Evaluation Design Technical Assistance Guide for Section 1115 Demonstrations: Serious Mental Illness/Serious Emotional Disturbance Demonstrations

This document provides technical assistance for evaluating section 1115 serious mental illness (SMI) and serious emotional disturbance (SED) demonstrations. It includes a description of the goals (Section 1), contains an example logic model (Section 2) linking demonstration initiatives to expected outcomes, hypotheses, and research questions (Sections 3 and 4). It also presents potential data sources (Section 5), analytic methods (Section 6), and analytic approaches (Tables 1 and 2).

The Centers for Medicare & Medicaid Services (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

On November 13, 2018, CMS published guidance on section 1115 demonstrations for improving access to and quality of treatment for Medicaid beneficiaries with SMI/SED (state Medicaid director letter [SMDL] #18-011).[2] The SMI/SED demonstration opportunity allows states to test innovative approaches to improving access to community-based SMI/SED services. The goals of section 1115 SMI/SED demonstrations include:

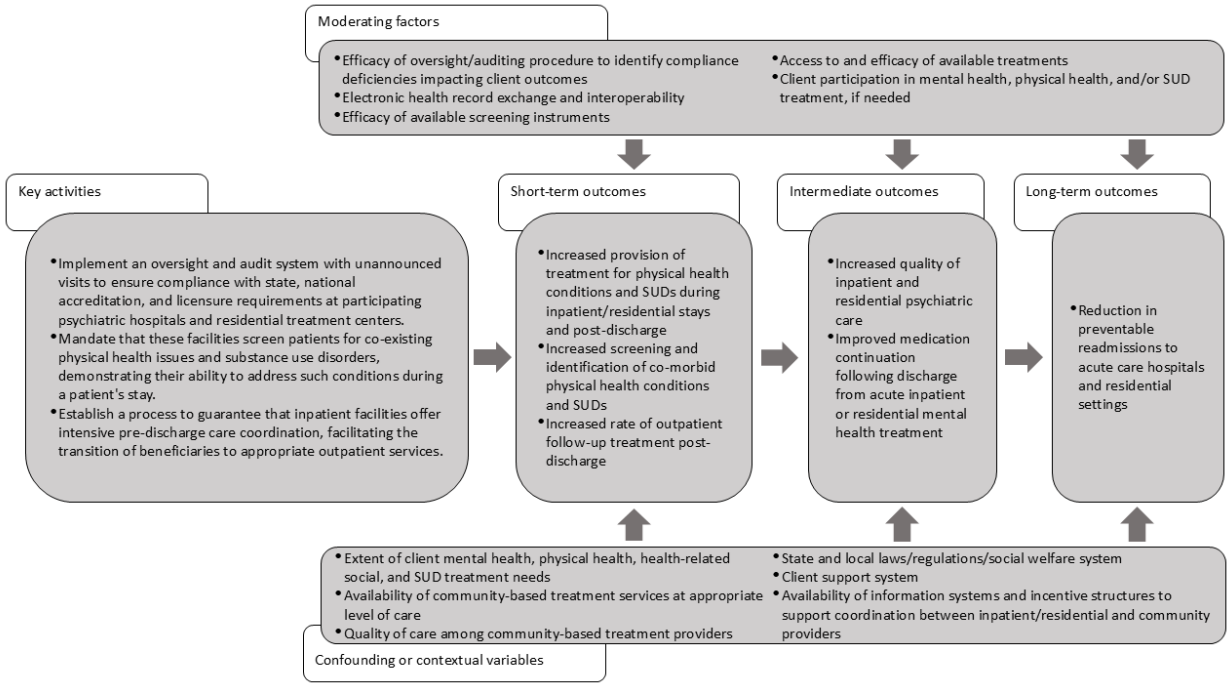
1. Reduced use and length of stay in emergency departments (ED) among Medicaid beneficiaries with SMI/SED while awaiting mental health treatment in specialized settings;
2. Reduced preventable readmissions to acute care hospitals and residential settings;
3. Improved availability of crisis stabilization services, including services made available through call centers and mobile crisis units, intensive outpatient services, as well as services provided during acute short-term stays in residential crisis stabilization programs, psychiatric hospitals, and residential treatment settings throughout the state;
4. Improved access to community-based services to address the chronic mental health care needs of beneficiaries with SMI/SED, including through increased integration of primary and behavioral health care; and
5. Improved care coordination, especially continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities.

[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] See: https://www.medicaid.gov/sites/default/files/federal-policy-guidance/downloads/smd18011.pdf.

2. Example logic models for SMI/SED demonstrations

Figure 1 shows an example logic model. It depicts how the demonstration affects outcomes, accounting for moderating and confounding or contextual factors. A state's logic model should reflect the specific SMI/SED services the demonstration offers and any other relevant state-specific context of activities.

