Medical Radiation Technologists in Canada, 2011

Spending and Health Workforce

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Acknowledgements

The Canadian Institute for Health Information (CIHI) would like to thank the following provincial regulatory bodies and provincial and national professional associations for their efforts, commitment and collaboration in developing and providing data to the database:

- Canadian Association of Medical Radiation Technologists (CAMRT)
- Newfoundland and Labrador Association of Medical Radiation Technologists
- Prince Edward Island Association of Medical Radiation Technologists
- Nova Scotia Association of Medical Radiation Technologists
- New Brunswick Association of Medical Radiation Technologists
- Ordre des technologues en imagerie médicale et en radio-oncologie du Québec
- College of Medical Radiation Technologists of Ontario
- Ontario Association of Medical Radiation Technologists
- Manitoba Association of Medical Radiation Technologists
- Saskatchewan Association of Medical Radiation Technologists
- Alberta College of Medical Diagnostic and Therapeutic Technologists
- British Columbia Association of Medical Radiation Technologists

CIHI also wishes to acknowledge and thank members of the Health Human Resources team for their contribution to the production of this publication:

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Please note that the analyses and conclusions in the present document do not necessarily reflect those of the individuals or organizations mentioned above.

Production of this material has been made possible through a financial contribution from Health Canada. The views expressed herein do not necessarily represent the views of Health Canada.

We wish to extend our thanks and gratitude to all medical radiation technologists who work with Canadians to improve their quality of life.

About This Report

Medical Radiation Technologists in Canada, 2011 is the fourth annual report from the Medical Radiation Technologist Database (MRTDB). It provides the most recent statistics on the medical radiation technologist (MRT) workforce, including supply, demographic, geographic, education, certification and employment dimensions of the MRT workforce. Data tables are supplemented with detailed information about the data collection process, limitations of the current data and an explanation of the analytical methods.

This report is intended for use by all levels of government, as well as researchers, stakeholders and advocacy groups, private and public organizations, educational institutions, media and MRTs, as a source of data on the MRT workforce in Canada. The information contained in this report contributes to effective human resources planning in the health care sector.

In this report, CIHI presents information on MRTs as a distinct health provider group.

Medical Radiation Technologists in Canada, 2011 includes

- National data highlights and profile;
- Provincial/territorial data highlights and profiles;
- A Methodological Notes section; and
- *Cross-Jurisdictional Data Tables* and *Jurisdictional Profiles* in MS Excel.

National Data Highlights and Profile

Medical radiation technologists (MRTs) are health care professionals who operate radiographic equipment to produce images of body structures to diagnose and treat injury and disease and/or operate radiation therapy equipment to plan and administer radiation treatment.

As of 2011, nine Canadian provinces either regulated the profession of medical radiation technology or required mandatory registration with the Canadian Association of Medical Radiation Technologists (CAMRT) and the association in the province where an MRT plans to work. These provinces are Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan and Alberta. The workforce statistics in these provinces represent the entire MRT workforce population. MRTs working in British Columbia and the territories (Yukon, the Northwest Territories and Nunavut) usually register with the CAMRT to meet employment conditions required by employers.

All statistics in this section refer to the 2011 registered MRT workforce, unless otherwise specified.

Workforce Supply

Per CIHI's definition,[i] the registered MRTs workforce in 2011 totaled 17,674. For the nine provinces combined that require mandatory registration (all provinces except B.C.[ii]), the number of MRTs per 100,000 population was 53, ranging from 44 in Saskatchewan to 73 in New Brunswick. From 2008 to 2011, the MRT workforce for these provinces combined increased by 6.8%, while the population in these nine provinces grew by 3.4%.[iii]

Please refer to Tab 1 in the Excel workbook *2011 Cross-Jurisdictional Data Tables* for more details on the workforce supply of registered MRTs from 2008 to 2011.

Demographics

In 2011, approximately 32% of MRTs were younger than 35. Additionally, more than 16% of MRTs were 55 and older. The average age of the MRT workforce in 2011 was 42.

More than 80% of the 2011 MRT workforce in Canada was female and nearly 20% was male. The gender split varied by province; Newfoundland and Labrador had the lowest percentage of females (76.0%) and New Brunswick had the highest (86.3%). On average, male MRTs tended to work longer hours than female MRTs.

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i. The MRT workforce includes active registered MRTs who work in medical radiation technology and are identified as primary registrations according to CIHI's methodology. See details in *Medical Radiation Technologist Database Technical Notes* and the Methodological Notes of this report, which can be downloaded from CIHI's website at www.cihi.ca.

ii. Due to voluntary registration, B.C. may not be comparable with other provinces and therefore was excluded from the analysis.

iii. Statistics Canada. *Quarterly Population Estimates, National Perspective—Population, Quarterly Demographic Estimates—July to September 2011*. http://www.statcan.gc.ca/pub/91-002-x/91-002-x2011003-eng.pdf.

Education and Certification

To become an MRT, post-secondary education in medical radiation technology from a program accredited by the Canadian Medical Association is required. In 2011, the majority of MRTs in seven provinces (Newfoundland and Labrador, P.E.I., New Brunswick, Quebec, Manitoba, Saskatchewan and Alberta) and the three territories (Yukon, the Northwest Territories and Nunavut) held a diploma (about 94%) as their level of basic education for entry to practice.

New graduates are the main source of supply for the MRT workforce. The percentage of MRTs who had graduated in the past two years was 7.2% overall in nine provinces (Newfoundland and Labrador, P.E.I., Nova Scotia, New Brunswick, Quebec, Manitoba, Saskatchewan, Alberta and B.C.) and the three territories, ranging from 2.7% in Manitoba to 12.4% in P.E.I.

The majority of MRTs (96.9%) in six provinces (Newfoundland and Labrador, P.E.I., Quebec, Manitoba, Saskatchewan and Alberta) and the three territories received their basic education in medical radiation technology within Canada.

Graduates are eligible to write a national certification examination offered by the CAMRT. MRTs can become certified in one of four areas: radiological technology, radiation therapy, nuclear medicine and magnetic resonance imaging (MRI). Graduates who wish to work in Quebec participate in a certification process specific to that province offered by the Ordre des technologues en imagerie médicale et en radio-oncologie du Québec (OTIMRO). Candidates who successfully complete either the CAMRT or OTIMRO exam are able to practice in the discipline in which they were certified in any jurisdiction in Canada, as long as they meet all of the requirements for registration in that jurisdiction.

The majority of MRTs obtained their initial certification in radiological technology (74.9%), while a smaller proportion of the MRT workforce was initially certified in radiation therapy (11.6%) and nuclear medicine (10.2%).

Primary Employment

The majority (84.6%) of MRTs from seven provinces (Newfoundland and Labrador, P.E.I., New Brunswick, Quebec, Ontario, Manitoba and Saskatchewan) and the three territories (Yukon, the Northwest Territories and Nunavut) were permanent employees, while about 13% had either temporary or casual employment.

In Newfoundland and Labrador, P.E.I., Quebec, Manitoba, Saskatchewan and the three territories, 75.2% of the combined MRT workforce worked on a full-time basis.

Most MRTs (80.7%) were staff technologists. The remainder were managers (2.5%), supervisors (2.5%), charge technologists/team leaders (6.1%), radiation safety officers (0.2%) or educators (2.5%) or held other positions (3.3%). This information is available for Newfoundland and Labrador, P.E.I., New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan and the three territories.

The majority of MRTs provided diagnostic and therapeutic services directly to patients, at 87.6% of the combined total workforce for Newfoundland and Labrador, P.E.I., Ontario, Manitoba, Saskatchewan and the three territories.

The percentage of MRTs who worked in a hospital setting ranged from 55.2% in Alberta to 96.0% in New Brunswick, reflecting different organizational structures and unique ways of delivering medical imaging services across the jurisdictions (Newfoundland and Labrador, P.E.I., New Brunswick, Quebec, Manitoba, Alberta and the three territories). A small number of MRTs worked in other settings, such as free-standing imaging facilities/clinics (13.4%), cancer care centres (3.9%), community health centres (2.3%) and other places (3.4%).

MRTs can practise in the discipline(s) in which they are certified. In 2011, at their place of primary employment, approximately two-thirds of MRTs in P.E.I., New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta and the three territories practised in the following areas: radiological technology (32.2%), computed tomography (11.0%), breast imaging (7.2%), nuclear medicine (6%) and radiation therapy (6.2%).

For a given employment, MRTs can work in multiple areas of practice, having one main area of practice that is associated with the greatest number of hours of work. In 2011, for P.E.I., Ontario, Manitoba, Saskatchewan, Alberta and the three territories, the top five areas that MRTs indicated were their main area of practice for primary employment were radiological technology (39.5%), radiation therapy (8.0%), nuclear medicine (7.3%), computed tomography (7.1%) and magnetic resonance imaging (6.5%).

The national profile below provides a snapshot of the registered MRT workforce across Canada in 2011. For complete details of the MRT workforce related to supply, demographics, education, certification and employment, please see the *2011 Cross-Jurisdictional Data Tables* and *Jurisdictional Profiles* that accompany this report.

