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## Conception to Implementation: Quality Improvement in Behavioral Health Home Organizations

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Conception to Implementation:  
Quality Improvement in  
Behavioral Health Home Organizations

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**Abstract**

This capstone project developed quality improvement tools to be used by community mental health agencies participating in the Maine Behavioral Health Homes Initiative. Providing technical assistance, analysis of feedback, and developing recommendations were the foundation of this project with a central tenet to enhance the existing *Quality Improvement Project Template* created by MaineCare, Maine's Medicaid Office. These recommendations suggest the *Quality Improvement Project Template* may be improved by providing an additional fillable quality improvement process outline, providing a list of example projects and focus areas for quality improvement projects, and providing tools to assist in implementation of quality improvement projects. These recommendations, if implemented, might improve the capacity of Maine Behavioral Health Homes through implementation of QI projects resulting in reducing avoidable emergency department utilization, avoidable hospitalizations, and the over-utilization of healthcare services.

Key words: Quality Improvement, Behavioral Health, Health Homes, Serious Mental Illness

### **Capstone Project Purpose**

The purpose of this capstone project is to provide community mental health agencies, participating in the Maine Behavioral Health Home Organization initiative, with supporting material to develop, implement, and document required quality improvement (QI) projects. These organizations identified a need for additional support in establishing processes and infrastructure around quality improvement. This capstone project aims to add value to the quality improvement work of Behavioral Health Homes and add value to the efforts of MaineCare, Maine's Medicaid Office in supporting the Behavioral Health Homes initiative. Tools developed as a product of this capstone work will enhance the capacity of Maine Behavioral Health Homes to successfully plan and implement QI projects that align with reducing avoidable emergency department utilization, reducing avoidable hospitalizations, and the over-utilization of healthcare services (see Figure 1).

### **Project Objectives**

- Assist a Maine Behavioral Health Home team to interpret and use the MaineCare *Quality Improvement (QI) Project Template for Maine Behavioral Health Homes*
- Collect and summarize recommendations from Maine Behavioral Health Homes to improve the MaineCare *QI Project Template*
- Develop a Quality Improvement Implementation Plan Template as a tool for Maine Behavioral Health Homes to use when they execute quality improvement projects.

### **Learning Goals**

Through this project, I enhanced my knowledge, abilities, and skills in the following Public Health Program Core Competencies:

