of services as required by the 2023 Consolidated Appropriations Act Section 5121.
8. **Pilot test data processes before full implementation.** Conduct small-scale pilots to test data transfer protocols, linkage procedures, and quality controls before expanding statewide.
9. **Provide technical assistance and training to facility staff.** Offer training on data entry, reporting standards, and evaluation requirements. Consistent training promotes accuracy, reduces burden, and builds support for the evaluation.

## 4. Research questions related to demonstration implementation

To understand the implementation of reentry demonstrations and provide context for testable hypotheses listed in the next section, the state should specify a set of implementation questions. These questions should focus on essential demonstration operations that must be successful for the program to achieve its core goals. In addition, the questions should inform the analyses that address testable hypotheses and provide context to interpret the findings from those analyses. For example, the extent to which correctional staff, health plans, community-based providers, and other key entities establish

communication processes will likely affect—and should inform interpretation of—observed demonstration outcomes. Example implementation questions are listed below, and Table 1 maps the example questions to recommended measures, data sources, and analytic approaches. States can include additional state-specific implementation question(s) based on input from key entities involved in the demonstration,[13] including potential demonstration participants. Because jails, prisons, and youth correctional facilities are so different, states should plan to collect and analyze these data points by facility type.

*Primary Implementation Question 1:* How did the state phase in facilities or additional services over time? How has this plan changed since the inception of the demonstration? What barriers or challenges were there to phasing in facilities or additional services?

*Primary Implementation Question 2:* Which key entities are collaborating to implement and operationalize the demonstration, and what are their main roles? How and why have the roles or participation of those key entities changed during the demonstration? How did key entities describe their overall experience with implementing the demonstration?

*Primary Implementation Question 3:* What challenges or barriers have key entities experienced while implementing the demonstration, and what strategies did they use to overcome them? What were the facilitators for key entities implementing the demonstration? What lessons or suggestions do they have for improving the demonstration? How did challenges, facilitators, and lessons vary by facility or facility type?

*Primary Implementation Question 4:* What strategies has the state used to increase coverage among Medicaid-eligible individuals and maintain coverage for individuals enrolled in Medicaid prior to incarceration? How did this vary by facility or facility type?

*Primary Implementation Question 5:* What strategies has the state used to provide benefits to individuals before release, such as fostering strategic partnerships, improving cross-system collaboration, and implementing changes to data collection or data sharing practices? How did this vary by facility, facility type, or other characteristics? If the state provided coverage for more than 30 days pre-release, how did the additional time affect the state's ability to plan for and provide pre-release services, relative to a more compressed timeline? What were the challenges and facilitators of providing additional coverage for more than 30 days pre-release?

*Primary Implementation Question 6:* How did the state leverage care coordination and case management roles across correctional facilities, Medicaid agencies, managed care plans, and community providers? What strategies and mechanisms (for example, shared EHRs, warm handoffs, joint care plans) did case managers use to coordinate care pre- and post-release, and to what extent were they successful in connecting with beneficiaries post-release?

*Primary Implementation Question 7:* What strategies did the state use to promote continuity of care, and connect individuals to services after release, such as developing strategic partnerships, fostering cross-system collaboration, and implementing changes to data collection or data sharing practices?

[13] Key entities may include representatives from the corrections system, pre-release health care providers, community-based providers, managed care plan staff, Medicaid agency staff, and people with lived experience.

*Primary Implementation Question 8:* How did beneficiaries describe their experience with the demonstration, including any opportunities to help design the demonstration or influence its implementation? What barriers or challenges did beneficiaries experience when participating in the demonstration, including challenges accessing scheduled or referred services, and what suggestions do they have for improving the demonstration? How did this vary by facility and beneficiary characteristics?

