Flex Monitoring Team
University of Minnesota | University of North Carolina at Chapel Hill | University of Southern Maine

JULY 2023

Population Health Outcome Measurement Strategies for State Flex Programs

JOHN A. GALE, MS
CELIA JEWELL, RN, MPH
SARA KAHN-TROSTER, MPH

KEY FINDINGS

- Education and collaborative learning are important activities in State Flex Program (SFP) population health Improvement strategies, but it is difficult to directly link them to improved CAH population health outcomes.
- Shared learning collaboratives/cohorts provide a structured framework to coordinate SFP population health activities across the Flex Program funding cycle.
- SFPs often focus primarily on output and long-term outcome measures for population health activities and less on short- and intermediate-term outcome measures.
- Efforts to document Flex Program impact would benefit from less emphasis on outputs and greater emphasis on outcome measures, particularly short- and intermediate-term outcome measures to provide a causal pathway from project activities to long-term outcomes.

INTRODUCTION

The Medicare Rural Hospital Flexibility (Flex) Program funds initiatives to improve the health of rural communities under Program Area 3: Population Health Improvement. The goal of this optional Flex Program Area is to build the capacity of Critical Access Hospitals (CAHs) to achieve measurable improvements in the health outcomes of their communities.[1-2] Under Program Area 3, State Flex Programs (SFPs) are encouraged to engage CAHs in population health initiatives, including chronic care management, clinical care coordination, and collaborative community programs to address the social determinants of health and the unmet health care needs of their communities. SFPs may propose initiatives in one or more of the three optional population health activity categories:

- 3.1 Support to assist CAHs in identifying community and resource needs
- 3.2 Assist CAHs with building strategies to prioritize and address unmet community needs
- 3.3 Assist CAHs with engaging community and public health stakeholders to respond to the population health needs of their communities

This brief builds on two previous Flex Monitoring Team (FMT) briefs - ***An Inventory of State Flex Program Population Health Initiatives for Fiscal Years 2019-2023*** and ***Evaluating State Flex Program Population Health Activities***. As an extension of the FMT's efforts to assist SFPs in assessing and reporting the impact of their activities, this brief describes outcome measures strategies for select population health interventions implemented under Program Area 3 and provides examples of relevant outcome measures.

APPROACH

This brief builds on the FMT's long history of evaluating SFP activities as well as the two policy briefs described above. In addition, it is grounded in the FMT's work in developing practical tools for SFPs (including a logic modeling toolkit); briefs on the use of quality cohorts and outcomes for financial and operational performance improvement; and providing input to the Federal Office of Rural Health Policy (FORHP), Flex Program partners, and SFPs on outcome measurement and evaluation. In addition to leveraging the information from the FMT briefs cited above, the study team conducted an extensive literature review of select population health activities to identify appropriate outcome measures for use by SFPs.

Development of a Funding Cycle Strategy to Implement and Monitor Population Health Activities

Program Area 3 focuses on activities to build the capacity of CAHs to achieve measurable improvements in the health outcomes of their communities. In prior evaluation studies across the Program Areas, we observed that SFPs struggled to develop strategic, actionable initiatives with measurable outcomes for the interventions implemented within each project year as well as across the scope of each competitive five-year funding cycle. To assist SFPs in measuring the impact of their population health interventions, this document presents a framework that connects the activity categories under Program Area 3 into a strategic process within individual project years as well as across the project funding cycle. This framework consists of a series of steps that move sequentially from identifying the needs to be addressed, educational programing to prepare participants to engage in proposed interventions, development of learning collaboratives to support the proposed interventions, and the development of and implementation of interventions to address identified needs:

1. Supporting CAHs in identifying community and resource needs: The first step involves SFPs assisting CAHs with identifying community and resource needs using available assessment and community data [e.g., community health needs assessments (CHNAs) or population health readiness assessments (PHRAs)] and action planning. Ideally, this work should occur early in the funding cycle to identify potential population health interventions common to CAHs and their communities as well as potential gaps in their capacity to undertake population health interventions, identify and recruit potential CAHs based on their needs and vulnerabilities, secure their commitment to participation, and plan the implementation of the proposed interventions using a learning collaborative/cohort-based model. Tables 1 and 2 below provide examples of capacity building initiatives that can be designed based on the findings from CAH PHRAs. Work in this area supports the subsequent steps in this process but cannot be directly linked to measurable population health outcomes in and of themselves.