Figure 1. Example logic model for SMI/SED demonstrations



SUD = substance use disorder.

3. Research questions related to demonstration implementation

To understand the implementation of SMI/SED demonstrations and opportunities to improve demonstration operations, the state should specify a set of implementation questions. These questions can provide context for analyses that address hypotheses and assess progress toward demonstration goals.

Table 1 lists implementation questions along with recommended measures, data sources, and analytic approaches. To answer the implementation questions, the state can leverage data it has already presented in its implementation plan and monitoring reports to assess program implementation approaches, trends, and lessons learned. The state should also consider collecting additional data through interviews, surveys, and/or focus groups with key entities[3] and beneficiaries to understand their experience with the demonstration, develop a deeper understanding of barriers and facilitators, and inform the moderating factors and contextual factors affecting demonstration outcomes.

[3] Key entities may include health care providers, community partners, and state program administrators.

Primary Implementation Question 1: 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?

Primary Implementation Question 2: What strategies implemented during the demonstration do key program staff identify as most effective for achieving the goals of the demonstration?

Primary Implementation Question 3: What are barriers for key program staff implementing the demonstration, and what strategies have they used to overcome barriers? What factors support key staff in implementing the demonstration, and what suggestions do they have for improving the demonstration?

Primary Implementation Question 4: What challenges have providers experienced in providing services as part of the demonstration, and what strategies have they used to overcome challenges? What aspects of the demonstration worked well for providers, and what suggestions do they have for improving the demonstration?

Primary Implementation Question 5: What facilitators and barriers to participation do beneficiaries experience,[4] and what does this information suggest about the need for refinements to demonstration implementation or design more broadly? What are beneficiaries' experiences with accessing and receiving demonstration services?

Primary Implementation Question 6 (for evaluations of demonstration extensions): How have the experiences of key program staff and providers changed during the extension period of the demonstration? Have they experienced new challenges or successes? Which, if any, new aspects of the demonstration were most effective for achieving the goals of the demonstration?

4. Hypotheses and research questions related to demonstration outcomes

The following hypotheses and research questions are consistent with CMS's expectations for evaluating SMI/SED demonstrations. Table 2 presents Hypotheses 1 through 5 and corresponding research questions, along with recommended outcome measures, measure stewards, data sources, comparison groups (where applicable), and analytic approaches. In addition to the hypotheses and research questions listed below, the state should evaluate demonstration costs. The document titled *Evaluation Technical Assistance Guide for Section 1115 Demonstrations: Assessing Demonstration Costs* provides research questions, measures and data sources, and analytical methods for assessing costs in conjunction with demonstration goals and outcomes.[5]

Hypothesis 1: The SMI/SED demonstration will result in reductions in use and length of stay in EDs among Medicaid beneficiaries with SMI/SED while awaiting mental health treatment.

[4] Participation refers to the mechanism through which beneficiaries come into contact with the demonstration, which could include being screened, referred to services, and receiving services.

[5] This resources is available to states through the 1115 Demonstration PMDA system and 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 1.1: How does the SMI/SED demonstration impact the use of and length of stay in EDs among Medicaid beneficiaries with SMI/SED while awaiting mental health treatment?

Subsidiary Research Question 1.1a: How do SMI/SED demonstration activities contribute to reductions in the use of and length of stay in EDs among Medicaid beneficiaries with SMI/SED while awaiting mental health treatment?

Hypothesis 2: The SMI/SED demonstration will result in reductions in preventable readmissions to acute care hospitals and residential settings following a psychiatric hospitalization.

Primary Research Question 2.1: How does the SMI/SED demonstration impact preventable readmissions to acute care hospitals and residential settings (including, short-term inpatient and residential admissions to both IMDs and non-IMD acute care hospitals, critical access hospitals, and residential settings)?

Subsidiary Research Question 2.1a: How do demonstration activities contribute to reductions in preventable readmissions to acute care hospitals and residential settings?

Subsidiary Research Question 2.1b: How does the SMI/SED demonstration impact screening and intervention for comorbid SUD and physical health conditions during acute care psychiatric hospital and residential setting stays and increased treatment for such conditions after discharge?

Hypothesis 3: The SMI/SED demonstration will result in improved availability of crisis stabilization services[6] throughout the state.

Primary Research Question 3.1: How does the SMI/SED demonstration impact availability of crisis outreach and response services (including crisis call centers, mobile crisis units, crisis observation/assessment centers, and coordinated community crisis response teams) throughout the state?

Primary Research Question 3.2: How does the SMI/SED demonstration impact availability of intensive outpatient services and partial hospitalization?

