

Medical Imaging

2023/24 Annual Progress Report

May 2024



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Strategy Overview

Medical imaging is a health service critical to diagnosing and managing many conditions that patients face.

In early 2018, government committed to reduce wait times for medical imaging services across the province. As well, it committed to increasing access to ensure patients could get the health care they needed, when and where they needed it.

In 2018, the initial focus was on increasing patient access to MRI services. Over the past three years, the focus expanded to include CT services.

The progress made has been significant. We have improved access to medical imaging by delivering more exams. We have been expanding operating hours. We have added new scanners. Many people dedicated to renewing and strengthening our health-care system have made these achievements possible, and enduring. Health authorities, radiologists, technologists, nurses, booking clerks, other health professionals, administrators, and many others including hospital foundations are just some of the many people who share in this accomplishment.

Progress At-A-Glance

- The total number of MRI exams performed in 2023/2024 was more than 322,000 – a 83% increase when compared to 2016/17 and 22,981 more exams completed than in 2022/23.
- 18 net-new MRI scanners have been added across the province since 2017, increasing the province’s total to 43 MRI scanners — a 72% increase.
- More than 994,000 CT exams were performed in 2023/24 — a 43% increase over 2016/17.
- Nine net-new CT scanners have been added across the province since 2017, increasing the province’s total to 72 CT scanners — a 14.3 % increase.
- The number of MRI technologist FTEs has increased by 133% since 2019.
- MRI scanners across the province operated for 4,960 hours per week in March 2024. This is 1,514 hours per week more than March 2017.
- B.C. now has the second-shortest wait time in Canada for priority procedures such as surgery and diagnostic imaging, with nine out of 10 patients waiting 159 days or less for their MRI exam, according to the 2023 annual report of the Canadian Institute for Health Information.

Annual Progress



In 2023/24, government committed to making further improvements in access to MRI and CT services for patients across B.C. by optimizing diagnostic space and teams, and by adding additional scanners. Four strategies were put into action to achieve this commitment and allow B.C. to meet patient demand for medical imaging exams. These strategies are:

1. Building further capacity
2. Increasing essential personnel
3. Optimizing business processes
4. Improving waitlist management and reporting

1. Building Further Capacity

MRI Performance

- The total number of MRI exams performed in 2023/2024 was more than 322,000 – a 83% increase when compared to 2016/17 and 22,981 more exams completed than in 2022/23.
- B.C.'s per capita rate for MRI exams in 2023/24 increased to 58.3 per 1,000 population from 36.1 per 1,000 population in 2016/17 – a 22.2-point increase.

Completed MRI exams this year compared with previous years:

Health Authority	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Coastal Health	52,488	57,286	64,606	64,616	57,675	69,427	71,247	75,381
Fraser Health	48,810	55,723	65,302	73,581	73,163	87,512	87,072	91,433
Interior Health	20,948	20,726	27,219	34,423	38,640	47,475	46,718	54,737
Island Health	38,042	38,496	49,345	50,923	49,429	58,950	59,770	61,558
Northern Health	6,331	7,536	14,084	15,663	14,400	17,059	19,507	20,647
PHSA	9,088	9,753	12,812	13,321	13,799	15,985	14,747	18,286
B.C.	175,707	189,520	233,368	252,527	247,106*	296,408	299,061	322,042

*As part of the response to the pandemic, non-urgent MRI exams were postponed for six weeks in 2020/21.

Provincial action to increase capacity on existing MRI scanners and to add new MRI scanners was effective:

- An additional 18 net-new MRI scanners have been added across the province since 2017, increasing the province's total to 43 MRI scanners.

- The Canadian Institute for Health Information annual report on how long Canadians waited for priority procedures such as surgery and diagnostic imaging in 2023 shows that B.C. now has the second shortest wait time in Canada, with nine out of 10 patients waiting 159 days or less for their MRI exam.

Net-New MRI Units

Health Authority	# Net-New MRI	Facility	Date of Operation
Coastal Health	3	Granville MRI Clinic (Vancouver)	June 2021
		St. Paul's Hospital (Vancouver)	June 2021
		Vancouver General Hospital	April 2023
Fraser Health	5	Abbotsford MRI Clinic	December 2018
		Surrey MRI Clinic	March 2019
		Jim Pattison Outpatient and Surgical Centre (Surrey)	June 2019
		Ridge Meadows Hospital (Maple Ridge)	November 2020
		Langley Memorial Hospital	December 2020
Interior Health	3	East Kootenay Regional Hospital (Cranbrook)	June 2018
		Penticton Regional Hospital	August 2019
		Vernon Jubilee Hospital	September 2019
Island Health	4	North Island Hospital - Campbell River	September 2017
		North Island Hospital - Comox	October 2017
		Royal Jubilee Hospital (Victoria)	September 2019
		Nanaimo Regional General Hospital	April 2020
Northern Health	2	Mills Memorial Hospital (Terrace)	August 2017
		Fort St. John Hospital	September 2017
PHSA	1	BC Children's Hospital (Vancouver)	October 2017
BC	18		