Canada—Total Registered Medical Radiation Technologist Workforce, 2011

		Count	Percentage	Jurisdictions With Available Data
Supply and Demographics				
Total Registered Medical Radiation Technologist Workforce in Canada		**17,674**		
Gender	Female	14,27†	80.†%	All Provinces and Territories
	Male	3,39†	19.†%	
	Total	17,674		
Average Age	Years	41.9		All Provinces and Territories
Age Group	<35	5,66†	32.†%	All Provinces and Territories
	35–54	9,023	51.1%	
	55+	2,94†	16.†%	
	Unknown	40	0.2%	
	Total	17,674		
Education and Certification				
Level of Basic Education in MRT	Diploma	8,27†	94.†%	N.L., P.E.I., N.B., Que., Man., Sask., Alta., Territories
	Baccalaureate	18†	2.†%	
	Master's	0	0.0%	
	Doctorate	0	0.0%	
	Unknown	309	3.5%	
	Total	8,767		
Location of Graduation for Basic Education in MRT	Canadian Trained	7,961	96.9%	N.L., P.E.I., Que., Man., Sask., Alta., Territories
	Foreign Trained	165	2.0%	
	Unknown	86	1.0%	
	Total	8,212		
New Graduates in MRT	Yes—Graduated Within Last Two Years	812	7.2%	N.L., P.E.I., N.S., N.B., Que., Man., Sask., Alta.,
	No—Graduated More Than Two Years Ago	10,23†	90.†%	B.C., Territories
	Unknown	27†	2.†%	
	Total	11,319		
Initial MRT Certification Discipline	Magnetic Resonance Imaging	131	0.8%	N.L., P.E.I., N.S., Que., Ont., Man., Sask., Alta.,
	Nuclear Medicine	1,730	10.2%	B.C., Territories
	Radiation Therapy	1,968	11.6%	
	Radiological Technology	12,665	74.9%	
	Other or Unspecified	9	0.1%	
	Unknown	413	2.4%	
	Total	16,916		
Employment				
Multiple Employment Status	Single Employer	7,48†	74.†%	N.L., P.E.I., N.B., Ont., Man., Sask., Alta., Territories
	Multiple Employers	2,42†	24.†%	
	Unknown	161	1.6%	
	Total	10,070		
Total Usual Weekly Hours of Work	<22.5	1,285	10.4%	N.L., P.E.I., N.B., Que., Ont., Sask.
	22.5–34.9	1,832	14.9%	
	35.0–37.5	7,068	57.4%	
	37.6+	1,904	15.5%	
	Unknown	233	1.9%	
	Total	12,322		
Primary Employment				
Employment Category	Permanent Employee	11,016	84.6%	N.L., P.E.I., N.B., Que., Ont., Man., Sask., Territories
	Temporary Employee	79†	6.†%	
	Casual Employee	890	6.8%	
	Self-Employed	1†	0.†%	
	Unknown	308	2.4%	
	Total	13,017		
Full-Time/ Part-Time Status	Full Time	4,761	75.2%	N.L., P.E.I., Que., Man., Sask., Territories
	Part Time	1,310	20.7%	
	Unknown	261	4.1%	
	Total	6,332		
Place of Employment	General Hospital	6,344	76.4%	N.L., P.E.I., N.B., Que., Man., Alta., Territories
	Community Health Centre	191	2.3%	
	Cancer Care	323	3.9%	
	Free-Standing Imaging Facility/Clinic	1,112	13.4%	
	Mobile Imaging Unit	6	0.1%	
	Post-Secondary Educational Institution	146	1.8%	
	Association/Government/Para-Governmental	11	0.1%	
	Industry, Manufacturing and Commercial	41	0.5%	
	Other	75	0.9%	
	Unknown	50	0.6%	
	Total	8,299		

(continued on next page)

Canada—Total Registered Medical Radiation Technologist Workforce, 2011 (cont'd)

		Count	Percentage	Jurisdictions With Available Data
Position	Manager	329	2.5%	N.L., P.E.I., N.B., Que., Ont., Man., Sask., Territories
	Supervisor	330	2.5%	
	Charge Technologist/Team Leader	794	6.1%	
	Staff Technologist	10,499	80.7%	
	Radiation Safety Officer	24	0.2%	
	Consultant	18	0.1%	
	Information System Specialist	85	0.7%	
	Quality Management Specialist	16	0.1%	
	Educator	323	2.5%	
	Researcher	24	0.2%	
	Sales	43	0.3%	
	Other	248	1.9%	
	Unknown	284	2.2%	
	Total	13,017		
Clinical Education/ Preceptor Activity Indicator	Yes	5,920	41.3%	N.L., P.E.I., Que., Ont., Man., Sask., Alta., Territories
	No	8,277	57.7%	
	Unknown	145	1.0%	
	Total	14,342		
Major Function	Diagnostic and Therapeutic Services	6,688	87.6%	N.L., P.E.I., Ont., Man., Sask., Territories
	Administration	331	4.3%	
	Information Systems	73	1.0%	
	Teaching, Medical Radiation Technology–Related	187	2.4%	
	Research	34	0.4%	
	Other Major Function	66	0.9%	
	Unknown	256	3.4%	
	Total	7,635		
Area of Practice	Radiological Technology (General)	6,930	32.2%	P.E.I., N.B., Que., Ont., Man., Sask., Alta., Territories
	Computed Tomography (CT)	2,361	11.0%	
	Nuclear Medicine (General)	1,33†	6.†%	
	Breast Imaging	1,540	7.2%	
	Radiation Therapy (General)	1,326	6.2%	
	Magnetic Resonance Imaging (General)	1,09†	5.†%	
	Ultrasound/Diagnostic Medical Sonography	851	4.0%	
	Bone Mineral Densitometry	1,266	5.9%	
	Angiography/Interventional	811	3.8%	
	Treatment Planning	546	2.5%	
	Computed Tomography Simulator (CT/Sim)	536	2.5%	
	Single Photon Emission Computed Tomography (SPECT)	52†	2.†%	
	Simulation	410	1.9%	
	Single Photon Emission Computed Tomography/Computed Tomography (SPECT/CT)	31†	1.†%	
	Positron Emission Tomography/Computed Tomography (PET/CT)	178	0.8%	
	Brachytherapy	23†	1.†%	
	Positron Emission Tomography (PET)	89	0.4%	
	Other Area of Practice	1,17†	5.†%	
	Total	21,529		
Main Area of Practice	Radiological Technology (General)	3,661	39.5%	P.E.I., Ont., Man., Sask., Alta., Territories
	Radiation Therapy (General)	739	8.0%	
	Nuclear Medicine (General)	674	7.3%	
	Computed Tomography (CT)	662	7.1%	
	Magnetic Resonance Imaging (General)	602	6.5%	
	Breast Imaging	540	5.8%	
	Angiography/Interventional	215	2.3%	
	Treatment Planning	126	1.4%	
	Ultrasound/Diagnostic Medical Sonography	80	0.9%	
	Bone Mineral Densitometry	69	0.7%	
	Computed Tomography Simulator (CT/Sim)	42	0.5%	
	Single Photon Emission Computed Tomography (SPECT)	34	0.4%	
	Brachytherapy	14	0.2%	
	Positron Emission Tomography/Computed Tomography (PET/CT)	12	0.1%	
	Simulation	9	0.1%	
	Single Photon Emission Computed Tomography/Computed Tomography (SPECT/CT)	†	0.†%	
	Positron Emission Tomography (PET)	*	0.†%	
	Other Area of Practice	76	0.8%	
	Cannot Identify One Main Area of Practice	397	4.3%	
	Not Applicable‡	1,063	11.5%	
	Unknown	234	2.5%	
	Total	9,262		

Notes

* Value suppressed in accordance with CIHI's Privacy Policy; cell value is from 1 to 4.

† Value suppressed to ensure confidentiality.

‡ The majority of registrants in the Not Applicable category represent those who did not provide direct patient care, that is, educators, researchers, etc.

Workforce Count and Regulation Status

The data for Nova Scotia and B.C. was provided by the CAMRT at the aggregate level. The workforce count for B.C. may not represent the entire workforce due to voluntary registration with the CAMRT. Refer to Appendix B for more information.

Sources

Medical Radiation Technologist Database, Canadian Institute for Health Information; Canadian Association of Medical Radiation Technologists.

About CIHI's Medical Radiation Technologist Database

To determine the demand for MRTs in any jurisdiction, it is important to understand the present supply and the ways in which that supply is changing.

In consultation with provincial regulatory bodies, the provincial professional associations, the CAMRT and other stakeholders, CIHI developed a standardized set of data elements to capture information on the MRT workforce in Canada. These data elements cover demographic, geographic, education, certification and employment dimensions and have been compiled in the *MRTDB Reference Guide*. Since 2008, the MRTDB has collected information on the supply and distribution, geography, education, certification, and employment of MRTs in Canada.

MRTDB Data Providers

The primary data collectors for the MRTDB are the provincial regulatory bodies or the professional associations (except for the British Columbia Association of Medical Radiation Technologists) and the national association (the CAMRT), which provided data on behalf of B.C., Yukon, the Northwest Territories and Nunavut through voluntary registration with the CAMRT. All of these data providers have participated in data submission activities since 2008, with exceptions noted in the table below.

MRTDB Data Providers	Corresponding Province/ Territory of Data Submission
Newfoundland and Labrador Association of Medical Radiation Technologists	Newfoundland and Labrador
Prince Edward Island Association of Medical Radiation Technologists	Prince Edward Island
Nova Scotia Association of Medical Radiation Technologists	Nova Scotia
New Brunswick Association of Medical Radiation Technologists	New Brunswick
Ordre des technologues en imagerie médicale et en radio-oncologie du Québec	Quebec
College of Medical Radiation Technologists of Ontario	Ontario
Manitoba Association of Medical Radiation Technologists	Manitoba
Saskatchewan Association of Medical Radiation Technologists	Saskatchewan
Alberta College of Medical Diagnostic and Therapeutic Technologists	Alberta
Canadian Association of Medical Radiation Technologists (CAMRT)	Nova Scotia (2011)* Saskatchewan (2008 and 2009)* British Columbia* Yukon Northwest Territories Nunavut

Note

* Aggregate-level data for Nova Scotia (2011), Saskatchewan (2008 and 2009) and B.C. was provided by the CAMRT.

To be registered or licensed, MRTs are required to complete an electronic or paper registration form from their provincial regulatory body/association or the CAMRT. The form may collect registrants' employment, education, certification and demographic information. The provincial registrars or the CAMRT capture the information needed for administrative purposes and prepare a subset of the data for CIHI. Sometimes data collectors survey their members to collect additional information to meet the database's requirements. A compiled data file is then submitted to the database according to the *MRTDB Reference Guide*. Collecting this data provides a unique opportunity to examine aggregate information about MRTs in Canada, which is essential to identifying supply-based issues for future health human resources planning.

The *MRTDB Reference Guide* is available free of charge on CIHI's website at www.cihi.ca.

