Overview and Goals
The Keystone Beacon Community (KBC) is one of 17 Beacon Communities building and strengthening local health IT infrastructure and testing innovative approaches to make measurable improvements in health, care and cost. Meaningful Use of electronic health records (EHR) is the foundation of the exciting work in each community. Funded by the Office of the National Coordinator for Health Information Technology and led by Geisinger Health System, KBC is working with participating hospitals and clinicians to share Geisinger’s advanced medical home program across five counties in central Pennsylvania. On the national payment front, Geisinger is serving as a convener in the Center for Medicare and Medicaid Services’ Bundled Payment initiative. KBC is focused on:

- Reducing hospital admissions, re-admissions, and ED visits by patients with chronic conditions such as congestive heart failure (CHF) and chronic obstructive pulmonary disorder (COPD)
- Deploying a cost-effective, community-wide health IT infrastructure that provides clinicians, patients, and other care team members (e.g., case managers, social workers) convenient access to secure, actionable information for improving care and outcomes at the patient and population level
- Enhancing patient activation and self-management skills by increasing access to preventive care and helping patients manage their care across multiple doctors and locations using an online patient health tool
- Providing secure, confidential access to patient information when and where it is needed to support care
Keystone Beacon provides doctors, nurses, and patients across five counties with better health information, a clearer understanding of what the patient needs, and a better ability to provide good patient care.

- Jim Walker, M.D., Program Director, Chief Medical Information Officer, Geisinger Health System

Partners
Keystone’s major partners include: 23 organizations across 60 locations, including acute hospitals, primary care and specialty physicians, nursing homes, and other members of a patient’s care team.

<table>
<thead>
<tr>
<th>Keystone Beacon Community Background</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Grant Award</td>
</tr>
<tr>
<td>Lead Grantee</td>
</tr>
<tr>
<td>Geography</td>
</tr>
<tr>
<td># of lives affected by Beacon interventions</td>
</tr>
<tr>
<td># of providers involved in Beacon interventions</td>
</tr>
<tr>
<td># of hospital partners</td>
</tr>
<tr>
<td># of insurance partners</td>
</tr>
<tr>
<td># of FQHCs and community health clinics</td>
</tr>
</tbody>
</table>

Strategies and Achievements

Building and Strengthening Health IT Infrastructure

Approach: KBC is investing in a significant expansion of the Keystone Health Information Exchange (KeyHIE®), a regional health information exchange established in 2007 to serve central Pennsylvania health care organizations. Under Beacon, KeyHIE is connecting a number of new hospitals, primary care practices, and other provider organizations to the exchange, as well as developing an alert process to notify physicians, care managers, and other providers when their patients have been discharged or admitted to participating hospitals. Utilizing KeyHIE, the entire care team can track patient medications and view results from follow-up appointments, lab work, and diagnostic testing. MyKeyCare is a parallel effort focused on increasing patients’ involvement in their own care. A secure online tool to gather, store, and manage health information, MyKeyCare will allow more than 200,000 patients to access their record in KeyHIE.
Progress:

- 13 organizations, representing more than 200 healthcare facilities, joined KeyHIE between April 2011 and March 2012, bringing the total to 29 participating organizations (marking an 81% increase from the prior 12 months).
- Approximately 92,000 patients consented to share their health information, bringing the total to 545,000 patients (up 20%).
- Approximately 4.8 million clinical documents were shared with KeyHIE, bringing the total to 8.1 million (up 145%).
- KeyHIE recorded 5.5 million patient encounters, bringing the total to 23.7 million (up 30%).
- Approximately 45% of eligible providers in the Keystone Beacon region had committed to Stage 1 meaningful use by the end of 2011; an additional 15% are in the process of moving to Stage 1 meaningful use in the first quarter of 2012.
- KeyHIE has launched its first connection to allow exchange of health information from a skilled nursing facility.
- Despite being launched only recently, over 1,200 individuals have already created accounts in MyKeyCare in order to view their personal health information.

Improving Health, Care and Costs

Approach: KBC has deployed nurse care managers in different settings across the community to focus on improving care for patients with CHF and COPD following discharge from the hospital. Inpatient care managers at community hospitals identify at-risk patients and work with them while they are still in the hospital to plan for their transition to home or to another care level.

Early Results: By the Numbers

KBC enrolled the “sickest” CHF patients into care management to reduce the rate of readmissions to the level of all CHF patients in the community. From Q1 2011 to Q2 2012, readmission rates dropped from 21% to 14%, as compared to the steady readmission rate for KBC-eligible patients (14%) during the same time period.

The number of KBC care management patients ranged from 141 to 419 and the number of all patients ranged from 549 to 717.
setting. Post discharge, care managers located at a remote call center contact patients over the phone to follow up on progress. In addition, care managers embedded in physician practices identify at-risk patients with complex chronic conditions and provide additional management services. Several nurse care managers have also developed relationships with skilled nursing facilities to include patients in these facilities in the care coordination process as well. Care managers use an electronic dashboard to record and share information about patients being managed, and access KeyHIE to view patient information.

**Progress:**
- The rates of 30-day hospital readmissions and emergency visits decreased more for Keystone Beacon’s care-managed patients than for its overall patient population.
- More than 4,700 patients received care from an inpatient care manager, and nearly 1,300 patients received care from an outpatient care manager through the remote call center.

**Testing Innovative Approaches**

**Approach:** Keystone has developed an application that extracts clinically relevant information from required reports, such as the minimum data set (MDS) that long term care facilities and home health agencies submit to the Center for Medicare and Medicaid Services (CMS), and then converts this information into a standardized document, which can be incorporated into any HIE for access by other clinicians. Keystone is piloting this application with long term care facilities submitting information to KeyHIE, with plans to make the tool broadly available to groups across the nation.

**Progress:**
- Both applications are being considered by Health Level Seven International (HL7), the global authority on standards for interoperability of health information technology with members in over 55 countries, for adoption as national standards.
- One pilot site has installed the application for transforming MDS information and is successfully sharing information with the KeyHIE.

For more information on the Keystone Beacon Community visit: [https://www.keystonebeaconcommunity.org/](https://www.keystonebeaconcommunity.org/).

Jim Younkin  
Program Director  
mailto:mjryounkin@geisinger.edu

Patti Urosevich  
Communications Lead  
mailto:mpurosevich@geisinger.edu