

"We now have a better understanding of our patient population and more consistent patient care."

"We worked together to promote team participation and recognized each individual's role on the team as equal."

THE
SASKATCHEWAN
CHRONIC
DISEASE
MANAGEMENT
COLLABORATIVE
PROGRESS
REPORT

THE COURAGE OF
ONE, THE POWER
OF MANY:
THE SASKATCHEWAN
CHRONIC DISEASE
MANAGEMENT
EXPERIENCE



“We all seek ways to improve our practice, by improving what we do, and how we do it, thereby improving the health of our patients. The Collaborative provides an opportunity to do just this. The Collaborative provides the tools, support, networking, and motivation to improve the standard of care that you provide, no matter how good it is.”

Comment shared by a participant

When it comes to changing things for the better, Saskatchewan gives new meaning to the expression strength in numbers. Despite having a relatively small population, the Chronic Disease Management (CDM) Collaborative is among the largest improvement projects in Canada, and is Saskatchewan's largest quality improvement initiative to date. This provincial initiative involves approximately 15,000 people living with diabetes and coronary artery disease (CAD), all 13 regional health authorities in Saskatchewan, more than 25% of all family physicians, and hundreds of other health care workers, such as nurse practitioners, nurses, educators, pharmacists, dietitians, and First Nations and Métis groups. Together they are focused on improving diabetes and CAD care, and using clinical practice redesign (CPR) to improve access to family physician visits.

Since the launch of the initiative in November 2005, thousands of people living with diabetes and CAD are receiving better care and experiencing improved health outcomes. An unprecedented number of inter-professional primary care teams have learned how to apply quality improvement techniques, collectively improving care in these chronic disease conditions. This progress report reflects the achievements and experiences of Wave One participants, and shares an update on the continuing success of Wave Two participants.

HEALTH QUALITY COUNCIL

The Health Quality Council (HQC) is an independent agency that measures and reports on quality of care in Saskatchewan, promotes improvement, and engages its partners in building a better health system. The HQC is leading the SK CDM Collaborative.

A LOOK AT CHRONIC DISEASE MANAGEMENT TODAY

As the number of people living with chronic disease rises, just over half of Canadian family physicians feel their practices are prepared to meet the challenges chronic diseases bring (Schoen C, et al. On the front lines of care: primary care doctors' office systems, experiences and views in seven countries. *Health Affairs*; 2 Nov 2006 [web exclusive]: W555-571). Research on the quality of care for various chronic conditions confirms these impressions. Near and far, health services research shows a persistent gap between what the evidence says is optimal care and the quality of care that is actually delivered. In many industrialized nations, roughly *half* of recommended best practices for chronic conditions in primary care are routinely delivered (Seddon ME et al. Systematic review of studies of quality of clinical care in general practice in the UK, Australia and New Zealand. *Quality in Health Care*. 2001. 10(3):132-3; McGlynn EA et al. The quality of health care delivered to adults in the US. *New England Journal of Medicine*. 2003. 348:2635-48).

Near and far, health services research shows a persistent gap between what the evidence says is optimal care and the quality of care that is actually delivered. In many industrialized nations, roughly half of recommended best practices for chronic conditions in primary care are routinely delivered.

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A look at chronic disease in Saskatchewan:

- *Diabetes:* By the end of 2016 more than 70,000 Saskatchewan people will be diagnosed with diabetes, according to the Saskatchewan Ministry of Health. A Health Quality Council report found less than half of patients living with diabetes have optimal management of lipid levels and long-term glucose control, as measured by A1C levels.
- *Heart disease:* More than any other disease, heart disease accounts for most deaths amongst Canadians. In Saskatchewan, a report from the Health Quality Council highlighted suboptimal use of evidence-based medications following a heart attack.
- *Clinical practice redesign (access):* Timely access is key to ensuring good chronic disease care. Although most Canadians have a long-standing relationship with a doctor or place of care, a recent survey found that 26% of respondents reported they had difficulty accessing routine care (Health Council of Canada. Fixing the foundation: An update on primary health care and home care renewal in Canada. 2008). Research also shows that Canadians wait longer to see primary health care professionals than patients in other countries (Schoen et al. Toward higher-performance health systems: Adults' health care experiences in seven countries, 2007. *Health Affairs*; 26(6): w717-w734).