2. Educational Events and Programs: Educational events, trainings sessions, and skill-building programs follow from the assessment and action planning. These activities should prepare participants to engage in and support their ongoing participation in the planned interventions. Changes in and the use of knowledge gained through the educational event can be measured and contribute to the outcomes of planned interventions and/or a learning collaborative. Educational programs, which do not support a planned intervention, particularly one-time events, will be difficult to link to measurable outcomes.

3. Shared Learning Collaboratives/Cohorts: The third step engages participants in the implementation of a shared learning collaborative/cohort-based intervention in which participants meet regularly to share their plans, successes, challenges, and strategies. It also involves securing agreement on common metrics that will be collected and reported by all participants. A subject matter expert or facilitator plays a significant role in managing the learning collaborative/cohort, monitoring active engagement by participants, ensuring appropriate collection and use of data, developing and/or obtaining data use agreements as appropriate, collecting and aggregating data from participants, distributing

aggregated data to participants, and assisting with implementation of the chosen interventions. This strategy was described in our brief on the use of learning collaboratives/cohorts for SFP quality improvement initiatives. Effective learning collaboratives/cohorts exhibit the following features:

- Target an important population health need among a group of CAHs
- Define clear expectations for participation and reporting
- Engage participants in evidence-based performance improvement interventions with a chain of short, intermediate, and long-term outcomes
- Identify common metrics, establish baseline data, and set facility-specific targets
- Monitor program implementation
- Measure impact at various stages of the program[3]

CAHs and their community partners can benefit from working with learning collaborative/cohort members to implement a consistent set of interventions, outcome measures, and quality assurance practices across the funding life cycle. As with the earlier steps, no direct outcomes can be attributed to this work. The outcomes will be driven by the interventions selected. It is still important, however, to monitor output and process measures for the learning collaborative/cohort to assess and manage the level of engagement and the satisfaction of CAHs with their participation in the learning collaborative/cohort. The impact of learning collaboratives/interventions can be monitored by tracking the level of participant engagement; changes in CAH population health strategies or policies; and improvements in population health over time through meeting records, periodic surveys of participants, and the collection of performance data using common metrics (Table 1).

4. Development and Implementation of Interventions: This is the stage of the strategic process that generates measurable outcomes driven by the chosen interventions. In the final stage of the process, learning collaborative/cohort participants will implement shared interventions and measure the outcomes specific to the interventions. The following tables provide examples of interventions and their potential outcome measures. Some interventions may build population health capacity by improving the use of patient registries to address chronic care conditions (Table 2) or building collaborative partnerships (Table 3). Other interventions may address population needs commonly identified in hospital CHNAs and implementation plans such as chronic care management (Table 4), diabetes prevention and management (Table 5), substance use treatment and prevention (Table 6), integration of behavioral health services (Table 7), and workplace wellness (Table 8).

DEFINITIONS

Outcomes are the changes or benefits to individuals, groups, organizations, and communities that result from program interventions (e.g., implementation of chronic care management programs and development of substance use and integrated mental health services). Outcomes can be measured in the short-term (one to two years), intermediate-term (three to four years), and long-term (more than four years). Outcome statements should be written for each problem that the program intends to address. These statements should specify 1) who or what the program hopes to change, 2) what change is expected to occur, 3) when the change is expected to occur, and 4) what the expected results are.[4] Short and intermediate-term outcomes reflect a causal pathway moving towards long-term outcomes.

Outputs are frequently confused with outcomes. Unlike outcomes, which are changes or benefits to the program's targeted participants; outputs result from the successful completion of program activities. They can also be thought of as the products resulting from program activities. Under the Flex Program, outputs might include the amount of technical assistance provided to CAHs, the number of the number of trainings held, or the number of participants in those trainings, etc.

Although this brief focuses on outcome measurement, it includes a brief discussion of the outputs necessary to monitor the implementation and performance of shared learning collaboratives/cohorts, an approach that has been successfully used to support quality improvement and other program area initiatives by SFPs (Table1). The tables for activity areas focused on building capacity (e.g., implementing patient registries or collaborative partnerships between CAHs and local public health departments) present short and intermediate-term measures as they represent earlier steps along the causal pathway towards long-term outcomes (Tables 2 and 3). The remaining tables (4-8) include a full set of short, intermediate, and long-term outcomes leading to high-level improvement of the population health of the patients and communities served by CAHs.