## 5. Hypotheses and research questions for reentry demonstrations

The following hypotheses and research questions are consistent with CMS's expectations for evaluating the effects of reentry demonstrations. The state should also add hypotheses and research questions designed to evaluate state-specific aspects of the demonstration, with input from key entities. Table 2 presents Hypotheses 1 through 6 and corresponding research questions, along with recommended outcome measures, measure stewards, and data sources. In instances where the state is testing services beyond the minimum benefit package or providing coverage for a period over 30 days prior to a beneficiary's expected release date, the state should discuss any relationship identified between the provision and timing of particular services and salient post-release outcomes, including: utilization of acute care services for chronic and other serious conditions, overdose, and overdose- and suicide-related and all-cause deaths in the period soon after release. In addition, the state is expected to assess the extent to which this coverage timeline facilitated providing more coordinated, efficient, and effective reentry planning; enabled pre-release management and stabilization of clinical, physical, and behavioral health conditions; and helped mitigate any potential operational challenges the state might have otherwise encountered in a more compressed timeline for coverage of pre-release services.

In addition to the hypotheses and research questions listed below, the state should evaluate demonstration costs. The document titled *Evaluation Design Technical Assistance Guide for Section 1115 Demonstrations: Assessing Demonstration Costs* provides research questions, measures and data sources, and analytic methods for assessing costs in conjunction with demonstration goals and outcomes.[14]

***Hypothesis 1:*** The reentry demonstration will increase Medicaid coverage and the continuity of Medicaid coverage for individuals in carceral settings just prior to release.

*Primary Research Question 1.1:* How did the implementation of the demonstration impact Medicaid enrollment for participants?

*Primary Research Question 1.2:* How did Medicaid enrollment differ by beneficiary characteristics and facility type?

***Hypothesis 2:*** The reentry demonstration will improve access to services and service uptake in carceral settings and after release.

*Primary Research Question 2.1:* How has the availability of pre-release services changed with the implementation of the demonstration?

[14] This resource is available to states on the Medicaid.gov website: https://www.medicaid.gov/medicaid/section-1115-demonstrations/1115-demonstration-monitoring-evaluation/1115-demonstration-state-monitoring-evaluation-resources/index.html.

*Primary Research Question 2.2:* How has the demonstration affected individuals' access to and uptake of pre-release and post-release services, including services that address SDOH/HRSN?[15] If the state increased coverage beyond 30 days pre-release, what were the benefits associated with offering pre-release services for a longer time?

*Primary Research Question 2.3:* How do measures of access to and uptake of benefits differ by beneficiary characteristics and facility type?

***Hypothesis 3:*** The reentry demonstration will improve coordination and communication between key entities participating in the demonstration.

*Primary Research Question 3.1:* How has the partnership between key entities (correctional systems, pre-release health care providers, pre- and post-release case managers, Medicaid state agencies, managed care plans, and community-based providers) participating in the demonstration facilitated the coordination of care for beneficiaries? How have partnerships differed by facility type?

***Hypothesis 4:*** The reentry demonstration will increase investments in health care and related services (such as those detailed in the state's reinvestment plan) to improve the quality of care and maximize successful reentry for soon-to-be-released individuals and those transitioning into Medicaid upon release.

*Primary Research Question 4.1:* How have investments aimed to improve the delivery of pre-release and post-release health care and related services impacted the quality of care for individuals soon-to-be-released or recently released?

*Primary Research Question 4.2:* How did beneficiaries' experiences of the quality of care pre- and post-release differ by beneficiary characteristics and facility type?

***Hypothesis 5:*** The demonstration will reduce all-cause deaths in the near-term post-release.

*Primary Research Question 5.1:* How did all-cause deaths in the near-term post-release change during the demonstration?

*Primary Research Question 5.2:* How did changes in all-cause deaths near-term differ by beneficiary characteristics?

***Hypothesis 6:*** The demonstration will reduce emergency department (ED) visits and inpatient admissions among recently released Medicaid beneficiaries.

*Primary Research Question 6.1:* How did the use of ED visits among recently released Medicaid beneficiaries change during the demonstration?

*Primary Research Question 6.2:* How did the use of inpatient care among recently released Medicaid beneficiaries change during the demonstration?