Primary Research Question 3.3: How does the SMI/SED demonstration impact the availability of crisis stabilization services provided during acute short-term stays in each of the following: public and private psychiatric hospitals; residential treatment facilities; general hospital psychiatric units; and community-based settings (such as residential crisis stabilization programs, small inpatient units in community mental health centers, peer-run crisis respite programs, and so on)?

Hypothesis 4: Access of beneficiaries with SMI/SED to community-based services to address their chronic mental health care needs will improve under the demonstration, including through increased integration of primary and behavioral health care.

[6] Under Goal 3, the SMDL (see pages 14 and 16, for example) describes crisis stabilization services as "including services made available through call centers and mobile crisis units, intensive outpatient services, as well as services provided during acute short-term stays in residential crisis stabilization programs, psychiatric hospitals, and residential treatment settings."

Primary Research Question 4.1: How does the demonstration impact access of beneficiaries with SMI/SED to community-based services to address their chronic mental health care needs?

Subsidiary Research Question 4.1a: How does the demonstration contribute to improved availability of specific types of community-based services needed to comprehensively address the chronic needs of beneficiaries with SMI/SED?

Subsidiary Research Question 4.1b: How does the demonstration contribute to improved access of SMI/SED beneficiaries to the specific types of community-based services that they need?

Subsidiary Research Question 4.1c: How do the SMI/SED demonstration effects on access to community-based services vary by geographic area or beneficiary characteristics?

Primary Research Question 4.2: How does the integration of primary and behavioral health care to address the chronic mental health care needs of beneficiaries with SMI/SED change under the demonstration?

Hypothesis 5: The SMI/SED demonstrations will result in improved care coordination, especially continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities.

Primary Research Question 5.1: How does the SMI/SED demonstration impact care coordination for beneficiaries with SMI/SED?

Primary Research Question 5.2: How does the SMI/SED demonstration impact continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities?

Subsidiary Research Question 5.2a: How does the SMI/SED demonstration impact discharge planning and outcomes regarding housing for beneficiaries who are transitioning out of acute psychiatric care in hospitals and residential treatment facilities?

Subsidiary Research Question 5.2b: How do demonstration activities contribute to improved continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities?

Subsidiary Research Question 5.2c: How does the SMI/SED demonstration impact the percentage of beneficiaries with SMI/SED who receive care for comorbid conditions?

5. Data sources

SMI/SED demonstration evaluations can largely rely on data sources described in the *Evaluation Design and Reporting for Section 1115 Demonstrations* document, including survey data and Medicaid administrative data.[7] In addition, the National Survey on Drug Use and Health (NSDUH) is relevant for evaluations of SMI/SED demonstrations. Sponsored by the Substance Abuse and Mental Health Services Administration, the NSDUH is a nationwide study of substance use, mental health, and other health-related issues in the United States. Each year, the NSDUH interviews approximately 70,000 people ages 12 and older who reside in households or noninstitutionalized group quarters. Other potentially relevant

[7] This resources 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.

surveys include the Behavioral Risk Factor Surveillance System, which surveys adults ages 18 and older about health behaviors such as alcohol and tobacco use and generates state-level estimates, and the National Substance Use and Mental Health Services Survey, which is an annual survey of service providers.

Another data source for the evaluation of SMI/SED demonstrations is Annual Availability Assessment data. CMS requires each state to complete "annual assessments of the availability of [its] mental health services" (SMDL #18-011, p. 16). As such, a state with an awarded demonstration must submit an Initial Availability Assessment at the beginning of its demonstration and an updated Annual Availability Assessment each year thereafter. The Initial Availability Assessment describes the behavioral health care landscape and the availability of mental health services at the beginning of the section 1115 SMI/SED demonstration, thus establishing a baseline for comparison with future Annual Availability Assessments. The Annual Availability Assessment captures information about the landscape and availability of mental health services during demonstration implementation.

6. Methods for testing demonstration hypotheses

The research questions in Section 4 cover demonstration features typically approved by CMS in SMI/SED demonstrations. CMS expects the state to adopt the suggested research questions with appropriate modifications for the state-specific demonstration. The research questions address the evaluation hypotheses, in alignment with the anticipated goals of SMI/SED 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 regression model based on a randomized controlled trial comparing beneficiaries participating in the SMI/SED demonstration to beneficiaries randomized to a control group that is not participating in the demonstration
2. A difference-in-differences regression model comparing beneficiaries participating in the SMI/SED demonstration to similar beneficiaries in a state without a SMI/SED demonstration
3. An interrupted time series regression model (if multiple pre-demonstration data points about SMI/SED service use are available) or a pre-post comparison (if multiple pre-demonstration data points about SMI/SED service use are unavailable or of poor quality)
4. Descriptive trend analyses over the course of the demonstration (if data about SMI/SED service use are unavailable or are of poor quality in the pre-demonstration period and in non-demonstration states).

