IMPROVING CARE. IMPROVING LIVES.

Better care for people living with chronic disease

SASKATCHEWAN HEALTH QUALITY COUNCIL

According to the World Health Organization (WHO), chronic diseases are diseases of long duration and generally slow progression, including heart disease, stroke, cancer, chronic respiratory diseases, and diabetes. Combined, chronic diseases represent the leading cause of mortality worldwide, resulting in 63% of all premature deaths.

Every year, the number of Canadians diagnosed with chronic diseases continues to increase, placing pressure on those living with the disease, their loved ones, and the health care system. In 2005, Saskatchewan providers identified a strong need to take a targeted, collaborative look at the way care is being provided to patients living with diabetes, coronary artery disease (CAD), chronic obstructive pulmonary disease (COPD), and depression.

By asking one simple, yet provocative question—"How can we improve care for people living with chronic disease in Saskatchewan?"—the Chronic Disease Management Collaboratives (CDMC) I and II were born. Through these Collaboratives, multidisciplinary teams came together to tackle common challenges, all aimed at improving the care experience for their patients.

The following report highlights insights learned through the CDMC II, with a specific focus on improving care for people living with COPD and depression.

"Between October 2009 and March 2011, 49 family practices in Saskatchewan came together to participate in a Chronic Disease Management Collaborative—with the goal of improving the care experience for people living with COPD and depression."

– CDMC II Report:
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THE IMPETUS FOR IMPROVEMENT

Imagine waking up each day and struggling to breathe, or feeling so depressed that it's difficult to get out of bed. This is the reality for many Canadians living with a diagnosis of COPD or depression.

COPD is now recognized as the fourth leading cause of death in Canada. In fact, one in four patients who are hospitalized for a COPD exacerbation, or "lung attack," are at risk of dying within one year; 8% of those patients are at risk of dying while in hospital during their attack, Canadian Thoracic Society (1).

According to IMS Health Canada (2), depression is the second most common reason for visiting an office-based physician in Canada. The prevalence of Major Depressive Disorder in Canada is estimated at 3.2 – 4.6%, and in North America, more than 80% of all depression cases are diagnosed, managed, and treated within the primary health care system.

WORKING TOGETHER TO MAKE IMPROVEMENTS

Between October 2009 and March 2011, 49 family practices in Saskatchewan came together to participate in a Chronic Disease Management Collaborative—with the goal of improving the care experience for people living with COPD and depression. A Collaborative is a learn-by-doing approach to quality improvement. It brings together practitioners from various disciplines and multiple sites to learn and share ideas on improving their practices, based on evidence-based research.

This Collaborative followed the success of the first provincial CDM Collaborative (CDMC I) launched in 2005, which focused on improving the care experience for people living with diabetes and coronary artery disease (CAD). At the time, CDMC I was Saskatchewan's largest quality improvement initiative and one of the largest national improvement projects in Canada. That success led to requests for another Collaborative, and CDMC II was created in response.

CDMC II: COPD AND DEPRESSION

The call for participants was sounded and the number of interested practices grew to surpass the success of CDMC I—with 54 practices applying to participate and 49 completing the 18-month journey. When participants were asked what they hoped to learn, responses included: to better diagnose and manage depression and COPD, more consistent use of best practice guidelines, and ultimately, a better care experience and health outcomes for patients.

Practices were encouraged to utilize the Chronic Disease Management (CDM) Toolkit to collect specific measurement data during the course of the Collaborative. The CDM Toolkit is a secure, web-based electronic patient registry that enables practices to monitor the health of patients with chronic diseases. The tool helps practices monitor the quality of care they are providing over time and helps identify opportunities for improvement. Though a longer period of monitoring is necessary to fully evaluate the impact of specific clinical improvements on patient care and health outcomes, the data collected during these 18 months begins to identify areas for improvement, as well as highlights the positive changes emerging in health care across the province, as a result of this Collaborative.

"Seven health regions received grants, resulting in 19 new spirometers and increased spirometry testing throughout the province. But most importantly, it resulted in Saskatchewan patients receiving better care.

