

Chapter 23

Saskatchewan Cancer Agency—Delivering the Screening Program for Colorectal Cancer

1.0 MAIN POINTS

In Saskatchewan, colorectal cancer is the second leading cause of cancer death. Approximately 90% of colorectal cancers can be prevented or successfully treated if caught early.¹

By March 2023, the Saskatchewan Cancer Agency made some progress toward implementing the six recommendations we first made in our 2020 audit of its processes to deliver its population-based Screening Program for Colorectal Cancer, but further work is needed.

Participation rates in the screening program continue to decrease, with only about 41% of eligible individuals (those over 50 years of age) participating in the program, which is below Canada's national benchmark of 60%.² The Agency needs to analyze whether its promotional strategies help to increase participation in its colorectal cancer screening program. Reports to senior management and the Board also need to include analysis of the participation rates to help the Agency understand progress and identify opportunities for improvement.

The Agency developed some indicators to align with nationally accepted indicators to help measure the success of the Screening Program for Colorectal Cancer. For example, the Agency developed an indicator to measure the proportion of the target population who were overdue for colorectal screening during the calendar year. However, the Agency has not yet determined which indicators to report to senior management and the Board.

In addition, the Agency began working with the Saskatchewan Health Authority to reduce patients' wait times for colonoscopies by proposing plans to have the Agency book colonoscopies for all patients with abnormal screening results. They are also considering a timeframe target for providing patients and their healthcare providers (e.g., family physicians) with pathology results. This will help patients receive appropriate and timely treatment, and reduce the risk of colorectal cancer growing or spreading.

An effective colorectal cancer screening program helps to identify seemingly healthy people who may have a higher risk of colorectal cancer development.

¹ www.saskcancer.ca/screening-article/why-is-screening-for-colorectal-cancer-important (23 June 2023).

² The Canadian Partnership Against Cancer (CPAC) is a non-profit organization that works collaboratively with provincial, territorial, and national partners to improve the effectiveness and efficiency of cancer control in Canada. CPAC developed a number of colorectal cancer screening national indicators and benchmarks for use in Canada.



2.0 INTRODUCTION

2.1 Background

The Saskatchewan Cancer Agency is responsible for providing services with respect to prevention and screening of individuals for cancers, including colorectal cancer.³ Since 2009, the Agency provides a population-based Screening Program for Colorectal Cancer.⁴ The Agency collaborates with the Saskatchewan Health Authority to deliver the program.

Colorectal screening can identify people who may have a higher risk of developing colorectal cancer, so they can receive treatment or management techniques at an earlier stage that may make a difference to the outcome. Colorectal cancer is one of the most treatable cancers if caught early, but not enough people in Canada participate in regular screening.⁵

The Agency provides at-home Fecal Immunochemical Test (FIT) kits to participants who are between the ages of 50 and 74 with a valid Saskatchewan Health Services card, and do not have a colorectal cancer diagnosis.⁶ It asks participants to return completed tests via mail or to a drop-off location where kits are then sent to the Saskatchewan Health Authority for processing at the Roy Romanow Provincial Laboratory.

In 2022–23, the Agency spent over \$2.5 million on its Screening Program for Colorectal Cancer.⁷

2.2 Focus of Follow-Up Audit

In 2020, we assessed the Saskatchewan Cancer Agency's processes to deliver its population-based Screening Program for Colorectal Cancer. Our *2020 Report – Volume 2*, Chapter 21, concluded the Agency had effective processes to deliver its population-based Screening Program for Colorectal Cancer for the 12-month period ended July 31, 2020, other than the matters reflected in our six recommendations.⁸

To conduct this audit engagement, we followed the standards for assurance engagements published in the *CPA Canada Handbook—Assurance* (CSAE 3001). To evaluate the Agency's progress toward meeting our recommendations, we used the relevant criteria from the original audit. Agency management agreed with the criteria in the original audit.

To carry out our follow-up audit, we interviewed key Agency staff responsible for delivering the Screening Program for Colorectal Cancer and examined the Agency's IT systems and documents such as Board and Committee minutes and performance reporting related to the Screening Program for Colorectal Cancer.

³ *The Cancer Agency Act*, section 9(1) and (2).