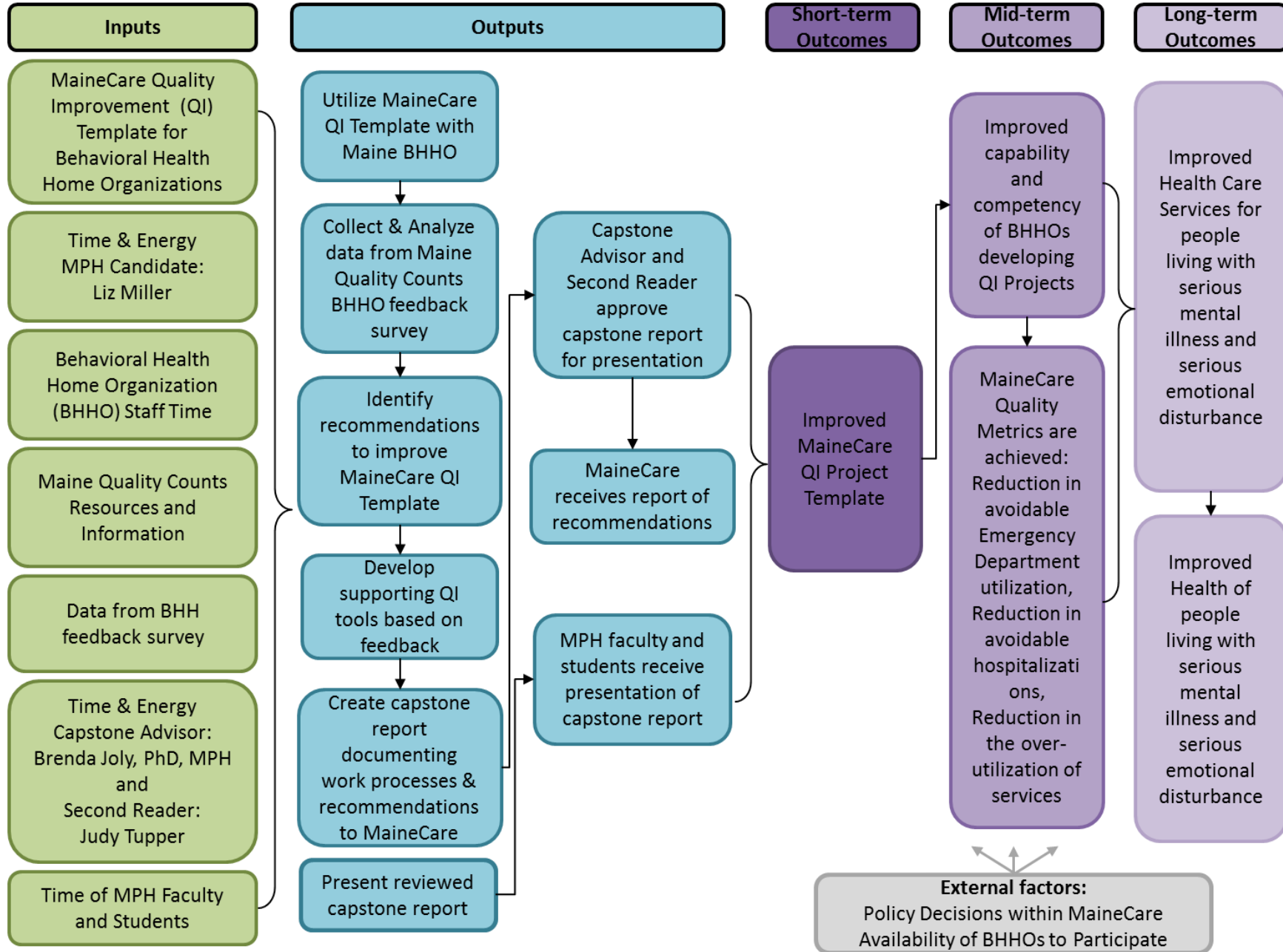
- Communication

- Leadership
- Health Policy and Management
- Informed Decision-Making

In addition, I improved my professional abilities in the following areas:

- Develop leadership skills in working with a team of community mental health agency staff
- Develop skills in using quality improvement tools
- Enhance skills in qualitative data collection and synthesis

**Figure 1: Logic Model of Conception to Implementation: Quality Improvement in Maine Behavioral Health Homes Project**



### **Quality Improvement in Health**

Quality improvement in health care is a series of systematic and continuous actions that lead to measureable improvements in health services provided and improvements in the health status of targeted populations (Health Resources and Services Administration, 2011). One of the most commonly recognized models for improvement in health care is the Plan-Do-Study-Act (PDSA) cycle. The PDSA cycle encourages individuals engaged in improvement efforts to plan their approach, try it, observe the results, and act on what is learned (Institute for Healthcare Improvement, 2015). Models like the PDSA cycle allow for a wide audience in health care to accept the culture change and movement in improving the quality of health in the country.

Health care delivery across the nation is undergoing a major transformation with the implementation of the Affordable Care Act (ACA) in 2010. Many initiatives are driving quality improvement within organizations through public reporting of performance measures. Other initiatives are focusing on reimbursing quality care and improving the coordination of care between providers by transitioning to monthly payment structures for patients from fee for services structures (Centers for Medicare & Medicaid Services [CMS], 2014). This work to improve quality in healthcare is necessary. Seven of the top ten diseases in the nation are the result of chronic conditions (Cono, 2014). Through an improved focus on prevention and evidence based practice in health care, deaths attributed to these chronic conditions, such as heart disease, stroke, and diabetes can be delayed. Of these populations, people living with serious mental illness die, on average, 25 years earlier than the general population (Maurer, 2006). In addition, it is projected that total Medicaid expenditures will continue to rise until they account for nearly 50% of the national health spending total by 2023 (CMS Expenditures, 2014).



There is a drive for all health care stakeholders to be involved in quality improvement, including consumers, caregivers, primary care providers, behavioral health professionals, payers, and educators, in an effort to improve health, health care, and prevention (Batalden, 2007). As a way to focus the conversation on how to improve these components, the Institute for Healthcare Improvement (IHI) developed the message of the Triple Aim: improving the individual experience of care; improving the health of the population; and reducing the per capita costs of care for populations (Berwick, 2008). The Institute of Medicine (IOM) recently published a report recommending that health communities identify measures of quality for leading causes of preventable deaths and major illnesses, aligning with Healthy People 2020 (Institute of Medicine, 2013). These forces have encouraged states, like Maine, to take on initiatives focusing on quality, such as Health Homes and Behavioral Health Homes as outlined in Section 2703 of the ACA.