[15] Beneficiary subgroups might include subgroups by disability, immigration status, or geography, or other characteristics or populations that are important to the state's demonstration. Subgroups by facility type might include jails, prisons, or youth correctional facilities.

*Primary Research Question 6.3:* How did changes in the use of ED and inpatient care differ by beneficiary characteristics?

## 6. Methods for testing demonstration hypotheses

CMS expects the state to adapt the suggested research questions in Section 5 with appropriate modifications for the state-specific demonstration. The research questions address the evaluation hypotheses, in alignment with the anticipated goals of reentry demonstrations.

For each of the outcome measures in Table 2, states should use the most rigorous comparison strategy and associated analytic approach feasible to obtain estimates of causal demonstration impacts. From more to less rigorous, these approaches include the following:

1. A difference-in-differences regression model (1) comparing beneficiaries participating in the reentry demonstration to people released from comparable facilities that are not [yet] participating in the reentry demonstration (for example, due to a staged roll-out of the demonstration), (2) comparing beneficiaries participating in the reentry demonstration to similar beneficiaries in other states without a reentry demonstration, or (3) comparing providers involved in the demonstration to providers from comparable facilities that are not [yet] involved in the reentry demonstration. [16]
2. An interrupted time series regression model (if multiple pre-demonstration data points on outcome measures are available) or a pre-post comparison (if multiple pre-demonstration data points on outcome measures are unavailable or of poor quality)
3. Descriptive trend analyses over the course of the demonstration (if data on outcome measures are unavailable or are of poor quality in the pre-demonstration period and in non-demonstration states).

[16] It is preferable to compare participating facilities to facilities that are not currently participating but will eventually participate because facilities that do not participate might be systematically different from those that do. However, if this is not feasible (for example, if all participating facilities implement the demonstration at the same time), then states can compare demonstration facilities with otherwise comparable facilities that are not planning to participate in the demonstration. Facilities selected for other-state comparisons should have similar beneficiary population characteristics and pre-demonstration outcome trends and should not be implementing similar service delivery changes concurrent with the demonstration. If an other-facility comparison is not feasible, states should consider conducting interrupted time series analyses (if multiple pre-demonstration data points are available) or a pre-post comparison (if multiple pre-demonstration data points are not available) within their own state. More considerations on choosing a suitable comparison group are available at https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/comparison-grp-eval-dsgn.pdf and https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/outofstate-comp.pdf. While the latter resource focuses on identifying out-of-state comparison groups, many of the same principles apply when selecting within-state comparisons groups.

### Table 1: Suggested data sources, measures, and analytic approaches for research questions related to demonstration implementation

Note: CMS expects that the state will work with its evaluators and demonstration partners to choose among and adapt the suggested approaches to addressing relevant research questions based on data availability. All analytic approaches suggested in Table 1 are descriptive or narrative and do not use comparison groups.