TABLE 1: Example Output Measures for Shared Learning Collaboratives/Cohorts

Theory of Change: Learning collaborative/cohort-based initiatives provide a foundation for the implementation of population health interventions by encouraging shared learning, identification and sharing of best practices, implementation of a common intervention, and identification and reporting of common metrics at various stages of the program.[3] Outcomes will be driven by the interventions selected. The implementation of collaborative learning/cohort-based projects can expand an SFP's reach and conserve scarce resources by engaging a greater number of CAHs in a common set of interventions.
Output Measures
• # and % of CAHs participating in programs and activities of the shared learning collaborative/cohort • # and % of CAHs reporting satisfaction with participation in the shared learning collaborative/cohort • # and % of CAHs and the # of their staff participating at each meeting and/or event • # and % of CAHs sharing best practices and the # of best practices shared • # and % of CAHs implementing the identified intervention • # and % of CAHs consistently reporting data on project implementation and outcomes throughout the project lifecycle

TABLE 2: Outcome Measures for Use of Patient Registries to Address Chronic Conditions

Theory of Change: Research suggests that the use of patient registries is associated with improved outcomes for patients with a range of chronic diseases. Patient registries are a tool to monitor and manage patients with chronic conditions by identifying panels of patients with common chronic conditions and targeting patients most in need of intervention. Patient registries enable providers to track specific clinical diagnoses, quality improvement efforts, medication efficacy, and compliance with treatment recommendations among a panel of patients with chronic conditions as well as identify patients at risk for overutilization.[5-8] The ability to effectively utilize a patient registry is a critical tool in improving the population health of patients with chronic conditions. SFP interventions to improve the use of patient registries are a critical capacity building exercise. Outcomes focus on the implementation of patient registries by participating CAHs (short-term) and the extent to which participating CAHs are using patient registries as part of their care processes (intermediate-term).	
Short-term Outcomes (implementing registries)	**Intermediate Outcomes (use of the registries)**
• # and % of staff reporting increased understanding of the value of patient rosters and how to use them as part of the care management process • # and % of CAHs implementing a patient registry for one or more chronic conditions	• # and % of patients whose chronic conditions are managed through a patient registry

TABLE 3: Outcome Measures for Building Collaborative Community Partnerships

Theory of Change: Organizing community stakeholders and partnerships to address identified community health needs provides a foundation to identify priority needs and strategies, share resources and expertise, and implement agreed upon strategies utilizing the strengths of each partner. [9-11] Broad-based collaborative community partnerships can enhance population health improvement efforts by pooling member resources, widening reach, reducing duplication of services, improving coordination of services, increasing credibility with target population, providing a means to share knowledge and diverse perspectives, and building community identity. Performance measures for building collaborative community partnerships include training and technical assistance to support CAHs in developing these partnerships (outputs) and monitoring the extent to which CAHs are actively implementing or participating in these partnerships.[3]

Short-term Outcomes
• # of participating organizations partnering with CAHs (and changes over time) • Increase in # and % of CAHs meeting regularly with partners to create action plans • Increase in # and % of collaborative partnerships implementing action plans to address one or more community needs

TABLE 4: Outcome Measures for Chronic Care Management Program

Theory of Change: Chronic care management (CCM) programs can improve quality of care and patient outcomes by offering patients monthly check-ins and 24/7 access to their care team; care coordination with other providers and community-based services; and management of care transitions, referrals, and follow up. Patients receive a comprehensive care plan to track progress towards disease control and health management goals including cognitive, psychosocial, functional, and environmental factors.[12-13] SFPs can convene CAHs in a learning collaborative/cohort-based process to design a plan for a CCM program. Steps include identifying target populations through EHR patient registries; educating providers and staff; enrolling and engaging patients in CCM education and ongoing support; identifying and reporting program metrics to document impact; designing and evaluating process maps; and creating sustainability plans. As Table 4 provides an overview of a generic CCM model, the outcome measures are related to patient engagement, participation, and satisfaction, not specific diseases. Table 5, Outcome Measures for Diabetes Prevention and Care Management provides diabetes-specific outcome measures.