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

Data sources	Measures and analytic approach
Primary Implementation Question 1: 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?	
• Memoranda of understanding with key partners • Interviews with Medicaid agency staff • Monitoring reports	• Descriptive qualitative analysis of roles of these key entities in the demonstration and how roles have changed over time
Primary Implementation Question 2: What strategies implemented during the demonstration do key program staff identify as most effective for achieving the goals of the demonstration?	
• Monitoring reports • Interviews with Medicaid agency staff, providers, facility/practice administrators, and community partners	• Descriptive qualitative analysis to identify themes associated with the effectiveness of strategies implemented to achieve the goals of the demonstration and any obstacles hindering effectiveness
Primary Implementation Question 3: What are barriers for key program staff implementing the demonstration, and what strategies have they used to overcome barriers? What factors support key staff in implementing the demonstration, and what suggestions do they have for improving the demonstration?	
• Review of program documentation • Interviews with Medicaid agency and other state staff involved with the demonstration or demonstration services	• Descriptive qualitative analysis of facilitators and barriers in implementation, staff strategies for overcoming barriers, and staff suggestions for improving the demonstration
Primary Implementation Question 4: What challenges have providers experienced in providing services as part of the demonstration, and what strategies have they used to overcome challenges? What aspects of the demonstration worked well for providers, and what suggestions do they have for improving the demonstration?	
• Interviews with providers and facility/practice administrators • Review of facility or practice documentation	• Descriptive qualitative analysis to identify challenges experienced by providers in providing demonstration services to demonstration participants
Primary Implementation Question 5: What facilitators and barriers to participation do beneficiaries experience, and what does this information suggest about the need for refinements to demonstration implementation or design more broadly? What are beneficiaries' experiences with accessing and receiving demonstration services?	
• Interviews or focus groups with participating beneficiaries	• Descriptive qualitative analysis to identify barriers experienced by patients in receiving demonstration services
Primary Implementation Question 6: How have the experiences of key program staff and providers changed during the extension period of the demonstration. Have they experienced new challenges or successes? Which, if any, new aspects of the demonstration were most effective for achieving the goals of the demonstration.	
• Monitoring reports • Interviews with Medicaid agency staff, providers, facility/practice administrators, and community partners	Descriptive qualitative analysis of experiences of key program staff and providers to identify changes in their experiences and in the demonstration that were most effective

ED = emergency department; SED = serious emotional disturbance; SMI = serious mental illness.

Table 2: Suggested comparison strategies, outcome measures, measure stewards, data sources, and analytic approaches for research questions related to demonstration outcomes

Outcome measure	Measure steward, endorsement	Data source
Hypothesis 1: *The SMI/SED demonstration will result in reductions in the use of and length of stay in Eds among Medicaid beneficiaries with SMI/SED while awaiting mental health treatment.*		
Primary Research Question 1.1: How does the SMI/SED demonstration impact the use of and length of stay in EDs among Medicaid beneficiaries with SMI/SED while awaiting mental health treatment?		
Number of all-cause ED visits per 1,000 beneficiary-months among adult Medicaid beneficiaries age 18 and older who met the eligibility criteria of beneficiaries with SMI	Milestone 2 monitoring metric (and could adapt for beneficiaries younger than age 18 with SED)	Medicaid administrative data
Number of beneficiaries with SMI/SED who use ED services for mental health during the measurement period	Milestone 3 monitoring metric	
Time from ED arrival to ED departure for Medicaid beneficiaries with an SMI or SED diagnosis who are admitted or transferred from an ED to inpatient psychiatric treatment	CMS, CMIT# 427 (adapted)	Electronic/paper medical records or ED/inpatient facility administrative records
Subsidiary Research Question 1.1a: How do SMI/SED demonstration activities contribute to reductions in use and length of stay in EDs among Medicaid beneficiaries with SMI/SED while awaiting mental health treatment?		
• Demonstration activities or their components or characteristics that stakeholders identify as most effective in reducing use and length of stay in EDs among Medicaid beneficiaries with SMI/SED[a] • Obstacles that stakeholders identify as hindering the effectiveness of the demonstration in reducing utilization and length of stay in EDs[a]	None	Interviews or focus groups with ED and state demonstration staff Interviews or focus groups with affected beneficiaries and/or their family members/caregivers
• Changes made through the demonstration to systems, processes, or policies related to tracking inpatient psychiatric bed availability in real time[a] • Demonstration activities that ED and/or state demonstration staff identify as most effective for improving the ability to track inpatient psychiatric bed availability in real time[a]	None	Interviews with ED and/or state demonstration staff