### **Quality Improvement and the Maine Behavioral Health Homes Initiative**

In April 2014, a select number of community mental health agencies were accepted by MaineCare, to provide a new holistic model of care that integrates mental health and physical health called Behavioral Health Home (BHH) services. These mental health agencies became known as Behavioral Health Home Organizations (BHHO) and provide integrated mental health services in partnership with primary care providers to MaineCare eligible adults living with a diagnosis of serious mental illness and children living with a diagnosis of serious emotional disturbance (Department of Health and Human Services [DHHS], 2014). According to the Office of MaineCare Services staff, in early March there were 25 BHHOs providing services to 1,537 adults and 285 children.

Modeled after the national and Maine Patient Centered Medical Home models and aligning with the Triple Aim, the Maine Behavioral Health Homes initiative focuses on improving quality of care and improving population health, while reducing the cost of care. BHHOs are required through MaineCare to design, implement, and document a quality improvement project that demonstrates a commitment to reducing waste, unnecessary healthcare spending, and improving cost-effective use of healthcare services (DHHS, 2014). MaineCare developed the *Quality Improvement Project Template for Maine Behavioral Health Homes* (Appendix A) to aid BHHOs in the process of developing their quality improvement projects. BHHOs are required to use this template and document a quality improvement plan by April 1, 2015 (Maine Quality Counts, 2015).

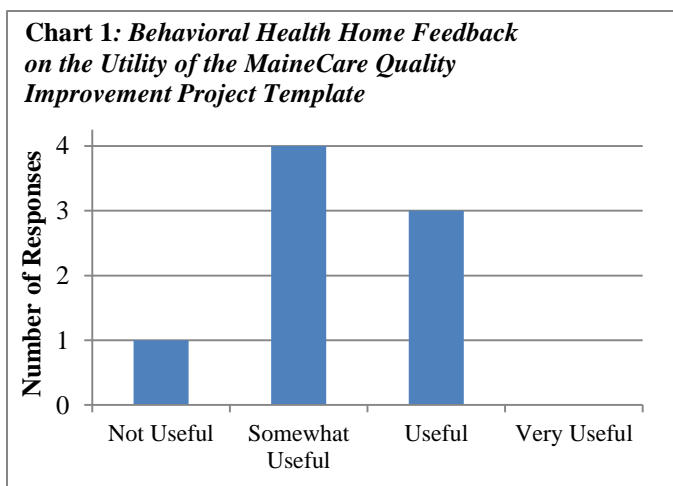
### **Methods to Develop Recommendations to Improve MaineCare QI Project Template**

In order to provide recommendations to MaineCare on enhancing the *QI Project Template*, I chose to work with a Behavioral Health Homes Organization who used the template to develop a quality improvement process. United Cerebral Palsy (UCP) of Maine, a Behavioral Health Home Organization, accepted my offer in February 2015 to assist their team in walking through the elements to of the *QI Project Template* to develop their quality improvement project. In addition to this work, I connected with MaineCare's contractor, Maine Quality Counts, to attain feedback from other Behavioral Health Home Organizations on their use of the *QI Project Template*.

### **Feedback on Using the Quality Improvement Project Template**

In my work providing support to UCP of Maine in using the *QI Project Template*, I quickly realized that more tools were necessary in order to develop a robust process, such as developing an aim statement. Using *Embracing Quality in Local Public Health: Michigan's*

*Quality Improvement Guidebook*, I found a resource that was helpful in guiding the UCP Quality improvement team in developing an aim statement outline (Tews, Sherry, Butler, & Martin, 2008). The resource prompted UCP’s team to identify an aim statement that was specific, measurable, achievable, relevant, and time-bound. The most notable utility of this tool was that it prompts the discussion of what is achievable for the team to accomplish for their quality improvement project. Also in my experience using the *QI Project Template* with UCP, the team noted that the tool did not provide a space to document the QI process. The team instead developed a table in a separate document, mimicking the format found in the *QI Project Template*. During the UCP team's development of their QI process, questions arose about next steps in implementing the process and how to use the Plan-Do-Study-Act cycle referenced in the *QI Project Template*. This prompted the creation of an implementation plan with the UCP team of their QI process.

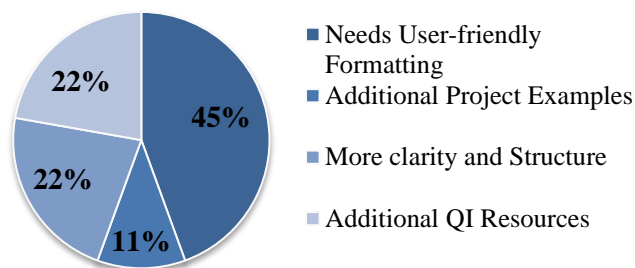


In early April 2015, Maine Quality Counts distributed a survey to the 24 participating Behavioral Health Homes, soliciting their feedback on their use of the MaineCare *QI Project Template*. Maine Quality Counts received eight surveys for a 33% response rate. The majority of

respondents rated the *QI Project Template* as “*Somewhat Useful*” (See Chart 1).