Putting evidence into practice is a challenge in every health care system, not just in Saskatchewan. But while all health



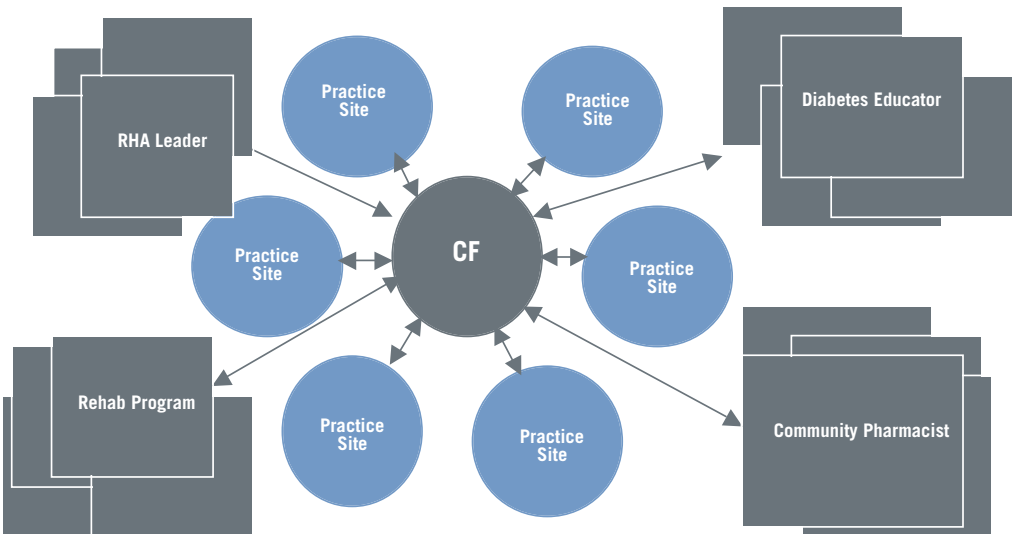
systems face these challenges in improving care and quality of life for people with chronic diseases, Saskatchewan's response is innovative. The Saskatchewan CDM Collaborative is addressing these challenges and leading the way for a new approach to chronic disease management.

THE COLLABORATIVE APPROACH

A Collaborative is an improvement method that relies on the spread and adaptation of existing knowledge to multiple settings. It has been used in the United Kingdom, Australia, the United States, and in British Columbia to make significant improvements to chronic disease care. It is a learn-by-doing approach that brings together providers and health professionals interested in improving quality of chronic care and access.

Teamwork is a vital component of any Collaborative. In Saskatchewan, participants work in Regional Improvement Teams, defined by regions' geographical borders. While the makeup of each team is unique, all are a mix of fee-for-service physician practices and primary health care sites, along with representatives from regional and First Nations/Métis health programs (diabetes education, cardiac rehabilitation, pharmacy, etc). These teams meet four times a year at Learning Workshops, where they learn about quality improvement, generate ideas to improve care, and share their experiences with other participants. Following workshops, teams engage in action periods, testing out improvement ideas in their own practices.

Each Regional Improvement Team is coordinated by a Collaborative Facilitator (CF), a professional who lives and works in the health region. CFs are trained in quality improvement methodology by the HQC and funded through the province’s regional health authorities. They provide on-the-ground support to the practices and teams through site visits and group facilitation. Many of the facilitators hold dual responsibilities, where their Collaborative work is complemented by their work in primary health care facilitation, diabetes education, or chronic disease management.