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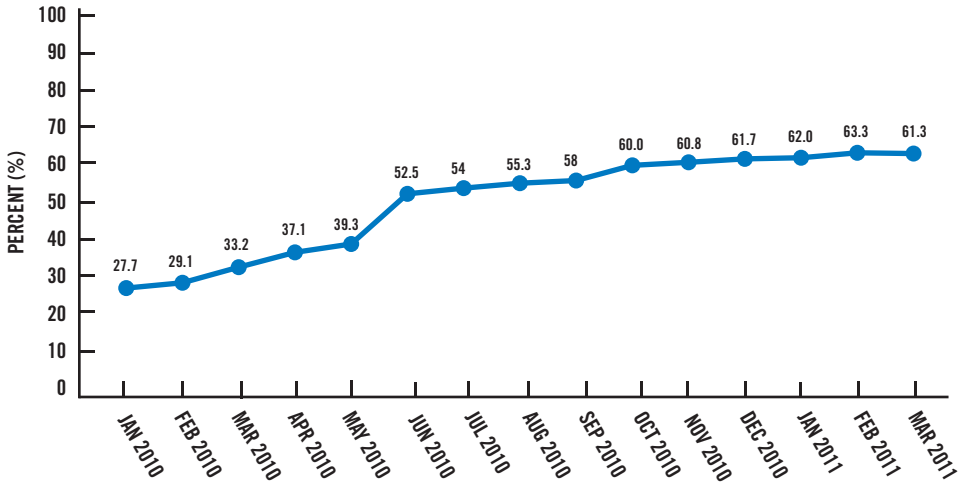
Improving Care, Improving Lives: Patients living with COPD

IMPROVED DIAGNOSES

Patients involved in the Collaborative are now receiving better diagnoses and management of their COPD, including increased access to spirometry (i.e., a tool used to assess lung function). For example, the number of patients who had their diagnoses confirmed with spirometry increased from 28% – 63%. This is important because research has shown that the use of spirometry results in changes to the medications selected for treatment for about 50% of patients—with the end result being that patients are treated with medications more appropriate to their needs, Walker (3). This means that out of the 700 patients confirmed as having COPD during the Collaborative, about 123 individuals would have had an opportunity to be prescribed more appropriate medications. After an initial marked improvement in this area, the increase in the proportion of patients who had their COPD confirmed by spirometry slowed and then stabilized in the low 60s. Practices in rural areas tended to score lower on this indicator, possibly due to continued limitations in spirometry access.

The Collaborative resulted in more than 100 health care providers and staff being trained on: a) how to correctly conduct spirometry testing and b) how to interpret spirometry data. Participating practices that accessed both training opportunities were eligible to receive a grant for purchasing a spirometer. Seven health regions received grants, resulting in 19 new spirometers and increased spirometry testing throughout the province. But most importantly, it resulted in Saskatchewan patients receiving better care.

Figure 1: Proportion of patients who had their COPD confirmed by spirometry

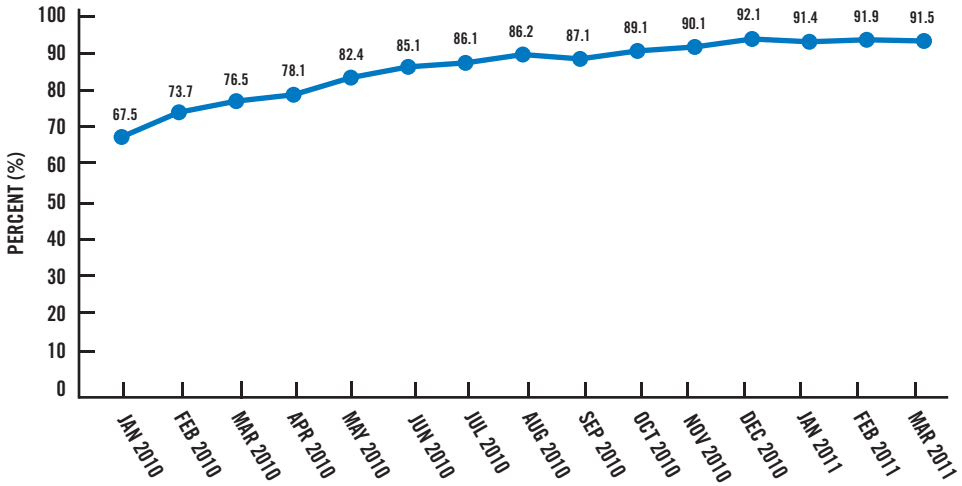


IMPROVED ACCESS TO SMOKING CESSATION COUNSELING

Eliminating smoking slows the decline of lung function for patients with COPD. Advice given by health professionals, either through individual or group counseling, increases the rates of quitting permanently. Smoking cessation supports and medications can double the rate of successfully kicking the habit, but these can only be provided if patients are asked about their smoking status.