Outcome measure	Measure steward, endorsement	Data source
• Obstacles that ED and/or state demonstration staff identify as hindering the effectiveness of demonstration activities aimed at improving systems or processes for tracking inpatient psychiatric bed availability in real time[a]	None	Interviews with ED and/or state demonstration staff
Hypothesis 2: *The SMI/SED demonstration will result in reductions in preventable readmissions to acute care hospitals and residential settings.*		
Primary Research Question 2.1: How does the SMI/SED demonstration impact preventable readmissions to acute care hospitals and residential settings (including, short-term inpatient and residential admissions to both IMDs and non-IMD acute care hospitals, critical access hospitals, and residential settings)?		
Thirty-day, all-cause unplanned readmissions following psychiatric hospitalization	Milestone 2 monitoring metric, CMS, CMIT #3 (adapted)	Medicaid administrative data
Subsidiary research question 2.1a: How do demonstration activities contribute to reductions in preventable readmissions to acute care hospitals and residential settings?		
• Demonstration activities or their components or characteristics that stakeholders identify as most effective in reducing preventable readmissions to acute care hospitals and residential settings[a] • Obstacles that stakeholders identify as hindering the effectiveness of the demonstration in reducing preventable readmissions to acute care hospitals and residential settings[a] • How the demonstration has affected beneficiaries' access to early intervention services[a] • How the demonstration has affected utilization of early intervention services, for example whether program staff have observed an increase in the number of people seeking and obtaining these services[a]	None	Interviews or focus groups with hospital/residential staff and community-based service providers Interviews or focus groups with affected beneficiaries and/or their family members/caregivers
Subsidiary research question 2.1c: How does the SMI/SED demonstration impact screening and intervention for comorbid SUD and physical health conditions during acute care psychiatric hospital and residential setting stays and increased treatment for such conditions after discharge?		
Beneficiaries admitted to psychiatric inpatient or residential treatment facilities who are screened for SUDs and, if indicated, offered an intervention for the SUD during the hospital stay	The Joint Commission, CMIT #42 (adapted)	Electronic/paper medical records IPFQR program[b] State-specific beneficiary survey

Outcome measure	Measure steward, endorsement	Data source
Beneficiaries admitted to psychiatric inpatient or residential treatment facilities who are screened for comorbid physical health conditions and, if indicated, offered an intervention for the condition during the hospital stay	None	Electronic/paper medical records State-specific beneficiary survey
Proportion of beneficiaries who receive outpatient treatment for SUDs and physical health conditions within 30 days after discharge from a psychiatric inpatient or residential treatment facility	None	Medicaid administrative data
Hypothesis 3: *The SMI/SED demonstration will result in improved availability of crisis stabilization services throughout the state.*		
Primary Research Question 3.1: How does the SMI/SED demonstration impact availability of crisis outreach and response services (including crisis call centers, mobile crisis units, crisis observation/assessment centers, and coordinated community crisis response teams) throughout the state?		
For each geographic region, the ratio of Medicaid beneficiaries with SMI/SED to the number of: • Crisis call centers • Mobile crisis units • Crisis observation/assessment centers • Coordinated community crisis response teams	CMS 1115 SMI/SED demonstration team	Annual assessments of availability of mental health services
Number of mental health facilities that accept Medicaid and offer a crisis intervention team that handles acute mental health issues	None	N-SUMHSS, Questions B12 and B19 in 2025 survey[c]
Proportion of beneficiaries with SMI/SED who use mental health–related telehealth services	None	Medicaid administrative data
Primary Research Question 3.2: How does the SMI/SED demonstration impact availability of intensive outpatient services and partial hospitalization?		
Ratio of Medicaid beneficiaries with SMI/SED to intensive outpatient/partial hospitalization providers that accept Medicaid, by geographic region	CMS 1115 SMI/SED demonstration team	Annual assessments of availability of mental health services
Number of mental health facilities that accept Medicaid and offer partial hospitalization/day treatment Number of hospitals with psychiatric partial hospitalization programs	None	N-SUMHSS, Questions B2, B8, and B19 in 2025 survey[c] AHRF