This rating resonated with the qualitative responses on the template. The most useful components outlined in the *QI Project Template* indicated by respondents were the data source examples and expectations from MaineCare for the BHHO quality improvement projects. Other

**Chart 2: Improvement Feedback Identified by the Maine Quality Counts Survey of Behavioral Health Home Organizations**



comments focused on improvements to the *QI Project Template*. The most common comment identified the need for the template to have a fillable format to guide BHHOs in completing a QI Process. Additional comments included recommendations to provide resources and tools, such an action

plan, detail the concepts of quality improvement models with more clarity, and provide more relevant project examples (See Chart 2).

**Recommendations to Improve the MaineCare Quality Improvement Project Template**

1. *Develop an additional Quality Improvement Project Tool that can be filled-in and used as a model (See Appendix B for a recommended tool)*

The MaineCare *QI Project Template*, as indicated by the feedback from Behavioral Health Home Organizations, could be more useful if formatted in as fillable document. Currently the document offers guidance on MaineCare’s expectations for the topic of quality improvement projects as well as provides examples within a framework that aligns with the Plan-Do-Study-Act cycle. These components are useful and should remain in the document, though as a recommendation, MaineCare should add an additional tool that BHHOs can use to fill out a quality improvement process. Using *Embracing Quality in Local Public Health: Michigan’s Quality Improvement Guidebook*, I adapted a QI Team Charter tool to include components of the MaineCare *QI Project Template* (Tews, et al. 2008). This QI process outline is a resource that can assist Maine BHHOs by providing a structured, fillable format to document their QI projects, see Appendix B for this tool.

2. *Provide a list of example projects and focus areas for quality improvement projects (See Appendix C for a recommended list)*

The current *QI Project Template* separately identifies data sources and project examples in quality improvement for BHHOs to use. To improve these components of the *QI Project Template*, MaineCare could consider including a resource list that collectively identifies project examples and the related data sources that can support the improvement work for the Behavioral Health Home Organizations. A psychiatric consultant for the Maine Quality Counts' Behavioral Health Home Learning Collaborative developed an initial list of project examples and data sources. This original document provided the foundation for the list identified in Appendix C. I edited the content in the original list to provide up-to-date information of data sources.

3. *Provide tools to assist in the implementation of quality improvement projects for BHHOs*

The final recommendation for the MaineCare to improve the *QI Project Template* is to include a resource to help Behavioral Health Home Organizations in implementing their quality improvement projects. Two Behavioral Health Home Organizations commented that an action plan would be a useful tool in their project implementation. The tool developed should align with the QI process outline and include enough detail to understand the tasks and timeline of the project.

In my work with UCP of Maine, I developed a Quality Improvement Project Implementation Plan Template to use as a tool with the current MaineCare *QI Project Template*. (See Appendix D). The Quality Improvement Implementation Plan Template follows a general action plan and includes categories that align with the QI Process Outline. This implementation plan template provides structure around the individuals involved in the QI project, the tasks to achieve the aim statement, and a structured timeline to work towards the aim. Because only one organization has

tested this tool, I would encourage MaineCare or its contractor Maine Quality Counts to gather Behavioral Health Home Organizations' feedback on the tool prior to distribution.

### **Knowledge Gained**

I have learned a great deal in my three years in the Master of Public Health program at the Muskie School of Public Service. Much of the knowledge I applied to my capstone project was gained through course work and course projects that expanded my thinking about how to improve the quality improvement tools and documentation provided in behavioral health settings. In reflecting on my work over the past 3 months, I feel confident I achieved my learning goals I set for this project which align with the four of the five public health program competencies.

