It's a Team Sport

DELIVERING UNIFIED CHRONIC ILLNESS CARE IN RURAL COMMUNITIES

"Robbie had acted like he had been cornered for awhile. It started when he was in Junior High when he had a tough time with bullies at school. One time, he became so frustrated, he put his fist through a wall. I began to think: 'this child has rage.' It was right after Columbine and I tried to talk to the school about it, but they were no help at all."

Janet Webster and her son Robbie, 16-years-old, were struggling with his mood disorder and didn't know where to go for help. "One day, we were taking a trip to the dentist to have his wisdom teeth pulled, and he went to pieces in the car. I had to pull over. He was having so much anxiety over the surgery. We talked, and that was the point when I decided that we really needed to do something about it," she related. But fearing the stigma associated with mental health care, Janet wasn't sure on the best course. Then she took Robbie to CareSouth Carolina.

"Right off, the CareSouth Carolina counselor recognized Robbie was having a problem and identified exactly what it was. The treatment has made a world of difference. Before we started participating in this, it was like my son saw everything through a gray veil. Now, it's like he sees things through a sunlit window. He's just a few degrees happier and that has made a big difference. He feels like he's in control again. I've recommended this (program) to other people who are having problems because it has made such a big difference in our lives," Janet concluded.

ORGANIZATION OF HEALTH CARE

DELIVERY SYSTEM DESIGN

DECISION SUPPORT

CLINICAL INFORMATION SYSTEMS

PATIENT SELF-MANAGEMENT

COMMUNITY RESOURCES

CareSouth Carolina
PEE DEE REGION
SOUTH CAROLINA

High Plains Community Health Center
COLORADO

If you don't expect to find state-of-the-art chronic disease care in a rural community health care setting, you'd be surprised if you visited any of the clinics of High Plains Community Health Center in Colorado or CareSouth Carolina.

Both community centers have enjoyed great success from adoption of the Chronic Care Model, developed by Improving Chronic Illness Care, a national program of the Robert Wood Johnson Foundation.

CareSouth Carolina

CareSouth Carolina is a community health center, operating four centers in four different rural communities in the Pee Dee Region of South Carolina. CareSouth Carolina uses the Chronic Care Model to manage care for diabetes, depression, and asthma and plans to add cardiovascular disease and hypertension.

Ann Lewis, CareSouth Carolina's Executive Director, says clinicians are

CareSouth Carolina
Outcomes Tell the Story

- *"Our depression outcomes were one of our biggest successes. In national data for depression, follow up beyond eight to 12 weeks is about 25% of the cases. In our program, 72% of our patients were in follow up after six months."*
- *"Of the clients receiving treatment, more than 73% reported a decrease in depression symptoms after six months."*
- *"Nine percent is the nationwide average HbA1c (measuring the range of blood sugars for a three-month period, the main indicator for how well diabetes is being controlled.) The average for our patients is 7.5%, making an astounding impact on the quality of life for these individuals."*

almost always surprised when they start working to improve chronic conditions. "They usually think that they're doing the best they can. All of a sudden, they realize that the current level of thinking is much more advanced or has left them behind a little bit. That's not anything against the clinicians. They're in busy ambulatory practices, and chronic care management is usually last on the list for staying on top of everything," she added.

The second big surprise, according to Lewis, is the difference between patient education and patient self-management. The former gives the patient information, the latter gets the patient involved. "A lot of what's happened in health care is we think we know what's best for the patient. Wrong. We only know what is happening in the office at that setting. They know what they're doing 24 hours a day. When they become engaged in that process, they no longer have the excuse not to improve their health," Lewis said.

Whether for diabetes, depression, or asthma, CareSouth Carolina found each of the Chronic Care Model's six elements provided critical success factors. Taken together, their impact grew exponentially.

The Case for Data or How Will We Know When We Get There?