During the 18-month Collaborative, physicians and nurse practitioners indicated they asked 92% of patients living with COPD about their smoking status at least once. This resulted in a significant increase (68% – 92%) in the number of patients with COPD who were offered counseling services to help them quit smoking.

Figure 2: Proportion of patients with COPD who smoke that were offered smoking cessation counseling (includes cessation advice, medication prescription, and/or referral to cessation program)



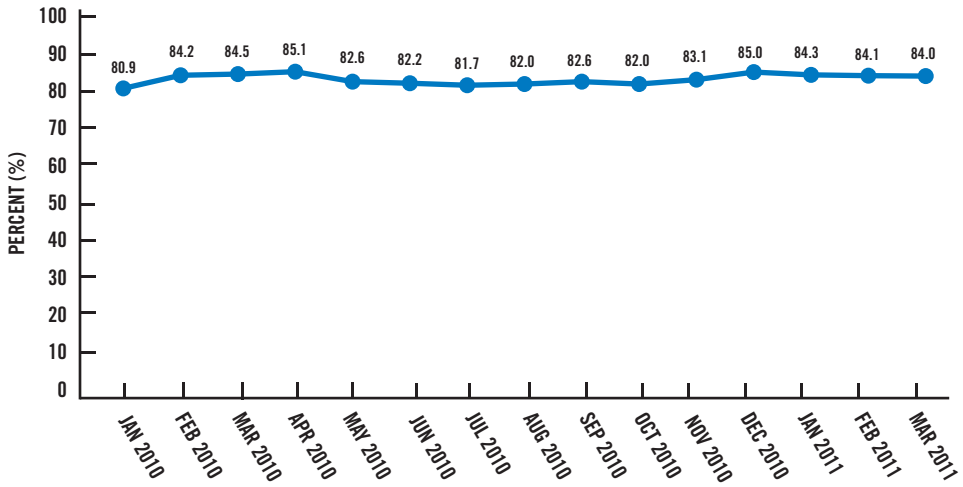
IMPROVED ABILITY TO SELF-MANAGE EXISTING HEALTH CONDITIONS

Patients' ability to self-manage their own health condition has lasting and positive effects on their overall health and the ability to successfully be treated. Through participation in the Collaborative, more patients with COPD now have action plans to help them better self-manage their condition at home—potentially resulting in fewer hospital visits. Within the first month of data collection, the number of patients using action plans was higher than expected—with 39% of patients creating an action plan with their care provider. By the end of the Collaborative, 67% of patients diagnosed with COPD had created an action plan; however, only 40% reviewed those plans within six months as recommended by practice guidelines.