Notes

CIHI's figures on MRTs will not be the same as figures published by other organizations for the following reasons:

a. **Collection period—**The statistics released by provincial regulatory authorities/professional associations or the CAMRT include all registrations received as of August 1 of the data collection year. This point-in-time data collection was established in consultation with the provincial regulatory authorities/professional associations and the CAMRT to ensure timely and comprehensive information despite the different registration periods. Refer to Appendix A for details on registration start and end periods for the different jurisdictions.

b. **Reference population—**For the MRTDB, the population of reference includes all MRTs who register with a Canadian provincial regulatory body, a provincial professional association or the CAMRT, which submit data to CIHI.

c. **Exclusions from CIHI data—**The MRTDB does not have data on MRTs who reside and work in B.C. or the territories who do not register with the CAMRT.

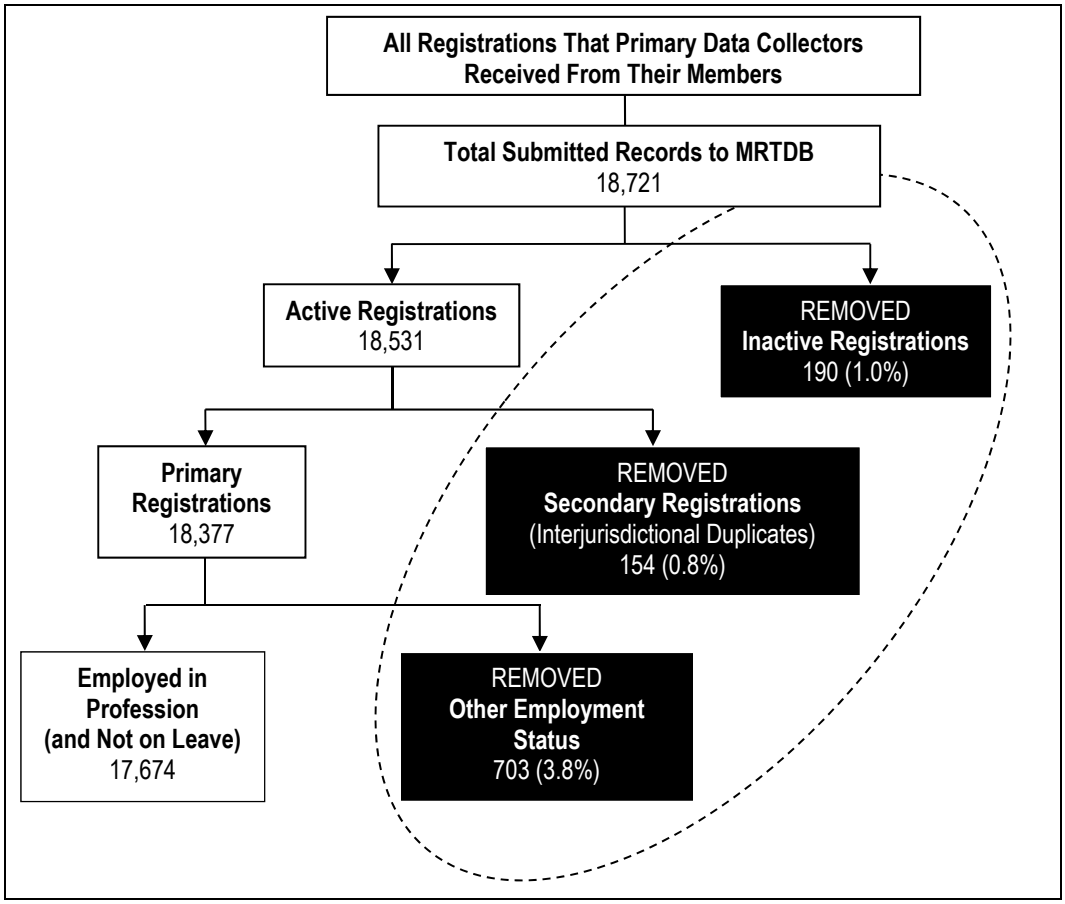
d. **CIHI editing and processing—**All records sent to CIHI undergo processing before they are included in the national database. The MRTDB system checks whether the records are in the proper format and whether they can pass specific validity and logic tests. If the submitted data fails to meet CIHI's standards, or if a logical relationship between specific fields does not make sense (for example, the initial year of employment for a record is before the year of birth), an exception or anomaly report will be generated and sent back to the data provider. These reports assist the data providers in making corrections to the records and resubmitting the data file to CIHI, where it is reviewed again. In cases where the data provider is not able to make the necessary corrections, CIHI may make them with the explicit consent of the provider. CIHI and the data providers work collectively to ensure that high data quality is achieved.

CIHI's Definition of the MRT Workforce in Canada

In this publication, the MRT workforce in Canada is defined as practising MRTs who hold active registrations with provincial regulatory bodies, provincial professional associations or the CAMRT (primarily for B.C. and the territories), excluding double counts for those who are registered in more than one jurisdiction. For further details, please see the Methodological Notes section of this report.

The following registrations that were submitted by the provincial regulatory bodies, the provincial professional associations and the CAMRT were excluded from the 2011 workforce counts: 190 (1.0%) inactive registrations, 154 (0.8%) secondary registrations and 703 (3.8%) registrations that were identified as individuals who did not work in medical radiation technology. The total exclusion accounted for 5.6% of the total registrations. The breakdown of the 2011 data is shown in Figure 1.

Figure 1: Defining the CIHI MRTDB Medical Radiation Technologist Workforce, 2011



Notes

The percentages for exclusions are calculated based on the total number of records submitted to the MRTDB.
See detailed explanation in the section Data Flow From Primary Data Collector to CIHI of the Methodological Notes.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

Impact of Regulation Status on MRT Workforce Estimates

The profession of medical radiation technology is currently regulated in six Canadian provinces: Nova Scotia, New Brunswick, Quebec, Ontario, Saskatchewan and Alberta. Although the profession is not regulated through provincial statute in Newfoundland and Labrador, P.E.I. and Manitoba, MRTs who practise in these provinces are required to register with both their provincial professional association and the CAMRT. The annual statistics in this report represent all MRTs registered with the provincial regulatory bodies or associations in the above provinces. The remaining jurisdictions—B.C., Yukon, the Northwest Territories and Nunavut—are not regulated and do not require mandatory registration. MRTs in these jurisdictions are registered either as a condition of employment or on a voluntary basis (both referred to as "voluntary registration" in this report) with the CAMRT, which provides data to the MRTDB on behalf of these jurisdictions. For this reason, it is important to note that statistics included in this report may not represent the entire MRT workforce in B.C., the territories or Canada.

Want to Know More?

The full text of *Medical Radiation Technologists in Canada, 2011* is available, free of charge, in both English and French on CIHI's website at www.cihi.ca.

Other related Medical Radiation Technologist Database reports/documents that may be of interest are also available on CIHI's website:

- *Medical Radiation Technologists in Canada, 2010*
- *Medical Radiation Technologist Database, 2009 Data Release*
- *Medical Radiation Technologist Database, 2008 Data Release*
- *Medical Radiation Technologists and Their Work Environment*
- *Medical Radiation Technologist Database Reference Guide v1.0*
- *Medical Radiation Technologist Database Technical Notes*

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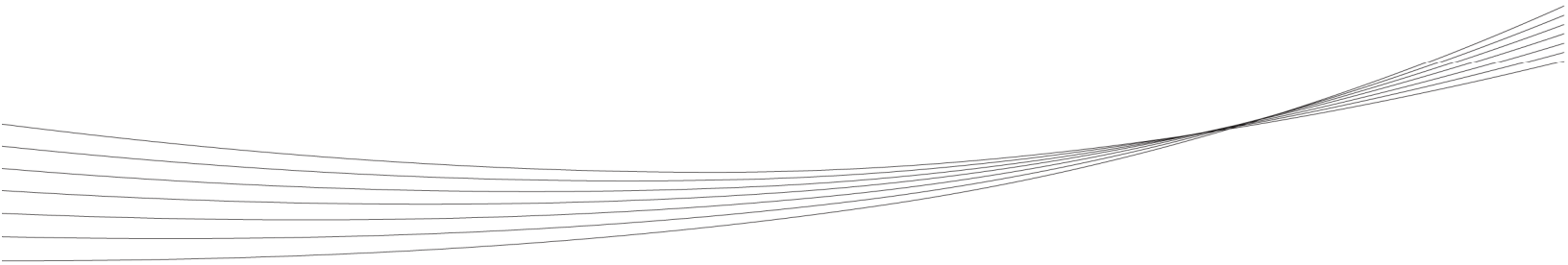

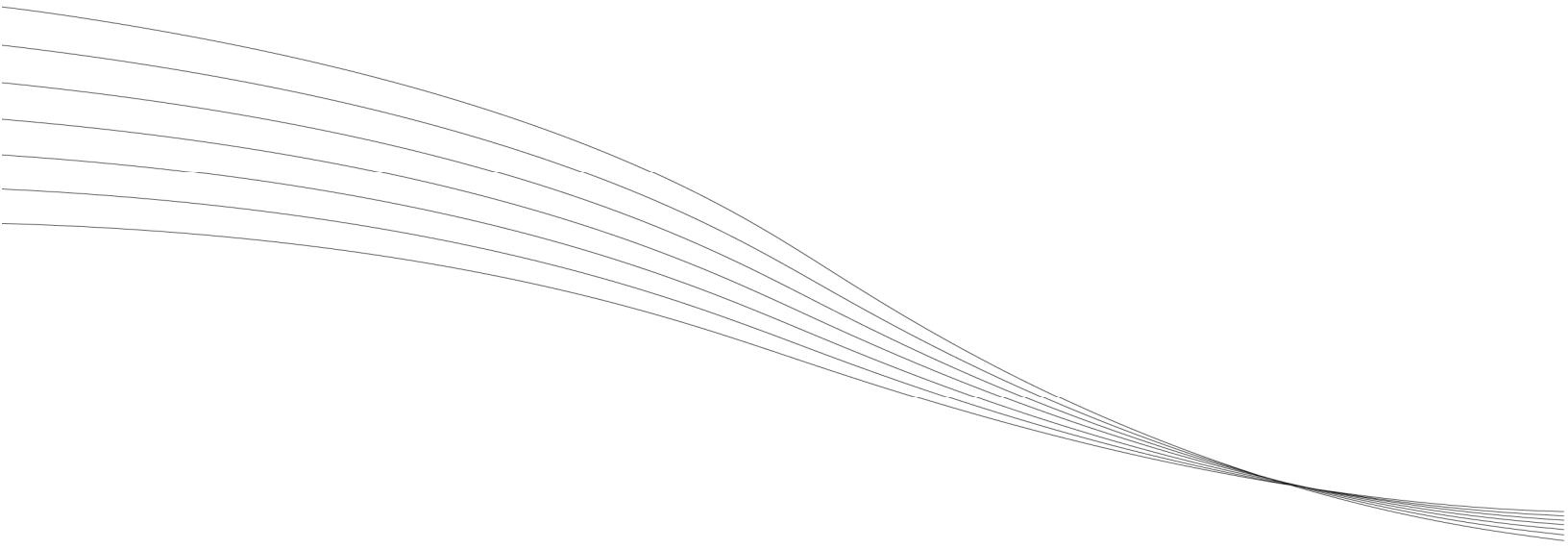

Provincial/Territorial Data Highlights and Profiles

Regulated Provinces or Provinces Requiring Mandatory Registration:

Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan and Alberta

Unregulated Provinces and Territories:

British Columbia, Yukon, the Northwest Territories and Nunavut

2011 Data Highlights for Medical Radiation Technologists in Newfoundland and Labrador

Workforce Supply and Demographics

- Newfoundland and Labrador had 275 registered MRTs in 2011.
- Approximately three-quarters of the MRT workforce was female (76.0%), the lowest proportion among all provinces that required mandatory registration.
- The average age of the MRT workforce was 40.
- Practising MRTs younger than age 35 accounted for 40.0% of the workforce. Only 11.3% of the workforce was age 55 or older.