Outcome measure	Measure steward, endorsement	Data source
Primary Research Question 3.3: How does the SMI/SED demonstration impact the availability of crisis stabilization services provided during acute short-term stays in each of the following: public and private psychiatric hospitals; residential treatment facilities; general hospital psychiatric units; and community-based settings (such as residential crisis stabilization programs, small inpatient units in community mental health centers, peer-run crisis respite programs, and so on)?		
For each geographic region, the ratio of the number of Medicaid beneficiaries with SMI/SED to the number of: • Psychiatric hospitals • Medicaid-enrolled psychiatric units in acute care and critical access hospitals • Licensed psychiatric hospital and psychiatric unit beds • Crisis stabilization units For each geographic region: • The ratio of Medicaid beneficiaries with SMI to the total number of residential mental health treatment facilities and beds (adult) • The ratio of Medicaid beneficiaries with SED to the number of Medicaid-enrolled psychiatric residential mental health treatment facilities and beds (child)	CMS 1115 SMI/SED demonstration team	Annual assessments of availability of mental health services
Number of mental health facilities offering 24-hour hospital inpatient or residential treatment—total and broken out by facility type, age groups accepted for treatment (children, adolescents, young adults, adults, seniors), or that provide mental health services in languages other than English	None	N-SUMHSS, Questions B2, B3, B10, B15, and B16 in 2025 survey[c] AHRF data on psychiatric short-term hospitals, hospitals with psychiatric care, hospitals with psychiatric residential treatment
Number of inpatient beds—total and broken out by facility type	None	State administrative data or state-specific provider survey AHRF data on psychiatric care beds set up in short-term general hospitals
Hypothesis 4: *Access of beneficiaries with SMI/SED to community-based services to address their chronic mental health care needs[c] will improve under the demonstration, including through increased integration of primary and behavioral health care.*		
Primary Research Question 4.1: How does the demonstration impact access of beneficiaries with SMI/SED to community-based services to address their chronic mental health care needs?		

Outcome measure	Measure steward, endorsement	Data source
• Proportion of beneficiaries with SMI/SED who use mental health–related (1) outpatient, rehabilitation, and targeted case management services; (2) home and community-based services; and (3) long-term services and supports • Amount of mental health–related (1) outpatient, rehabilitation, and targeted case management services; (2) home and community-based services; and (3) long-term services and supports used by beneficiaries with SMI/SED • Ratio of non-inpatient/ nonresidential costs associated with mental health services for beneficiaries with SMI/SED to inpatient or residential costs for the same	None	Medicaid administrative data
Subsidiary research question 4.1a: How does the demonstration contribute to improved availability of specific types of community-based services needed to comprehensively address the chronic needs of beneficiaries with SMI/SED?		
Number of providers that accept Medicaid: • Community mental health centers • Psychiatrists and other mental health practitioners authorized to prescribe • Mental health practitioners (other than psychiatrists) who are certified and licensed by the state to independently treat mental illness	CMS section 1115 SMI/SED demonstration team	Annual assessments of availability of mental health services
Number of mental health facilities that offer outpatient mental health treatment and accept Medicaid	None	N-SUMHSS, Questions B2 and B19 in 2025 survey[c]
Number of community mental health centers, outpatient mental health facilities, and multi-setting mental health facilities that accept Medicaid and offer specific types of mental health treatment approaches, services, and practices	None	N-SUMHSS, Questions B3, B6, B8, and B19 in 2025 survey[c]
Per capita availability of outpatient mental health professionals, by type (for example, psychologists, social workers, psychiatrists, counselors)	None	AHRF

Outcome measure	Measure steward, endorsement	Data source
Number and capacity of certified community behavioral health clinics[d]	None	State administrative data
Subsidiary research question 4.1b: How does the demonstration contribute to improved access of SMI/SED beneficiaries to specific types of community-based services that they need?[d]		
Percentage of individuals with SMI/SED served by the state mental health authority who receive specific types of evidence-based community mental health practices	None	URS[f]
The percentage of children and adolescents ages 1 to 17 who had a new prescription for an antipsychotic medication and had documentation of psychosocial care as first-line treatment	NCQA, CMIT #743	Medicaid administrative data Child Core Set[g]
Percentage of new antipsychotic prescriptions for Medicaid beneficiaries ages 18 and older who have completed a follow-up visit with a provider with prescribing authority within four weeks (28 days) of prescription of an antipsychotic medication	Milestone 4 monitoring metric, CMS, CMIT #270	Medicaid administrative data
Subsidiary research question 4.1c: How do the SMI/SED demonstration effects on access to community-based services vary by geographic area or beneficiary characteristics?		
For each geographic region, the ratio of Medicaid beneficiaries with SMI/SED to Medicaid-enrolled: • Community mental health centers • Psychiatrists and other mental health practitioners authorized to prescribe • Mental health practitioners (other than psychiatrists) who are certified and licensed by the state to independently treat mental illness • Per capita availability of outpatient mental health professionals, by type (for example, psychologists, social workers, psychiatrists, counselors)	CMS section 1115 SMI/SED demonstration team	Annual assessments of the availability of mental health services AHRF county data