APPROPRIATE USE OF BRONCHODILATORS

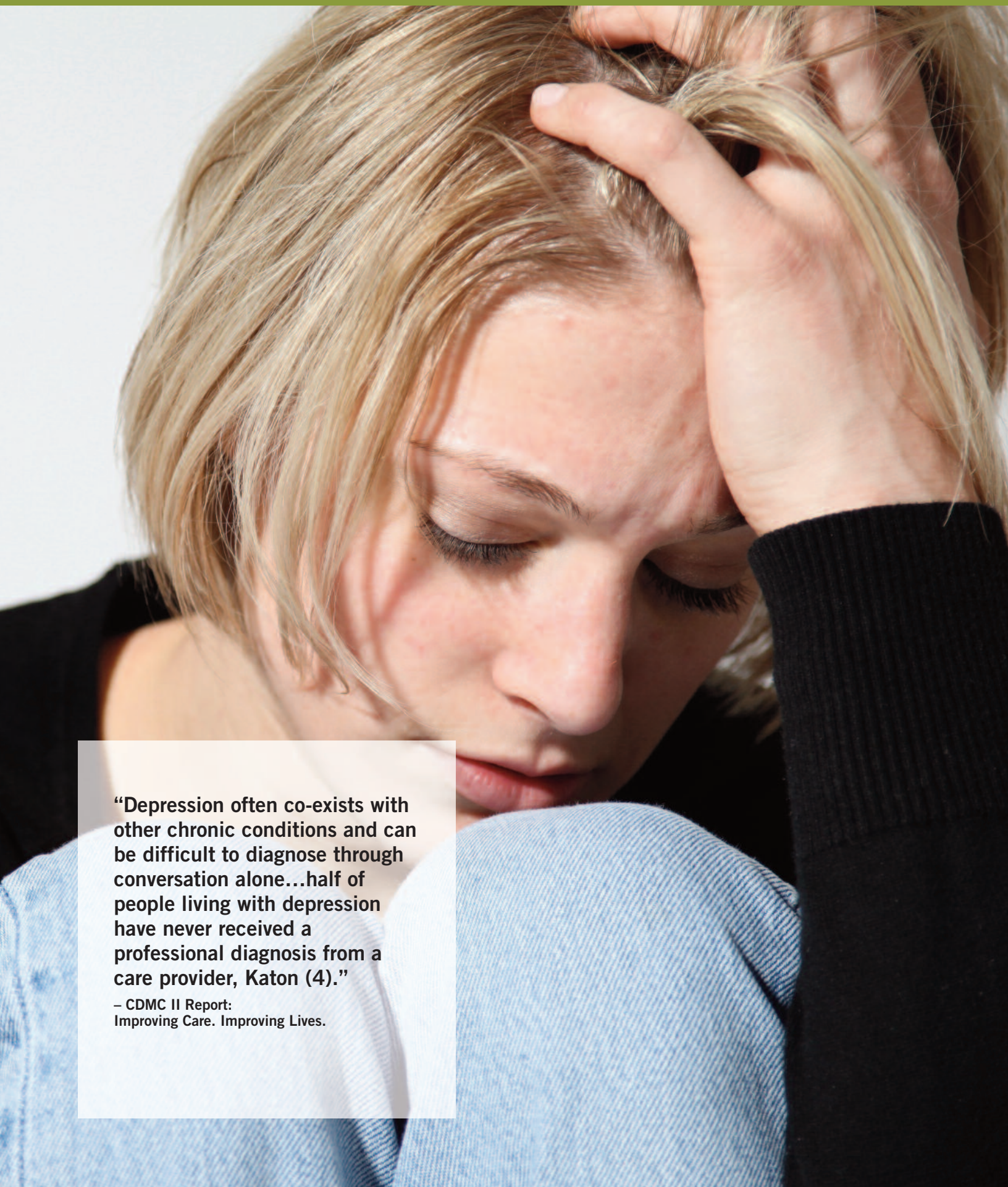
Bronchodilators are used to help to control and prevent symptoms in patients with COPD and are prescribed based on the seriousness of lung function impairment. Current best practice guidelines indicate that individuals with significant shortness-of-breath, identified using the Medical Research Council (MRC) dyspnea scale, should use long-acting bronchodilators. Among those patients with an MRC dyspnea score of three or higher, appropriate use of long-acting bronchodilators remained stable over the course of the Collaborative (ranging from 81% – 84%). Of all the care process measures, this measure came closest to achieving the outcome target of 95%.

Figure 3: Proportion of patients with COPD appropriately prescribed a long-acting bronchodilator



IMPROVED ACCESS TO PULMONARY REHABILITATION PROGRAMS

Eight of the 10 health regions involved in the Collaborative created at least one new pulmonary rehabilitation program in their region. Pulmonary rehabilitation has been found to improve participants' quality of life by reducing shortness-of-breath and fatigue, and improving people's moods and sense of control over their disease. The COPD Toolkit© developed by the Canadian Thoracic Society was profiled during a Collaborative workshop. This resource was instrumental in helping teams design their new pulmonary rehabilitation programs.



“Depression often co-exists with other chronic conditions and can be difficult to diagnose through conversation alone…half of people living with depression have never received a professional diagnosis from a care provider, Katon (4).”