Short-term Outcomes	Intermediate Outcomes	Long-term Outcomes
• # and % of patients with 2 or more chronic conditions registered in CCM program • # and % of patients receiving self-management education and support specific to their condition • # and % of patients participating in CCM interventions (e.g., keeping blood pressure logs, setting exercise and/or weight loss goals, adhering to dietary/salt restrictions for hypertension) • # and % of patient interactions including coordination of care	• increase in # and % of patients receiving monthly check-ins, regular lab testing, and early medical attention for complications • Reduction in # and % of low patient satisfaction survey scores • Reduction in # and % of patients non-compliant with treatment regimen • Reduction in the # and % of patients with poor control of key biometrics (specific to diseases)	• Reduction in the rate of readmission after discharge from the hospital for all cause readmissions (NQF 1789)[14] for participating patients

TABLE 5: Measures for Diabetes Prevention and Management Programs

Theory of Change: Diabetes prevention and care management programs target a common condition among rural populations and can directly intervene in this condition by focusing on patient behavior change, improved quality of care, and compliance with treatment and medication plans. Patient outcomes are improved through regular monitoring of the patient's behavior and compliance with their treatment and medication plans, ongoing management of the patient's diabetes and the provision of resources and materials to change patient behavior and reduce health burdens. Patients receive monthly check-ins and 24/7 access to their care team; care coordination with other providers and community-based services; and management of care transitions, referrals, and follow up. Patients are provided with a comprehensive care plan to track progress towards disease control and health management goals including cognitive, psychosocial, functional, and environmental factors.[12-13] SFPs can convene CAHs in a learning collaborative/cohort-based process to design a plan for a diabetes prevention and care management program. Steps include identifying the target population through a patient registry; educating providers and staff; enrolling and engaging patients in diabetes prevention and management education and ongoing support; identifying and reporting program metrics to document impact; designing and evaluating process maps; and creating sustainability plans. These outcome measures are specific to diabetes prevention and management programs.

Short-term Outcomes	Intermediate Outcomes	Long-term Outcomes
• # and % of diabetic patients registered in CCM program • # and % of pre-diabetic patients registered in prevention program • # and % of patients receiving diabetic education • # and % of patients participating in diabetes interventions (e.g., blood glucose logs, exercise and weight loss goals) • # and % of patient interactions including coordination of care	• # and % of patients receiving regular HbA1c testing, eye exams, and medical attention for complications • Reduction in the # and % of pre-diabetic patients developing Type 2 diabetes • Reduction in the # and % of patients with poor control of daily blood glucose level • Reduction in # and % of patients with a BMI>25 kg/m^2 • Reduction in # and % of patients with poor control of hemoglobin A1C levels (NQF 0059)[14]	• Reduction in rate of unnecessary hospital admissions due to complications of diabetes (for participating patients) • Reduction in emergency department use due to complications from diabetes (for participating patients) • Reduction in rate of participating patients with diabetic complications (e.g., cataracts, glaucoma, or blindness; nerve damage, amputations, etc.)

TABLE 6: Outcome Measures for Substance Use Treatment and Prevention

Theory of Change: Substance use disorders (SUDs) and the limited access to treatment services are commonly identified rural problems. CAHs can play a role in addressing SUDs through the development of SUD treatment programs, including medication-assisted treatment (MAT) for opioid use disorders; screening patients for SUDs in primary care and ED settings; implementing prescribing guidelines and responsible pain management practices to reduce opioid use; and working with community members to implement SU education and prevention in schools and other settings.[15-16] SFPs can support CAHs in the development of programs to address SUDs through participation in collaborative community-focused prevention activities, implementation of programs to screen, treat, and refer patients to appropriate specialty care; and develop internal policies to reduce the rates of prescription drug abuse by implementing prescribing guidelines for opioids, benzodiazepines, and other commonly abused prescription drugs.