*Learning Goal: Develop leadership skills in working with a team of community mental health agency staff*

*Public Health Program Competencies: Communication, Leadership, Health Policy and Management*

I effectively provided technical assistance to a community mental health agency, UCP of Maine, in utilizing the MaineCare *QI Project Template*. Leading the effort of my capstone project, I set an appropriate timeline of objectives, tasks, and meetings dates required to complete my project and assist UCP of Maine develop their QI process within the set time constraints. I reflected on the course work from *MPH 575: Health Systems Organization and Management* co-instructed by Elise Bolda, Ph.D. and Stephen Loeb, Ph.D. to establish my leadership role as well as understand the organizational constraints on UCP of Maine as they were engaging with me to develop the QI Process and implementation plan. Also, my knowledge gained from *MPH 630: Health Planning & Marketing* instructed by Elise Bolda, Ph.D. and *MPH*

*MPH 565: Social and Behavioral Health* instructed by Brenda Joly, Ph.D., MPH provided a framework for my communication around UCP of Maine's determined QI improvement project idea. I was able to provide constructive and useful feedback on the reality of what is achievable based on their situation in the Health System. In this same competency, I used my knowledge from *MPH 525: The American Health Care System* course instructed by Andy Coburn, Ph.D. and *MPH 681: Mental Health Policy*, instructed by David Lambert, Ph.D. to comprehend the concepts of the Health Home initiative in Maine and the role of community mental health agencies in this movement.

*Learning Goal: Develop skills in using Quality Improvement tools*

*Public Health Program Competencies: Health Policy and Management*

Due to my recent course work and knowledge gained in *MPH 670: Quality Improvement* instructed by Judy Tupper, DH.Ed., CHES, CPPS, I effectively utilized and adapted tools to enhance the current MaineCare *QI Project Template*. In addition, I used my enhanced skills from this course to apply a critical and constructive eye to the *QI Project Template* and to propose recommendations for improvement. Additionally, this course work provided framework for me to plan my capstone project around my intended audiences.

*Learning Goal: Enhance skills in qualitative data collection and synthesis*

*Public Health Program Competencies: Informed Decision-Making*

My involvement with *MPH 650: Applied Research and Evaluation in Public Health* and *PPM 606: Introduction to Survey Research* helps lay the groundwork for analyzing and synthesizing qualitative data. I used my knowledge gained in these courses to develop useful and objective information to inform the recommendations to improve the MaineCare *QI Project Template*.

**Conclusion**

I achieved my primary objectives of providing hands on assistance to a community mental health agency, developing recommendations to MaineCare, and developing a Quality Implementation Plan Template to improve the work of the *Quality Improvement Project Template for Maine Behavioral Health Homes*. These recommendations to improve the template will enhance the guidance to Maine BHHOs in improving their healthcare services to reduce avoidable emergency department admissions, avoidable hospitalizations, and unnecessary healthcare spending. Maine Behavioral Health Homes, with the guidance and tools developed in this capstone, can build the capacity to improve health care service delivery for persons living with a diagnosis serious mental illness or serious emotional disturbance.



### Reference List

- Batalden, P. & Davidoff, F. (2007). What is “quality improvement” and how can it transform healthcare? *Quality and Safety in Health Care*. 16(1). 2-3. doi: 10.1136/qshc.2006.022046
- Berwick, D. M., Nowlan, T. W., Whittington, J. (2008). The triple aim: Care, health, and cost. *Health Affairs*. 27(3).759–769. doi:10.1377/hlthaff.27.3.759
- Centers for Medicare & Medicaid Services. (2014). CMS Innovation Center: Report to congress. (DHHS Publication). Washington, DC: U.S. Government Printing Office.
- Centers for Medicare & Medicaid Services. (2014). National health expenditures projections 2013-2023: Forecast summary. Retrieved from: <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html>
- Cono, J., Frieden, T. R., Iademarco, M. F., Jaffe, H. W., Richards, C. L. (2014). *CDC National health report: Leading causes of morbidity and mortality and associated behavioral risk and protective factors – United States, 2005 – 2013*. MMWR; 63(Suppl-4):1-16.
- Department of Health and Human Services. (2014) Ch. II – Section 92: Behavioral health homes services. *MaineCare Benefits Manual*. Retrieved from: <http://www.maine.gov/sos/cec/rules/10/ch101.htm>
- Health Resources and Services Administration. (2011). *Quality improvement*. (DHHS Publication). Washington, DC: U.S. Government Printing Office.
- Institute for Healthcare Improvement. (2015). Science of Improvement: *How to improve*. Retrieved from: <http://www.ihl.org/resources/Pages/HowtoImprove/ScienceofImprovementHowtoImprove.aspx>

Institute of Medicine. (2013). *Toward Quality Measures for Population Health and the Leading Health Indicators*. Washington, DC: The National Academies Press.

Maurer, B. (2006). *Morbidity and mortality in people with serious mental illness*. Foti, M., Parks, J., Singer, P., Svendsen, D., (Eds.). Alexandria, VA: National Association of State Mental Health Program Directors Medical Directors Council.