– CDMC II Report:
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Improving Care, Improving Lives: Patients living with depression

IMPROVED CLINICAL DIAGNOSES OF DEPRESSION

Depression often co-exists with other chronic conditions and can be difficult to diagnose through conversation alone. This may be a contributing factor in estimates that half of people living with depression have never received a professional diagnosis from a care provider, Katon (4).

In this Collaborative we introduced the PHQ-9, a nine-item depression rating scale developed and used to assist in the clinical assessment and ongoing monitoring of patients with depression. This assessment should be completed as soon as possible when a diagnosis of depression is suspected. As part of the Collaborative, data was collected to identify how many patients received a PHQ-9 assessment within one week of entry into the toolkit. At the end of the 18 months, 63% of patients with a diagnosis of depression received the PHQ-9 assessment within one week of the diagnosis, and 84% received an assessment at some point during the Collaborative.

Figure 5: Percentage of patients with a PHQ-9 assessment completed within one week of entry into the CDM Toolkit with a diagnosis of depression

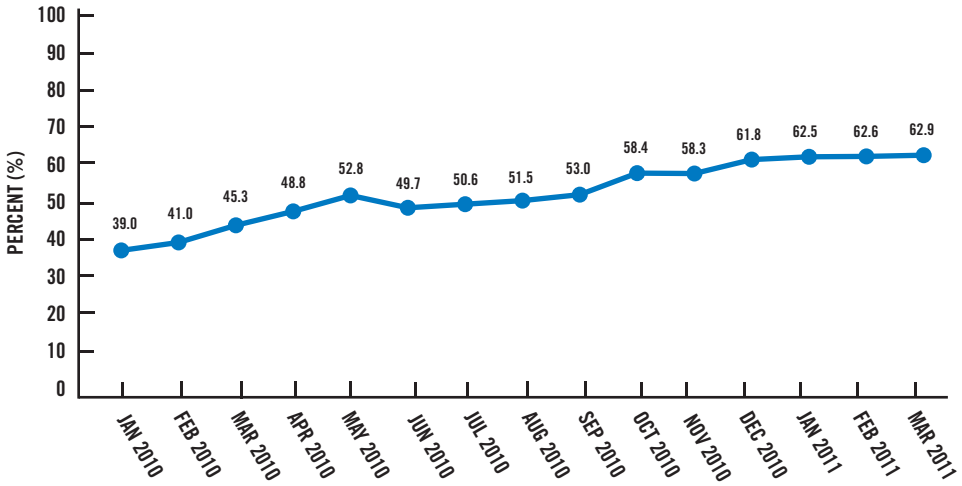
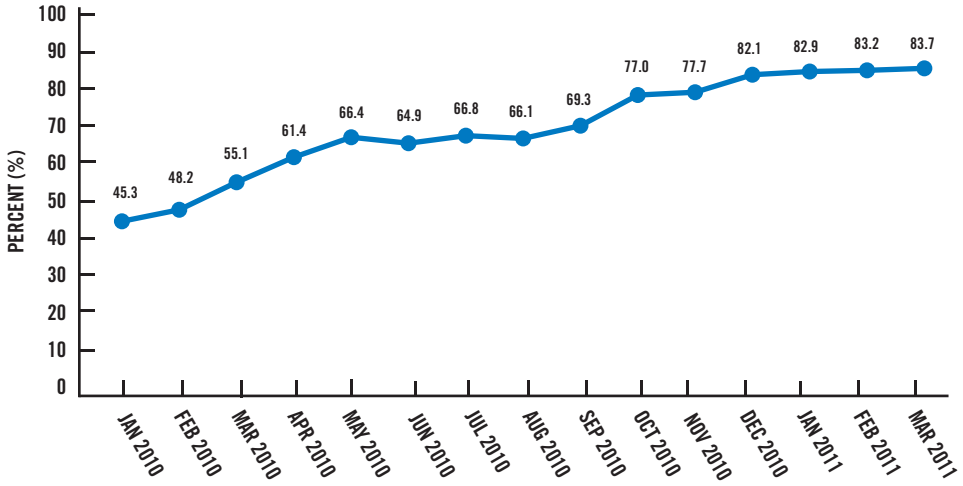


