

## Get to Know the Guide:

### **Why this guide?**

The purpose of this quick guide is to provide practical tools to facilitate quality improvement (QI) in the Health Care for the Homeless (HCH) setting. QI processes are essential to providing the highest quality of care to patients through measurement and evaluation of outcomes, changes to staffing and workflow, and the development of improvement initiatives. Instead of a one-size-fits-all approach to QI, this guide draws upon the experience of high-performing HCH grantees (or Quality Leaders), providing practical examples of how QI is done specifically in this setting.

### **Who is this guide for?**

This quick guide is useful for anyone working in a health care setting that serves special populations, including persons experiencing homelessness. Although this quick guide may be most applicable to the work of those directly involved in the QI process, this content is valuable for anyone interested in improving the quality of care their health center provides.

### **What does this guide include?**

This quick guide includes information on the principles of QI, an overview of QI models, information on QI infrastructure and staffing, tips for performance measurement and management, promising practices for displaying performance data, recommendations for integrating QI into agency culture, and information on establishing strategic partnerships and pursuing quality recognition. Throughout these sections, practical examples from high-performing HCH grantees are indicated by the green “Quality Leader Approved” icon.

### **What can you expect to gain from this guide?**

- You will be able to identify QI models that can be used to guide improvement processes.
- You will be able to identify resources to assist with performance measurement and management.
- You will be able to describe methods for displaying performance data.
- You will learn the promising practices used by HCH Quality Leaders in their QI processes.

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## Background

Building upon the National Health Care for the Homeless (HCH) Council's Case Study on HCH Quality Leaders<sup>1</sup>—which identified the key practices promoting quality of care and quality improvement (QI) strategies among four high-performing HCH grantees<sup>2</sup>—this quick guide was assembled for practical application of the findings. This publication contains useful resources to augment grantees' QI initiatives, including information on the QI process, diagrams and logic models, performance measurement, displaying performance data, provider report cards, how to integrate QI into agency culture, and more. This quick guide synthesizes tools used by the HCH Quality Leaders profiled in the case study (examples indicated by the green stamp of approval), as well as best practices in the QI field.

## Principles of QI

According to the Health Resources and Services Administration's (HRSA) Quality Improvement Toolbox<sup>3</sup>, QI has four principles:

- QI work as systems and processes: consider the delivery system, including resources (inputs) and activities (key processes) in order to improve quality of care (outputs/outcomes)
- Focus on patients: extent to which patient needs and expectations are met
- Focus on being part of a team: assemble individuals with diverse perspectives and skillsets to tackle complex QI problems
- Focus on use of the data: data describes how current systems are functioning, how changes impact functioning, and provides documentation of successes

## QI Models

Many health care organizations use a specific model to inform their QI methodology. Based upon the Quality Leaders Case Study, two models—Plan-Do-Study-Act and Define-Measure-Analyze-Improve-Control—were most prevalent in the HCH field, although several other models exist. Some QI models are prospective, meaning they design systems and/or prevent problems; others are retrospective, meaning they analyze past performances.<sup>4</sup> Most QI models share common components of analysis, implementation, and review.<sup>2</sup> This section provides a brief overview of such models.

### Prospective Models:

- Define-Measure-Analyze-Improve-Control (DMAIC):
  - The DMAIC model is used by **Community Health Care, Inc.** (Davenport, IA) due to its emphasis on the control phase and sustaining improvements.
- Plan-Do-Study-Act (PDSA):
  - The PDSA model is used by **Care for the Homeless** (New York, NY) and **RiverStone Health** (Billings, MT) to guide QI activities.



