

Southeast Minnesota Beacon Community (Rochester, MN)



Overview and Goals

The [Southeast Minnesota Beacon Community \(SMBC\)](#) 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, SMBC is focused on:



- Improving key outcomes for patients with childhood asthma and diabetes by piloting new models of care that increase adherence to treatment plans and lead to improved quality
- Improving the cost efficiency of care by reducing emergency room (ER) utilization and unscheduled urgent care visits, and avoiding hospitalizations for patients with childhood asthma and diabetes
- Reducing health disparities among different populations by identifying gaps in treatment and engaging public health services for the underserved
- Enabling community wide data interoperability to support timely exchange of patient information and facilitate analysis of population level health challenges

Partners

SMBC's partners span 11 counties, including all public health departments, 47 public school districts, long-term care facilities, and several major healthcare providers, including: Mayo Health Clinic, Mayo Health System, Olmstead Medical, Winona Health, and Allina Health.

Southeast Minnesota Beacon Community Background	
Total grant award	\$12,284,770 over three years
Lead grantee	Mayo Clinic
Geography	Dodge, Fillmore, Freeborn, Goodhue, Houston, Mower, Olmsted, Rice, Steele, Wabasha, Winona
# of lives affected by a Beacon intervention	500,000
# of providers involved in Beacon interventions	2,500
# of hospital partners	5
# of insurance partners	N/A
# of FQHCs and community health clinics	N/A

“Beacon is about providing a secure, validated and accurate system for electronic health care information, so people don't get the wrong treatment or so treatment isn't delayed. It's about keeping Minnesota the healthiest state in the country.”

- Mike Harper, M.D., Lead Investigator, Mayo Clinic

Strategies and Achievements

Building and Strengthening Health IT Infrastructure

Approach: Southeast Minnesota has a sophisticated health care landscape with an EHR adoption rate of nearly 100% across community providers. Recent initiatives have expanded the use of a common public health EHR system across all of the community's public health departments. Despite this strong foundation, data has not been shared efficiently across health systems for managing patients with chronic conditions. Under the Beacon program, SMBC is implementing national IT standards to connect major health system partners and public health departments in participating Beacon counties. These connections allow health care professionals to quickly access valuable information about a patient from multiple providers. SMBC has also established a clinical data repository (CDR) that enables evaluation and analysis of population level health status across the region regardless of where a patient accesses care.

Progress:

- Following an intensive design and development process, SMBC has successfully demonstrated exchange of patient care summaries among participating organizations via the health information exchange (HIE). In the initial rollout phase, 2,500 unique public health patients and more than 140 care managers and public health nurses in Olmstead County will benefit from this new capability.
- The CDR has been established with all partners participating and supplying data on patient admission, discharge and transfers, laboratory tests, and diagnostic codes and procedures.
- All public health departments across the 11 counties are now using a common EHR system. Nearly 100 more public health employees at expansion sites in three counties have started to use the system.

Early Results: By the Numbers

SMBC's increased focus on pediatric asthma is yielding impressive early results:

- The proportion of asthma patients (ages 5 to 40) who are assessed annually for triggers, and have a documented asthma action plan, has increased from 17% in 2009 to 27% in 2012.

*Number of patients included: 2,725 to 12,188

- The proportion of pediatric (ages 5 to 12) asthma patients who have an asthma action plan on file in their school has increased from 26% in 2010 to 76% in 2012.

*Number of students included: 1,520 to 2,342

Improving Health, Care and Costs

Approach: SMBC is utilizing the HIE to give providers at schools, pharmacies, clinics, and hospitals access to comprehensive patient information on pediatric asthma and adult diabetes patients. A key initiative is focused on increasing the number of children (ages 5 to 12) with documented asthma action plans; these plans are then made available on a shared, web-based portal easily accessible to parents, schools and primary care providers. SMBC is also working to increase flu vaccinations by making immunizations available in schools and capturing vaccination data from non-traditional settings (e.g., schools, pharmacies, employer sites) to better target reminders for vulnerable populations. Finally, SMBC is working to reduce preventable hospital readmissions by improving hospitals' discharge planning processes and notifying public health case managers when clients are hospitalized.

Progress:

- 176 asthma management plan toolkits, containing educational materials, guidance for creating asthma action plans, consent forms, and training materials, were distributed within SMBC's 47 partnering school districts during the 2011 school year.
- Close to 3,000 students now have documented asthma action plans available on the shared, web-based portal.

- During 2011, a total of 825 flu vaccines were administered to children at seven schools. By expanding the program to a total of 29 schools in 2012, SMBC expects to administer more than 10,000 flu vaccinations.

Testing Innovative Approaches

Approach: SMBC is testing new ways to further engage diabetes patients in their own care. Previously, the community has used paper-based diabetes decision aids which support shared decision-making by patients and their providers around the use of specific medications. Through SMBC, these decision aids are now available through a user-friendly online tool, permitting wider adoption and enabling information to be captured electronically. Ultimately, SMBC plans to integrate this captured data into a patient's EHR. SMBC is also leading an effort to test the Patient-Reported Outcome Quality of Life (PROQOL) tool—developed by Mayo Clinic researchers, the tool aims to consistently integrate patient-reported outcomes into diabetes care in order to identify factors that have the greatest impact on patient quality of life. Finally, SMBC is utilizing telemedicine technology to bring healthcare to the consumer, extend physicians' reach, and lower healthcare costs. Through the Home and Community Options Program, remote monitoring equipment is being utilized in a facility serving disabled patients to monitor routine daily activities and alert providers if additional assistance is needed.

Progress:

- 139 providers are now using patient-centered decision aids with 387 patients with diabetes.
- The PROQOL tool has been shown to identify clinically meaningful problems in 20 – 50% of patients. Pilot tests have been conducted with Beacon partners in Southeast Minnesota and with other Beacon partners in Maine and Utah, with further expansion planned.
- Through the Home and Community Options program, remote monitoring technology has been incorporated in the care of nearly 80 individuals with developmental disabilities.

For more information on the Southeast Minnesota Beacon Community, visit:
<http://www.semnbeacon.org>.

Lacey Hart
Program Director
Hart.Lacey@mayo.edu