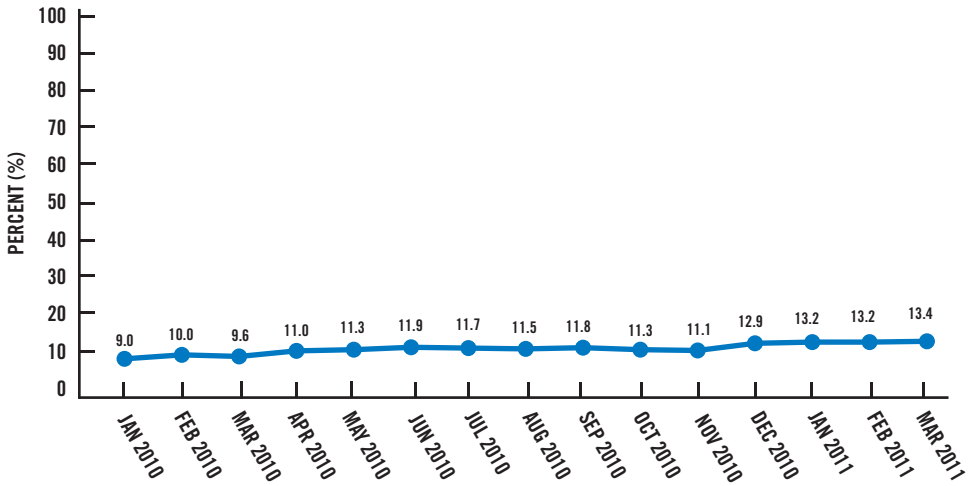
Figure 6: Percentage of patients in the toolkit with a diagnosis of depression that were assessed with the PHQ-9 tool at least once during the Collaborative



MONITORING OF SYMPTOMS WITH THE PHQ-9

Once the initial PHQ-9 is completed and a treatment plan has begun, patients should have another PHQ-9 completed within four weeks to determine if their treatment plan is working. By March 2011, 89.7% of initial PHQ-9 assessments were completed, but the second follow-up assessment four weeks later began low (9%), and only improved slightly (13%). Regular follow-up for patients living with depression is identified as a key factor in improving and managing their condition, however, there are systemic barriers that can prevent this from happening such as stigma, lack of timely access to health care professionals, and a lack of continuity between care providers. As well, the very nature of depression can make it very difficult for patients to follow-through with appointments and recommended treatment plans. It is apparent that more work is necessary in this area.

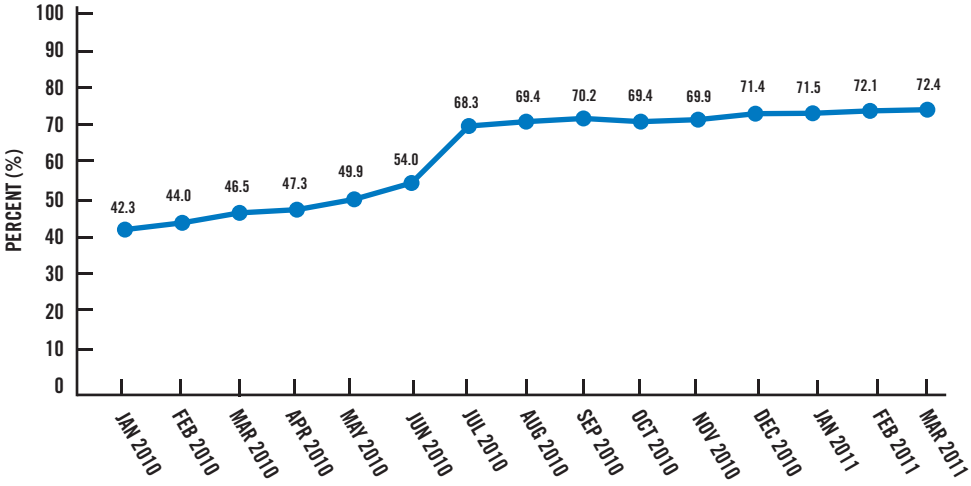
Figure 7: Percentage of patients who received a second PHQ-9 assessment within four weeks of the initial assessment (for patients who scored positive for depression on their first assessment)



IMPROVEMENTS IN ASSESSING SUICIDE RISK

More patients are now receiving timelier access to suicide assessments. By the end of March 2011, 72% of patients with depression had their suicide risk assessed by their care provider within one week of being entered into the CDM Toolkit. That's an increase of 30 percentage points compared to the first month of the Collaborative.