<sup>1</sup> National Health Care for the Homeless Council. (2012). *HCH Quality Leaders: A Case Study (Key Practices Supporting Quality of Care and Improvement Processes)*. [Author: Sarah Knopf, Research Assistant]. Available at: <http://www.nhchc.org/wp-content/uploads/2012/11/HCH-Quality-Leaders-Key-Practices-Supporting-Quality-of-Care-and-Improvement-Processes.pdf>

<sup>2</sup> The Quality Leaders profiled in the Case Study included: Care for the Homeless, New York, NY; Community Health Care, Inc., Davenport, IA; Harbor Homes, Nashua, NH; and RiverStone Health, Billings, MT

<sup>3</sup> Health Resources and Services Administration, U.S. Department of Health and Human Services. (2011). *Quality Improvement*. Retrieved from <http://www.hrsa.gov/quality/toolbox/methodology/>

<sup>4</sup> Dreachslin, J.L., & Lee, P.D. (2007). "Applying Six Sigma and DMAIC to Diversity Initiatives." *Journal of Healthcare Management*, 52(6), 361-367.

- **Other Prospective Models:**

- Define-Measure-Analyze-Design-Verify (DMADV) (an alternate QI model of Six Sigma model)
- Healthcare Failure Mode Effects Analysis (HFMEA)
- Focus-Analyze-Develop-Execute-Evaluate (FADE)
- Continuous Quality Improvement (CQI)
- Total Quality Management (TQM)

**Retrospective Models:**

- **Root Cause Analysis (RCA):** examines adverse events or unexpected outcomes in order to identify system vulnerabilities that contributed to the problems.

**QI Infrastructure & Staffing**

- **Community Health Care, Inc.** has devoted significant resources to develop its quality infrastructure, including the creation of a Quality Department with several full-time staff persons. Community Health Care's Director of Quality and Clinical Services often consults with fellow grantees to help them develop Quality Departments of their own. This section provides an overview of Community Health Care's Quality Department, including its purpose, staffing, and responsibilities.
  - The Quality Department's purpose is to:
    - Continuously monitor and improve the quality and safety of services provided to patients
    - Minimize or reduce adverse outcomes
    - Improve efficiency
    - Minimize or eliminate duplication of effort
    - Meet external requirements for accreditation and other state and federal regulation
  - The Quality Department houses or coordinates its activities with several staff, including:
    - Director of Quality and Clinical Services
    - Quality Coordinator
    - Clinical Specialist
    - Clinical Trainer
    - Nurse Manager
    - Patient Care Coordinator
    - EHR Coordinator
    - Compliance Coordinator
  - The Quality Department's major responsibilities include:
    - Development and implementation of QI plan
    - Management of data
    - Leadership and development of nursing staff
    - Selection of clinical outcome measures
    - Definition of data management plans for grants (including appropriate selection of measurable goals)
    - Management of infection control program among staff and patients
    - Assessment of patient satisfaction
    - Development of policy and procedure
    - Education and training of staff
    - Joint Commission Accreditation
    - Management of unusual occurrence reports and patient complaints



- To help encourage staff participation in QI, Community Health Care ranks employees annually based on their participation in QI projects, provides monetary incentives for participating in internal committees, and ties a portion of provider incentives to patient outcomes (quality of care).
- Additional QI Infrastructure/Staffing Resources:
  - Health Resources and Services Administration, U.S. Department of Health and Human Services. *HRSA Quality Toolkit Part 2: Before Beginning – Establish an Organizational Foundation for QI*. Retrieved from <http://www.hrsa.gov/quality/toolbox/methodology/qualityimprovement/part2.html>
  - National Quality Center. (2009). *NQC Quality Academy: Using Teams to Improve Quality*. Retrieved from [http://nationalqualitycenter.org/download\\_resource.cfm?fileID=20031](http://nationalqualitycenter.org/download_resource.cfm?fileID=20031)

## Performance Measurement & Management

Structure, process, and outcome data are essential to the QI process and decision-making in general. A multitude of performance measures exist to guide data collection and analysis. However, sifting through data in order to identify areas for improvement and gauge effectiveness of programs or interventions can be a challenge. This section illustrates how the Quality Leaders manage their data and provides external resources to inform data collection and management.