⁴ Population-based screening is a test offered to all individuals in a defined target group (e.g., of the same age range).

⁵ www.partnershipagainstcancer.ca/news-events/news/article/key-lessons-increasing-colorectal-screening/ (29 June 2023).

⁶ saskcancer.ca/screening-article/screening-program-for-colorectal-cancer (26 June 2023).

⁷ Information provided by the Saskatchewan Cancer Agency.

⁸ *2020 Report – Volume 2, Chapter 21*, pp. 145–164.

3.0 STATUS OF RECOMMENDATIONS

This section sets out each recommendation including the date on which the Standing Committee on Public Accounts agreed to the recommendation, the status of the recommendation at March 31, 2023, and the Agency's actions up to that date.

3.1 No Analysis on Promotional Strategy Effectiveness as Participation Rates Decrease

We recommended the Saskatchewan Cancer Agency analyze if its promotional strategies help increase participation in its Screening Program for Colorectal Cancer. (2020 Report – Volume 2, p. 152, Recommendation 1; Public Accounts Committee agreement January 12, 2022)

Status—Not Implemented

While the Saskatchewan Cancer Agency has made some efforts to target its promotional strategies to under-screened populations in Saskatchewan, it is not conducting analysis to determine whether its promotional strategies help to increase participation in its Screening Program for Colorectal Cancer.

The Canadian Partnership Against Cancer notes First Nations, Inuit and Métis; those living in rural and remote communities; and those living in northern regions of provinces are among the people at a higher risk of developing cancer (including colorectal cancer) as they are generally underserved in healthcare.⁹

From November 1, 2021, to March 31, 2023, the Agency held 16 events to promote colorectal cancer screening. Of these, the Agency targeted five events at Indigenous and immigrant populations who are generally under-screened populations in Saskatchewan. However, we found the Agency did not conduct analysis to determine whether these events raised awareness or increased participation in the screening program.

As illustrated in **Figure 1**, the participation rate of individuals over 50 years of age in the Agency's colorectal cancer screening program continued to decrease over the past five years to about 41%, which is below Canada's national benchmark of 60%.¹⁰

Figure 1—FIT Kit Completion and Participation Rates in Saskatchewan^A

	April 2017– March 2019	April 2018– March 2020	April 2019– March 2021 ^B	April 2020– March 2022
Number of people (over 50 years of age) who completed at least one FIT kit	159,367	152,727	137,625	136,638
Colorectal cancer screening program population-based participation rate	49.3%	46.9%	41.6%	41.1%

Source: Saskatchewan Cancer Agency, *Annual Report 2021–22*, p. 18.

^A The Agency reports participation rate and completed Fecal Immunochemical Test (FIT) statistics over a two-year period.

^B The Agency paused its Screening Program for Colorectal Cancer from March 17, 2020, to May 19, 2020, due to the COVID-19 pandemic.

⁹ www.partnershipagainstcancer.ca/news-events/news/article/key-lessons-increasing-colorectal-screening (29 June 2023).

¹⁰ Ibid. According to the Canadian Partnership Against Cancer, no province or territory has achieved the 60% screening target.



The Agency tracks participation in its colorectal cancer screening program by former health region. Our analysis found from March 31, 2020, to December 31, 2022, the participation rate declined across all former regions of the province between 3.0% and 6.6%.¹¹ We also found the participation rates of northern Saskatchewan residents in the colorectal cancer screening program remain the lowest, and continued to decrease (see **Figure 2**).

Figure 2—Participation Rates of Northern Saskatchewan Residents in the Screening Program for Colorectal Cancer

Former Health Region	April 1, 2019 to March 31, 2020	January 1, 2021 to December 31, 2022	Decrease in Participation Rate
Mamawetan Churchill River ^A	33.9%	28.0%	5.9%
Keewatin Yatthé ^B	28.1%	24.0%	4.1%
Athabasca ^C	22.3%	19.2%	3.1%

Source: Information provided by the Saskatchewan Cancer Agency.

^A Mamawetan Churchill River Health Region included communities such as Creighton, La Ronge, Pinehouse, Sandy Bay, and Weyakwin.