Education and Certification

- Of the MRT workforce, 88.5% held a diploma in medical radiation technology for basic education.
- In Newfoundland and Labrador, 7.9% of the MRT workforce had graduated from an MRT training program within the past two years.
- Most MRTs received their initial certification in radiological technology (84.7%).

Primary Employment

- Most (78.7%) MRTs were permanent employees in their place of primary employment.
- The majority (95.3%) of MRTs were full-time employees.
- The majority (81.0%) of MRTs were employed in general hospitals.
- Most (88.5%) MRTs worked as staff technologists whose primary daily responsibilities were hands-on medical imaging services.
- Most practising MRTs (92.9%) reported that their major function at work was providing diagnostic and therapeutic services.

Total Usual Weekly Hours of Work

- The majority (96.4%) of MRTs worked 35 to 37.5 hours per week.

Newfoundland and Labrador MRT Workforce Profile

Newfoundland and Labrador—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Supply and Demographics							
Total Registered Medical Radiation Technologist Workforce		**247**		**267**		**275**	
Gender	Female	185	74.9%	203	76.0%	209	76.0%
	Male	62	25.1%	64	24.0%	66	24.0%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Average Age	Years	38.9		39.4		39.5	
Age Group	<35	106	42.9%	113	42.3%	110	40.0%
	35–54	112	45.3%	117	43.8%	127	46.2%
	55+	28	11.3%	36	13.5%	31	11.3%
	Unknown	1	0.4%	1	0.4%	7	2.5%
Counts After the Exclusion of Non-Response (Except for Initial MRT Certification Discipline)‡		**224**		**244**		**253**	
Education and Certification							
Level of Basic Education in MRT	Diploma	204	91.1%	223	91.4%	224	88.5%
	Baccalaureate	18	8.0%	19	7.8%	20	7.9%
	Master's	0	0.0%	0	0.0%	0	0.0%
	Doctorate	0	0.0%	0	0.0%	0	0.0%
	Unknown	2	0.9%	2	0.8%	9	3.6%
Location of Graduation for Basic Education in MRT	Canadian Trained	219	97.8%	239	98.0%	24†	†
	Foreign Trained	*	*	*	*	*	*
	Unknown	*	*	*	*	8	3.2%
New Graduates in MRT	Yes—Graduated Within Last Two Years	25	11.2%	15	6.1%	20	7.9%
	No—Graduated More Than Two Years Ago	197	87.9%	226	92.6%	221	87.4%
	Unknown	2	0.9%	3	1.2%	12	4.7%
Initial MRT Certification Discipline	Magnetic Resonance Imaging	0	0.0%	0	0.0%	0	0.0%
	Nuclear Medicine	15	6.1%	16	6.0%	1†	†
	Radiation Therapy	24	9.7%	26	9.7%	25	9.1%
	Radiological Technology	206	83.4%	223	83.5%	233	84.7%
	Other or Unspecified	0	0.0%	0	0.0%	*	*
	Unknown	2	0.8%	2	0.7%	*	*
Employment							
Multiple Employment Status	Single Employer	224	100.0%	244	100.0%	253	100.0%
	Multiple Employers	0	0.0%	0	0.0%	0	0.0%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Total Usual Weekly Hours of Work	<22.5	0	0.0%	0	0.0%	0	0.0%
	22.5–37.4	*	*	*	*	*	*
	35.0–37.5	206	92.0%	234	95.9%	244	96.4%
	37.6+	*	*	*	*	*	*
	Unknown	14	6.3%	6	2.5%	5	2.0%
Primary Employment							
Employment Category	Permanent Employee	179	79.9%	202	82.8%	199	78.7%
	Temporary Employee	3†	†	3†	†	43	17.0%
	Casual Employee	*	*	*	*	†	†
	Self-Employed	0	0.0%	0	0.0%	0	0.0%
	Unknown	13	5.8%	5	2.0%	†	†
Full-Time/ Part-Time Status	Full Time	20†	†	234	95.9%	241	95.3%
	Part Time	*	*	5	2.0%	6	2.4%
	Unknown	13	5.8%	5	2.0%	6	2.4%
Place of Employment	General Hospital	166	74.1%	194	79.5%	205	81.0%
	Community Health Centre	23	10.3%	23	9.4%	22	8.7%
	Cancer Care	19	8.5%	19	7.8%	2†	†
	Free-Standing Imaging Facility/Clinic	*	*	*	*	*	*
	Mobile Imaging Unit	0	0.0%	0	0.0%	0	0.0%
	Post-Secondary Educational Institution	*	*	*	*	*	*
	Association/Government/Para-Governmental	0	0.0%	0	0.0%	0	0.0%
	Industry, Manufacturing and Commercial	0	0.0%	0	0.0%	0	0.0%
	Other	0	0.0%	0	0.0%	0	0.0%
	Unknown	10	4.5%	2	0.8%	0	0.0%

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Newfoundland and Labrador—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011 (cont'd)

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Position	Manager	15	6.7%	14	5.7%	13	5.1%
	Supervisor	0	0.0%	0	0.0%	0	0.0%
	Charge Technologist/Team Leader	9	4.0%	11	4.5%	1†	†
	Staff Technologist	183	81.7%	210	86.1%	224	88.5%
	Radiation Safety Officer	0	0.0%	0	0.0%	0	0.0%
	Consultant	0	0.0%	0	0.0%	0	0.0%
	Information System Specialist	*	*	*	*	*	*
	Quality Management Specialist	0	0.0%	0	0.0%	0	0.0%
	Educator	*	*	*	*	*	*
	Researcher	0	0.0%	0	0.0%	0	0.0%
	Sales	0	0.0%	0	0.0%	0	0.0%
	Other	0	0.0%	0	0.0%	0	0.0%
	Unknown	11	4.9%	3	1.2%	1	0.4%
Clinical Education/ Preceptor Activity Indicator	Yes	106	47.3%	114	46.7%	121	47.8%
	No	106	47.3%	126	51.6%	129	51.0%
	Unknown	12	5.4%	4	1.6%	3	1.2%
Major Function	Diagnostic and Therapeutic Services	192	85.7%	221	90.6%	235	92.9%
	Administration	14	6.3%	13	5.3%	12	4.7%
	Information Systems	*	*	*	*	*	*
	Teaching, Medical Radiation Technology–Related	*	*	*	*	*	*
	Research	0	0.0%	0	0.0%	0	0.0%
	Other Major Function	0	0.0%	0	0.0%	0	0.0%
	Unknown	11	4.9%	3	1.2%	1	0.4%
Area of Practice	Radiological Technology (General)	—	—	—	—	—	—
	Computed Tomography (CT)	—	—	—	—	—	—
	Nuclear Medicine (General)	—	—	—	—	—	—
	Breast Imaging	—	—	—	—	—	—
	Magnetic Resonance Imaging (General)	—	—	—	—	—	—
	Ultrasound/Diagnostic Medical Sonography	—	—	—	—	—	—
	Radiation Therapy (General)	—	—	—	—	—	—
	Angiography/Interventional	—	—	—	—	—	—
	Bone Mineral Densitometry	—	—	—	—	—	—
	Treatment Planning	—	—	—	—	—	—
	Computed Tomography Simulator (CT/Sim)	—	—	—	—	—	—
	Single Photon Emission Computed Tomography (SPECT)	—	—	—	—	—	—
	Simulation	—	—	—	—	—	—
	Single Photon Emission Computed Tomography/Computed Tomography (SPECT/CT)	—	—	—	—	—	—
	Positron Emission Tomography/Computed Tomography (PET/CT)	—	—	—	—	—	—
	Brachytherapy	—	—	—	—	—	—
	Positron Emission Tomography (PET)	—	—	—	—	—	—
	Other Area of Practice	—	—	—	—	—	—
Health Region (Statistics Canada PCCF Health Region Code)	Eastern Regional Integrated Health Authority (1011)	—	—	—	—	—	—
	Central Regional Integrated Health Authority (1012)	—	—	—	—	—	—
	Western Regional Integrated Health Authority (1013)	—	—	—	—	—	—
	Labrador–Grenfell Regional Integrated Health Authority (1014)	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—

Notes

* Value suppressed in accordance with CIHI's Privacy Policy; cell value is from 1 to 4.

† Value suppressed to ensure confidentiality.

