

AULTCARE

- 808 licensed beds
- 575 physicians
- 5,000 employees
- Largest hospital/physician PPO in NE Ohio - 500,000 total covered lives
- 20,000 Medicare lives



AultCare Sees Positive Results from Cardiacom Program

Cost Analysis of Cardiacom Members

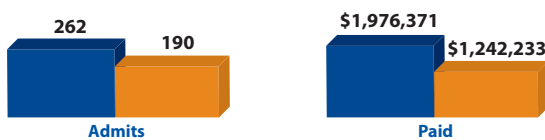
All Claims



Primary Diagnosis of Heart Failure



Inpatient Total



Inpatient: Heart Procedures



● Before Cardiacom
● After Cardiacom

The Aultman health system includes Aultman Hospital (808 beds), AultCare Health Plans (serving 200,000 commercial members), Prime Time Health Plan (PTHP) (serving 20,000 Medicare members), plus rehabilitation facilities, ambulatory care and home healthcare services. In 2004, the system embarked on a telehealth program.

AultCare found the Cardiacom and GlucoCom programs lead to improved patient self-management plus decreases in emergency room and inpatient utilization. Program participants consistently respond to surveys with positive comments and high satisfaction scores.

Calculating the financial effects of a program like this one can be a bit tricky, since the available data doesn't meet medicine's traditional gold standard: a "double-blind, randomized, placebo-controlled trial." Nevertheless, AultCare has been collecting financial data, "and we are certainly happy with our results," says Amanda Webb, RN, BSN, CCM, CCP, director of clinical services for AultCare Health Plans. For example, a 2008 analysis looked at 185 members with CHF who had been enrolled in Cardiacom for at least a year. For this group, during the year following their enrollment, AultCare saw a 26.7% reduction in claims paid, a 40.0% reduction in inpatient claims paid, and a 22.2% reduction in inpatient days. "We estimate our total paid claims for this group were lower by \$1,202,190, which means our net savings was \$5,503 per enrolled member per year," says Webb.

Telehealth Services Improve Health for AultCare Patients

Chronic diseases are among the most prevalent and costly health problems in our society. Often they're related to lifestyle issues such as diet, exercise, and the home environment. Because our healthcare system is so fragmented, people with these conditions frequently don't receive the long-term support that would help them manage their conditions more effectively.



Too often people with chronic diseases are admitted to the hospital during an acute episode, released after they've stabilized, and then readmitted when the condition flares up again. "Rehospitalizations Among Patients in the Medicare Fee-for-Service Program," published in the April 2, 2009 issue of the *New England Journal of Medicine*, said that almost one-fifth of hospitalized Medicare beneficiaries are readmitted within 30 days after discharge, and about one third are readmitted within 90 days.

One reason this happens is that the patient doesn't have support during the transition from hospital to home. People who have just left the hospital need help understanding their disease. They may have new medications; they may need to stop taking previous medications. People with chronic disease need a team of providers to close the gap between hospital and home. Under our current system, this rarely happens. A recent study found that among Medicare patients who were readmitted within 30 days after discharge, only half had seen their doctor after they left the hospital. While patients need advice and information during this transition, all too often no one is responsible for making sure they get it.

Public concern over costs associated with unnecessary readmissions is growing, and will lead to changes in payments to hospitals. CMS now publishes 30-day risk-adjusted readmission rates for heart attack, pneumonia and heart failure for every hospital in the country, expecting this will lead to a reduction in unnecessary readmissions. President Obama's budget for fiscal year 2010 suggested that in the future hospitals with high readmission rates will face lower payments.

The Aultman Health Foundation, a vertically integrated health system based in Canton, Ohio, is prepared to meet these challenges. Aultman Hospital took steps starting in 2004 to help its patients maintain the best possible health over the long-term, including support for people with chronic disease. Today it uses cutting edge telehealth at-home monitoring for people with congestive heart failure, diabetes, and complications from heart surgery. Specially trained AultCare nurse case managers stay in touch with these patients and offer them essential personal support during the transition from hospital to home.

These programs offer Aultman patients improved quality of life. They cut costs for AultCare's affiliated health plans. Over the long term, they position Aultman Health Foundation to respond effectively to coming changes in the United States healthcare system.

Telemonitoring: How it Works

The program uses a Telescale® to monitor the patient's weight and send data to an AultCare nurse case manager. When AultCare first embarked on this effort, there were only two or three vendors offering home-based scales to monitor congestive heart failure. Of those, only Cardiocom offered additional services such as patient responses to biometric questions. "Cardiocom was the only vendor offering a complete package, so it was an easy choice," says Amanda Webb. "Of course, over the years we have continued to assess all available options, but Cardiocom consistently meets all our needs."