| Data sources | Measures and analytic approach |
|---|---|
| **Primary Implementation Question 1:** How did the state phase in facilities or additional services over time? How has this plan changed since the inception of the demonstration? What barriers or challenges were there to phasing in facilities or additional services? | |
| • Administrative data on participating facilities, providers, and partners<br>• Monitoring reports<br>• Interviews with carceral staff, state Medicaid agency staff, case management staff, and pre-release and community-based health care and SDOH/HRSN providers | Descriptive quantitative and qualitative analysis of the following:<br>• The plan for phasing in facilities and/or services<br>• Changes to the plan for phasing in facilities and/or services<br>• The trends in the number of participating facilities, providers, partners, or services<br>• The experiences of key entities phasing in new facilities and/or services |
| **Primary Implementation Question 2:** Which key entities (for example, representatives from the corrections system, pre-release health care providers, community-based providers, managed care plan staff, Medicaid agency staff, and people with lived experience) are collaborating to implement and operationalize the demonstration, and what are their main roles? How and why have the roles or participation of those key entities changed during the demonstration? How did key entities describe their overall experience with implementing the demonstration? | |
| • Administrative data on participating facilities, providers, and partners<br>• Monitoring reports<br>• Interviews with carceral staff, state Medicaid agency staff, case management staff, and pre-release and community-based health care and SDOH/HRSN providers<br>• Interviews with individuals with lived experience consulted during the demonstration development and implementation | Descriptive quantitative and qualitative analysis of the following:<br>• The roles of key entities in the demonstration and how roles have changed over time, including whether and why any entities discontinued participation<br>• The experiences of key entities implementing the demonstration |
| **Primary Implementation Question 3:** What challenges or barriers have key entities experienced while implementing the demonstration, and what strategies did they use to overcome them? What were the facilitators for key entities implementing the demonstration? What lessons or suggestions do they have for improving the demonstration? How did challenges, facilitators, and lessons vary by facility or facility type? | |
| • Interviews with carceral staff, state Medicaid agency staff, case management staff, people with lived experience, and pre-release and community-based health care and HRSN/SDOH providers<br>• Survey of pre- and post-release health care providers | Descriptive qualitative analysis of the following (overall and by facility type):<br>• Challenges or barriers (technological, interpersonal, structural, etc.) and strategies used to overcome them<br>• Technical assistance provided during implementation and the changes made in response to the technical assistance<br>• Lessons learned during the implementation of the demonstration |

| Data sources | Measures and analytic approach |
|---|---|
| **Primary Implementation Question 4:** What strategies has the state used to increase coverage among Medicaid-eligible individuals and maintain coverage for individuals enrolled in Medicaid prior to incarceration? How did this vary by facility or facility type? | |
| • Interviews with carceral staff, state Medicaid agency staff, case management staff, and pre-release health care and SDOH/HRSN providers | Descriptive qualitative analysis of the following (overall and by facility type):<br>• Whether and how states assessed eligibility, supported applications, and suspended and reestablished Medicaid coverage (including practices and procedures)<br>• How the state's IT infrastructure and data sharing affected its ability to assess eligibility and enroll or suspend coverage |
| **Primary Implementation Question 5:** What strategies has the state used to provide benefits to individuals before release, such as fostering strategic partnerships, improving cross-system collaboration, and implementing changes to data collection or data sharing practices? How did this vary by facility, facility type, or other characteristics? If the state provided coverage for more than 30 days pre-release, how did the additional time affect the state's ability to plan for and provide pre-release services, relative to a more compressed timeline? What were the challenges and facilitators of providing additional coverage for more than 30 days pre-release? | |
| • Interviews with carceral staff, state Medicaid agency, case management staff and pre-release health care providers<br>• Monitoring reports<br>• Medicaid claims data<br>• Beneficiary survey | Descriptive qualitative and quantitative analysis of the following (overall and by facility type and beneficiary characteristics):<br>• Ways the state leveraged and fostered strategic partnerships.<br>• Staffing structure for providing case management services (state staff, corrections providers, other entities)<br>• Methods for improving cross-system communication and collaboration, including how states conducted handoffs between pre- and post-release.<br>• Impact of the state's IT infrastructure on their ability to serve individuals before release.<br>• Changes to data collection or data sharing practices.<br>• Data use agreements and FFS and HIE connections.<br>• Use of case management systems.<br>• Use of assessments or other tools to identify health and SDOH/HRSN.<br>• Methods state used to expand access to MAT.<br>• (If applicable) Challenges, lessons, and benefits of offering services for more than 30 days before release (for example, 90 days before release) |
| **Primary Implementation Question 6:** How did the state define care coordination and case management roles across correctional facilities, Medicaid agencies, managed care plans, and community providers? What strategies and mechanisms (e.g., shared EHRs, warm handoffs, joint care plans) did case managers use to coordinate care pre- and post-release, and to what extent were they successful in connecting with beneficiaries post-release? | |
| • Interviews with state Medicaid agency staff, case management staff, pre-release and community-based health care, and SDOH/HRSN providers<br>• Case management data systems | Descriptive qualitative analysis of the following:<br>• Roles of case managers and care coordinators<br>• Changes to the processes for providing case management pre- and post-release<br>• Changes to IT infrastructure to facilitate continuity of case management<br>Descriptive quantitative analysis of the following:<br>• The number of contacts between pre-release and post-release case management staff |