Outcome measure	Measure steward, endorsement	Data source
Number of mental health facilities that provide outpatient mental health treatment, accept Medicaid, and (1) serve children, adolescents, or geriatric populations or (2) provide mental health services in languages other than English	None	N-SUMHSS, Questions B2, B3, B10, B15, B16, and B19 in 2025 survey[c]
Primary Research Question 4.2: How does the integration of primary and behavioral health care to address the chronic mental health care needs of beneficiaries with SMI/SED change under the demonstration?		
Number and percentage of Medicare FFS or Medicaid providers providing behavioral health integration services	Medicare G-codes G0502, G0503, G0504, and G0507 (from January 1, 2017, to December 31, 2017); Medicare CPT codes 99492, 99493, 99494, 99484 (after January 1, 2018); state-specific Medicaid billing codes for behavioral health integration services[h]	Medicare claims for dual Medicare-Medicaid beneficiaries; Medicaid claims for states with specific billing codes for behavioral health integration services
Percentage of beneficiaries screened for clinical depression on the date of the encounter using an age-appropriate standardized depression screening tool and, if positive, a follow-up plan is documented on the date of the positive screen (age 18 and older and age 12 to 17)	CMS, CMIT #672	Hybrid administrative data and medical records or electronic medical records Child and Adult Core Set[g]
Hypothesis 5: *The SMI/SED demonstration will result in improved care coordination, especially continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities.*		
Primary Research Question 5.1: How does the SMI/SED demonstration impact care coordination for beneficiaries with SMI/SED?		
Percentage of patients ages 18 and older with an SMI who were screened for unhealthy alcohol use with a systematic screening method at least once within the last 24 months AND who received brief counseling if identified as an unhealthy alcohol user	CMIT #597 (adapted)	Medicaid administrative data
Percentage of discharges for patients ages 18 and older who had a visit to the ED with a primary diagnosis of mental health or intentional self-harm diagnoses during the measurement year AND who had a follow-up visit with any provider with a corresponding primary diagnosis of mental health or intention self-harm diagnoses within 7 and 30 days of discharge	Milestone 2 monitoring metrics, NCQA, CMIT #268	Medicaid administrative data Adult Core Set[g]

Outcome measure	Measure steward, endorsement	Data source
Percentage of patients receiving antidepressant treatment who had least 84 days (12 weeks) of treatment with antidepressant medication during the 114 days after the initial prescription began.	NCQA, CMIT #63	Adult Core Set[g]
Percentage of patients for whom a designated PTA medication list was generated by referencing one or more external sources of PTA medications and for which all PTA medications have a documented reconciliation action by the end of Day 2 of the hospitalization	None	Electronic/paper medical records
Percentage of discharges of patients (regardless of age) from an inpatient facility to home or any other site of care for whom a transition record was transmitted within 24 hours of discharge to the facility or primary physician or other health care professional designated for follow-up care	PCPI, CMIT #728	Electronic/paper medical records IPFQR program[b]
Percentage of patients, regardless of age, discharged from an inpatient facility to home or any other site of care, or their caregivers, who received a transition record (and with whom a review of all included information was documented) at the time of discharge including, at a minimum, all of the specified elements	PCPI, CMIT #727	IPFQR program[b]
• Changes made through the demonstration to data sharing systems, processes, or policies • Demonstration activities regarding data sharing systems, processes, or policies that staff identify as most effective for improving care coordination[a] • Obstacles that staff identify as hindering the effectiveness of demonstration activities regarding data sharing systems, processes, or policies aimed at improving care coordination[a]	None	Interviews with state demonstration and/or inpatient/residential and outpatient provider staff
Primary Research Question 5.2: How does the SMI/SED demonstration impact continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities?		

Outcome measure	Measure steward, endorsement	Data source
Medication continuation following inpatient psychiatric discharge	Milestone 2 monitoring metric, CMS, CMIT #438	Medicaid administrative data
The percentage of discharges for patients ages 6 to 17 who were hospitalized for treatment of selected mental illness diagnoses and who had a follow-up visit with a mental health practitioner	Milestone 2 monitoring metric, NCQA, CMIT #268 (adapted)	Medicaid administrative data Child Core Set[g] IPFQR program[b]
The percentage of discharges for patients ages 18 and older who were hospitalized for treatment of selected mental illness diagnoses and who had a follow-up visit with a mental health practitioner	Milestone 2 monitoring metric, NCQA, CMIT #268 (adapted)	Medicaid administrative data Adult Core Set[g] IPFQR program[b]
Amount of mental health–related (1) outpatient, rehabilitation, and targeted case management services; (2) home and community-based services; and (3) long-term services and supports used by beneficiaries within 30 days after discharge from a psychiatric inpatient or residential treatment facility	None	Medicaid administrative data
Subsidiary research question 5.2a: How does the SMI/SED demonstration contribute to improved discharge planning and outcomes regarding housing for beneficiaries transitioning out of acute psychiatric care in hospitals and residential treatment facilities?		
Among beneficiaries transitioning out of acute psychiatric care in hospitals and residential treatment facilities, percentage screened for housing needs	None	Facility discharge records
Among beneficiaries provided acute psychiatric care in hospitals or residential treatment facilities who lack housing, percentage who meet with housing services agencies/providers before discharge	None	
Percentage of beneficiaries released from acute psychiatric care in a hospital or residential treatment facility to a homeless shelter or no fixed address	None	