Short-term Outcomes	Intermediate Outcomes	Long-term Outcomes
Prevention: • Increase in # and % of CAHs participating in community prevention partnerships, programming, and education • Increase in # and % of CAHs implementing prescribing guidelines • Increase in # of provider referrals to alternative pain management methodologies Treatment: • Increase in # and % of CAHs screening for SUDs in primary care and ED settings • Increase in # and % of CAH providers qualified and offering MAT • Increase in # and % of CAHs developing SUD treatment programs • Increase in # and % of CAHs participating in community efforts to address SUDs	Prevention: • Reduction in % of underage alcohol, marijuana, and prescription use/misuse in the community • Increase in # and % of patients in primary care and ED screened for SUDs • Increase in # and % of patients receiving brief interventions after screening for SUDs • Increase in # and % of providers complying with prescribing guidelines • Reduction in # and % of patients receiving prescriptions for commonly abused prescription drugs Treatment: • Increase in # and % of patients receiving MAT and wrap-around treatment such as counseling • Increase in # and % of patients referred for specialty SUD treatment	• Reduction in rates of SUDs in the patient population or the community • Reduction in rates of substance misuse-related ED visits • Reduction in rates of hospitalization for SUD or overdose • Reduction in opioid or other substance-related overdoses • Reduction in substance misuse-related mortality

TABLE 7: Outcome Measures for the Integration of Behavioral Health Services at CAH-owned RHCs

Theory of Change: The lack of access to behavioral health (BH) services is a widespread problem identified in CAH CHNAs. The integration of behavioral health and primary care services in hospital-owned clinics provides an important opportunity to expand access to needed care.[17-21] SFPs can support CAH-owned rural health clinics (RHCs) in implementing integrated BH and primary care services by providing resources and TA to RHCs on the development of integrated BH services; recruitment of appropriate providers; development of clinical and administrative capacity to sustain integrated BH care; and sharing best practices in integrating BH and primary care. An integrated BH program can improve patient outcomes through greater attention to BH issues, increased access to BH services, reductions in stigma, closer collaboration between providers, increased patient engagement, and better adherence to treatment plans.

Short-term Outcomes	Intermediate Outcomes	Long-term Outcomes
• Increase in # and % of CAH-based RHCs developing an action plan to implement integrated BH services • Increase in # and % of CAH-based RHCs participating in learning collaboratives on the development of integrated BH services	• Increase in # and % of RHCs operating integrated BH services • Increase in # and % of patients served by CAH-based RHC integrated units • Increase # and % of RHC patients reporting satisfaction with integrated BH services • Increase in # and % of participating patients reporting greater quality of life • Increase in # and % of providers reporting satisfaction with integrated BH services • Increase in # and % of participating patients reporting improved mental health wellness in the last 14 days • Increase in # and % of participating patients with improvement in depression or anxiety based on a validated screening tool	• Increase # and % of CAH-based RHCs that have sustained and/or expanded integrated BH services • Reduction in rate of unnecessary ED use by participating patients • Reduction in rate of unnecessary hospital admissions by participating patients • Improvement in # and % of patients reporting fewer days of poor mental health in the last 30 days

TABLE 8: Outcome Measures for CAH Workplace Wellness Program

Theory of Change: Workplace health promotion and disease prevention programs have been found to have a positive impact on employee health behaviors (e.g., physical activity, diet, smoking, and alcohol consumption), biometric measures (e.g., blood pressure, cholesterol, blood glucose, BMI), and employer's financial measures (e.g., health care utilization, worker productivity, retention).[22-23] Development of a workplace wellness program also provides a service that CAHs can market to local employers. SFPs can work with CAHs to design a workplace wellness program including key components: development of programs, marketing, legal considerations, HR incentives, employee engagement, and sustainability plans. Once implementation is underway, SFPs can support CAHs with monitoring and evaluating the program to ensure it stays on track and achieves desired outcomes.