^B Keewatin Yatthé Health Region included communities such as Beauval, Green Lake, Buffalo Narrows, and La Loche.

^C Athabasca Health Region included communities such as Stony Rapids and Uranium City.

In September 2021, the Agency hired an Outreach Manager to create an outreach strategy and action plan for the Screening Program for Colorectal Cancer, based on data and community feedback. Management indicated the Agency expects to have the outreach strategy and action plan completed in summer 2023.

Focusing promotional strategies on under-screened areas to raise awareness and educate eligible target groups should lead to increased program participation rates. Analysis of the promotional events will help to determine whether these events achieve the desired outcomes. Higher screening program participation should lead to early detection and better health outcomes for individuals diagnosed with colorectal cancer.

3.2 Consistent Approach to Booking Colonoscopies Needed to Reduce Wait Times

We recommended the Saskatchewan Cancer Agency work with the Saskatchewan Health Authority to reduce the time patients wait for colonoscopies with an aim to provide these services within the nationally accepted benchmark for colorectal cancer screening programs. (2020 Report – Volume 2, p. 158, Recommendation 2; Public Accounts Committee agreement January 12, 2022)

Status—Partially Implemented

The Saskatchewan Cancer Agency, the Ministry of Health, and the Saskatchewan Health Authority began working together to discuss ways to improve endoscopy (e.g., colonoscopy) wait times provincially, but more work remains.

The Canadian Partnership Against Cancer has set a benchmark of booking 90% of follow-up colonoscopies within 60 days of a patient's receipt of an abnormal screening result from a FIT kit.

¹¹ The colorectal cancer screening program was suspended from March 17, 2020, to May 19, 2020, due to the COVID-19 pandemic.

Either the Agency or the patient's primary care provider (e.g., family physician) is responsible for booking follow-up colonoscopies in certain regions of the province. The Agency refers to these different booking processes as program-navigated, dual-navigated, or non-navigated, as outlined in **Figure 3**.

Figure 3—Process for Booking Follow-Up Colonoscopies

Program-navigated: Booking a follow-up colonoscopy appointment is the responsibility of the Agency where, as part of the screening program, a patient's completed FIT kit resulted in an abnormal result.

Dual-navigated: Booking a follow-up colonoscopy appointment is the responsibility of the Agency where, as part of the screening program, a patient's completed FIT kit resulted in an abnormal result or as ordered by a patient's primary care provider as part of opportunistic screening.^A

Non-navigated: Responsibility for referring patients for colonoscopy lies solely with the patient's primary care provider.^B

Source: Information provided by the Saskatchewan Cancer Agency.

^A Opportunistic screening is when patients receive screening for colorectal cancer at the request of their physician.

^B The following former health regions are non-navigated: Athabasca, Keewatin Yatthé, Memawetan Churchill River, Prairie North, Heartland, Cypress, and Five Hills.

From screening program invitations sent from January 1, 2022, to October 31, 2022, we found 2,368 patients had an abnormal result from a completed FIT kit, with 559 patients having a follow-up colonoscopy by December 31, 2022.¹² On an overall basis, 66% had a follow-up colonoscopy completed within 60 days of their abnormal FIT result, falling short of the national target of 90%.

Figure 4 shows that for 117 patients in non-navigated regions, the average wait time from abnormal result to colonoscopy continued to be over 60 days (ranging from 8 to 240 days), consistent with our 2020 audit.

Figure 4—Average Wait Time from Abnormal FIT Kit Result to Colonoscopy Appointment for Screened Patients between January 2022 and October 2022

Type of Navigation	Number of Patients Needing Colonoscopy	Average Wait Time (Days)
Program-navigated	317	58.3
Dual-navigated	125	55.9
Non-navigated	117	83.7

Source: Adapted from information provided by the Saskatchewan Cancer Agency.

We also analyzed data on wait times for colonoscopies for those patients within the screening program diagnosed with colorectal cancer. From January 1, 2022, to October 31, 2022, our analysis found three patients who waited longer than 60 days for a colonoscopy which led to a cancer diagnosis (wait times were 62, 91, and 125 days after an abnormal FIT result).

