



# Capturing High Quality Electronic Health Records Data to Support Performance Improvement

## *Learning Guide Executive Summary*

Performance improvement, enabled by electronic health records (EHRs), depends first and foremost on accurate, timely, and comprehensive clinical information gained by implementing reliable, consistent data capture techniques supported by clinician workflows. Over three years, Beacon Communities<sup>1</sup> were able to drive improvement in the quality of practice-level EHR data as an important component of their quality improvement activities. Based on their experience, the communities were able to provide key considerations and implementation steps for physician practices and communities that want to improve the quality of data stored in EHRs.

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**A Learning Guide describes a promising IT-enabled intervention that can be deployed in a community to accelerate health care transformation.**  
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This Learning Guide documents knowledge gained and lessons learned from five federally-funded communities<sup>2</sup> that implemented activities to improve EHR data quality through **better data capture processes, workflow changes, and staff training**. High quality EHR data is critical for supporting a range of essential functions, including performance measurement and reporting, quality improvement, and payment reform activities. The Guide focuses on key considerations and implementation steps that individual physician practices and communities can use to improve EHR data quality.

## Inside the Learning Guide

**Setting the Stage for Success.** This Learning Guide begins with a review of foundational elements that can accelerate community efforts to improve EHR data quality. These elements include having a foundation of certified EHR product adoption and provider progress toward Meaningful Use, having

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<sup>1</sup> The Department of Health and Human Services, Office of the National Coordinator for Health IT (ONC) provided \$250 million over three years (2010-2013) to 17 selected communities throughout the United States to build and strengthen health IT infrastructure, test innovative approaches, and make strides toward better care, better health, and lower costs.

<sup>2</sup> The five communities that provided in-depth information about their experiences for this Learning Guide are: Bangor Beacon Community (ME), Crescent City Beacon Community (LA), Delta BLUES Beacon Community (MS), Southeast Michigan Beacon Community, and Western New York Beacon Community.

clearly defined data quality improvement goals or target areas of focus, having community awareness and agreement on the need to improve EHR data quality, and having resources to support activities required to improve EHR data capture and support practice workflow redesign. The audiences that would benefit from this Learning Guide are:

- ▶ Partnerships of community stakeholders (e.g., a hospital system and its affiliated practices)
- ▶ States and health information exchange (HIE) partnerships
- ▶ Quality improvement organizations (QIO)
- ▶ Accountable Care Organizations (ACO) and other provider organizations that are responsible for delivering high-quality care to a population of patients

**Lessons from the Beacon Community Experience.** Driven by an interest in having EHRs accurately represent clinical performance, facilitate quality improvement, and enable health information exchange across the community, several Beacons worked closely with health care practices to improve their EHR data quality. Approaches varied depending on the specific community's performance improvement and data-sharing goals, current EHR usage, and reporting sophistication. Beacon Communities exist in a wide range of markets, including those with well-integrated health care delivery systems and those with loosely organized practices and hospital systems. Their shared experiences with taking steps to assess, improve, and monitor EHR data quality within physician practices are organized into four Implementation Objectives:

### **1. Identify and Engage Physician Champions and Stakeholders and Jointly Develop Vendor Engagement Strategy**

The first Implementation Objective includes identifying and engaging physician champions and stakeholders within the practice or community, setting performance improvement goals, and developing a vendor engagement strategy. It discusses the key steps that Beacon Communities used to successfully engage physicians and other key practice staff and to determine a vendor engagement strategy based on performance improvement goals.

During the stakeholder engagement process, practices or the community will come to a consensus on performance improvement goals that will determine the scope of the EHR data quality improvement activities. For example, once a practice has engaged appropriate staff or, in a community-driven approach, leadership from practices across the community have been engaged, the consensus may be to focus on five diabetes measures to improve the care of patients with diabetes. The data quality improvement activities, therefore, will focus on ensuring that the data elements necessary to calculate those measures are accurately captured and accessible for reporting performance.

## **2. Identify Measures, Identify and Map Data Elements, and Conduct Initial Data Quality Review**

The second Implementation Objective begins to move the work from the strategic level of stakeholder engagement and planning to the more detailed work of mapping data elements and reviewing existing data quality. This information is relevant for communities in the early stages of collaborating to aggregate data, practices who are new to using EHR data for performance measurement, and practices that have been using EHR data for measurement but see an opportunity to improve their data capture and extraction processes. It discusses the importance of identifying measures and documenting data elements needed for analysis and reporting, and provides insights and lessons learned as guidance for accomplishing these steps. This section also offers possible solutions for barriers in data extraction.

## **3. Develop and Implement EHR Data Quality Improvement Activities**

The results of the initial data quality assessment can be translated into strategies and tactics to improve data quality. The focus is on three main areas—people, process, and technology—to identify and institutionalize changes that will improve data capture through standardized and systematic workflow processes. *People* refers to the staff (providers and support staff) responsible for capturing patient information and those who will be the focus of workflow improvement strategies. *Process* refers to the activities staff performs to obtain desired results during a patient’s visit (e.g., updating patient contact information or recording vital signs). *Technology* refers to both vendor input into functionality, design and development, and to the applications that assist staff in implementing desired processes.

## **4. Establish Process To Continuously Monitor EHR Data Quality and Resolve Data Quality Issues**

Improving data quality is a continuous process that should be integral to a practice’s business operations rather than a one-time or time-limited activity. Practice leadership may set the expectation with staff that ongoing monitoring of data quality will be institutionalized in the practice’s business processes. Over time, a practice or community may require new measures to monitor progress, underscoring the need for ongoing data quality monitoring and improvement. After establishing ongoing data quality monitoring processes, practices and communities can create protocols to identify and resolve future issues based on what worked best during initial data quality improvement activities. This can include identifying specific individuals within practices who will be accountable for the ongoing monitoring activity. Community-driven approaches can monitor data quality through a centralized function to support practices throughout the community.

December 2013

The full Learning Guide is available at <http://www.healthit.gov/policy-researchers-implementers/beacon-community-program/learning-guides>