| Data sources | Measures and analytic approach |
|---|---|
| **Primary Implementation Question 7:** What strategies did the state use to promote continuity of care, and connect individuals to health and SDOH/HRSN services after release, such as developing strategic partnerships, fostering cross-system collaboration, and implementing changes to data collection or data sharing practices? | |
| • Interviews with state Medicaid agency staff, case management staff, pre-release and community-based health care, and SDOH/HRSN providers<br>• Monitoring reports<br>• Medicaid claims data<br>• Survey of pre- and post-release health care providers | Descriptive qualitative analysis of the following:<br>• Changes to the processes for monitoring demonstration beneficiaries post-release<br>• Processes for communicating and coordinating between key entities<br>• Changes to IT infrastructure to facilitate continuity of care<br>Descriptive quantitative analysis of the following:<br>• The number of data linkages between corrections, case management, and pre- and post-release health care providers |
| **Primary Implementation Question 8:** How did beneficiaries describe their experience with the demonstration, including any opportunities to help design the demonstration or influence its implementation? What barriers or challenges did beneficiaries experience when participating in the demonstration, including challenges accessing scheduled or referred services, and what suggestions do they have for improving the demonstration? How did this vary by facility and beneficiary characteristics? | |
| • Interviews with beneficiaries<br>• Beneficiary survey[a] | Descriptive qualitative analysis of the following (overall and by beneficiary and facility subgroups):<br>• Beneficiary experience and participation, including any opportunities to help design the demonstration or influence its implementation<br>• Barriers to participation before and after release and ideas for improvement<br>• Descriptive quantitative analysis of beneficiaries' participation (overall and by beneficiary and facility subgroups) |

[a] States might find it helpful to reference and adapt questions from the Consumer Assessment of Healthcare Providers and Systems (CAPHS) data maintained by the Agency for Healthcare Research and Quality.

AHRQ = Agency for Healthcare Research and Quality; CAHPS = Consumer Assessment of Healthcare Providers and Systems; EHR = electronic health record; FFS = fee-for-service; HIE = health information exchange; MAT = medication assisted treatment; SDOH/HRSN = social determinants of health/ health-related social needs.

## Table 2: Suggested outcome measures, measure stewards, data sources, comparison strategies, and analytic approaches for hypotheses and associated research questions

Note: The outcome measures listed below are suggestions; the state may include other outcomes of interest.

| Outcome measure(s) | Measure steward, endorsement | Data source(s) |
|---|---|---|
| ***Hypothesis 1:*** *The reentry demonstration will increase Medicaid coverage and the continuity of Medicaid coverage for individuals in carceral settings just prior to release.* | | |
| **Primary Research Question 1.1:** How did the implementation of the demonstration impact Medicaid enrollment for participants? | | |
| Percentage of incarcerated individuals newly enrolled in Medicaid out of all individuals incarcerated in the facility | None | Pre-release case management data; Medicaid eligibility data; corrections data |
| **Primary Research Question 1.2:** How did Medicaid enrollment differ by beneficiary characteristics and facility type? | | |
| *Subgroup analysis by beneficiary characteristics and facility type*[a] | | |
| ***Hypothesis 2:*** *The reentry demonstration will improve access to services and service uptake in carceral settings and after release.* | | |
| **Primary Research Question 2.1:** How has the availability of pre-release services changed with the implementation of the demonstration? | | |
| Ratio of pre-release providers to incarcerated individuals | None | Provider data; corrections data |
| Number of full-time equivalent physical and behavioral health providers qualified to deliver SUD services in correctional facilities | None | |
| Provider-reported availability of pre-release services | None | Provider survey |
| Beneficiary-reported access to services | AHRQ | Beneficiary survey |
| **Primary Research Question 2.2:** How has the demonstration affected individuals' access to and uptake of pre-release and post-release services, including services that address SDOH/HRSN? If the state increased coverage beyond 30 days pre-release, what were the benefits of offering pre-release services for a longer length of time? | | |
| Receipt of case management before release | None | Case management/ coordination data |
| Receipt of MAT services before release | None | Pre-release health data; Medicaid claims |
| Screening for Depression and Follow-Up Plan: Ages 12 to 17 (CDF-CH) | CMS (CMIT#672)[b] | |
| Screening for Depression and Follow-Up Plan: Age 18 and Older (CDF-AD) | CMS (CMIT#672)[b] | |
| Receipt of 30-day supply of prescription upon release | None | |
| Receipt of social service referrals for SDOH/HRSN pre-release | None | |
| Receipt of preventative care and office visits within 6 months of release | None | |
| Receipt of behavioral health care within 6 months of release | None | |
| Receipt of MAT within 6 months of release (among participants who had a claim for MAT pre-release) | None | |