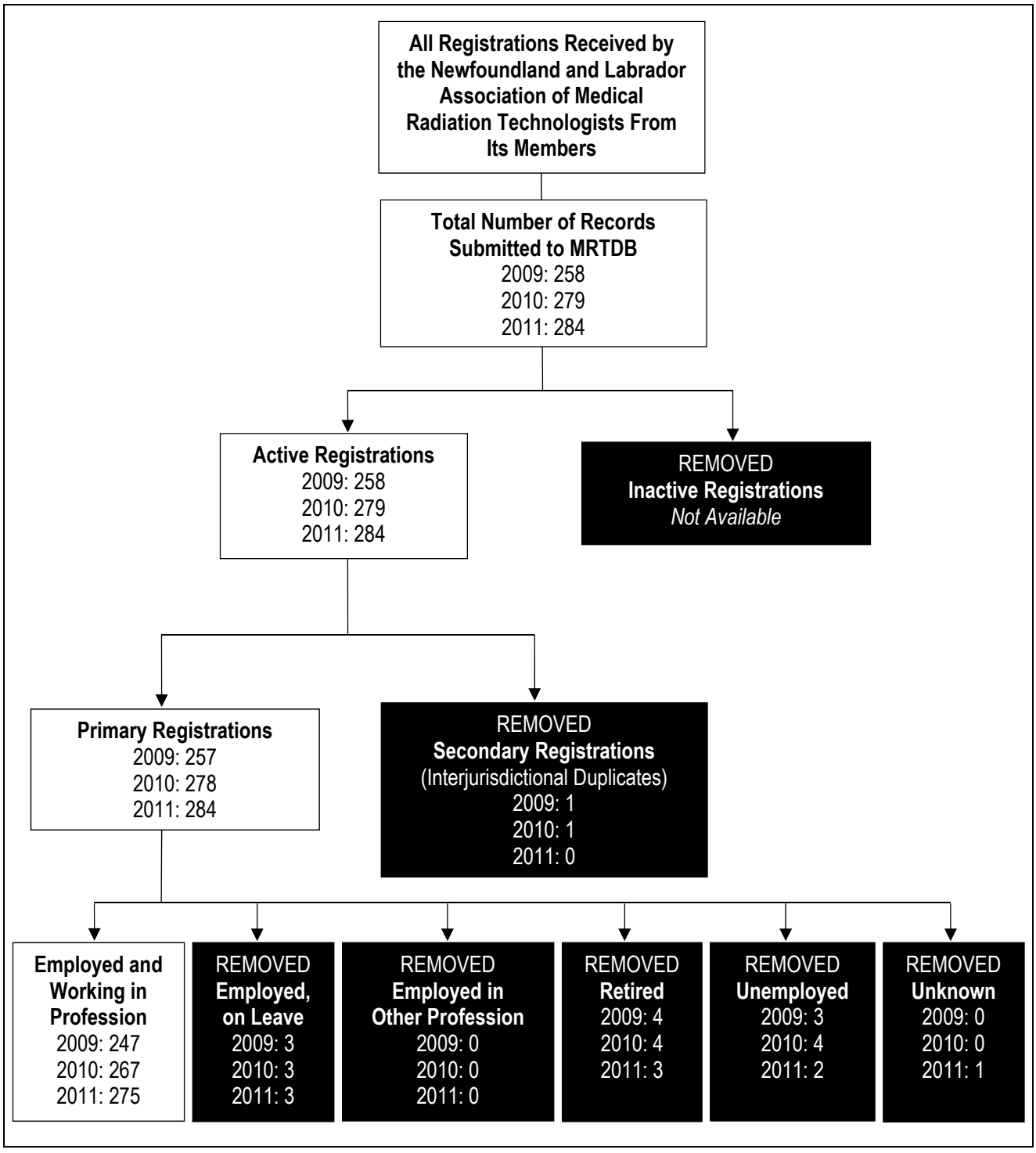
‡ A number of registrants (23 for both 2009 and 2010 and 22 for 2011) with Employment Status other than *employed in medical radiation technology* are included for gender, average age, age group and initial MRT certification discipline. This adjustment resulted in the total of 247 in 2009, 267 in 2010 and 275 in 2011 for the workforce and these elements. These records are excluded from the statistics for other data elements, whose total is 224 in 2009, 244 in 2010 and 253 in 2011.

— Data is not applicable, not collected or does not meet data selection criteria.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

Data Flow From the Newfoundland and Labrador Association of Medical Radiation Technologists to CIHI



2011 Data Highlights for Medical Radiation Technologists in Prince Edward Island

Workforce Supply and Demographics

- P.E.I. had 89 registered MRTs in 2011.
- The majority of the MRT workforce was female (79.8%).
- The average age of the MRT workforce was 41.
- Close to half (44.9%) of the MRT workforce was age 35 to 54.

Education and Certification

- In Prince Edward Island, 69.7% of MRTs held a diploma in medical radiation technology for basic education; the remaining 30.3% held a baccalaureate degree.
- More than 12% of the MRT workforce had graduated from an MRT training program within the past two years.
- More than three-quarters of MRTs (76.4%) received their initial MRT certification in the discipline of radiological technology.

Primary Employment

- Most (78.7%) of the MRT workforce were permanent employees in their area of primary employment.
- Almost three-quarters (74.2%) of the MRT workforce were full-time employees.
- Three-quarters (75.3%) of the MRT workforce were employed in general hospitals.
- The majority (76.4%) of the MRT workforce worked as staff technologists.
- Most practising MRTs (89.9%) reported that their major function at work was providing diagnostic and therapeutic services.
- The areas in which most of the MRT workforce practised were radiological technology (general), at 33.1%; radiation therapy (general), at 12.8%; and computed tomography simulator and treatment planning, at 9.8% each.
- The majority (75.3%) of the MRT workforce worked in the Queens County Health Region.

Total Usual Weekly Hours of Work

- In 2011, 75.3% of MRTs worked 37.5 hours or more per week, 9.0% worked between 22.5 and 37.4 hours and 15.7% worked fewer than 22.5 hours.

Prince Edward Island MRT Workforce Profile

Prince Edward Island—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Supply and Demographics							
Total Registered Medical Radiation Technologist Workforce		**83**		**88**		**89**	
Gender	Female	72	86.7%	72	81.8%	71	79.8%
	Male	11	13.3%	16	18.2%	18	20.2%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Average Age	Years	42.3		42.0		40.8	
Age Group	<35	25	30.1%	28	31.8%	34	38.2%
	35–54	42	50.6%	45	51.1%	40	44.9%
	55+	16	19.3%	15	17.0%	15	16.9%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Education and Certification							
Level of Basic Education in MRT	Diploma	67	80.7%	66	75.0%	62	69.7%
	Baccalaureate	16	19.3%	22	25.0%	27	30.3%
	Master's	0	0.0%	0	0.0%	0	0.0%
	Doctorate	0	0.0%	0	0.0%	0	0.0%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Location of Graduation for Basic Education in MRT	Canadian Trained	8†	†	8†	†	8†	†
	Foreign Trained	*	*	*	*	*	*
	Unknown	0	0.0%	0	0.0%	0	0.0%
New Graduates in MRT	Yes—Graduated Within Last Two Years	5	6.0%	9	10.2%	11	12.4%
	No—Graduated More Than Two Years Ago	78	94.0%	79	89.8%	78	87.6%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Initial MRT Certification Discipline	Magnetic Resonance Imaging	0	0.0%	0	0.0%	0	0.0%
	Nuclear Medicine	*	*	*	*	*	*
	Radiation Therapy	1†	†	1†	†	16	18.0%
	Radiological Technology	68	81.9%	70	79.5%	68	76.4%
	Other or Unspecified	0	0.0%	0	0.0%	*	*
	Unknown	0	0.0%	0	0.0%	0	0.0%
Employment							
Multiple Employment Status	Single Employer	77	92.8%	83	94.3%	83	93.3%
	Multiple Employers	6	7.2%	5	5.7%	6	6.7%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Total Usual Weekly Hours of Work	<22.5	18	21.7%	15	17.0%	14	15.7%
	22.5–37.4	9	10.8%	7	8.0%	8	9.0%
	37.5+	56	67.5%	66	75.0%	67	75.3%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Primary Employment							
Employment Category	Permanent Employee	70	84.3%	75	85.2%	70	78.7%
	Temporary Employee	*	*	6	6.8%	8	9.0%
	Casual Employee	†	†	7	8.0%	11	12.4%
	Self-Employed	0	0.0%	0	0.0%	0	0.0%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Full-Time/ Part-Time Status	Full Time	59	71.1%	66	75.0%	66	74.2%
	Part Time	24	28.9%	22	25.0%	23	25.8%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Place of Employment	General Hospital	66	79.5%	69	78.4%	67	75.3%
	Community Health Centre	*	*	0	0.0%	0	0.0%
	Cancer Care	11	13.3%	14	15.9%	1†	†
	Free-Standing Imaging Facility/Clinic	0	0.0%	0	0.0%	0	0.0%
	Mobile Imaging Unit	0	0.0%	0	0.0%	0	0.0%
	Post-Secondary Educational Institution	*	*	*	*	5	5.6%
	Association/Government/Para-Governmental	*	*	*	*	*	*
	Industry, Manufacturing and Commercial	0	0.0%	0	0.0%	0	0.0%
	Other	0	0.0%	0	0.0%	0	0.0%
	Unknown	0	0.0%	0	0.0%	0	0.0%

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Prince Edward Island—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011 (cont'd)