Teamwork is supported by technology in the Collaborative. The Saskatchewan Chronic Disease Management Toolkit is a web-based patient registry and decision support tool. Originally developed in British Columbia, it is a simple yet elegant application that uses flowsheets to track clinical information at both the individual and population level for people living with chronic diseases. There are 15,078 unique individuals whose care is being monitored through use of the CDM Toolkit – 5,973 who have CAD, and 10,996 who have diabetes +/- CAD (note there is overlap between these two groups as many people living with CAD also have diabetes).

IN THEIR OWN WORDS: TEAMS SHARE THEIR GREATEST ACCOMPLISHMENTS THROUGH THE COLLABORATIVE

“Better understanding of our patient population and more consistent patient care.”

“Utilizing evidence based guidelines. Using data to make decisions.”

“Honestly, getting to know who are the people who work in your region on the team. It has really brought us all together to work on a common goal and objectives.”

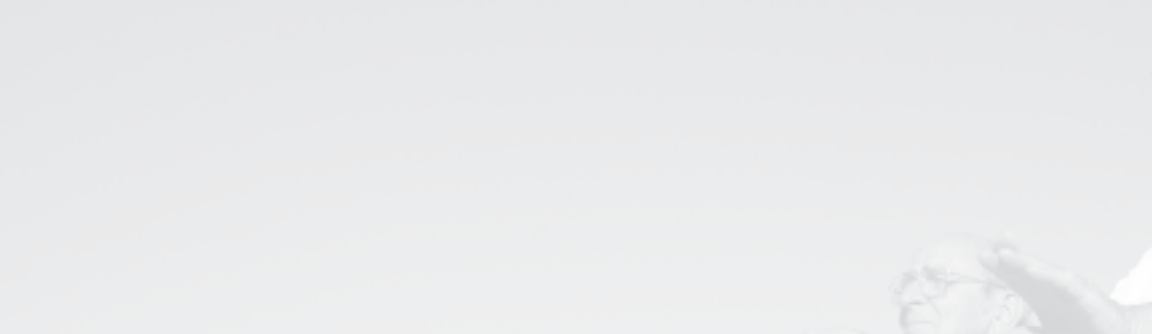
“Working with the CDM Toolkit to input data and use other features.”

“Getting to know and work with the health care team outside of traditional roles and location.”

“Working together to promote team participation and recognizing each individual role on the team as equal.”

“Incorporating PDSAs into our practices.”

Teamwork is supported by technology in the Collaborative. The Saskatchewan Chronic Disease Management Toolkit is a web-based patient registry and decision support tool.



“It is not a competition, but rather an exercise in utilizing evidence to grade the quality of care you provide. Some surprising benefits may also accrue such as improving communication and cooperation in the office, as well as developing useful skills and assistance from office staff that would previously have remained untapped.”

“My improvement arose from awareness. The baseline data and how it was organized was instrumental. Also engaging the office staff into patient management has been key. Staff members become stakeholders in patient care and improvement. All our clinic needed was a means to measure our success. Thanks to the Toolkit we have that. The Toolkit is truly a resource to assist us health professionals in managing chronic disease patients...”

The SK CDM Toolkit allowed teams to build patient registries, enter data, and to track their improvement progress. However, the new technology also brought challenges – teams had to learn how to incorporate this tool into their regular office processes.

A FEW CHALLENGES ALONG THE JOURNEY

Learning to Use New Technology – The SK CDM Toolkit

The SK CDM Toolkit allowed teams to build patient registries, enter data, and to track their improvement progress. However, the new technology also brought challenges – teams had to learn how to incorporate this tool into their regular office processes. As with any information management system, timely data entry is critical to decision-making, but not always easy to achieve. Wave One participants had the added challenge of being Toolkit pioneers; the Toolkit was developed over the course of Wave One, which meant the teams experienced delays in accessing all Toolkit functions.