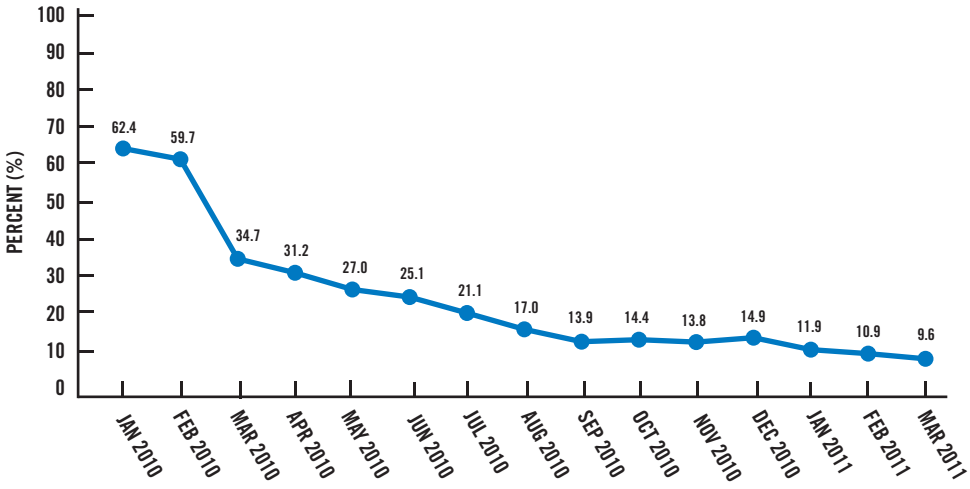
Figure 8: Percentage of patients who had their suicide risk assessed within one week of being entered into the CDM Toolkit



MORE WORK REMAINS IN HELPING PATIENTS ACHIEVE SELF-MANAGEMENT GOALS

Within the first month of the Collaborative, the data appeared to indicate that the percentage of patients who had set self-management goals in the past 12 weeks was quite high; however, this measure steadily declined as the Collaborative progressed. The decrease in this indicator may be related to the limited follow-up occurring within the required 12-week period, which eliminated a number of patients from being included in this measure.

Figure 9: Percentage of patients with depression who had their self management goals set within the last 12 weeks



A (Collaborative) is a great opportunity to not only increase our knowledge in certain areas of health and wellness—but also to feel a sense of continuity between what is happening in our area and other health regions in the province. Great to get ideas from other regions on how they are implementing changes in their practices.

– CDMC II Participant

Putting it all together

Evidence shows that CDMC II is having a positive impact on the lives of patients living with COPD and depression in Saskatchewan. In many cases there have been notable improvements in the way health care professionals manage these conditions. Although there is more work to be done, we now have a strong foundation to build upon as we continue to accelerate improvements in the province. As one participant expressed, ***"Change seems overwhelming but baby steps can get the ball rolling."***

In the post-Collaborative evaluation, participants indicated that participation in CDMC II greatly benefited their patients. In fact, 100% of participating physicians indicated the Collaborative had a positive impact—with 84% indicating they felt the improvements were sustainable. When asked what patients were saying, one participant shared the following, "The most wonderful statement I heard from the patient was: ***'Now I can breathe."***

The data demonstrates that more patients are now having their diagnoses confirmed with spirometry, which means symptoms can be targeted with the correct treatment. More patients are being offered smoking cessation, including access to cessation supports and other resources, potentially helping slow the progression of their illnesses. And where available, patients are being referred to pulmonary rehabilitation to improve lung function and help them self-manage their conditions. Work remains on increasing the availability of spirometers, providing further spirometry training to care providers, and improving access to pulmonary rehabilitation programs, especially for patients unable to access these services within their home communities.

"We definitely have a better understanding of what the patients need that we have not provided properly in the past and the benefit of the wonderful diagnostic tool (specifically spirometry) that was not available to us prior to the Collaborative."