Maine Quality Counts. (2015). *Quality Improvement Project Template for Maine Behavioral Health Homes*. Retrieved from: <http://www.mainequalitycounts.org/page/2-1145/bhh-10-core-standards-resources#Nine>

Tews, D. S., Sherry, M. K., Butler, J. A., Martin, A. (2008). *Embracing quality in local public health: Michigan's quality improvement guidebook*. (2<sup>nd</sup> ed.).

**Appendix A**

MaineCare Quality Improvement Project Template for Maine Behavioral Health Homes



## Quality Improvement Project Template for Maine Behavioral Health Homes

*BHH Core Standard #9: Commitment to Reducing Waste, Unnecessary Healthcare Spending, and Improving Cost-Effective Use of Healthcare Services.*

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### What does Quality Improvement Mean for Behavioral Health Home Teams?

Quality improvement is the practice of identifying and testing changes to enhance the physical and behavioral health outcomes of people receiving services.

Core expectation #9 requires BHHO providers to commit to reducing waste, unnecessary healthcare spending, and improving cost-effective use of healthcare services. Through this core standard, MaineCare requires BHHOs to *develop the capacity to use data to identify and implement quality improvement projects*. Quality improvement projects should align with key MaineCare objectives, including:

1. Reduction in unnecessary utilization of services
2. Reduction in avoidable emergency room use
3. Reduction in avoidable hospital admissions

“Alignment” means that project success would be expected to impact any of these three very broadly stated goals.

### Criteria for Selecting Quality Improvement Projects for Maine Behavioral Health Homes (BHH)

BHHs should seek to address the needs of their community and unique population within criteria and processes outlined by MaineCare.

Projects should be:

1. Related to improving integration of physical health into behavioral health systems of care
2. Data driven: Data exists to support the goals and activities of the project:
  - a. BHH-generated, such as EHR data, internally-tracked data, etc.
  - b. MaineCare utilization data (HHES portal)
  - c. HealthInfoNet
  - d. Other, as defined.
3. Feasible/Actionable/Simple: Changes in processes of care are simple, clearly specified and actionable within BHH work flow
4. Where possible, identifying existing toolkits/manuals/educational materials that have been vetted by national or state quality improvement sources.

Organizations are encouraged to create projects that fulfill to other core expectations (such as Core Standard #6, integration with primary care, and/or Core Standard #3, population health management) and related initiatives, such as the BHH HIT initiative with HealthInfoNet.

**Quality Improvement Documentation Tools**

BHH quality improvement projects should include the project goal and focus area, purpose of the project, plan of actions, and points of measurement for the outcomes of the project. The [Plan-Do-Study-Act Guide](#) from the Minnesota Department of Health provides a useful outline of the steps required to initiate a quality improvement project. The table below highlights key steps and provides some examples of projects that organizations could undertake using available data.

<b>Focus Area</b>	<b>Aim Statement</b>	<b>Describe the problem</b>	<b>Analyze Data</b>	<b>Select One New Approach</b>	<b>Study</b>	<b>Act</b>
Alignment with: 1. Reduction in unnecessary utilization of services 2. Reduction in avoidable emergency room use 3. Reduction in avoidable hospital admissions	1. What are we trying to accomplish? 2. How will we know that a change is an improvement? 3. What change can we make that will result in improvement?	Write a problem statement that clearly outlines the issue that the BHH hopes to improve; Include available data to describe the issue	Analyze data to identify potential causes for the problem and potential solutions: Is this a work flow issue? Is there a way to improve processes?	Identify alternative approaches: “if we do X, then we will get Y outcome” Use existing materials/ evidence-based approaches, where available	It’s it working? Determine an appropriate cycle for reviewing data – monthly, quarterly?	Standardize or modify your approaches and implement improvements
Reduction in avoidable ED Use	For members with bronchitis, asthma, or COPD, BHH will reduce the number of ED visits associated with those conditions through improved chronic care management targeting these disorders.  Improved care management will result in a reduction in BHH member use of the ED for these disorders.  The BHH will implement the following specific process improvements	Per HHES data, XX number of BHH members used the ED in the last quarter for these conditions. These are chronic conditions, the management of which could be improved via targeted care management techniques.	Review HHES data and other sources as available (client surveys, EHR data, information from PCP offices, HIN, etc.)  Based on data, refine issues and identify potential process/system changes:  Identify major drivers of ED use across BHH population, e.g.) unmanaged chronic bronchitis or asthma; substance use, dental...	Identify specific change to implement, e.g.: - Ensure a care plan from PCP or specialist is included in ISP - Provide targeted nurse care management services to members - Include in crisis plan - Education to members  Connect members to existing resources for asthma or other disorder	Study at intervals consistent with chosen approach	Standardize Improvements Modify Approach Try a different approach
Reduction in avoidable hospital admission	1. Reduce hospital admissions 2. Reduction in # of hospital admissions for BHHO members 3. Possible Changes: a. Improve Chronic Care management b. Promote better coordination with primary care	members hospitalized due to chronic conditions and lack of care coordination/support  Identify and use data to define problem and develop project: BHH internal data (EHR, spreadsheets, etc.) or data available in the HHES portal	Identify drivers of hospital use; chronic conditions, mental health, substance use	Nurse care manager coordinates with primary care and supports consumer on chronic illness self-care, such as Diabetes Self-Management classes (or Asthma, or COPD, etc.)  Group outreach/education on managing chronic illness using evidence-based curriculum  Peer support in establishing, maximizing PCP relationship  All members up to date on well child visits	Study at intervals consistent with chosen approach: Review data at 3 months, 6 months, 9 months	Standardize Improvements Modify Approach Try a different approach

