The Office of the National Coordinator for Health Information Technology

Bangor Beacon Community (Bangor, ME)

Overview and Goals

The Bangor Beacon Community 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 Eastern Maine Healthcare System (EMHS), the Bangor Beacon Community builds on a strong foundation of care management, collaboration, and connected electronic health records. Using health IT as a foundation, Bangor has built an integrated organization to test new payment models and be accountable for the care of their population. As a result, the Center for Medicare and Medicaid Innovation selected EMHS, the lead agency for the Bangor Beacon Community, to be a Pioneer Accountable Care Organization. Bangor Beacon Community's work focuses on:

- Improving the health of people with chronic conditions such as diabetes, chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), and asthma
- Reducing costs associated with hospital admissions and emergency department (ED) visits by increasing the quality of care for high-risk patients
- Improving population health through proper immunization and sharing of immunization data among providers
- Reducing variation in the delivery of evidence-based medicine and improving care quality across the community
- Bringing community leaders and organizations together to use health information effectively, improve efficiency, and improve care and quality

Partners

Bangor Beacon Community's major partners include: EMHS, Eastern Maine Medical Center, Penobscot Community Health Care, St. Joseph Healthcare, The Acadia Hospital, HealthInfoNet, Eastern Maine Community College, Eastern Maine HomeCare, Community Health and Counseling Services, Ross Manor, and Stillwater Health.

Bangor Beacon Community Background	
Total grant award	$12,749,740 over three years
Lead grantee	Eastern Maine Healthcare Systems (EMHS)
Geography	Bangor Hospital Service Area (includes Penobscot, Piscataquis, Hancock, Waldo, and Somerset counties)
# of lives affected by a Beacon intervention	53,688
# of providers involved in Beacon interventions	150 primary care providers
# of hospital partners	3
# of insurance partners	N/A
# of FQHCs and community health clinics	4

"I was going to the emergency room up to nine times a month for years for my chronic obstructive pulmonary disease."

- Patti Tapley, Bangor Beacon Community patient, who, with the assistance of her care manager, now recognizes the signs of COPD and is better able to manage flare-ups.

Strategies and Achievements

Building and Strengthening Health IT Infrastructure

Approach: Under the Beacon program, Bangor Beacon Community is significantly broadening the reach of HealthInfoNet, Maine's statewide health information exchange (HIE), by fostering connectivity between major area health systems (EMHS, Penobscot Community Health Care, and St Josephs Healthcare), behavioral health facilities, long term care facilities, homecare, federally qualified health centers (FQHCs), and ambulatory practices. Once these partners are added to HealthInfoNet's clinical data repository (CDR), it will include clinical content representing 90% of all hospital-based inpatient, outpatient, and emergency department visits in the region. In addition, new functionality is being added to HealthInfoNet that includes the ability to send notifications to either a provider or a patient's care manager upon inpatient admission, discharge, and registration, as well as a dedicated dashboard that will enable care managers to view relevant information on patients they are managing. Bangor Beacon Community is also

piloting the integration of behavioral health data in HealthInfoNet, following a new state law that allows sharing of sensitive data.

Progress:

- Since the inception of the Beacon program, 84 new organizations have established connections to HealthInfoNet, including hospitals, outpatient clinics, specialist facilities, and primary care practices.

Improving Health, Care and Costs

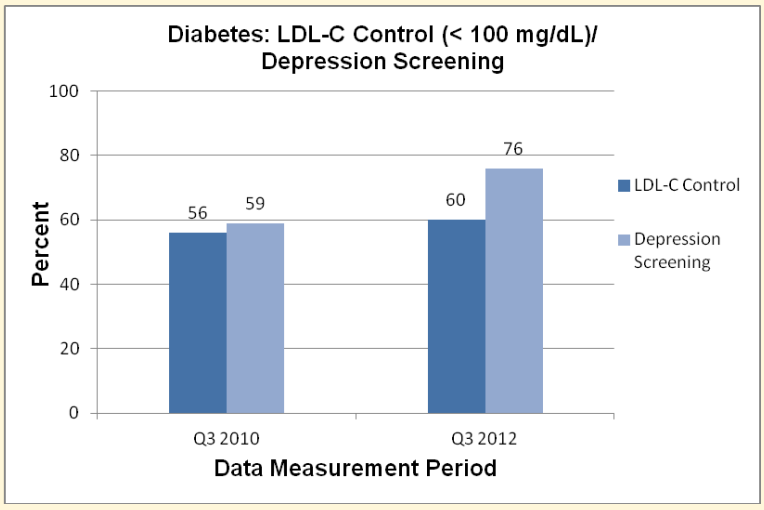
Approach: Bangor Beacon Community is expanding the reach of primary care through a network of technology-supported nurse care coordinators helping high-risk, high-cost patients with diabetes, COPD, congestive heart disease, asthma, and mental health conditions to better manage their own care. Care managers utilize an electronic health record to capture and track patient information, securely access electronic hospital records, and monitor patients via electronic home monitoring in their homes. Bangor Beacon Community is also focused on enhancing performance improvement efforts in primary care practices, and has convened a collaborative comprised of 9 large primary care practices, which represents 123 physicians, that has committed to a transparent improvement process based on sharing clinical performance data and office operational processes. Participants extract and share performance reports from their practice EHR, which are stratified by region, healthcare system, individual primary care practices, and individual providers in order to identify opportunities for improvement, as well as track progress.

Progress:

- As part of the Beacon program, 1,500 “high risk/high cost” patients have been receiving care management services from Beacon care managers.
- During six months of care management these patients have seen

Early Results: By the Numbers

The Bangor Beacon Community has improved LDL-C Control and Depression Screening among diabetes patients over a two year period.



Data Source: EHR

Number of patients included in the denominator: 5,155

improvements in patient satisfaction, HgA1cs (a lab test for the average level of blood sugar), patient perception of quality, blood pressure control, medication adherence, cholesterol, immunization compliance along with having fewer ED visits, hospital admissions and walk-in care visits.

Testing Innovative Approaches

Approach: Bangor Beacon Community's care coordinators, collaborating with homecare agencies, are exploring innovative ways to extend their reach to patients by using remote monitoring technology to monitor patients after release from the hospital in order to reduce avoidable readmissions. Devices such as automated medication dispensers improve medication adherence, while other devices monitor glucose, blood pressure, and weight, so that care team can track patient vitals on a daily basis. Bangor Beacon Community is also providing texting to mental health patients via a mHealth initiative.

Progress:

- The mHealth project has been implemented and enrollment remains open, preliminary analysis of the data gathered is underway.
- Enrollment in the telemonitoring project is currently open. The homecare agencies and care coordinators collaborate to monitor patients at home and identify warning signs of potential chronic condition exacerbation. Care coordinators have been able to do telephonically do medication reconciliation with the patients and homecare nurse in the home decreasing confusion and instilling confidence in patients that they are being cared for by a team.

For more information on the Bangor Beacon Community, visit: http://www.bangorbeaconcommunity.org.

Cathy Bruno
Program Director
mcbruno@emh.orgailto

Andrea Littlefield
Communications Lead
manlittlefield@emh.org