The Collaborative has also helped improve care for Saskatchewan residents living with depression. More patients are now receiving initial assessments, resulting in earlier interventions and more appropriate treatments. The PHQ-9 screening tool has provided health care providers and patients with a common language and approach for better monitoring depression. Although we saw remarkable improvements in the number of initial assessments, more work is needed around providing timely follow-ups, as well as better support in helping patients to set and achieve self-management goals (as established by clinical guidelines). The Collaborative has also led to an increased number of patients who are receiving more appropriate medication and who are now receiving a suicide risk assessment. This allows for earlier intervention to address suicidal thoughts and behaviours, before they can be acted upon.

It is important to acknowledge that many of the improvements in care that resulted from the Collaborative extend beyond those indicators measured through the CDM Toolkit.

"Although we measure outcomes from CDMC using data from the flow sheets, sometimes there are many improvements that we can't measure."

One of the biggest improvements focused on learning to identify new ways of working and collaborating, such as implementing shared-care models within practices. This allows patients to access care from a team of professionals, all working together. In addition, participants were excited by the opportunity to work with patients to encourage better self-management.

"Clients are now able to tell you what the numbers mean, are able to self-regulate their meds better, and have less crises as they can avert on their own."

Perhaps the greatest change resulting from the Collaborative is a more consistent, collaborative approach to "how" providers manage chronic disease in the province. Through a "learn-by-doing" model, providers are learning how to make improvements using Quality improvement science, best practice evidence, and innovative, patient-centered solutions.

"I feel (Collaboratives) have great potential to improve practice and patient care, however, as with most things, it is dependant on how much you are willing to put into it."

"After being involved in two Chronic Disease Management Collaboratives, the greatest accomplishment in Prince Albert Parkland Health Region is the legacy that these initiatives will leave for patients living with COPD, depression, diabetes, coronary artery disease, and other chronic illnesses."

"(A Collaborative) is a great opportunity to not only increase our knowledge in certain areas of health and wellness—but also to feel a sense of continuity between what is happening in our area and other health regions in the province. Great to get ideas from other regions on how they are implementing changes in their practices."

"As a result of the Collaboratives, more and more providers are moving to a multidisciplinary model of care…a number of current of initiatives are being built on the lessons learned through CDMC I and II."

Building momentum throughout Saskatchewan's health care system

As a result of the Collaboratives, more and more providers are moving to a multidisciplinary model of care. Physician contracts ratified (2009-2013) include provisions and supports for continuous improvement and chronic disease management. In addition, a number of current of initiatives are being built on the lessons learned through CDMC I and II.

WHAT WE LEARNED

Through the Collaboratives, providers shared that they simply don't have time to think about "working differently" because they are overwhelmed in keeping up with patient demand and administrative work. They asked that future programs and initiatives be:

Convenient – Don't take time away from the day-to-day work for continuous improvement and provide support to help teams make and sustain the changes;

Customized – A one-size fits all approach won't work because providers aren't all dealing with the same issues; and

Focused – We can only make changes one step at a time, so don't overwhelm us with too many priorities.

These learnings are now being used to inform the work of other initiatives, such as Primary Health Care Redesign and Clinical Practice Redesign™, which aim to make significant improvements within the primary and clinical care experiences. They are taking a multidisciplinary team approach to overcome common challenges and to improve the entire continuum of care for Saskatchewan patients.

ACKNOWLEDGEMENTS

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- Participating providers and office staff for the countless hours devoted to workshops, webinars, data entry, team meetings, and working to develop new ways of providing care. We applaud their commitment to their patients.
- The 10 participating Regional Health Authorities for the leadership demonstrated in providing access to Collaborative Facilitators who supported the practices in their work, as well as regional health professionals and those who specifically participated in the learning workshops.
- Clinical leads for their expertise and leadership, including Dr. Darcy Marciniuk and Donna Bleakney (COPD clinical leads), Nick Kates and Marilyn Baetz (Depression clinical leads), Dr. Kishore Visvanathan (Office redesign lead), and Mark Cameron (Physician advisor).
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- The Saskatchewan Medical Association for their support of the Collaborative, including a financial contribution that assisted physicians with expenses so they could attend the learning workshops and spirometry interpretation training.

WANT TO LEARN MORE?

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