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Position	Manager	*	*	*	*	*	*
	Supervisor	8	9.6%	9	10.2%	7	7.9%
	Charge Technologist/Team Leader	*	*	*	*	*	*
	Staff Technologist	63	75.9%	68	77.3%	68	76.4%
	Radiation Safety Officer	0	0.0%	0	0.0%	0	0.0%
	Consultant	0	0.0%	0	0.0%	0	0.0%
	Information System Specialist	*	*	*	*	*	*
	Quality Management Specialist	*	*	*	*	*	*
	Educator	*	*	*	*	*	*
	Researcher	0	0.0%	0	0.0%	0	0.0%
	Sales	0	0.0%	0	0.0%	0	0.0%
	Other	0	0.0%	0	0.0%	*	*
	Unknown	0	0.0%	0	0.0%	0	0.0%
Clinical Education/ Preceptor Activity Indicator	Yes	29	34.9%	29	33.0%	28	31.5%
	No	54	65.1%	59	67.0%	61	68.5%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Major Function	Diagnostic and Therapeutic Services	74	89.2%	80	90.9%	80	89.9%
	Administration	*	*	*	*	*	*
	Information Systems	*	*	*	*	*	*
	Teaching, Medical Radiation Technology–Related	*	*	*	*	*	*
	Research	0	0.0%	0	0.0%	0	0.0%
	Other Major Function	*	*	*	*	*	*
	Unknown	0	0.0%	0	0.0%	0	0.0%
Area of Practice	Radiological Technology (General)	44	38.6%	46	35.9%	44	33.1%
	Computed Tomography (CT)	10	8.8%	9	7.0%	7	5.3%
	Nuclear Medicine (General)	*	*	*	*	*	*
	Breast Imaging	10	8.8%	11	8.6%	9	6.8%
	Magnetic Resonance Imaging (General)	*	*	*	*	*	*
	Ultrasound/Diagnostic Medical Sonography	*	*	*	*	*	*
	Radiation Therapy (General)	11	9.6%	14	10.9%	17	12.8%
	Angiography/Interventional	*	*	*	*	*	*
	Bone Mineral Densitometry	*	*	*	*	*	*
	Treatment Planning	9	7.9%	11	8.6%	13	9.8%
	Computed Tomography Simulator (CT/Sim)	9	7.9%	11	8.6%	13	9.8%
	Single Photon Emission Computed Tomography (SPECT)	0	0.0%	*	*	*	*
	Simulation	*	*	6	4.7%	8	6.0%
	Single Photon Emission Computed Tomography/Computed Tomography (SPECT/CT)	0	0.0%	0	0.0%	*	*
	Positron Emission Tomography/Computed Tomography (PET/CT)	0	0.0%	0	0.0%	0	0.0%
	Brachytherapy	*	*	*	*	*	*
	Positron Emission Tomography (PET)	0	0.0%	0	0.0%	0	0.0%
	Other Area of Practice	5	4.4%	6	4.7%	6	4.5%
Health Region (Statistics Canada PCCF Health Region Code)	Kings County (1101)	*	*	5	5.7%	6	6.7%
	Queens County (1102)	6†	†	65	73.9%	67	75.3%
	Prince County (1103)	18	21.7%	18	20.5%	16	18.0%
	Unknown	0	0.0%	0	0.0%	0	0.0%

Notes

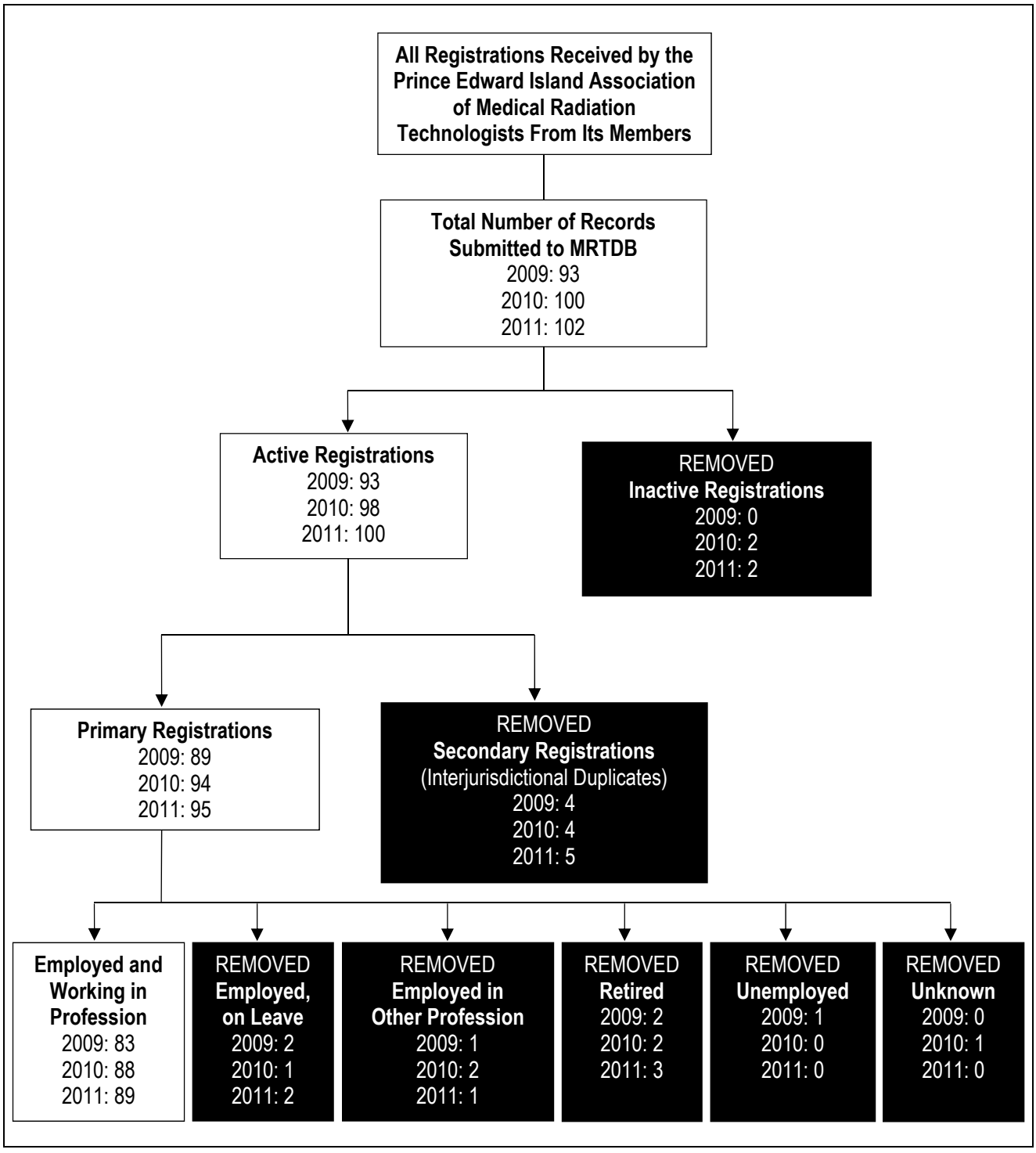
* Value suppressed in accordance with CIHI's Privacy Policy; cell value is from 1 to 4.

† Value suppressed to ensure confidentiality.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

Data Flow From the Prince Edward Island Association of Medical Radiation Technologists to CIHI



2011 Data Highlights for Medical Radiation Technologists in Nova Scotia

Workforce Supply and Demographics

- Nova Scotia had 564 registered MRTs in 2011.
- The majority of the MRT workforce was female (82.1%).
- Of all the provinces that require mandatory registration, Nova Scotia had the second-highest average age (44) for the MRT workforce, after Manitoba.
- MRTs younger than 35 accounted for 24.3% of the total workforce, the lowest of all of the Atlantic provinces. More than half of the workforce was age 35 to 54 (55.0%), the highest percentage among all the provinces.

Education and Certification

- Five percent of the MRT workforce had graduated from an MRT training program within the past two years.
- The majority of MRTs received their initial MRT certification in the discipline of radiological technology.

Nova Scotia MRT Workforce Profile

Nova Scotia—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011

		2009		2010		2011‡	
		Count	Percentage	Count	Percentage	Count	Percentage
Supply and Demographics							
Total Registered Medical Radiation Technologist Workforce		**514**		**492**		**564**	
Gender	Female	434	84.4%	418	85.0%	463	82.1%
	Male	80	15.6%	74	15.0%	101	17.9%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Average Age	Years	45.2		46.0		43.9	
Age Group	<35	88	17.1%	72	14.6%	137	24.3%
	35–54	329	64.0%	319	64.8%	310	55.0%
	55+	91	17.7%	96	19.5%	96	17.0%
	Unknown	6	1.2%	5	1.0%	21	3.7%
Education and Certification							
Level of Basic Education in MRT	Diploma	—	—	—	—	—	—
	Baccalaureate	—	—	—	—	—	—
	Master's	—	—	—	—	—	—
	Doctorate	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Location of Graduation for Basic Education in MRT	Canadian Trained	—	—	—	—	—	—
	Foreign Trained	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
New Graduates in MRT	Yes—Graduated Within Last Two Years	—	—	—	—	28	5.0%
	No—Graduated More Than Two Years Ago	—	—	—	—	536	95.0%
	Unknown	—	—	—	—	0	0.0%
Initial MRT Certification Discipline	Magnetic Resonance Imaging	—	—	—	—	*	*
	Nuclear Medicine	—	—	—	—	7†	†
	Radiation Therapy	—	—	—	—	66	11.7%
	Radiological Technology	—	—	—	—	42†	†
	Other or Unspecified	—	—	—	—	0	0.0%
	Unknown	—	—	—	—	0	0.0%
Employment							
Multiple Employment Status	Single Employer	—	—	—	—	—	—
	Multiple Employers	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Total Usual Weekly Hours of Work	<22.5	—	—	—	—	—	—
	22.5–37.4	—	—	—	—	—	—
	37.5+	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Primary Employment							
Employment Category	Permanent Employee	—	—	—	—	—	—
	Temporary Employee	—	—	—	—	—	—
	Casual Employee	—	—	—	—	—	—
	Self-Employed	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Full-Time/ Part-Time Status	Full Time	—	—	—	—	—	—
	Part Time	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Place of Employment	General Hospital	—	—	—	—	—	—
	Community Health Centre	—	—	—	—	—	—
	Cancer Care	—	—	—	—	—	—
	Free-Standing Imaging Facility/Clinic	—	—	—	—	—	—
	Mobile Imaging Unit	—	—	—	—	—	—
	Post-Secondary Educational Institution	—	—	—	—	—	—
	Association/Government/Para-Governmental	—	—	—	—	—	—
	Industry, Manufacturing and Commercial	—	—	—	—	—	—
	Other	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—

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Nova Scotia—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011 (cont'd)