| Outcome measure(s) | Measure steward, endorsement | Data source(s) |
|---|---|---|
| Continuity of Pharmacotherapy for Opioid Use Disorder | University of Southern California (CMIT#164)[b] | Pre- and post-release health data; Medicaid claims |
| Receipt of preventative care and office visits within 6 months of release | None | Case management/ coordination data; health provider data; Medicaid claims |
| Receipt of social services for SDOH/HRSN post-release | AHRQ | Case management/ coordination data; beneficiary survey[c] |
| **Primary Research Question 2.3:** How do measures of access to and uptake of benefits differ by beneficiary characteristics and facility type? | | |
| *Subgroup analysis by beneficiary characteristics and facility type*[a] | | |
| ***Hypothesis 3:*** *The reentry demonstration will improve coordination and communication between key entities participating in the demonstration.* | | |
| **Primary Research Question 3.1:** How has the partnership between key entities participating in the demonstration facilitated the coordination of care for beneficiaries? How have partnerships differed by facility type? | | |
| Reported provider experience of partnerships between key entities responsible for care coordination | None | Interviews with pre- and post-release case management staff, and healthcare providers; Provider survey |
| Connecting correctional EHR data to HIE records | None | Corrections data; HIE records |
| Number of data use agreements (DUA) or memoranda of understanding (MOU) established between providers in carceral and community settings | None | Records of DUAs and MOUs |
| Reported beneficiary experience of care coordination | None | Beneficiary interviews with people being released from incarceration |
| | AHRQ | Beneficiary survey[c] for people being released from incarceration |
| ***Hypothesis 4:*** *The reentry demonstration will increase investments in health care and related services (such as those detailed in the state's reinvestment plan) to improve the quality of care and maximize successful reentry for soon-to-be-released individuals and those transitioning into Medicaid upon release.* | | |
| **Primary Research Question 4.1:** How have investments aimed to improve the delivery of pre-release and post-release health care and related services impacted the quality of care for individuals soon-to-be-released or recently released?[d] | | |
| Self-reported experience of quality of care | None | Interviews with individuals incarcerated or formerly incarcerated in participating facilities; Surveys of formerly incarcerated population |
| Utilization of any of these services within 30 days of release (primary care, behavioral health, family planning services and supplies of SDOH/HRSN services) | None | Medicaid claims |
| Initiation and Engagement of Substance Use Disorder Treatment (IET-AD) | NCQA (CMIT#394)[b] | |
| Use of Pharmacotherapy for Opioid Use Disorder (OUD-AD) | CMS (CMIT #750)[b] | |
| Number of days of medication received (based on prescription fill information) relative to the number of days in the observation period. | None | |