Here's how it works. Telescale® is delivered to the patient's home. It's easy to set up, and it sends data rapidly over a phone line to a computerized monitoring system in the AultCare office. Patients just need to step on the Telescale® each morning. When they do, an automated voice asks a few simple questions, and the patient presses buttons to say 'yes' or 'no'. In some cases, when a patient answers "yes," there will be a follow-up question asking for more details. Since rapid weight gain, shortness of breath and swollen ankles are clear signs that congestive heart failure is not controlled, this data is sufficient to alert the nurse to any potential problems.

Linda Hahn, RN, BSN, CCM, is the principal nurse case manager at AultCare. "When I come in each day, the software prioritizes the most acute cases, so I know who to call first," she says. The Cardiocom screen shows her patients who report severe symptoms or sudden weight gain. Hahn always starts by calling them to double check. "Sometimes people do make simple errors. They step on the Telescale® when they're wearing shoes and an overcoat, or they may hit the 'yes' button by mistake."

After confirming that the patient does have a significant health problem, Hahn faxes the Cardiocom record to the physician's office. This includes weight trends, daily symptoms, current medications, and her notes on conversations with the patient. There are specific contacts at each provider office on record for every patient, so these reports don't get lost in floods of incoming paper. She sometimes also calls to speak to the nurse at the

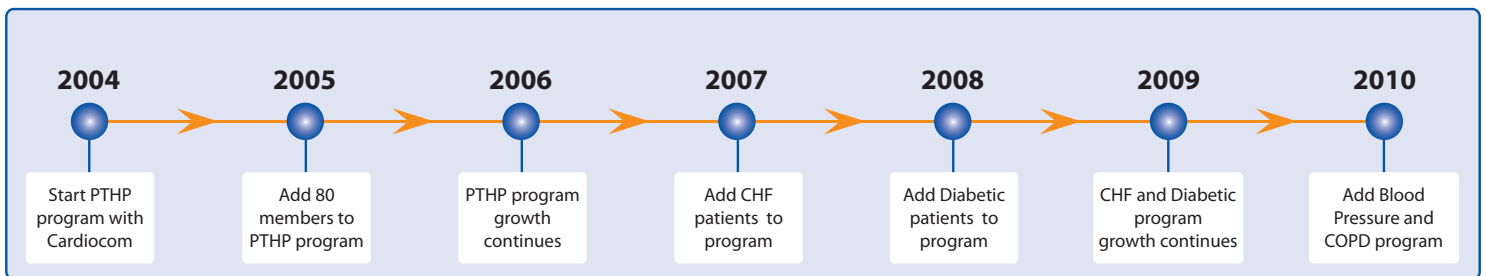
doctor's office, and follows up later to confirm that appropriate action has taken place. "When patients have an appointment with their doctor, I fax materials beforehand," Hahn says. "Often, the doctor's office faxes us or calls back to describe any changes in the patient's care plan."

When a patient is hospitalized at Aultman Hospital for CHF, the case manager there contacts Hahn. If possible she goes to meet the patient individually in the hospital and explain the telehealth program. "We didn't do this initially, but over time we have found that it is the best way to get people engaged," Webb says. "It takes away some of their fear of the unknown. It captures the moment when someone is feeling ill and aware that they need help. The Telescale® is delivered directly to their home, and stepping on the Telescale® each morning becomes part of their post-hospital routine."

AultCare members do not incur additional payments for Cardiocom services. "AultCare Health Plans funds this program because we feel that the benefits for the plan and for our members far outweigh the costs," says Webb.

Success Leads to Program Expansion

Telemonitoring Program Expansion Timeline



AultCare's telehealth program has expanded gradually over time. It started in late 2004 with a 45-day trial program involving four physicians and 13 members of PrimeTime Health Plan (PTHP), AultCare's Medicare Advantage plan. "The initial results, while anecdotal, were definitely rewarding," Webb says. "Both patients and physicians had an immediate positive response. Necessary interventions were implemented in a proactive and timely manner, while ER visits and inpatient hospitalizations declined."

During 2005, AultCare set the goal of enrolling 50 PTHP members who had been hospitalized for CHF. By the end of the year, enrollment actually reached 80 members. During 2006, the CHF program expanded to AultCare's commercial population, which includes a significant proportion of retirees.

In 2007 AultCare decided to include CHF patients on traditional fee-for-service Medicare who'd been admitted to Aultman Hospital. AultCare also expanded into glucose monitoring during 2007. This decision was made as a direct result of the positive results experienced from 2004 on. "Number one, we had a couple of years under our belt doing CHF, and we wanted to continue to engage, because realistically most people don't just have one chronic condition," Webb says. "In addition, there's a substantial proportion of Amish in our five-county region, and they tend to have a high incidence of diabetes."