- **Care for the Homeless** has a Quality Management Plan, with key data indicators that are revisited throughout the year by its Quality Improvement Team. The Quality Management Plan's indicators include both external measure requirements (e.g. HRSA, Ryan White) and internal measures deemed appropriate by staff (e.g. HIV testing, depression screening, mammogram referrals). Due to a proactive approach of incorporating measures prior to external requirements, Care for the Homeless has been ahead of the curve on many measures that have since been adopted by HRSA (e.g. HIV testing, smoking cessation, weight control, hepatitis screening). Performance data relative to these measures is reviewed often during staff meetings. This data, along with patient feedback, informs quality improvement decisions.
- The clinicians at **Harbor Homes, Inc.** (Nashua, NH) established a *Policies for Disease Management* manual, which outlines their goals and protocols for various diagnoses.
- **Community Health Care** has a Data Management Plan that covers key variables, including clinical, financial, operational, patient satisfaction, and staff satisfaction measures. A key tenet of Community Health Care's measure selection is that "organizations who measure everything improve nothing." Therefore, data collection is prioritized based on several criteria, including patient health outcomes and satisfaction; alignment with strategic goals, mission, vision, and values; regulatory requirements (HRSA, Joint Commission, PCMH); and financial impact. Because Community Health Care operates nine sites with over 280 employees, there is also a systematic, organization-wide communication plan that advises staff on the continuous review of prioritized data.
- Performance Measurement for Public Health Policy: This tool is intended to help health departments assess and improve the performance of their policy activities.
  - [http://www.phf.org/resourcestools/Documents/Policy\\_Performance\\_Measurement\\_Tool\\_FINAL.pdf](http://www.phf.org/resourcestools/Documents/Policy_Performance_Measurement_Tool_FINAL.pdf)
- Narrowing Your Focus – Using Data to Launch Improvement Activities: This National Quality Center (NQC) Quality Academy Tutorial provides guidance on how to effectively collect and use performance data in a quality program.
  - <http://nationalqualitycenter.org/index.cfm/6127/15917>



- Using Data to Select an Improvement Project: This National Quality Center (NQC) Quality Academy Tutorial describes how data should be put into action and linked to improvement activities.
  - [http://nationalqualitycenter.org/download\\_resource.cfm?fileID=19971](http://nationalqualitycenter.org/download_resource.cfm?fileID=19971)
- Tools to Address Disparities in Health: Data as Building Blocks for Change: This toolkit provides guidance on how to collect various data indicators to identify disparities and inform change.
  - <http://www.vdh.virginia.gov/ohpp/clasact/documents/CLASact/research/default.pdf>

**Displaying Performance Data**

The Quality Leaders present performance data to staff through a variety of means, including patient dashboards and provider report cards. If not presented in a clear manner, performance data may not translate well to audiences, limiting its power to stimulate QI. In addition to highlighting the Quality Leaders’ methods for presenting data, this section provides resources on how to effectively present data that people can understand and use.

- **RiverStone Health** began creating patient dashboards as a QI project to increase quality of care. They produce monthly reports per disease process for each provider (following patient empanelment). These dashboards contain a list of each provider’s patients with diabetes, including last appointment, A1c, microalbumin, LDL, BP, and vaccines. See example snapshot of RiverStone Health’s patient dashboard below:



Last BP	Patient Name	Encounter Date	A1c Value	Patient Name	Last Lab date	LDL Value
103/70		Dec 16, 2011	7.5			
101/64		Feb 16, 2012	5.8		Dec 16, 2011	80
		Oct 28, 2011	7.8		Jul 7, 2011	SEE COMMENTS
121/73		Dec 1, 2011	11.3		Jan 17, 2012	SEE COMMENTS
143/90, 120/85, 132/87		Feb 2, 2012	140		Dec 1, 2011	93
139/79		Feb 2, 2012	6.1		Jul 1, 2011	141
128/83		Feb 15, 2012	5.5		Aug 16, 2011	85
116/77		Dec 30, 2011	5.5		Oct 13, 2011	96
110/72		Feb 27, 2012	9.8		Dec 16, 2011	51
146/100		Dec 29, 2011	12.9		Jan 6, 2012	134
158/94		Aug 31, 2010	6.1		Dec 13, 2010	126
139/82		Dec 20, 2011	>14		Jun 17, 2011	74
185/106		Mar 30, 2011	5.6		Oct 7, 2011	33
122/87		Feb 15, 2012	6.6		Mar 6, 2012	24
150/99		Mar 13, 2012	7.0		Jan 3, 2011	SEE COMMENTS
130/86		May 6, 2011	9.9		Feb 6, 2012	130
146/69		Feb 6, 2012	5.9		Nov 25, 2011	72