| Outcome measure(s) | Measure steward, endorsement | Data source(s) |
|---|---|---|
| Beneficiary rating of all health care (Q8) | AHRQ | Beneficiary survey[c] |
| **Primary Research Question 4.2:** How did beneficiaries' experiences of the quality of care pre- and post-release differ by beneficiary characteristics and facility type? | | |
| *Subgroup analysis by beneficiary characteristics* and facility type[a] | | |
| ***Hypothesis 5:*** *The demonstration will reduce all-cause deaths in the near-term post-release.* | | |
| **Primary Research Question 5.1:** How did all-cause deaths in the near-term post-release change during the demonstration? | | |
| All-cause mortality rate within 7 days post-release | None | Vital records |
| All-cause mortality rate within 30 days post-release | None | |
| All-cause mortality rate within 6 months post-release | None | |
| All-cause mortality rate within 12 months post-release | None | |
| Overdose-related deaths within 30 days post-release | None | |
| **Primary Research Question 5.2:** How did the changes in all-cause deaths near-term differ by beneficiary characteristics? | | |
| *Subgroup analysis by beneficiary characteristics*[a] | | |
| ***Hypothesis 6:*** *The demonstration will reduce emergency department (ED) visits and inpatient hospitalizations among recently released Medicaid beneficiaries.* | | |
| **Primary Research Question 6.1:** How did the use of ED visits among recently released Medicaid beneficiaries change during the demonstration? | | |
| ED visits within 30 days post-release | None | Medicaid claims |
| ED visits within 6 months post-release | None | |
| ED visits within 12 months post-release | None | |
| **Primary Research Question 6.2:** How did changes in the use of inpatient care among recently released Medicaid beneficiaries change during the demonstration? | | |
| Inpatient admissions within 30 days post-release | None | Medicaid claims |
| Inpatient admissions within 6 months post-release | None | |
| Inpatient admissions within 12 months post-release | None | |
| *Subgroup analysis by beneficiary characteristics*[a] | | |
| **Additional state-specific hypotheses and/or research question(s) determined jointly with key entities, including potential demonstration participants[e]** | | |
| To be determined | To be determined | To be determined |

[a] Beneficiary subgroups might include subgroups by disability, immigration status, or geography (e.g. urban, suburban, rural), or other characteristics or populations that are important to the state's demonstration. Subgroups by facility type might include jails, prisons, youth correctional facilities, or tribal correctional facilities.

[b] The CMS Measures Inventory Tool (CMIT) numbers reference measures that are included in the 2022 Adult Core Set (available at https://www.medicaid.gov/medicaid/quality-of-care/downloads/2022-adult-core-set.pdf) and the 2022 Child Core Set (available at https://www.medicaid.gov/medicaid/quality-of-care/downloads/2022-child-core-set.pdf).

[c] States might find it helpful to reference and adapt questions from the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey maintained by the Agency for Healthcare Research and Quality (AHRQ). While AHRQ used a 12-month follow-up period, states should consider following up with beneficiaries 3 to 6 months after release, both because this is such a critical time period for returning individuals and because it may be increasingly more difficult to reach and survey individuals farther out from release.

[d] States with reentry demonstrations operating in youth correctional facilities should consider collecting data on the provision of services as required by the 2023 Consolidated Appropriations Act Section 5121. For example, states might want to collect data on youths such as their adjudication status, age, and child welfare involvement. Similarly, states might want to also track the provision of the required pre-release screening and diagnostic services, and the required post-release services 30 days after release.

[e] CMS encourages states to develop additional research questions specific to the state's demonstration in collaboration with key entities.

AHRQ = Agency for Healthcare Research and Quality; CMIT = The CMS Measure Inventory Tool; CMS = Centers for Medicare & Medicaid; CAHPS = Consumer Assessment of Healthcare Providers and Systems; ED = emergency department; EHR = electronic health record; FFS = fee-for-service; HIE = health information exchange; MAT = medication assisted treatment; NCQA = National Committee for Quality Assurance; SDOH/HRSN = social determinants of health/ health-related social needs.