It would be a lot easier not to have to deal with data, but as Lewis pointed out, though developing a patient registry and tracking outcomes can be hard work, it pays off. "It's the single most important thing you can do. With data outcomes, you know right away what's working, and it keeps you in intimate contact with your patients. You begin doing things proactively with your patients instead of reactively. You're planning their care with them ahead of time. You just can't do that if you don't know that you have planned care visits," she said.

Recognizing the importance of data, CareSouth Carolina decided to organize their disease management by investing in an electronic database that works off the electronic medical records. That way, Lewis believes they'll be most effective at incorporating additional conditions and managing all the patients' needs.

Making a difference for patients with asthma: Betty Railey, LPN at CareSouth Carolina Bishopville Center enjoys a hug from a five-year-old patient. *(photo by Steve Roos)*

Why Patient Education Isn't Enough for Chronic Disease

Chances are, if you break a bone, get hit by a car, or need surgery, you're going to follow the doctor's orders. But if you have been living with a chronic disease for awhile, you've had to adapt to the limitations it places on your life, and you soldier on. As Lewis sees it, that's one of the big reasons why patient self-management plays such an important role in improving health for patients with chronic disease.

"Our health care model has been one of dictation. 'Do this. Take this. Don't do that.' That approach doesn't work

in chronic care management," Lewis remarked. "It's behavior modification and lifestyle changes that achieve the results, and clinicians have to be willing to be participants in that."

If patients aren't engaged in the change process, they're probably not going to take the steps to improve their health. They have to be willing to change their diet and to exercise regularly, to track their blood sugars or check their lung function, and they need to understand the difference that will make in the way they feel. Because the Chronic Care Model is patient-centered, patients actually become involved in the management of their own disease process.

Lewis related a group session she attended with patients with diabetes who live in a rural area. All the patients knew what their Hemoglobin A1c (blood glucose control) levels were. They knew where they started and they knew what their goals were. "They were charged up. They would say, 'I know if I wasn't doing this that I would be gaining weight and feeling bad.' Many patients with chronic disease are also severely depressed. Well, these patients aren't," Lewis enthused.

Lewis described the differences in depression as even more "staggering" than in diabetes. Clients are re-engaged in life, whether holding a job, going back to school or getting involved in the community.

"I've had diabetes for four years and nobody has ever told me this stuff."

Why (Medical) Practice Doesn't Always Make Perfect

At the beginning of each Chronic Disease Collaborative, participants receive the most recent evidence-based guidelines for care. Lewis said it's a great way to make sure that clinicians are using the best information for treating their patients. "One of the first things we realized is that we had to flag medical charts for chronic conditions," she noted.

For patients with diabetes, the chart includes an assessment and a flow sheet. For depression, the guidelines and the assessment were the same. For asthma, it's an assessment which is conducted at every visit.

The Rosa Lee Gerald Center, CareSouth Carolina's $1.4 million state-of-the-art medical facility, provides care to the underserved in the Society Hill community. *(photo by Reid McBride)*

Engaging the Team

Part of the major problem in our health care system today is that physicians feel like they're on their own, responsible for managing the health of their patients with acute conditions and with chronic diseases. They have neither the systems to identify patient conditions, nor the tools to improve health, much less the support from the other providers on their team and the community. The Chronic Care Model paves the way for an organized system of care.

"We did group visits for all three conditions," Lewis recalled. "That's one of your biggest payoffs. That's where patients interact with each other and that's where once again the clinicians begin to understand they don't have all the answers. Patients share with each other, and it's very effective."

Lewis believes that better chronic illness care is compatible with high productivity. And she has the numbers to back it up, "The average productivity for CareSouth Carolina is one of the highest in the state, and we've participated in three Collaboratives. The mental health counselors are saying the same thing."