**Additional ideas for projects:**

- Identify members with high BMI and link consumers to programs to address weight gain
- Assure recommended testing for glucose and lipids;
- Coordination with PCP to support consumers in chronic conditions medication adherence
- Linkage to CDC smoking hot line; linkage to CDC smoking cessation programming; training BHH staff to provide smoking cessation in-house
- Educate consumers and primary care on risk from antipsychotic medication; linkage to interventions to address high lipids and weight gain

**Appendix B**

**Maine Behavioral Health Homes QI Process Outline**

## Maine Behavioral Health Homes QI Process Outline

<b>1. BHHO Name:</b>		
<b>2. Focus Area:</b>	<input type="checkbox"/> Reduction in unnecessary utilization of services	<input type="checkbox"/> Reduction in avoidable emergency room use
<input type="checkbox"/> Reduction in avoidable hospital admissions		
<b>3. Problem/Opportunity Statement (How do you know you can improve?):</b>		
<b>4. AIM Statement(s):</b> ( <a href="#">Click Here to Access a Tool to Develop an AIM Statement</a> )		
<b>5. Target Population (Who are you trying to Reach?):</b>		
<b>6. Success Measures (What does success look like? What data are you collecting to show your success?):</b>		
<b>7. Considerations (Assumptions/Constraints/Obstacles):</b>		
<b>8. Plan-Do-Study-Act (PDSA) Timeline:</b> ( <a href="#">Click Here to Access an Implementation Plan Template</a> )		
<b>Plan:</b>	Plan the test or observation, including a plan for collecting data	
<b>Do:</b>	Try out the test on a small scale	
<b>Study:</b>	Set aside time to analyze the data and study the results	
<b>Act:</b>	Refine the change, based on what was learned from the test	
<b>9. BHH Team Leader:</b>		
<b>10. QI Team Leader:</b>		
<b>11. Team Members:</b>		<b>Role:</b>
<b>12. Meeting Frequency:</b>		
<b>13. Communication Plan (Who, How, and When):</b>		
<b>14. Improvement Theories (if we do X then Y will result):</b>		
If...	Then...	

**Appendix C**

**Potential Behavioral Health Homes (BHH) Quality Improvement Projects**



**Potential Behavioral Health Homes (BHH) Quality Improvement Projects**

**1. Projects directly and concretely focused on reducing emergency department or hospital utilization.**

<b>Project</b>	<b>Data Source</b>	<b>Process Change</b>	<b>Tools</b>	<b>Pros</b>	<b>Cons</b>
Reduce Emergency Department (ED) Use	Identify High Users from MaineCare Health Home Portal	Create processes for consumers to access primary care instead of historically automatic referral to ER; identify visits considered ambulatory sensitive conditions; address barriers to accessing primary care; coordinate with primary care to address gaps in care	Educational materials from AHRQ on ambulatory sensitive conditions. Materials from MaineCare ED Reduction Project on self-care for unnecessary ED visits	Data readily available to all BHH; MaineCare members with BH disorders have higher rates of ED use than those with no BH diagnosis;	May be difficult to “sell” since relationship to improved quality unclear for consumers with high levels of medical comorbidity; many factors outside of control of BHH contributes to high use (e.g. transportation, primary care access )
Reduce 30 day re-hospitalization by improving transitions of care	HealthInfoNet notification to BHH of current hospitalization	Improve transitions of care in coordination	Educational materials, plan for process change are available from Maine Quality Counts	Evidence for utility in reducing re-hospitalization.	Data currently available to BHH HealthInfoNet State Innovation Model (SIM) grant recipients