In June 2021, the Ministry of Health initiated the Provincial Endoscopy Committee (PEC) with both the Agency and the Saskatchewan Health Authority as members. The goal of PEC was to improve endoscopy (e.g., colonoscopy) wait times provincially.¹³

¹² It can take up to 120 days, on average, from the time an invite goes out for an individual to complete a FIT kit to the time they complete a colonoscopy (where an individual obtained an abnormal result from a completed FIT kit).

¹³ PEC was replaced in 2022 by the Endoscopy Executive Committee. Colonoscopy is a type of endoscopy.



We found PEC discussed the endoscopy wait times overall and the plans to address them provincially. For example, in November 2021, the Agency presented its navigation expansion project to PEC and its plans to implement navigation services to all patients with an abnormal result from a FIT kit. At March 2023, the Agency had not expanded its navigation services to the entire province.¹⁴

In April 2022, at the recommendation of PEC, the Saskatchewan Health Authority's executive leadership approved an Endoscopy Executive Committee. Its purpose is to set strategic direction, develop a provincial plan, and oversee the work of endoscopy services. The Committee includes members from the Authority, the Agency, the Ministry of Health, and physician leaders. At March 2023, the Endoscopy Executive Committee has yet to meet. However, it planned to meet for the first time in June 2023 to discuss the provincial plan, priorities for 2023–24, and the provincial rollout of endoscopy booking priorities.

Without a consistent approach for booking colonoscopies, patients who are not navigated through the Agency's screening program often wait longer for colonoscopies. Delays in receiving colonoscopies can result in delays in a colorectal cancer diagnosis and required treatment.

3.3 Timeframe for Providing Pathology Results Under Review

We recommended the Saskatchewan Cancer Agency work with the Saskatchewan Health Authority to determine a timeframe (benchmark) for providing patients and healthcare providers with pathology results related to screening for colorectal cancer. (2020 Report – Volume 2, p. 160, Recommendation 3; Public Accounts Committee agreement January 12, 2022)

Status—Partially Implemented

The Saskatchewan Cancer Agency worked with the Saskatchewan Health Authority to determine a target timeframe for providing patients and healthcare providers with pathology results (e.g., colorectal cancer diagnosis) related to screening for colorectal cancer. The target is currently under review by the Authority's Lab Medicine Anatomic Pathology (AP) Provincial Discipline Committee.

In January 2023, the Agency and the Authority met to determine an appropriate turnaround time target for pathology results. Both agreed to a target of 95% within 14 days, for all locations. As of May 2023, the target is under review by the Authority's Lab Medicine AP Provincial Discipline Committee.

From January 1, 2022, to October 31, 2022, our analysis found 559 patients within the colorectal cancer screening program had colonoscopies. Of these, 433 patients had biopsies taken and 45% of these patients received their pathology results later than 14 days. We found the average pathology wait time was 16.4 days, with the longest wait time of 37 days.

¹⁴ The Agency intends to complete expansion to one additional former health region and have a plan in place for the rest by the end of 2023–24.

Having benchmarks for expected timeframes to give pathology results from colonoscopies to patients and primary care providers would help the Agency and the Authority assess wait times. Timely receipt of pathology results assists in determining and providing appropriate and prompt treatment, and reduces the risk of the cancer growing or spreading.

3.4 More Analysis and Reporting on Quality Indicators Needed

We recommended the Saskatchewan Cancer Agency align quality indicators it regularly uses to report on the Screening Program for Colorectal Cancer with nationally accepted indicators. (2020 Report – Volume 2, p. 163, Recommendation 6; Public Accounts Committee agreement January 12, 2022)

Status—Partially Implemented

We recommended the Saskatchewan Cancer Agency report on results of key quality indicators timely for its Screening Program for Colorectal Cancer. (2020 Report – Volume 2, p. 162, Recommendation 5; Public Accounts Committee agreement January 12, 2022)

Status—Partially Implemented

We recommended the Saskatchewan Cancer Agency periodically include analysis of key quality indicator results for its Screening Program for Colorectal Cancer in its reports to senior management and the Board. (2020 Report – Volume 2, p. 162, Recommendation 4; Public Accounts Committee agreement January 12, 2022)

Status—Partially Implemented

While the Saskatchewan Cancer Agency developed some indicators to align with the nationally accepted indicators to help measure the success of the Screening Program for Colorectal Cancer, it has not yet determined which indicators to report to senior management and the Board. In addition, its current reports to senior management and the Board do not contain analysis or explanations where it has not met national benchmarks.