The national average is 4,100 encounters per full-time provider per year. At CareSouth Carolina, their productivity measures are at 6,572 encounters. The difference? A lot of little things, according to Lewis. Fifteen-minute visits don't turn into disorganized 45-minute visits, because the clinicians are engaged in planned care that's proactive and doesn't get side-tracked. An entire care team is involved in the comprehensive care of chronically ill patients, not just the clinicians. Patients are engaged in their visits and come in energized. If a clinician identifies someone who is depressed, for example, the patient is immediately referred to a mental health counselor. "The subsequent visits for that patient medically are a lot less time consuming," Lewis explained.

Blood Glucose Reductions Pay Off

Longitudinal studies demonstrate that a one percentage point reduction in Hemoglobin A1C (blood glucose) results in:

- *14% decrease in total mortality*
- *21% decrease in diabetes-related deaths*
- *14% decrease in myocardial infarction*
- *12% decrease in strokes*
- *43% decrease in amputations*
- *24% decrease in renal failure*
- *$800 reduction in health care costs*

Going forward, Lewis said CareSouth Carolina will expand its business plan to include staffing for certified chronic care managers who speak "both languages," English and medical.

And their connections don't stop at the doors of their clinics. "Patients don't live in your clinic, they live in the community. If you're going to effect change with them, you've got to be part of the community," Lewis said.

CareSouth Carolina's community commitment is so strong that they have a whole division of community development that works both with the private sector and with other agencies in the community to sponsor programs and expand the reach of their clinics.

"As a society we're spending huge amounts of money on medical education, and we don't have a system that works for chronic care," Lewis pointed out. "The Chronic Care Model works."

High Plains Community Center

High Plains Community Center in Lamar, Colorado, serves a population that's 29 percent uninsured, 43 percent privately insured, with the remaining 28 percent on Medicare or Medicaid. Because approximately 14% of their patients only speak Spanish, all their materials and their care need to be provided in both English and Spanish.

The first evaluation of their pilot diabetic population of 172 patients showed that more than 98 percent had uncontrolled diabetes, with blood glucose levels averaging 9.5 percent, according to Monette Sutphin, Operations Officer. (Less than 7% is the goal.) Eighteen months later the average blood glucose was down to 8.4%.

Collaborative Helps Set the Course

Dr. Hilton Ray, M.D., High Plains Medical Director was so convinced that the Chronic Care Model would elevate the clinic's quality of care that he persuaded the clinic's leadership and Board to give it a try. By participating in a national Collaborative with teams from across the country, guided by the expert staff from Improving Chronic Illness Care and the Institute of Health Care Improvement, High Plains had the opportunity to learn and implement quality chronic disease improvement quickly.

High Plains went to work developing guidelines and protocols based on the latest evidence. "The very first thing we did was include standing lab orders so nurses could draw all the necessary labs for our patients with diabetes," Sutphin explained. They also sent their nurses to state training programs and specialized foot assessment trainings.

Data Drive Improvement

In order to track all of their patients with diabetes, and later with cardiovascular disease, High Plains uses CVDEMS, a PC based electronic patient registry. The system simultaneously manages the patient database for both diabetes and cardiovascular disease measures. It took a few years, but the organization is now sold on budgeting a data entry position, "because of all the good that comes out of these numbers, the feedback to patient charts and providers," Sutphin said.

"Early on, I said if we can't get this information on computer, we ought to forget it," added Dr. Ray. "Once data entry is done, it's not hard to pull out all the relevant information."

"Hey doc, aren't you going to check my feet today?"

The idea of patients as partners in their health care is becoming part of the health care zeitgeist, bubbling up from policy circles, quality improvement programs and patient advocates. It's a timely trend, given the shortage of health care workers vis-a-vis the aging baby boomers, and the burgeoning increase in chronic conditions. Since most chronic conditions are heavily impacted by patient actions, emotions and lifestyle choices, the movement toward patient involvement in chronic disease is a potential match made in heaven with a sound basis.