**2. Projects that improve chronic disease care, reducing disability and complications from chronic disease, thereby reducing need for emergency department and hospital use for these chronic conditions; supports integration with primary care; supports increased knowledge about chronic disease self-care; reduces premature mortality**

<b>Project</b>	<b>Data</b>	<b>Process Change</b>	<b>Tools</b>	<b>Pros</b>	<b>Cons</b>
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<p>Improve testing for lipids and Hemoglobin A1c for members with Diabetes</p>	<p>MaineCare Portal identifies those with no Hemoglobin A1c in last quarter; no lipid test in past year</p>	<p>Coordinate with primary care; support consumers on diabetes self-care; coordinate with community supports (Diabetes Self-Management classes)</p>	<p>Materials from most providers and American Diabetes Association on self-care for diabetes; Diabetes self-management and Living Well with Chronic Disease classes</p>	<p>Accepted PCMH and HEDIS goals. Data available to all BHH; improves knowledge about diabetes care (diabetes a major issue for BHH population, risk for disability and early death)</p>	<p>Process measure; assumes having test done results in remedial action</p>
<p>Reduce number of members whose Hemoglobin A1C is greater than 8 (identifies those with undiagnosed diabetes, those with diagnosed diabetes but not in control)</p>	<p>HealthInfoNet lab result data (see example)</p>	<p>Coordinate with primary care; support consumers on diabetes self-care; coordinate with community supports (Diabetes Self-Management classes)</p>	<p>Materials on self-care from a variety of national and local sources; many community resources for improving diabetes self-care – Diabetes Self-Management Education, Living Well with Chronic Disease</p>	<p>Evidence based: better glucose control means better diabetes outcomes and less complications</p>	<p>Limited to BHH with access to HealthInfoNet</p>
<p>Increase number of members whose Blood Pressure is &lt;140</p>	<p>Blood Pressure measured directly by BHH staff</p>	<p>Coordination with primary care to provide medication; support for consumers in medication adherence, increased exercise, improved nutrition etc.</p>	<p>Well-developed materials from National Institutes of Health, Centers for Disease Control and Prevention etc. for consumers and workforce on Blood Pressure Control</p>	<p>Supports BHH doing direct measurement; Allows “in the moment” conversation between BHH staff and consumer; supports insertion of health topics into</p>	<p>Direct measurement adds burden to BHH but Quality Improvement process initially might be limited to just taking and recording Blood Pressure</p>

				BHH records	
Increase number of children with asthma who are on controller inhalers	Obtain child data from primary care reports to primary care; MaineCare services data could be added to portal	Coordination with primary care for increased awareness of self-care measures for asthma control	Well-developed materials available	Asthma is a major chronic issue for both children and adults and cause for ED visits	Must have processes in place to share info between Primary Care and BHH

**3. Projects that reduce health risk for which there is firm evidence that health will be improved and chronic disease reduced, which should have an impact on hospital and emergency department use, but only in the very long term.**

Project	Data	Process Change	Tools	Pros	Cons
Reduce % of members who smoke; increase number of smokers engaged in smoking cessation programming	Direct assessment by BHH	Smoke-free campus; Linkage to Centers for Disease Control and Prevention (CDC) smoking hot line; linkage to CDC smoking cessation programming; training BHH staff to provide smoking cessation in-house	Well developed in Maine by CDC	50% of consumers with SMI are smokers; Smoking a major risk for heart disease, stroke, diabetes, early death	Requires direct assessment and systems for entry into BHH Health Record; requires reporting from BHH to MaineCare
Increase number of members whose lipids are in appropriate range	HealthInfoNet lab data	Coordinate with consumers and primary care to increase number of consumers who are receiving and adherent to lipid lowering medication	Numerous national Centers for Disease Control and Prevention and National Institutes of Health materials on lipids	Applies to a broad population of consumers (not merely those with diabetes); data shows that BH population has high lipid levels and low levels of statin use; major risk factor	Limited to BHH with access to HealthInfoNet

				for diabetes, heart disease, stroke	
Increase percentage of children receiving annual preventive dental care		Identify as Service Plan Goal; Support families in accessing dental care for children		MaineCare reimburses child dental services; addressing issue in childhood will reduce dental issues in adults	Undetermined data source
Increase dissemination in Let's Go! Maine 5-2-1-0 program to reduce childhood obesity	Child BMI. Collected at agency or from primary care	Insert as goal in treatment planning; review progress regularly;	Let's Go Maine materials and trainings	Let's Go Materials are easily accessible and are connected with primary care initiatives	Must collect data at BHH or have processes in place to share information between primary care and BHH

**Appendix D**  
**Quality Improvement Implementation Plan**