Outcome measure	Measure steward, endorsement	Data source
Of beneficiaries released from acute psychiatric care in a hospital or residential treatment facility to a homeless shelter or no fixed address, the percentage who before discharge had an appointment scheduled with a housing services agency or provider for within 7 or 30 days after discharge	None	Facility discharge records
Subsidiary research question 5.2b: How do demonstration activities contribute to improved continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities?		
• Demonstration activities or their components or characteristics that stakeholders identify as most effective in improving continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities[a] • Obstacles that stakeholders identify as hindering the effectiveness of the demonstration in improving[a] continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities[a]	None	Interviews or focus groups with state demonstration and/or inpatient/residential and outpatient provider staff Interviews or focus groups with affected beneficiaries or their families/caregivers
Subsidiary research question 5.2c: How does the SMI/SED demonstration impact the percentage of beneficiaries with SMI/SED who receive care for comorbid conditions?		
Access to preventive/ambulatory health services for adult Medicaid beneficiaries with SMI/SED	NCQA, CMIT#36 (adapted)	Medicaid administrative data
SUD screening and follow-up for people with SMI/SED	None	Medicaid administrative data, and/or electronic health records

[a] In assessing this outcome measure, states should use qualitative analysis of qualitative data to identify themes associated with outcome measures that inform the research question.

[b] The IPFQR program is a public reporting system that provides consumers with data about quality of care in inpatient psychiatric facilities via CMS's Hospital Compare website. Facility-level data are available for public use at https://data.cms.gov/provider-data/.

[c] States should use caution when using N-SUMHSS data for out of state comparisons. Although N-SUMHSS attempts to provide a complete count of facilities in the state, the annual response is not perfect and the data are not corrected for nonresponse. States should also be aware that public use files are made available about two years after data collection, so data may not be available for the full demonstration period in time for inclusion in the evaluation.

[d] See page 8 of the SMDL for a description of the Certified Community Behavioral Health Clinic Demonstration.

[e] Types of community-based services to address the chronic mental health care needs of beneficiaries with SMI/SED may include certified community behavioral health clinics, assertive community treatment, intensive case management, supportive housing, illness self-management, evidence-based psychotherapy, peer-support and consumer-operated services, psychosocial habilitation or rehabilitation, legal advocacy, suicide prevention services, outreach to and engagement of those who are homeless, systematic medication management, integrated treatment for co-occurring substance use disorders and other disabilities, supported employment, education and family supports, school-based services, and trauma-informed care, among others.

[f] States should be cautious when using URS data for out-of-state comparisons. Although states follow general guidelines in reporting URS data, they may vary in the exact methodology used. States that use URS data for comparisons should consult URS resources and footnotes to individual state reports for additional context about the data reported by the state for each measure.

[g] States should be cautious when using Adult and Child Core Set data for out of state comparisons. Core Set reporting is currently voluntary, and the reporting methods and included populations can vary by state.

[h] Medicare G-codes G0502, G0503, G0504 (used from January 1, 2017, to December 31, 2017) and CPT codes 99492, 99493, and 99494 (in use since January 1, 2018) focus specifically on the psychiatric Collaborative Care Model. Medicare G-code G0507 and CPT code 99484 are used to bill for behavioral health care integration based on other models.

AHRF = Area Health Resources File (maintained by the federal Health Resources & Services Administration); CCBHC = Certified Community Behavioral Health Clinic; CMS = Centers for Medicare & Medicaid Services; ED = emergency department; FFS = fee-for-service; FQHC = Federally Qualified Health Center; IPFQR = Inpatient Psychiatric Facility Quality Reporting; NCQA = National Committee for Quality Assurance; N-SUMHSS = National Substance Use and Mental Health Services Survey; NQF = National Quality Forum; PCPI = Physician Consortium for Performance Improvement (a clinical quality measure developer and steward); PTA = prior to admission; SAMHSA = Substance Abuse and Mental Health Services Administration; SMI/SED = serious mental illness/serious emotional disturbance; SUD = substance use disorder; URS = Uniform Reporting System (for SAMHSA Community Mental Health Services Block Grants).