In summer 2022, the Agency hired a Business Intelligence Specialist to work with data from the screening programs (e.g., colorectal cancer, breast cancer) to help improve access, timeliness, and consistency in reporting indicators across the screening programs.

The Canadian Partnership Against Cancer has set 10 national quality indicators for colorectal cancer screening programs. As set out in **Figure 5**, the Agency developed indicators, or a reasonable proxy, to monitor seven of the 10 national quality indicators, and plans to develop indicators for another two.

**Figure 5—Quality Indicators Used by the Agency’s Screening Program for Colorectal Cancer at March 2023**

National Quality Indicator	Definition	National Benchmark	Indicator Developed by the Agency ^A
Screen-eligible population based participation rate	Proportion of the target population who successfully completed at least one FIT in the program within two years	60% or higher	Yes
Screening program participation rate (i.e., among those invited to screen)	Proportion of the target population invited to screen who successfully completed at least one FIT in the program within 30 months	Not set	Yes
Overdue for colorectal cancer screening	Proportion of the target population who were overdue for colorectal screening in each calendar year	Not set	Yes
Follow-up colonoscopy rate	Proportion of individuals with an abnormal FIT result having a follow-up colonoscopy within six months	85% or higher	Yes
Wait time to follow-up colonoscopy	Time interval from abnormal FIT result to follow-up colonoscopy	90% or higher within 60 days of an abnormal FIT result	Yes
Program invasive colorectal cancer rate	Rate per 1,000 individuals with colorectal cancer confirmed by pathology from a follow-up colonoscopy performed within 180 days of an abnormal screening over two years	2 or more colorectal cancer cases per 1,000 people screened	Yes
Colorectal cancer stage distribution	Distribution of detected colorectal cancer by tumor, node, and metastasis stage	Not set	Yes
14-day post-colonoscopy hospitalization rate for perforation or bleeding	Rate per 1,000 colonoscopies that resulted in the individual being admitted to hospital within 14 days of colonoscopy for bleeding and/or perforation	Not set	N/A – this information belongs to the Saskatchewan Health Authority, therefore, reasonable no indicator developed by the Agency
Interval cancer rate after negative fecal test result	Rate per 1,000 individuals with FIT screening results that were negative who were subsequently diagnosed with colorectal cancer before their next scheduled screening test	Not set	No – under development
Post-colonoscopy colorectal cancer rate after negative colonoscopy performed for positive fecal test	Rate per 1,000 individuals with abnormal FIT results and colonoscopy results negative for colorectal cancer (performed within 180 days of abnormal FIT) who were subsequently diagnosed with colorectal cancer between 6 months and 3 years after the colonoscopy	Not set	No – under development

Source: Adapted from Canadian Partnership Against Cancer, Colorectal Cancer Screening System Level Indicators: Data Specifications.

^A The Agency only reports these participation rates to senior management and the Board twice per year (shaded grey).

Currently, the Agency only reports the participation rates to senior management and the Board twice a year.¹⁵ Management indicated the Agency is determining what other indicators to report to senior management and the Board, and how often. It expects to do so by December 2023.

¹⁵ In February 2023, the Board requested to receive participation rate reports twice a year (previously received quarterly).

We reviewed participation rate reports for November 2022 and February 2023 and found the reports included timely information (e.g., the February report reflected information up to December 2022). This aligns with good practice suggesting reporting of results on key indicators three to six months after the results period.

We also found the reports included some trend information (i.e., quarterly rates for two years). However, the reports did not include trend analysis or reasons why the program did not achieve the national participation rate benchmark of 60% (along with management's actions or plans to improve participation rates).

Reporting on key performance indicators for colorectal screening that are consistent with good practice can provide senior management and the Board with pertinent information for decision-making. Written detailed analysis would help the Agency understand its progress and identify opportunities for improvements. Providing timely performance information also increases the ability of senior management and the Board to identify potential improvements sooner.