Learning the Science of Improvement

Collaborative teams were introduced to the science of improvement, a new language for many of them. The Model for Improvement challenged teams to consider three key questions: *What are we trying to accomplish? How will we know a change is an improvement? What changes can we make that will result in improvement?* Based on their goals, teams examined their current processes and then tested small changes using plan-do-study-act cycles, known as PDSAs. Finding time to plan and document their PDSAs was a challenge for teams, but it was also critical to their improvement progress.

Understanding Clinical Practice Redesign (Access)

When the CDM Collaborative began, the concept of clinical practice redesign was still in its infancy in Saskatchewan. Many teams involved in Waves One and Two focused on improving chronic care and did not pursue clinical practice redesign improvements to the same extent. However, as teams have progressed, awareness of clinical practice redesign has grown. Teams are learning that improving access to care is a critical component of improving chronic disease management. We expect there will be greater interest and capacity in improving access in subsequent Collaboratives.

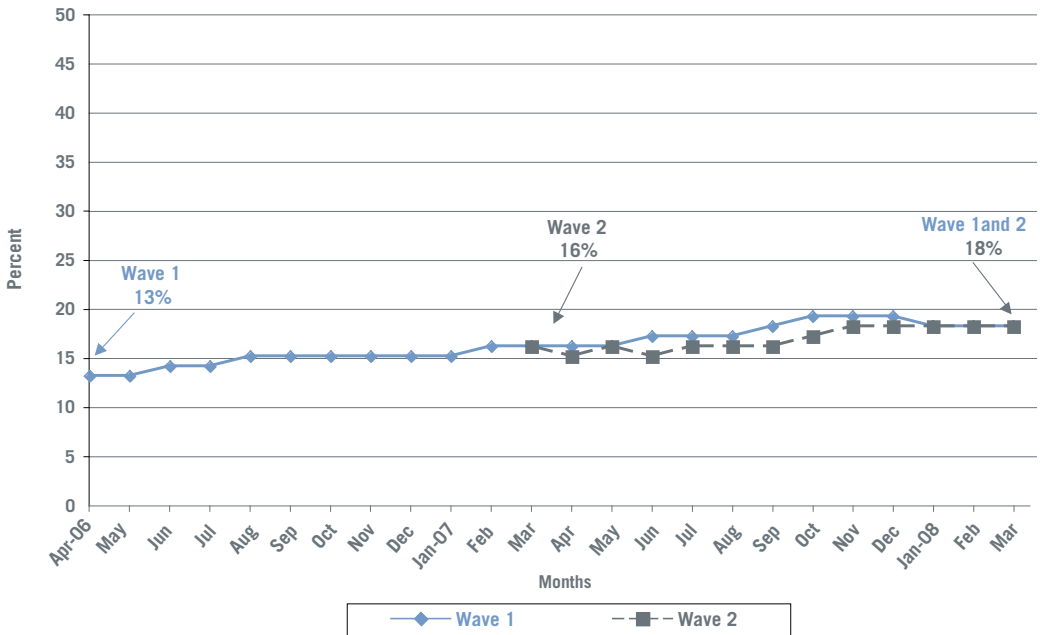
RESULTS

12 OUTCOMES

Diabetes

Nearly 1 in 5 people living with diabetes are at target for key clinical measures.

Triple Whammy,
Wave 1 Practices (April 2006 to March 2008) compared to
Wave 2 Practices (March 2007 to March 2008)



Triple whammy is the per cent of people with diabetes who have an A1C level of less than or equal to 7.0, a blood pressure of less than or equal to 130/80 and a total cholesterol/HDL level of < 4.0, at the same time.

Coronary Artery Disease (CAD)

What we know about optimal health outcomes for people living with CAD.

Status of Wave 1 and 2 individuals in the Toolkit, up to March 2008

5,973 people living with CAD are entered in Toolkit as of March 2008, Wave 1 and 2 combined.