AultCare decided to implement Cardiocom's diabetes telemonitoring program, called GlucoCom. Enrollment was open to patients who met one of the following criteria:

- newly diagnosed diabetes
- insulin-dependent or on two or more oral agents
- hemoglobin A1c greater than 7%
- patient has compliance issues

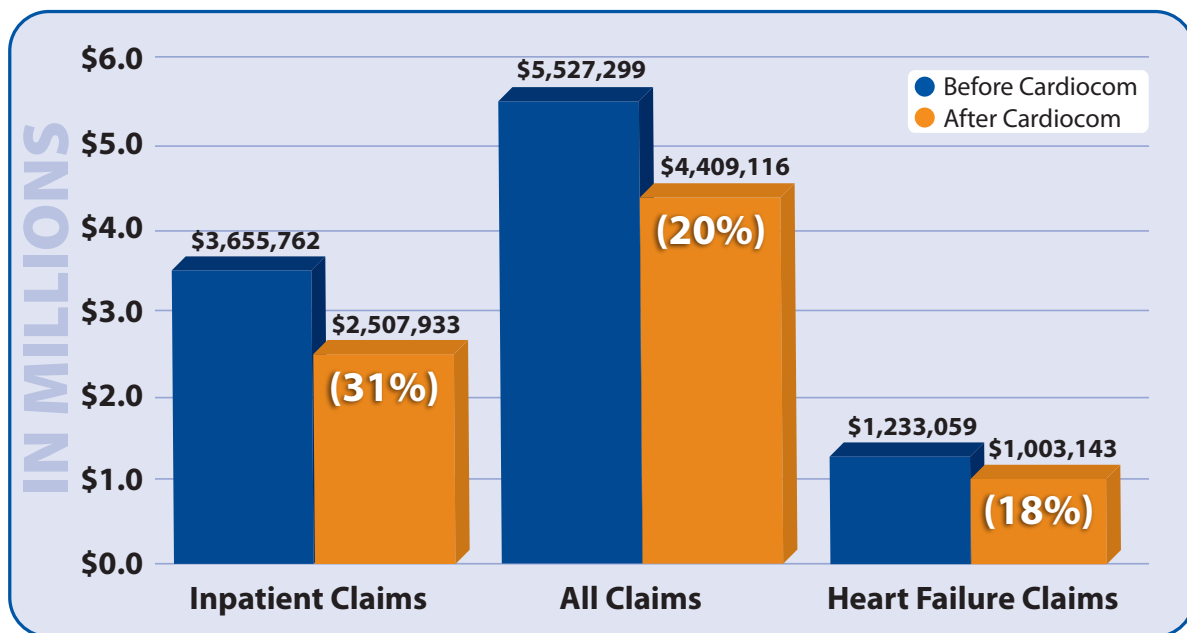
Initially, enrollment in the diabetes telehealth program was disappointing. Many patients had been living with their condition for years, and did not want to switch to a different glucose meter. "We believe in continuous process improvement, so we chose to focus on engaging with our

members and allowing them to use their current meters," Webb says. "Cardiocom saw the value of this approach, and developed a new cable that can connect a variety of meters to the Commander module." After a targeted mailing to let people with diabetes know about this new option, 25 additional members signed up for GlucoCom.

During 2009, AultCare partnered with the Aultman Hospital cardiac surgery department to reduce readmissions after cardiac surgery. Over the previous decade, hospital readmission rates within 90 days after CABG and other open heart surgery ranged from 12% to 25%, with about half of these patients going to the ER at least once following surgery. Since most of these readmissions were due to respiratory complications, the same telemonitoring system used for congestive heart failure will be equally effective in monitoring patients who have had cardiac surgery. The new program includes Aultman Hospital patients from a wide range of payers.

During 2010 AultCare intends to start monitoring hypertension and chronic obstructive pulmonary disease (COPD) using similar methods. "A potential client came to us and specifically requested this service," Webb says. "In addition, when someone has CHF and diabetes, they often have hypertension too. We want to encourage people to monitor all their conditions."

Impressive Overall Results



Lessons Learned

AultCare has been engaged in telemonitoring for more than six years now, and they've learned from the experience. In fact, they have a few tips that could benefit other healthcare organizations that are considering similar innovations.

For example, during the first years of the program, there was a considerable amount of administrative paperwork involved. Enrollment required an authorization from the patient's physician. Enrollment letters went out to both patient and physician, followed by thank you letters to both.

Eventually, AultCare dropped the physician authorization requirement. "Since the philosophy of this program is to give patients the tools they need to maintain their own health, it also makes sense for them to make their own choices about whether to participate," Webb says. Initially, every time there was a change in the patient's condition, a report went to the doctor. "Because telemedicine was new to us, we wanted to stay in touch with everyone," Webb says. "With hindsight, we realize we wanted to streamline the process."