Short-term Outcomes	Intermediate Outcomes	Long-term Outcomes
• Increase in # and % of CAH workplace wellness programs • Increase in # of CAH offering incentives to encourage staff participation • Increase in # and % of CAH employees participating in workplace wellness programs	• Increase in # and % of participating employees with high satisfaction scores • Reduction in # and % of participating employee absenteeism • Increase in # and % of participating employees exercising regularly • Increase in # and % of participating employees eating 2-3 servings of vegetables/day • Increase in # and % of participating employees that have reached their exercise and weight loss goals • Increase in # and % of participating employees who stopped or reduced smoking • Decrease in # and % of employees reporting high stress levels • # and % of CAHs reporting improved revenues from CCM services	• Reduction in employee costs associated with injury and illness • Reduction in # and % of employees reporting poor or fair health • Improvement in # and % of employees reporting fewer days of poor health in the last 30 days • Improvement in # and % of employees reporting fewer days of poor mental health in the last 30 days • % Increase in employee retention • % Decrease in employee absenteeism • Increase in savings for employee health premiums • Increase in # of employers in the community using the CAH's workplace wellness model

CONCLUSION

Outcome measurement must be firmly grounded in a clear theory of change that describes how a set of project interventions will contribute to the achievement of long-term goals. CAHs operate in a complex environment and no single intervention, particularly population-health trainings, webinars, or technical assistance programs will have a direct impact on high-level community/population health issues. Longer-term population health improvement can best be achieved through a set of strategic interventions beginning with training, technical assistance, and peer learning through a shared learning collaborative/cohort, assessment of local community and/or patient needs, building capacity to engage in population health interventions (e.g., implementation of patient registries or use of electronic health records to monitor and track patient improvement), implementation of interventions targeting identified needs (e.g., substance use or diabetes management programs), monitoring the implementation of these interventions, and revising interventions based on the results of short or intermediate-term outcomes. As discussed earlier, it is important to think of these efforts as a causal pathway with subsequent activities building on early activities to move toward desired long-term goals. This brief provides examples of activities to encourage shared collaborative learning, building capacity to engage in population health activities (e.g., implementing patient registries or encouraging collaborative community efforts to improve population health), and the implementation of intervention to address health issues commonly cited in CAH community health needs assessments (e.g., diabetes and other chronic disease, substance use disorders, and shortages of mental health services).

REFERENCES

1. Federal Office of Rural Health Policy, Health Resources and Services Administration. Medicare Rural Hospital Flexibility Program. Notice of funding opportunity FY 2019. FORHP;2019. HRSA-19-024, CFDA No. 93.241. Accessed July 1, 2020. https://grants.hrsa.gov/2010/Web2External/Interface/Common/EHBDisplayAttachment.aspx?dm_rtc=16&dm_attid=e215d1f4-efe3-4bec-8d29-05b24290b235
2. Federal Office of Rural Health Policy. Medicare Rural Hospital Flexibility Program Structure for FY 2019 - FY 2023. Version 1.0. FORHP;2018 December 4. Accessed August 5, 2021. https://www.ruralcenter.org/sites/default/files/Flex%20Program%20Structure%20for%20FY%2019%20-%20FY%2023%20v1.0.pdf
3. Gale J, Jewell C, Kahn-Troster S, First, N. Evaluation of the Use of CAH Cohorts for Quality Improvement Activities. Accessed June 29, 2023. https://www.flexmonitoring.org/sites/flexmonitoring.umn.edu/files/media/fmt-pb58-cohorts_2021.pdf
4. Gale J, Loux S, & Coburn A. Creating Program Logic Models: A Toolkit for State Flex Programs. Accessed June 29, 2023. https://www.flexmonitoring.org/sites/flexmonitoring.umn.edu/files/media/fmt-program-logic-model-2006.pdf
5. Agency for Healthcare Research and Quality. Computerized Disease Registries. Accessed January 6, 2023. https://digital.ahrq.gov/computerized-disease-registries
6. Office of the National Coordinator for Health Information Technology. What is a Disease / Immunization Registry. Accessed January 6, 2023. https://www.healthit.gov/faq/what-diseaseimmunization-registry
7. American Academy of Family Physicians. Care Management. Accessed January 6, 2023. https://www.aafp.org/family-physician/practice-and-career/delivery-payment-models/medical-home/care-management.html
8. Haas L and Takahashi P. Risk Stratification Methods for Identifying Patients for Care Coordination. The Am J of Manag Care. 2003; 19(9). Accessed January 6, 2023. https://www.ajmc.com/view/risk-stratification-methods-for-identifying-patients-for-care-coordination
9. Rural Health Information Hub. Rural Health Networks and Coalitions Toolkit. Accessed December 14, 2022. https://www.ruralhealthinfo.org/toolkits/networks