4,248 people living with CAD have a healthy blood pressure level of less than 140/90.

3,128 people living with CAD have a healthy lipid ratio (total cholesterol divided by high density lipoprotein) of less than 4.0.

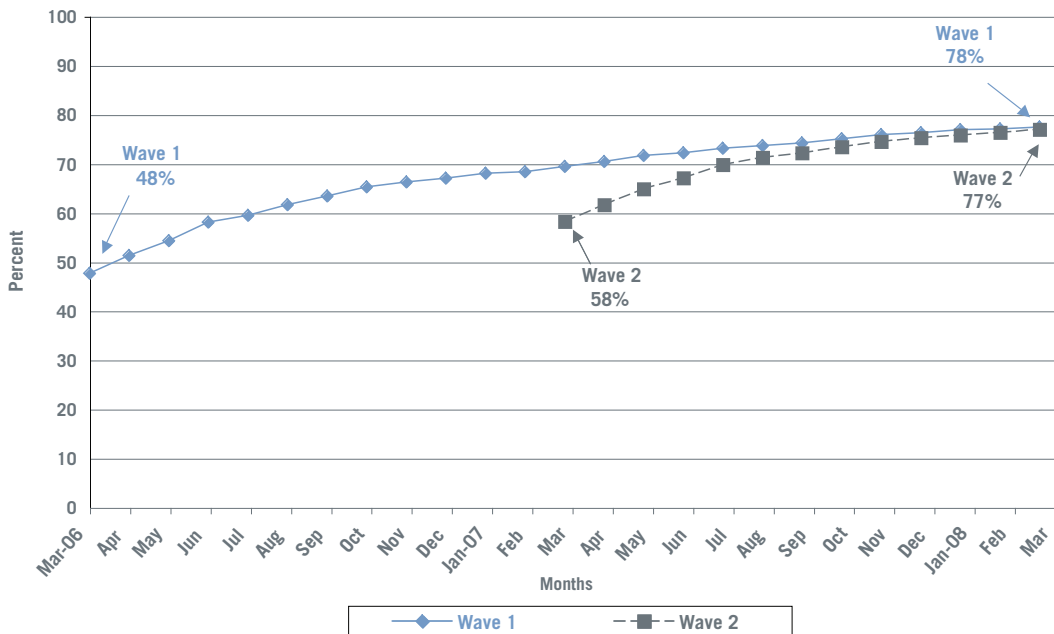


14 IMPROVEMENT IN PROVIDING CARE

Diabetes

More than 3 out of 4 people living with diabetes have received screening for the prevention of kidney disease.

Kidney Function (Microalbuminuria) Screening,
Wave 1 Practices (March 2006 to March 2008) compared to Wave 2 Practices
(March 2007 to March 2008)



What we know about guideline-based care for diabetes.

Status of Wave 1 and 2 individuals in the Toolkit,
up to March 2008

10,996 people living with diabetes
are entered in Toolkit as of March
2008, both Wave 1 and 2 combined.

8,476 people living with diabetes have
received urine microalbumin screening test,
used for detection of kidney disease.

7,743 people living with diabetes
have been prescribed antiplatelet
therapy to prevent blood clots.

