

Registry Outcomes Hit All Triple Aims

For the past five years, Button Systems, Incorporated (BSI), a Castleton Vermont company, has managed a web-based chronic disease registry within the State of Vermont. This registry tracks over 5,000 diabetic and/or cardiovascular disease patients for 125 providers. The outcomes from the program compare favorably to the CMS “Triple Aims” of Dr. Donald M. Berwick (improved care, improved population health, and reduced health care costs through health IT use). This same chronic disease registry is now being implemented in the State of Louisiana, where it will be expanded to not only track diabetics and/or cardiovascular disease patients, but it will also be integrated into a comprehensive, patient-based, closed social network that opens up the potential for direct communication between patients and their provider.

When analyzing diabetics that have been in the BSI registry for at least three years, we found that there were measurable improvements in patient HbA1c levels, reducing the readings for patients with levels over 8 by over a full percentage point. The combination of diabetes education, patient self-management of their disease, and patient call-backs for visits was credited for this improved care.

The diabetic population being tracked improved their overall percentage of patients participating in self-management of their disease from 13.5% to 71.17%. The percentage of patients that now had two HbA1c tests per year improved from 43% to 80.9%, while the percentage of patients whose latest HbA1c test result was less than 7 improved from 45% to 68.77%.

The registry is electronically fed selected data from a variety of provider EMR programs. It selects key data elements that are needed in order to track and report the at-risk population. This approach eliminates the need for duplicate data entry and minimizes the interference with the overall workflow of the practice.

Early detection, improved delivery of care, and better self-management are keys for preventing diabetes complications. The prevention of complications translates directly into cost savings, according to the National Institutes of Health. For example:

- Outpatient training to help people self-manage their diabetes prevents hospitalizations. Every \$1 invested in such training can cut health care costs by up to \$8.76.
- Preconception care for women with diabetes leads to healthier mothers and babies. Every \$1 invested in such care can reduce health costs by up to \$5.19 by preventing costly complications.
- Regular eye exams and timely treatment could prevent up to 90% of diabetes-related blindness.
- Foot care programs that include regular examinations and patient education could prevent up to 85% of diabetes-related amputations.
- Treatment to better control blood pressure can reduce heart disease and stroke by 33%-50% and diabetes-related kidney failure by 33%.

The BSI chronic disease registry has allowed the participating providers to enhance their overall diabetic patient care, distinctly improve the health of the participating diabetes population, and clearly has reduced the overall cost of care for this growing at-risk population.

For more information concerning this web application, and the BSI medical home system, please contact us at 802-468-2112.