Patient Name	Last Lab date	Microalbumin Value	Patient Name	Last Vaccine date
	Dec 16, 2011	<30		Feb 4, 2011
	Feb 16, 2012	<30 mg/g		Oct 3, 2011
	Mar 30, 2011	<30mg/g		Oct 28, 2011
	Apr 25, 2011	150		Oct 29, 2010
	Oct 7, 2011	<30 mg/g		Oct 7, 2011
	Mar 13, 2012	<30 mg/g		Oct 3, 2011
	Dec 28, 2009	<30mg/g		Nov 5, 2011
	Dec 29, 2011	30-300 mg/g		Oct 27, 2010
	Mar 14, 2011	<30 mg/g		Dec 20, 2011
	Mar 30, 2011	>300		Oct 23, 2008
	Oct 7, 2011	30-300mg		Oct 7, 2011
	Mar 13, 2012	30-300mg/g		Dec 9, 2010
	Feb 16, 2012	<30 mg		

- **Community Health Care, Inc.** also uses dashboards to review operational data on a monthly basis.
- Data Walls: This is a sign-posting resource that provides a visual representation of performance data—along with supporting information about data collection and usage—for staff to review and discuss.

- <http://www.improvement.nhs.uk/datawall/>
- **Creating Performance Improvement Charts in Excel:** This guide provides instructions for how to use Excel to build performance improvement charts.
  - [http://kic.kdhe.state.ks.us/kic/OHA/reports/pdf/KUMC\\_Excel\\_Graphs\\_Guide2010.pdf](http://kic.kdhe.state.ks.us/kic/OHA/reports/pdf/KUMC_Excel_Graphs_Guide2010.pdf)
- **How To Display Comparative Information That People Can Understand and Use:** This publication provides instructions for displaying comparative data in a clear and understandable fashion.
  - <http://www.rwjf.org/content/dam/web-assets/2010/07/how-to-display-comparative-information-that-people-can-understan>

## Integrating QI into Agency Culture

Along with strong methodology, QI requires meaningful staff buy-in and participation at all organizational levels to be truly impactful. Achieving this can be especially daunting in an organization that is new to QI. However, integrating QI into agency culture can be achieved in many ways, including staff recruitment, staff training, and effective communication plans.

- **Community Health Care's** approach to integrating a culture of quality is a model practice for fellow grantees looking to do the same. This achievement is especially impressive given the scale of Community Health Care's staff (280+) and sites (9). Community Health Care promotes a culture of quality through two major components: 1) recruiting and orientation, and 2) communication.
  - **Recruiting and Orientation:**
    - During the recruiting and interview process, the significance of Community Health Care's quality program is emphasized. Staff responsibilities in regard to QI are explicitly discussed. Once hired, new employees participate in a QI orientation in both group and one-on-one settings.
  - **Communication:**
    - Community Health Care ensures that all staff members are kept informed about QI through clear and continuous lines of communication. The Director of Quality and Clinical Services attends all provider meetings. To communicate with individual providers, the Quality Coordinator meets one-on-one with providers on a monthly basis regarding their clinical outcomes, while the CEO and Medical Director review progress toward quality goals on an annual basis with each provider. Clinical improvement priorities are readily available electronically, while performance data is published on a monthly basis (including individual, peer, and organization-wide levels of compliance). Organization-wide data is reported to the internal QI Committee and areas for improvement are accompanied by an action plan. The progress of performance improvement projects is reported to all departments via a *Quality Newsletter* and in-person presentations.
- **Performance Management and Building QI into Your Culture:** PowerPoint presentation that provides methods for promoting QI and integrating it into a health care organization.
  - [www.nnphi.org/CMSuploads/QI-Culture-\(Mason\)-73955.ppt](http://www.nnphi.org/CMSuploads/QI-Culture-(Mason)-73955.ppt)
- **Roadmap to a Culture of Quality Improvement:** This document details how organizations can transition from small-scale QI efforts to more comprehensive approaches by transforming organizational cultures.
  - <http://www.naccho.org/topics/infrastructure/accreditation/loader.cfm?csModule=security/getfile&pageID=212695>