10. Gale J, Coburn A, Newton H. Collaborative Community Health Needs Assessments: Approaches and benefits for Critical Access Hospitals. University of Southern Maine, Flex Monitoring Team; 2014 May. Briefing Paper No. 36. Accessed December 14, 2022.
11. Rural Health Innovations. Project Strategic Plan Guide: Rural Health Network Development Grantees Program Technical Assistance. National Rural Health Resource Center; 2017 October. Accessed December 20, 2022. https://www.ruralcenter.org/sites/default/files/Strategic%20Planning%20GUIDE_0.pdf
12. C2C Coverage to Care. Connected Care Toolkit: Chronic care management resources for health care professionals and communities. Centers for Medicare and Medicaid Services. Revised 2022 May. Accessed January 5, 2023. https://www.cms.gov/About-CMS/Agency-Information/OMH/Downloads/CCM-Toolkit-Updated-Combined-508.pdf
13. Rural Health Information Hub. Chronic Care Management. Revised 2022 January. Accessed January 5, 2023. https://www.ruralhealthinfo.org/care-management/chronic-care-management
14. National Quality Forum. 2022 Key Rural Measures: An Updated List of Measures to Advance Rural Health Priorities. 2022 April. Accessed January 3, 2023. https://www.qualityforum.org/Publications/2022/08/2022_Key_Rural_Measures__An_Updated_List_of_Measures_to_Advance_Rural_Health_Priorities.aspx
15. Gale J, Kahn-Troster S, Pearson K, First N. Addressing Opioid Use in Rural Communities: Examples from Critical Access Hospitals. University of Southern Maine, Flex Monitoring Team; 2020 August. Briefing Paper No. 46. Accessed January 6, 2023. https://www.flexmonitoring.org/sites/flexmonitoring.umn.edu/files/media/fmt-bp-46-2020.pdf
16. Gale J, Kahn-Troster S, Croll Z, First N. Engaging Critical Access Hospitals in Addressing Rural Substance Use. University of Southern Maine, Flex Monitoring Team; 2020 June. Briefing Paper No. 44. Accessed January 6, 2023. https://www.flexmonitoring.org/sites/flexmonitoring.umn.edu/files/media/fmt-bp-44-2020_0.pdf
17. Integration Academy, Agency for Healthcare Research and Quality. What is Integrated Behavioral Health? Accessed January 6, 2023. https://integrationacademy.ahrq.gov/about/integrated-behavioral-health
18. The National Council for Mental Wellbeing. CIHS' Standard Framework for Levels of Integrated Healthcare. Accessed January 6, 2023. https://www.thenationalcouncil.org/wp-content/uploads/2020/01/CIHS_Framework_Final_charts.pdf?daf=375ateTbd56
19. Linkins K, Brya J, Johnson M. Integrated Policy Initiative: Behavioral Health Measurement Project. DesertVista Consulting; 2011 January. Accessed January 16, 2023. http://www.ibhpartners.org/wp-content/uploads/2015/12/IPI-Measurement-Report.pdf
20. Demming Lurie B. Suggested measures to evaluate the integration of primary care and mental health systems. Integrated Behavioral Health Project; 2010 May. Accessed January 16, 2023. http://www.ibhpartners.org/wp-content/uploads/2015/12/outcome-process-measure-for-integrated-systems-Lurie-1.pdf
21. Integrated Behavioral Health Project. Process Measures. Accessed January 16, 2023. http://www.ibhpartners.org/get-started/evaluation/process-measures/
22. Rural Health Information Hub. Workplace model for health promotion and disease prevention. Accessed January 4, 2023. https://www.ruralhealthinfo.org/toolkits/health-promotion/2/program-models/workplace
23. John Hopkins Bloomberg School of Public Health. From evidence to practice: Workplace wellness that works. 2015 September. Accessed: January 5, 2023. https://www.transamericainstitute.org/docs/default-source/jhu/from-evidence-to-practice---workplace-wellness-that-works.pdf

For more information on this report, please contact John Gale, john.gale@maine.edu.

This report was completed by the Flex Monitoring Team with funding from the Federal Office of Rural Health Policy (FORHP), Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services (HHS), under PHS Grant No. U27RH01080. The information, conclusions and opinions expressed in this document are those of the authors and no endorsement by FORHP, HRSA, or HHS is intended or should be inferred.