		2009		2010		2011‡	
		Count	Percentage	Count	Percentage	Count	Percentage
Position	Manager	—	—	—	—	—	—
	Supervisor	—	—	—	—	—	—
	Charge Technologist/Team Leader	—	—	—	—	—	—
	Staff Technologist	—	—	—	—	—	—
	Radiation Safety Officer	—	—	—	—	—	—
	Consultant	—	—	—	—	—	—
	Information System Specialist	—	—	—	—	—	—
	Quality Management Specialist	—	—	—	—	—	—
	Educator	—	—	—	—	—	—
	Researcher	—	—	—	—	—	—
	Sales	—	—	—	—	—	—
	Other	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Clinical Education/ Preceptor Activity Indicator	Yes	—	—	—	—	—	—
	No	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Major Function	Diagnostic and Therapeutic Services	—	—	—	—	—	—
	Administration	—	—	—	—	—	—
	Information Systems	—	—	—	—	—	—
	Teaching, Medical Radiation Technology–Related	—	—	—	—	—	—
	Research	—	—	—	—	—	—
	Other Major Function	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Area of Practice	Radiological Technology (General)	—	—	—	—	—	—
	Computed Tomography (CT)	—	—	—	—	—	—
	Nuclear Medicine (General)	—	—	—	—	—	—
	Breast Imaging	—	—	—	—	—	—
	Magnetic Resonance Imaging (General)	—	—	—	—	—	—
	Ultrasound/Diagnostic Medical Sonography	—	—	—	—	—	—
	Radiation Therapy (General)	—	—	—	—	—	—
	Angiography/Interventional	—	—	—	—	—	—
	Bone Mineral Densitometry	—	—	—	—	—	—
	Treatment Planning	—	—	—	—	—	—
	Computed Tomography Simulator (CT/Sim)	—	—	—	—	—	—
	Single Photon Emission Computed Tomography (SPECT)	—	—	—	—	—	—
	Simulation	—	—	—	—	—	—
	Single Photon Emission Computed Tomography/Computed Tomography (SPECT/CT)	—	—	—	—	—	—
	Positron Emission Tomography/Computed Tomography (PET/CT)	—	—	—	—	—	—
	Brachytherapy	—	—	—	—	—	—
	Positron Emission Tomography (PET)	—	—	—	—	—	—
	Other Area of Practice	—	—	—	—	—	—
Health Region (Statistics Canada PCCF Health Region Code)	Zone 1 (South Shore and South West Health Authorities) (1210)	—	—	—	—	—	—
	Zone 2 (Annapolis Valley Health Authority) (1223)	—	—	—	—	—	—
	Zone 3 (Colchester East Hants and Cumberland Health Authorities) (1230)	—	—	—	—	—	—
	Zone 4 (Pictou County and Guysborough Antigonish Strait Health Authorities) (1240)	—	—	—	—	—	—
	Zone 5 (Cape Breton Health Authority) (1258)	—	—	—	—	—	—
	Zone 6 (Capital Health Authority) (1269)	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—

Notes

* Value suppressed in accordance with CIHI's Privacy Policy; cell value is from 1 to 4.

† Value suppressed to ensure confidentiality.

‡ 2011 data was provided by the CAMRT at the aggregate level.

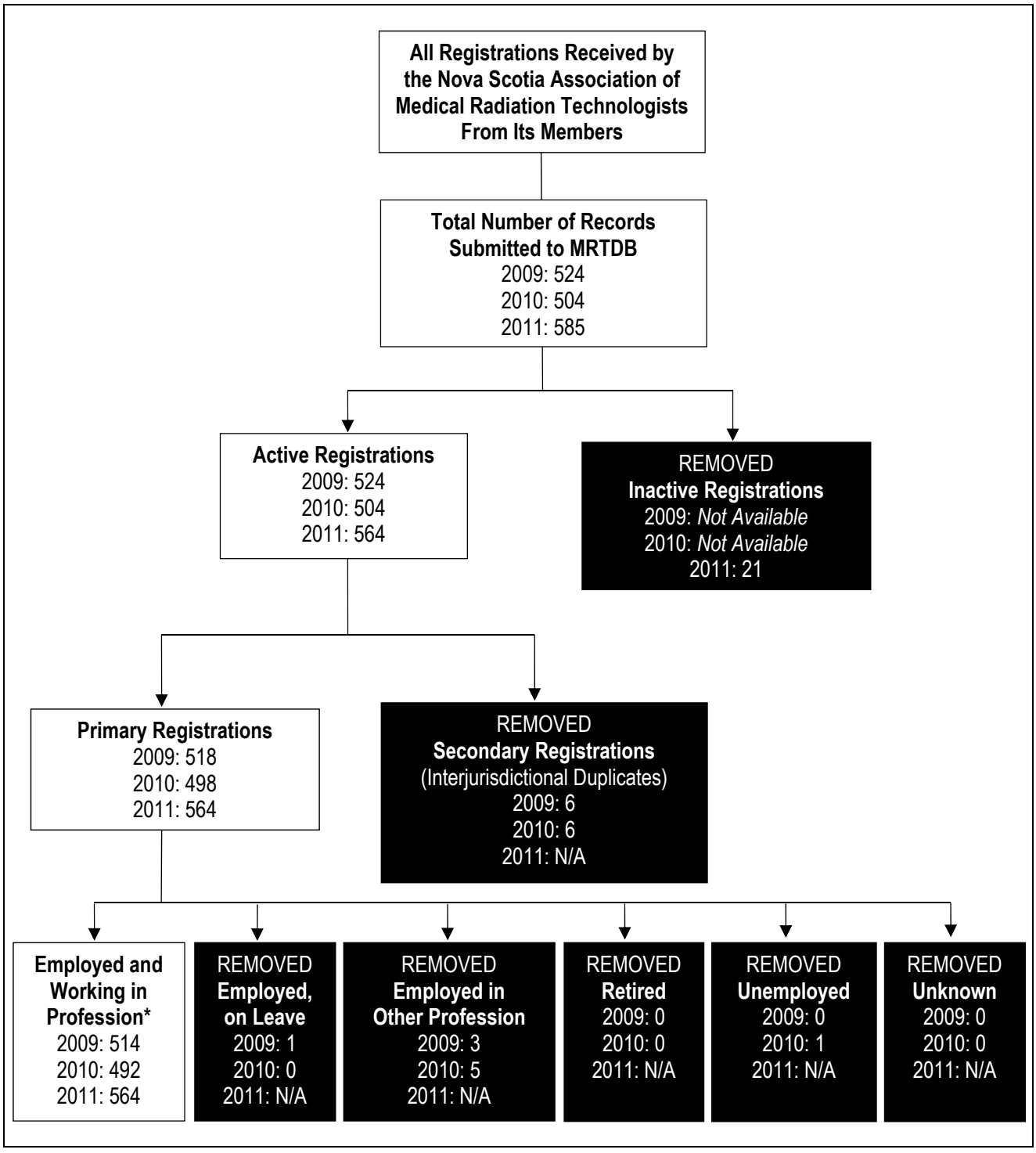
— Data is not applicable, not collected or does not meet data selection criteria.

The variation in the total workforce counts across the three years might be due to the different sources and methodologies applied over the years.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

Data Flow From the Nova Scotia Association of Medical Radiation Technologists to CIHI



Note

* The method for identifying secondary registrations is not applicable to the aggregate data received from the CAMRT. The number of active registrations is carried over for primary registrations and workforce numbers.

2011 Data Highlights for Medical Radiation Technologists in New Brunswick

Workforce Supply and Demographics

- New Brunswick had 555 registered MRTs in 2011.
- The majority of the MRT workforce was female (86.3%).
- The average age for the MRT workforce was 40.
- More than half of the MRT workforce (52.8%) was age 35 to 54. MRTs who were younger than age 35 represented 35.9% of the total workforce.

Education, Certification and Specialty Certificate

- Of the New Brunswick MRT workforce, 82.7% held a diploma in medical radiation technology as their basic education; the remaining 17.3% held a baccalaureate degree.
- In New Brunswick, 4.1% of the MRT workforce had graduated from an MRT training program within the past two years.

Primary Employment

- Most (87.9%) MRTs were permanent employees in their place of primary employment.
- The majority (96.0%) of the MRT workforce was employed in general hospitals.
- The top four areas in which MRTs practised were radiological technology (general), 51.8%; computed tomography, 11.3%; radiation therapy (general), 8.1%; and breast imaging, 7.6%.
- MRTs worked primarily in three regions: Moncton Region (30.3%), Saint John Region (27.4%) and Fredericton Region (14.8%).

Total Usual Weekly Hours of Work

- More than three-quarters (77.7%) of MRTs worked 37.5 hours or more per week.

New Brunswick MRT Workforce Profile

New Brunswick—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Supply and Demographics							
Total Registered Medical Radiation Technologist Workforce		**514**		**556**		**555**	
Gender	Female	443	86.2%	476	85.6%	479	86.3%
	Male	71	13.8%	80	14.4%	76	13.7%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Average Age	Years	40.2		39.4		40.1	
Age Group	<35	186	36.2%	217	39.0%	199	35.9%
	35–54	264	51.4%	277	49.8%	293	52.8%
	55+	64	12.5%	62	11.2%	63	11.4%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Education and Certification							
Level of Basic Education in MRT	Diploma	453	88.1%	468	84.2%	459	82.7%
	Baccalaureate	61	11.9%	88	15.8%	96	17.3%
	Master's	0	0.0%	0	0.0%	0	0.0%
	Doctorate	0	0.0%	0	0.0%	0	0.0%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Location of Graduation for Basic Education in MRT	Canadian Trained	—	—	—	—	—	—
	Foreign Trained	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
New Graduates in MRT	Yes—Graduated Within Last Two Years	22	4.3%	43	7.7%	23	4.1%
	No—Graduated More Than Two Years Ago	492	95.7%	513	92.3%	532	95.9%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Initial MRT Certification Discipline	Magnetic Resonance Imaging	7	1.4%	—	—	—	—
	Nuclear Medicine	45	8.8%	—	—	—	—
	Radiation Therapy	44	8.6%	—	—	—	—
	Radiological Technology	374	72.8%	—	—	—	—
	Other or Unspecified	20	3.9%	—	—	—	—
	Unknown	24	4.7%	—	—	—	—
Employment							
Multiple Employment Status	Single Employer	508	98.8%	552	99.3%	555	100.0%
	Multiple Employers	0	0.0%	0	0.0%	0	0.0%
	Unknown	6	1.2%	4	0.7%	0	0.0%
Total Usual Weekly Hours of Work	<22.5	50	9.7%	50	9.0%	49	8.8%
	22.5–37.4	64	12.5%	84	15.1%	75	13.5%
	37.5+	400	77.8%	422	75.9%	431	77.7%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Primary Employment							
Employment Category	Permanent Employee	466	90.7%	489	87.9%	488	87.9%
	Temporary Employee	11	2.1%	9	1.6%	11	2.0%
	Casual Employee	31	6.0%	54	9.7%	56	10.1%
	Self-Employed	0	0.0%	0	0.0%	0	0.0%
	Unknown	6	1.2%	4	0.7%	0	0.0%
Full-Time/ Part-Time Status	Full Time	—	—	—	—	—	—
	Part Time	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Place of Employment	General Hospital	489	95.1%	532	95.7%	533	96.0%
	Community Health Centre	1†	†	7	1.3%	7	1.3%
	Cancer Care	0	0.0%	0	0.0%	0	0.0%
	Free-Standing Imaging Facility/Clinic	*	*	†	†	*	*
	Mobile Imaging Unit	0	0.0%	0	0.0%	0	0.0%
	Post-Secondary Educational Institution	*	*	*	*	*	*
	Association/Government/Para-Governmental	0	0.0%	0	0.0%	0	0.0%
	Industry, Manufacturing and Commercial	0	0.0%	0	0.0%	0	0.0%
	Other	*	*	*	*	†	†
	Unknown	7	1.4%	6	1.1%	2	0.4%