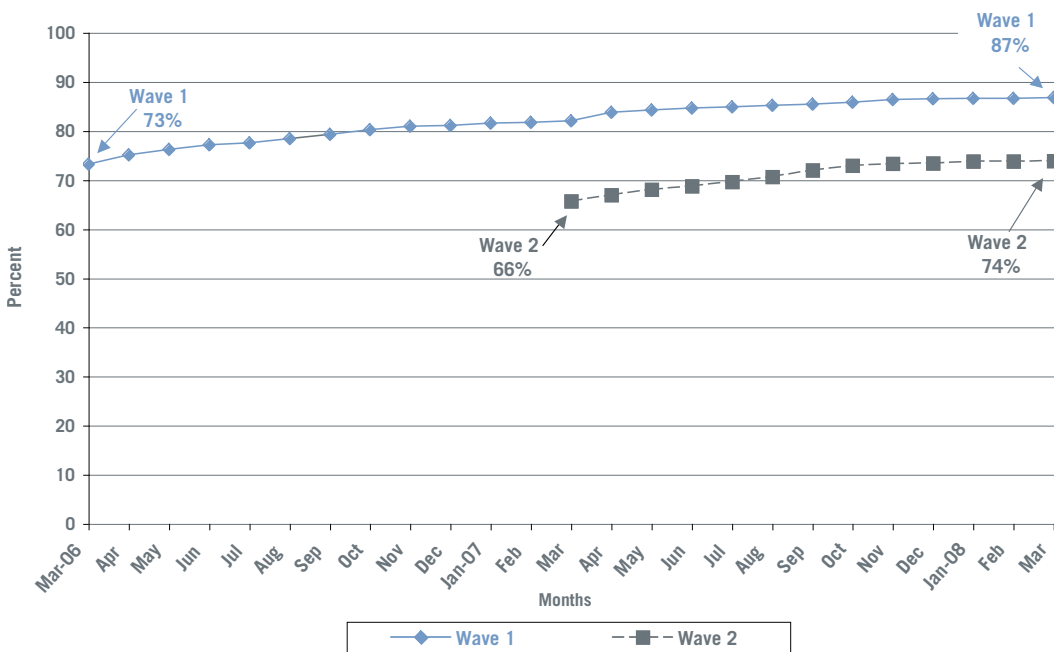
6,244 people living with diabetes have been prescribed a statin to
help control their blood cholesterol levels. Controlling cholesterol
can help prevent stroke and heart attack in people with diabetes.



16 CAD

Practices are at or near Collaborative goal to have 75% of people living with CAD prescribed antiplatelet therapy.

Antiplatelet Therapy,
Wave 1 Practices (March 2006 to March 2008) compared to
Wave 2 Practices (March 2007 to March 2008)



What we know about guideline-based care for CAD.

Status of Wave 1 and 2 individuals in the Toolkit, up to March 2008

5,973 people living with CAD are entered in Toolkit as of March 2008, Wave 1 and 2 combined.

4,806 people living with CAD have been prescribed antiplatelet therapy to prevent blood clots.

4,470 people living with CAD have been prescribed an ACE-I/ARB to treat high blood pressure.

4,236 people living with CAD have been prescribed a statin drug to help control their blood cholesterol levels.

3,785 people living with CAD have been prescribed beta blocker medications, used to slow the progression of CAD.

NEW APPROACHES TO WORKING TOGETHER

Living Well with Chronic Conditions

A new approach to chronic disease management, called self-management, empowers patients to choose their own health goals and helps them move toward those goals with small, achievable steps. Group support programs such as Live Well™ With Chronic Conditions are being used in Saskatchewan to complement patients' self-management efforts. This program, developed at Stanford University in California, is proven to increase healthy behaviours, maintain or improve health status, and improve people's confidence in dealing with their condition. Pairs of volunteer leaders, themselves living with a chronic disease, work with small groups of patients once a week for six weeks; caregivers are also welcome. Through funding from the Ministry of Health, the program is now running in nine health regions. The Live Well™ With Chronic Conditions program is free and accessible - no doctor's referral is required.

Sweet Treats

The New Horizons Primary Health Care Team in Central Butte is enjoying the taste of success from an improvement idea that tried a different angle on awareness and education. The idea started when a community member shared frustration and disappointment about not being able to enjoy sweets since being diagnosed with diabetes.

The New Horizons team contacted the manager of the local grocery store to see if she would be interested in designing

a store display that would educate people on healthy and appropriate desserts and treats. The display met with positive community reviews and customer feedback. They appreciated learning the difference between sugar-reduced and sugar-free products, and how to read nutrition labels.