Now AultCare follows "management by exception." That means there are predefined parameters specifying which changes are serious and need further attention, and which are probably normal variations. Now the nurse contacts the physician only when the patient seems to be having significant problems. In general, on a typical day about 10% to 15% of patients will need this sort of support.

In 2007, when AultCare decided to include CHF patients on traditional fee-for-service Medicare who'd been admitted to Aultman Hospital, at first they targeted people who'd had three CHF admissions within 12 months. This requirement actually turned out to be a roadblock, Webb says.

"Unfortunately it turned out that by using that standard, we were waiting for people to get really sick and then saying 'let's give you this tool.' That didn't make sense. We decided to offer the option to people after their first CHF admission."

Collaboration and Coordination are Key

In the AultCare example, the health plan has taken the lead in instituting the program, working in collaboration with community physicians and Aultman Hospital. "To be successful, you do need an integrated, coordinated effort," Webb says. "We've done it from the health plan side, but a hospital could also take the lead. However, it is essential to have solid coordination and collaboration of care."

Aultman is an integrated system, and it spreads the word about its telemonitoring programs through memos, phone calls and face-to-face meetings. "We are 100% glad that we have done this," Webb says. "If other organizations are thinking about implementing a similar program, they will need to utilize all the different ways people interact within their system. Develop ongoing communications with primary care providers and specialists. A program like this one requires a team effort."

The Aultman system has benefited from the telehealth program because they are doing something a bit unusual, something their patients value. They are giving people the tools they need to maintain their own health. "Knowledge is power," Webb says. "Think of the person who has CHF, and boy, they really like ham and swiss cheese! Now, when they eat a ham and cheese sandwich, they see from the Telescale exactly how they retain salt, and how their weight goes up due to excess fluid. Three days later they're miserable and have a hard time breathing. Our goal is to show people directly how these small choices in their lives really do matter. Telehealth tools offer our patients the power to make smarter decisions and improve their quality of life."

AultCare Member says: "It gives me confidence"

William Booth, age 78, works as the safety administrator for a natural gas pipeline company. About two years ago he had a heart attack and open heart surgery; he was in the hospital for 33 days. "That was the biggest scare I've ever had in my life. I came close to dying," he says. "After that, when they called and explained the Cardiocom program to me, I thought it sounded like a good idea!"

Linda Hahn, the AultCare nurse case manager, calls Booth occasionally. "If I gain, say, three pounds over one day, she'll call me, and she always says, 'William, what's going on?'" Booth says with a laugh. Hahn also forwards his medical data to his cardiologist, who follows up with appropriate medication changes.

Since his surgery, Booth has made a substantial effort to improve his condition. He's lost 50 pounds, and kept it off. "I've been very fortunate," he reflects. "I've recovered nicely; I've had few symptoms since I reached the point of recovery. I feel better today than I did ten years ago."

If someone asked him about the Cardiocom program, he would tell them, "this program helps your medical team keep an eye on you on a daily basis. Otherwise, you could go weeks without anyone realizing something might be wrong. It only takes a couple of minutes to answer the questions and weigh yourself. I find the process very helpful; it gives me confidence that I'm doing the right things."

AultCare Member says: “Program offers peace of mind”

Ron Lenney’s mother, 89, was hospitalized several times within a two-year period for congestive heart failure. He decided to help her move to Canton, so she’d be closer to him, and he’d be more available to help her. After the move she enrolled in the AultCare program, and it’s made a big difference for her, he says. “My mom knows it’s a daily task; she wakes up in the morning and gets on the scale. When her weight goes up too much, the nurse calls to check with her and see how she’s doing. Everybody works as a team to help keep her condition under control.”

Since she moved to Canton and enrolled in AultCare, his mother has been hospitalized only once during a four-year period. “In addition to her congestive heart failure, my mother also has diabetes, so we’ve got a lot of stuff to deal with,” Lenney says. “Life has been much better for us with this program. It has really given us peace of mind.”

AultCare Member says: “Convenient, helpful “

Craig Weber, 63, of Canton, Ohio, has been in the AultCare program for about two years. “I attended a discussion at the hospital, and it sounded like a sensible idea, so I signed up for it. I found it was easy to get started, and the equipment was convenient to hook up.”

Weber is dealing with several chronic conditions, including diabetes, congestive heart failure, and sleep apnea. “About every two weeks Linda Hahn and the Aultman Health Foundation send me a printout of statistics that includes my weight, my sugar levels and my medications. They have been fantastic! As soon as they notice anything out of the ordinary, they’re on the phone inquiring if everything is all right, and that has been very comforting to me.”