To make sure their patients got a high dose of information and involvement, High Plains decided to jump-start their diabetes program by holding diabetic clinic days. The days were organized so that about six patients at a time would be in the clinic for an hour and a half to two hours, with a team of providers available to visit with each patient. The day would begin with a nurse who conducted a foot exam, showed patients how to check and clean their feet and recommended good shoes. Patients then received booklets they could take home that reinforced the information given in the clinic. Next to come in, a dietitian, who could offer training tailored to the patient's level of need and information. The third leg of care would come from a dental hygienist or dentist who would discuss the importance of oral health for patients with diabetes, and provide a referral to a dentist if

"People got individual attention, but they also got attention as part of a larger group."

appropriate. Finally, the physician would come in and address things such as medication adjustments, foot problems, lab tests and overall health. At the first clinic, the physician would also work with the patient to set a self-management goal.

Follow up from the clinics would occur, within one to three months, depending upon the patient's condition. "When they returned, we'd review their labs and review their self-management goals," Sutphin said.

While these planned visits may sound daunting to organize, Dr. Ray said they developed a model where they were able to deliver 12 comprehensive visits in a half day. "We came out OK," he said. And the patient surveys after the clinics were uniformly positive. "I've had diabetes for four years and nobody has ever told me this stuff," one patient wrote.

The clinics were so popular with their patients, according to Dr. Ray, that a buzz started in the community with patients from other practices calling to see if they could enter the program. "I hear from people in the community that they believe our patients are getting better care than some people with private insurance," Dr. Ray said.

Innovation Delivers

What could lead to either the perception or the reality that formerly underserved patients are receiving superior care to patients with private insurance? Dr. Ray believes success lies in taking a prevalent chronic disease and finding an innovative way to approach the delivery of care. Once you identify all of your patients with a given chronic condition, and begin to manage those patients as part of a unified system of care, "it changes the encounter. We didn't have all the tools before. It changed the way I practiced in terms of checking the data on each patient each time they came in. The other providers and I started talking about population stats and data, rather than just talking about individual cases. It meant people got individual attention, but they also got attention as part of a larger group."

Ironically, one of High Plains' most vocal critics of the approach early on was so impressed that he's now leading the effort to manage patients with hypertension using the Chronic Care Model. The spread to hypertension was a natural, since many patients have both conditions. At the beginning of 2002, High Plains had 218 patients in their diabetes registry and 114 people in their cardiovascular disease registry.

Reaching Out to the Community

Because High Plains is in a rural community, there wasn't access to the plethora of programs and organizations available in an urban area. However, High Plains took advantage of partnerships where they could find them. Contracts with home health agencies and local dental offices supplemented their services. "Both the Spanish and English newspapers have published quite a few things about the program," Sutphin added. Reports are sent to the state's Diabetes Control Program monthly and the program received two grants for patient and staff education.

System Support for the Model

"When you're trying to control somebody's blood glucose, you have them come in more often, once they're in control you have the savings," Sutphin remarked. "For the long term, it definitely keeps folks out of the hospital."

Between Sutphin and Dr. Ray, the leadership of High Plains was kept regularly involved in the outcomes from the Model and the philosophy behind the change. "This work gets to our mission of providing quality health care with particular attention to the unserved and underserved," explained Dr. Ray. •

High Plains
Cardiovascular Sample Tracking Indicators*

TRACKING INDICATOR	INITIAL RATE	CURRENT RATE
Percentage of patients with blood pressure less than 140/90	*35.3%*	*62%*
Percentage of patients with documented blood pressure check twice a year	*47.1%*	*87%*
Percentage of patients with a documented self-management goal	*34.1%*	*59%*
Percentage of patients who smoke	*16.5%*	*25%***
Percentage of patients with creatinine checked annually	*81.2%*	*89%*
Percentage of patients screened for hyperlipidemia (cholesterol)	*69.4%*	*82%*

** Results after seven months*

*** Additional smokers were identified during the process, as clinicians began asking all cardiovascular patients if they smoked*