Creation of a First Step Program in Sun Country

When the Sun Country Wave Two RIT heard about the First Step program, a supervised exercise and group education program in Saskatoon, they thought it would be a promising idea to try in Radville. The RIT invited community representatives – a physiotherapist, hospital nurse, and local fitness club owner – to see what would work in their community.

Using the principles of the First Step program, they modified an existing program being offered at the local gym. Creative teamwork was the key to adapting the program. The physiotherapist trained the gym owner how to do a pre-program and post-program assessment. The health region provided education sessions at the request of participants. Posters and information were distributed by the pharmacy and the clinic. The physician promoted the program to those he felt should attend. The initial roll out of the program began in Fall 2007 and has already established a core following of participants. For more information on Saskatoon's First Step program please visit www.saskatoon.ca/org/leisure/facilities/pdfs/first_step_pulmonary.pdf

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Diabetes teams working in Prairie North and Kelsey Trail health regions have started using the SK CDM Toolkit to print patient flowsheets for use in diabetes education for patients.

Involving Students in the CDM Collaborative Experience

While employed in the Sun Country Health Region this past summer, pharmacy student Lacey DeVreese had the opportunity to become involved in the Chronic Disease Management Collaborative. Working with Kim Borschowa, her preceptor at the Radville Pharmasave, she was able to work with an interdisciplinary team focused on providing quality care for individuals with diabetes and CAD.

DeVreese became involved in a variety of activities, including creating storyboards for display in the Radville Medical Clinic; participating in team meetings; and, providing medication information. Much of her time was dedicated to the diabetes component of the CDM Collaborative, where she was able to develop information packages for newly-diagnosed patients. The Pharmasave also printed data reports from patients' blood glucose machines; patients used these charts at doctors' visits, allowing them more active participation in their care. DeVreese was also given the opportunity to present at an information day for people living with diabetes, together with the dietitian and the diabetes nurse.

Using Technology to Support Integrated Care

Diabetes teams working in Prairie North and Kelsey Trail health regions have started using the SK CDM Toolkit to print patient flow sheets for use in diabetes education for patients. By sharing the flow sheet, the diabetes educators are provided with the latest vital information allowing the



educators to focus on the specific needs of the client during the visit. Other benefits of sharing the latest copy of the flow sheet with the educators include:

- The client can see the teamwork;
- The flow sheet is used to show the client trends in controlling his or her illness;
- The information allows teaching opportunities for exploring changes for improvements and/or encouraging continued monitoring and regimes to ensure good control of chronic conditions; and,
- Diabetes educators can reinforce what the physician is doing or changes that have been made.

This keeps the communication loop open between the diabetes educators and the primary care providers. Communication between care providers and continuity of care planning is vital to ensure the best care for people living with diabetes and CAD.

In It Together with Group Visits

Both the Family Medicine Unit in Regina and Dr. Maree's clinic in Craik have had success with implementing group visits for their patients. Group visits include group education and interaction as well as some elements of an individual patient visit, such as the collection of vital signs, history taking, and physical exam. These visits offer staff a new method of interacting with patients, are an efficient use of resources, and can help improve access. Group support also motivates participants to make lifestyle changes. Evaluations have been positive as patients indicate they like

the learning component with other people in a group setting and knowing they are not alone in the challenges they face managing their conditions.

THE STORY CONTINUES

Clinical Practice Redesign (CPR) School

CPR School is a training program designed to help participants develop an understanding of clinical practice redesign theory, methods and tools to facilitate and support a health care team toward the achievement of improved access and efficiency with supporting measures/data. This year-long program is open to anyone who works in health care and has an interest in improving processes related to patient flow and office efficiency. CPR School combines the theory of clinical practice redesign with hands-on project work. Participants attend workshops where they learn the methods and tools of clinical practice redesign. Between workshops, participants augment their learning by applying material from the workshops to their improvement projects. Webinar sessions are also held between workshops to provide participants with additional advice and support with their projects. Twenty-nine participants are currently enrolled in the first wave of the program, which began in April 2008 and will end in May 2009.