In addition to the MRI units listed above, PHSA has purchased a mobile MRI intended to support hospitals during scanner replacement projects. The home base for the mobile MRI is Sechelt and when not deployed, it will be used to reduce patient wait lists.

In 2023/24, B.C.'s MRI scanners operated for 4,960 hours per week in March 2024. – 283 more hours per week than March 2023. This is thanks to provincial efforts to increase capacity on existing scanners and the addition of new scanners.

When comparing to March 2017, MRI scanners in B.C. operated 1,514 more hours per week.

In addition, 27 of the 43 MRI scanners across B.C. operated at or over 16 hours per day, seven days per week benchmark in March 2024.

CT Performance

In 2018, the initial focus was on increasing patient access to MRI services. Over the past three years, the focus expanded to include CT services, and progress has occurred.

- The total number of CT exams performed in 2023/24 was over 994,000 — a 43% increase when compared to 2016/17.
- B.C.'s per capita rate for CT exams in 2023/24 increased to 180.1 per 1,000 population from 143.0 per 1,000 population in 2016/17 — a 37.1-point increase.

Completed CT exams this year compared with previous years:

Health Authority	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Coastal Health	178,216	183,744	201,342	201,614	196,764	224,886	217,613	226,651
Fraser Health	222,783	235,623	249,020	255,037	260,400	289,172	299,271	318,024
Interior Health	126,490	132,725	141,432	146,063	149,957	166,728	171,998	189,248
Island Health	113,631	123,675	133,699	139,167	141,848	152,021	158,595	175,073
Northern Health	39,327	42,739	47,041	47,919	47,771	53,199	61,197	67,957
PHSA	14,801	15,281	15,905	15,784	15,472	15,294	15,316	17,126
B.C.	695,248	733,787	788,439	805,584	812,212*	901,296	923,990	994,079

*As part of the response to the pandemic, non-urgent CT exams were postponed for six weeks in 2020/21.

Provincial action to increase capacity on existing CT scanners and to add new CT scanners was also effective:

- An additional nine net-new CT scanners have been added across the province, increasing the province's total to 72 CT scanners.

Net-New CT Units:

Health Authority	# Net-New CT	Facility	Date of Operation
Coastal Health	1	Squamish General Hospital	2025
	1	Richmond Hospital (modular)	Late 2024
Fraser Health	1	Burnaby General Hospital	2022
Interior Health	1	Vernon Jubilee Hospital	November 2023
	1	Penticton Regional Hospital	December 2023
Island Health	1	Port Hardy Hospital/Victoria General Hospital Mobile CT	December 2023
Northern Health	1	Bulkley Valley Hospital	July 2019
PHSA	1	BC Children's Hospital (Vancouver)	October 2017
	1	BC Children's Hospital (Vancouver)	2018
B.C.	9		

In addition to the fixed CT scanners listed above, PHSA purchased and now operates a mobile CT scanner to support maintenance downtime and scanner replacement projects across the province. The home base for the mobile CT scanner is Chilliwack, and when not deployed, it will be used to reduce patient wait lists. At present, the scanner is deployed to the Royal Columbian Hospital until September 2024 to support its CT replacement project.

In 2023/24, B.C.'s CT scanners were operated for 6,693 hours per week in March 2024 – 102 more hours per week than March 2023. This is thanks to provincial efforts to increase capacity on existing scanners and the addition of new scanners.

In addition, 26 of the 72 CT scanners across B.C. operated at or over 16 hours per day, seven days per week benchmark in March 2024.

2. Increasing Essential Personnel

From 2019 to 2023, the number MRI technologists increased from 276 to 383, with FTEs climbing to 257.56 from 110.28, a 133% increase. The 383 MRI technologists in 2023/24 meant we were delivering more capacity than ever before. This significant accomplishment is a result of taking action to fulfil the commitment in B.C.'s Health Human Resources Strategy announced in 2022, and in the Allied Health Strategic Plan announced in December 2023.