## Strategic Partnerships & National Quality Recognition

Strategically aligning with national programs and initiatives—particularly those focused on quality recognition and public health improvement—can be a powerful method to facilitate QI among organizations. In addition, establishing public-private sector partnerships is another way to maximize collaborations to improve quality of care and outcomes. This section highlights a few examples of national initiatives, partnerships, and quality recognition programs that may be of interest to grantees:

- Centers for Disease Control and Prevention (CDC) National Public Health Improvement Initiative (NPHII): This initiative provides grantees funding to address performance management and improvement (Component I) and efforts to change the public health system to improve its public health impact (Component II).
  - <http://www.cdc.gov/stltpublichealth/nphii/index.html>
- HRSA's Accreditation and Patient-Centered Medical/Health Home Initiatives: HRSA encourages all Health Center Program grantees to become nationally recognized as quality providers through these initiatives. These initiatives provide training and educational resources and financial support for annual and on-site survey fees for initial accreditation and re-accreditation of health centers.
  - Accreditation Initiative: This initiative provides surveys of ambulatory care, behavioral health, laboratory services, and technical assistance and training for health centers. Accreditation surveys are offered through the Accreditation Association of Ambulatory Health Care and The Joint Commission (<http://bphc.hrsa.gov/policiesregulations/accreditation.html>)
  - Patient-Centered Medical/Health Home Initiative: This initiative offers surveys through a contract with the National Committee for Quality Assurance (NCQA) (<http://bphc.hrsa.gov/policiesregulations/policies/pal201101.html>).
  - This chart provides a comparison of the two initiatives:  
<http://bphc.hrsa.gov/policiesregulations/policies/pcmhrecognition.pdf>
- U.S. Department of Health & Human Services (HHS) National Strategy for Quality Improvement in Health Care: As required by the Affordable Care Act, HHS developed a National Quality Strategy with aims, priorities, and goals for improving quality.
  - <http://www.healthcare.gov/law/resources/reports/nationalqualitystrategy032011.pdf>

### **Need more assistance with Quality Improvement?**

#### **Take advantage of free training & technical assistance opportunities!**

HRSA and the National HCH Council both offer extensive training and technical assistance (TA) opportunities to Health Center Program grantees. Webinars, regional and national trainings, and one-on-one technical assistance services can play an important role in supporting continuous quality improvement.

For **HRSA Technical Assistance**, visit: <http://bphc.hrsa.gov/technicalassistance/index.html>

To find a full listing of the **National HCH Council's regional and national trainings, webinars, and online courses**, visit: <https://www.nhchc.org/training-technical-assistance/>

To make a specific training or TA request, visit: <https://www.nhchc.org/request-training-or-ta/>

## DISCLAIMER

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## EVALUATION

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For more research and resources on quality improvement and the promising practices of HCH Quality Leaders, contact Sarah Knopf-Amelung at [sknopf@nhchc.org](mailto:sknopf@nhchc.org). For more information about our Research and Evaluation team and other projects at the National HCH Council, contact Dr. Darlene Jenkins at [djenkins@nhchc.org](mailto:djenkins@nhchc.org).