Increasing Access to the Toolkit

Practices external to the CDM Collaborative could also benefit from using the SK CDM Toolkit to manage care for

their patients. Non-physician practices such as diabetes education centres have also expressed interest. The HQC is working with the Ministry of Health to make the Toolkit available to all providers in the province.

Waves One and Two

Wave One of the CDM Collaborative has officially ended, although participants will continue to have access to the CDM Toolkit, to manage care for their patients with chronic diseases. Wave Two will no longer be attending learning workshops, but will continue to submit data on the Collaborative's key measures for another year. It is our hope that for both Waves, the skills they developed during their active participation in the CDM Collaborative will serve as a strong foundation for future quality improvement projects.

CDMC II

The success of the first CDM Collaborative has encouraged us to move forward with a second CDM Collaborative in 2009, this time focused on improving the quality of care for people living with chronic obstructive pulmonary disease (COPD) or depression. This Collaborative will also engage clinicians in clinical practice redesign strategies proven to make their workload more manageable and increase patient satisfaction.

It is our hope that for both Waves, the skills they developed during their active participation in the Collaborative will serve as a strong foundation for future quality improvement projects.



THE FINAL WORD... ADVICE FOR FUTURE PARTICIPANTS FROM WAVE 1 AND WAVE 2

“Make the most of it; engage enthusiastically, it is worth your while. It is possible to gain a lot by being involved for work satisfaction of the whole team and improved outcomes for patients.”

“Get on board.”

“It is a definite benefit to any doctor.”

“Change takes time - the patient/client benefits of what you are doing are rewarding, it will make your day!”

“Encourage as many people in your practice as possible to attend. Team approach works much better and understanding of individual roles.”

“Go into it with an open mind. It really is a great thing.”

“Utilize your Toolkit fully; get as much information as needed on it.”

“Just do it.”

“My favourite portion of these events was the concurrent sessions with information sharing on clinical topics and different programs being offered in other health regions and what has worked effectively. Thanks so much!”

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GLOSSARY OF TERMS

A1C is a measure of long-term blood sugar control. The lower the A1C value, the better the control of diabetes.

Clinical practice redesign, also known as Advanced or Improved Access, is a method for improving patient flow and care in the clinical practice office. The goals are to balance supply and demand, reduce patient waiting times, and increase provider and patient satisfaction.

Coronary artery disease (CAD) is a blockage of the arteries that supply the heart muscle. It can lead to complications including:

- Angina (chest pain), if the heart does not have enough oxygen
- Heart attack, if the heart does not get any oxygen at all. (Heart and Stroke Foundation)

Diabetes:

- Type 1 diabetes is due to destruction of cells in the pancreas that produce insulin. It often begins in childhood, and is treated primarily by insulin replacement. It is not preventable.
- Type 2 diabetes is due to a combination of increased resistance to insulin in the body's tissues and decreased insulin production. It can often be controlled through diet, lifestyle modification, and medication. Almost 90% of people with diabetes have type 2.

PDSA: Plan Do Study Act; a four-step improvement cycle for managing small tests of change.

The Regional Improvement Team (RIT) is a group of providers and health professionals, located within a Regional Health Authority, but not limited to health region staff. In fact, these teams create links among: physicians, nurse practitioners, nurses, office support staff, RHA, First Nations and/or Métis health programs, pharmacists, educators, dietitians, physical/exercise therapists, laboratory technologists, community groups, and patients.

Triple whammy is the per cent of people with diabetes who have an A1C level of less than or equal to 7.0, a blood pressure of less than or equal to 130/80 and a total cholesterol/HDL level of < 4.0 , at the same time.



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