The Province is continuing to strengthen the health workforce, and key steps are being made to address staffing shortages. As of April 1, 2024, new initiatives support hiring eligible rural and urban health-care workers in priority occupations. They provide up to \$30,000 for filling high-needs vacancies in Northern Health, up to \$20,000 in other rural and remote areas, and up to \$15,000 available for specific difficult-to-fill vacancies in urban and metro communities.

In addition, effective April 1, 2024, the Province expanded the Provincial Rural Retention Incentive for health-care workers living and working in rural and remote communities. Health-care workers in qualifying occupations within eligible communities will receive the incentive of up to \$8,000 per year, per person.

To recruit students to priority health education programs, the Province is also investing in training incentives. This includes a \$2,000 bursary per program year to students enrolled in Medical Radiation Technology health education programs as of September 2023. Additionally, new allied health graduates will be provided with a \$500 bursary to offset licensing or certification exam fees.

In January 2023, the Province launched a new direct-entry diploma program to train more MRI Technologists. The ministries of Health and Post-Secondary Education and Future Skills, working with the B.C. Institute of Technology (BCIT) saw the program start with 12 students. Another cohort of 14 students joined in 2024 and the first graduates are expected in 2025.

As well, BCIT students who are health authority employees are also receiving tuition and stipend funding as part of the MRI technologist bursary program. Since the bursary program was first offered, 67 students have taken advantage of the funding.

In December 2023 a new Medical Radiography Technologist (MRT) program from Anderson College was established. This new MRT program focuses on hands-on learning and maximizes frontline learning to provide an accelerated learning pathway in preparation for writing the national exams. In collaboration with the Lower Mainland health authorities, the first intake of up to 20 students is scheduled for August 2024.

3. Optimizing Business Processes

Other strategies to increase patient access to imaging include looking at opportunities to optimize business processes. Work is underway this year to increase efficiencies by digitizing the requisition business processes using electronic tools. Once implemented, this will improve service delivery, creating a better, more efficient patient experience, and doing the same for the referring practitioner. Integrating systems to share information and images provincially is essential to ongoing enhancement of the medical imaging system.

In the fall of 2023, Health Gateway registered users were provided access to many of their diagnostic imaging reports. This means that patients can now access the same imaging report as their care provider. Health Gateway provides B.C. patients with secure and convenient online access to their health records. Anyone 12 years and older can use it. Parents and guardians can also add a dependent in Health Gateway to see immunizations for their children 11 years and younger.

4. Improving Waitlist Management

In 2022, the Ministry of Health issued its policy on medical imaging waitlist management, outlining best practices for MRI and CT wait list management to ensure they are accurate. The policy puts patients first by increasing access, increasing choice and transparency, and by improving communication on waitlist status.

By formalizing waitlist audits, health authorities have improved waitlist management across the province. As well, they have improved access for patients through the elimination of duplicate exams and by giving priority to those patients who have waited the longest.

Work Ahead in 2024/25

British Columbia is performing more medical imaging exams than ever before. To sustain and increase this achievement, the work continues to find and implement new ways to provide the health-care images that patients need, and care providers count on.

The Ministry of Health, health authorities, clinicians, and other partners will make additional improvements in patient access to MRI and CT exam in 2024/25. This means a continued action on and progress in the four strategies put in place to allow B.C. to meet patient demand for medical imaging exams.

1. Building further capacity

By continuing with the previous strategies of performing more exams, we will maximize operating hours and add new scanners.

By working with the health authorities and community imaging clinics, we will increase and improve patient access by having the right provider, whether the health authority or the community imaging clinic, complete the exam.

2. Increasing essential personnel

By continuing to implement that BC HHR Strategy and Allied Health Strategic Plan, we will recruit, retain, train, and innovate to address medical imaging staffing needs in B.C. This includes exploring new initiatives, such as international credential recognition bursaries for MRTs, opportunities to expand training seats at post-secondary institutions, and the creation of Employer-Sponsored 'Earn and Learn' and Employed Allied Health Student programs. These actions are a comprehensive strategic approach to improve the supply of high-demand allied health professions, such as MRTs.

3. Optimizing Business Processes

By increasing efficiencies through digitizing the requisition processes, and providing patient access to medical imaging results, we will deliver a better, more efficient patient and practitioner experience. The digitization of requisitions will assist referring practitioners in prioritizing and assessing the right image to order, and provide more timely access for patients.

4. Improving waitlist management and reporting

By continuing to implement best practices in the management of waitlists we will enhance waitlist management and strengthen communications on waitlist status for patients and their referring practitioners. Use of electronic tools will assist in reducing wait times and delays caused by rejected requisitions and manual entry into systems. As well, use of electronic tools will improve the provision of waitlist information to better inform site selection.