Honeywell | Connected Care

Using Telehealth to Improve Long-Term Outcomes Among Diabetic Patient Populations

> **"Using our C3 model – which leverages the strength of both telehealth and analytics platforms –allowed us to implement a program to address the specific needs of our diabetic patient population, with very clear positive health outcomes within just a few months of implementation."**
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> *- Patti Tarango,*
> *Program Director, C3/Broad Axe Care Coordination*

Case Study

Virginia-based Broad Axe Care Coordination utilizes telehealth solutions to transform chronic disease management in high-risk, high-cost patient populations. Its model of remote care management called C3 combines leading-edge telehealth platforms with highly-talented clinicians and robust analytics to provide a fully-outsourced remote care coordination solution.

As part of its C3 program, Broad Axe currently uses Honeywell's Genesis family of remote patient monitors and Bayer Contour glucometers in conjunction with the LifeStream Management Suite to monitor diabetic patients. The long-term patient monitoring, in conjunction with the C3 approach to education and care coordination, has resulted in significant positive outcomes among its diabetic patient population.

Did You Know?

Facts About Diabetes

25.8 million Americans have diabetes – which is 8.3 percent of the U.S. population. Of these, 7 million do not know they have the disease.

The number of people diagnosed with diabetes has risen from 1.5 million in 1958 to 18.8 million in 2010, an increase of epidemic proportions.

Diabetes is the seventh leading cause of death among Americans – the overall risk for death among people with diabetes is about double that of people without diabetes.

Total health care and related costs for the treatment of diabetes are about $245 billion annually: Approximately $1 of $10 health care dollars is attributed to diabetes.

People with diagnosed diabetes incur average expenditures of $11,744 in healthcare costs per year, and on average, have medical expenditures that are approximately 2.3 times higher than what expenditures would be in the absence of diabetes.

Geraldine* is a Type II diabetic patient who currently receives healthcare services through Piedmont Access to Healthcare Services (PATHS), located in Danville, Virginia. With an A1C of 12.3 percent and blood pressure levels of 160/100, she was struggling to try to gain control over her condition when her PATHS healthcare practitioner told her about a new diabetes-specific program available in conjunction with Broad Axe Care Coordination – and Geraldine became one of the first 60 patients to register.

Combining daily remote patient monitoring of blood pressure and glucose levels with a 24-week educational program, the C3 diabetes program was implemented to help patients like Geraldine better understand the disease and learn to control it.

As she moved through the comprehensive program, Geraldine was exposed to a series of educational topics, ranging from insulin usage to carbohydrates counting to how exercise impacts the nature of diabetes. The topics, culled from resources such as the American Association for Diabetes Educators (AADE), the American Heart Association and the Centers for Disease Control (CDC), were selected based on Broad Axe's knowledge that its patients had very little access to information about their disease – and all the aspects that could positively or negatively impact it.

At least weekly, the C3 RN Care Coordinator (RNCC) contacted the program's participants to deliver the educational content, as well as discuss how the patients were feeling, including any areas of concern. In addition, they talked through the process of vitals tracking using the Honeywell Genesis monitors, and its importance for understanding overall results for each patient and the program.

C3 Remote Care Management Model

BROADAXE CARE COORDINATION

Based in Charlottesville, Virginia, Broad Axe Care Coordination was created to transform chronic disease management in high-risk, high-cost patient populations through a comprehensive care coordination solution.

Working with clients like the Commonwealth of Virginia's Departments of Health and Technology, and the University of Virginia Health System, Broad Axe developed a model of remote care management called C3, which combines leading-edge telehealth platforms with highly-talented clinicians and robust analytics to provide a fully-outsourced remote care coordination solution for health care provider and payor clients.

Working closely with its clients, Broad Axe has established dedicated Care Coordination Centers (C3) combining tailored technology solutions and dedicated clinicians (RNs, LPNs, CNAs) to deliver ongoing care transition and care coordination services. They complement these services, and demonstrate their efficacy, with a rich set of analytic and reporting capabilities to track improvements in key patient and financial outcomes like 30-day readmission rates and other utilization metrics.

Importantly, the program did more than provide educational content to its participants and track their daily vitals – as a full care coordination program, the RN Care Coordinator (RNCC) worked with patients in hands-on environments to interpret their own glucometer results and understand when and how to access the appropriate level of care. The RNCC also worked closely with the PATHS nurse practitioners to ensure timely, appropriate access to care and reinforce the NP's recommendations and care plans. In addition, the RNCC emphasized the importance of preventative health measures, such as why participants should get flu shots and how often to follow up with providers during the year.

After 3 months in the program, Geraldine's A1C had fallen to below 7 percent, and her blood pressure levels were at 130/77. In addition, and perhaps just as importantly, she rated her own health awareness at a "7" on a scale of 1 to 10 – up from a "3" when she started the program.

She also reported to the RNCC that she felt so much better, and was more aware of how food and exercise impacted her condition. In addition, she finally felt in control of her own health and future.

While not all patients experienced the dramatic drop in A1C levels and blood pressure that Geraldine did, they all improved. Using Honeywell's LifeStream software to measure and track analytics, Broad Axe was able to clearly see the following results among its diabetes patient population:

- Average baseline (initial) A1C level was 9.84.
- Average follow-up A1C level was 8.82.
- Average baseline (initial) blood pressure was 138/84.
- Average follow-up blood pressure was 127/77.

Broad Axe's goal for the program was an average drop in A1C levels of 1 percentage point, which they were able to achieve in just the first six months of the program – clearly demonstrating the ability for their telehealth- and education-based care coordination program to impact long-term results within a broader population of chronic care patients.

**Name changed to protect privacy.*

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