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New Brunswick—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011 (cont'd)

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Position	Manager	21	4.1%	22	4.0%	23	4.1%
	Supervisor	37	7.2%	37	6.7%	3†	†
	Charge Technologist/Team Leader	0	0.0%	0	0.0%	0	0.0%
	Staff Technologist	43†	†	476	85.6%	474	85.4%
	Radiation Safety Officer	0	0.0%	0	0.0%	0	0.0%
	Consultant	*	*	0	0.0%	*	*
	Information System Specialist	0	0.0%	0	0.0%	0	0.0%
	Quality Management Specialist	0	0.0%	0	0.0%	0	0.0%
	Educator	15	2.9%	1†	†	17	3.1%
	Researcher	0	0.0%	0	0.0%	0	0.0%
	Sales	0	0.0%	0	0.0%	0	0.0%
	Other	*	*	*	*	*	*
	Unknown	6	1.2%	4	0.7%	0	0.0%
Clinical Education/ Preceptor Activity Indicator	Yes	—	—	—	—	—	—
	No	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Major Function	Diagnostic and Therapeutic Services	—	—	—	—	—	—
	Administration	—	—	—	—	—	—
	Information Systems	—	—	—	—	—	—
	Teaching, Medical Radiation Technology–Related	—	—	—	—	—	—
	Research	—	—	—	—	—	—
	Other Major Function	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Area of Practice	Radiological Technology (General)	326	55.8%	364	53.8%	366	51.8%
	Computed Tomography (CT)	44	7.5%	64	9.5%	80	11.3%
	Nuclear Medicine (General)	47	8.0%	49	7.2%	46	6.5%
	Breast Imaging	35	6.0%	47	6.9%	54	7.6%
	Magnetic Resonance Imaging (General)	35	6.0%	38	5.6%	40	5.7%
	Ultrasound/Diagnostic Medical Sonography	19	3.3%	23	3.4%	19	2.7%
	Radiation Therapy (General)	51	8.7%	53	7.8%	57	8.1%
	Angiography/Interventional	19	3.3%	24	3.5%	24	3.4%
	Bone Mineral Densitometry	8	1.4%	15	2.2%	20	2.8%
	Treatment Planning	—	—	—	—	—	—
	Computed Tomography Simulator (CT/Sim)	—	—	—	—	—	—
	Single Photon Emission Computed Tomography (SPECT)	—	—	—	—	—	—
	Simulation	—	—	—	—	—	—
	Single Photon Emission Computed Tomography/Computed Tomography (SPECT/CT)	—	—	—	—	—	—
	Positron Emission Tomography/Computed Tomography (PET/CT)	—	—	—	—	—	—
	Brachytherapy	—	—	—	—	—	—
	Positron Emission Tomography (PET)	—	—	—	—	—	—
	Other Area of Practice	—	—	—	—	—	—
Health Region (Statistics Canada PCCF Health Region Code)‡	Zone 1 (Moncton area) (1301)	158	30.7%	169	30.4%	168	30.3%
	Zone 2 (Saint John area) (1302)	141	27.4%	145	26.1%	152	27.4%
	Zone 3 (Fredericton area) (1303)	77	15.0%	84	15.1%	82	14.8%
	Zone 4 (Edmundston area) (1304)	31	6.0%	35	6.3%	35	6.3%
	Zone 5 (Campbellton area) (1305)	18	3.5%	20	3.6%	19	3.4%
	Zone 6 (Bathurst area) (1306)	47	9.1%	53	9.5%	52	9.4%
	Zone 7 (Miramichi area) (1307)	23	4.5%	25	4.5%	26	4.7%
	Unknown	19	3.7%	25	4.5%	21	3.8%

Notes

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† Value suppressed to ensure confidentiality.

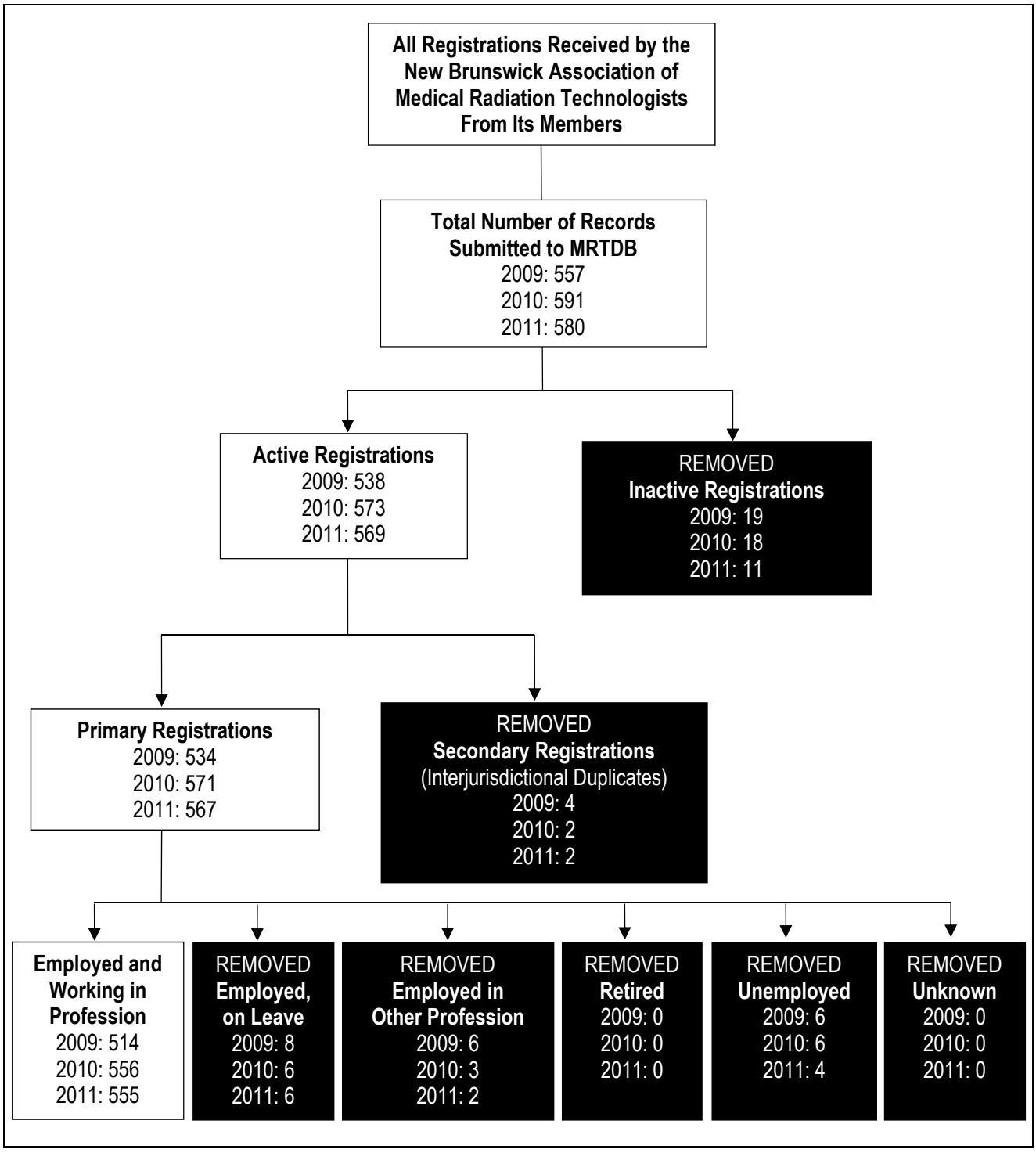
‡ On September 1, 2008, eight regional health authorities in New Brunswick amalgamated into two. Nevertheless, the data in this table has been reported using the boundaries in effect as of December 2007, in accordance with Statistics Canada's Postal Code Conversion File. Further details about boundaries can be found at www.statcan.gc.ca.

— Data is not applicable, not collected or does not meet data selection criteria.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

Data Flow From the New Brunswick Association of Medical Radiation Technologists to CIHI



2011 Data Highlights for Medical Radiation Technologists in Quebec

Workforce Supply and Demographics

- Quebec had 4,827 registered MRTs in 2011.
- The majority (84.0%) of the MRT workforce was female.
- The average age of the MRT workforce was 40.
- MRTs younger than 35 accounted for 40.0% of the workforce.

Education and Certification

- Most members of the MRT workforce (93.8%) held a diploma in medical radiation technology for their basic education.
- Of the MRT workforce, 8.9% had graduated from basic education programs in medical radiation technology within the past two years.
- The majority of the MRT workforce (78.2%) chose radiological technology for their initial MRT certification, while one-tenth of the workforce chose either radiation therapy (11.5%) or nuclear medicine (9.9%).

Primary Employment

- Most members of the MRT workforce (85.1%) were permanent employees for their primary employment.
- The majority of the MRT workforce worked in either general hospitals (83.6%) or free-standing imaging facilities or clinics (11.2%).
- Approximately 84.6% of the MRT workforce worked as staff technologists.
- More than one-third (37.8%) of the MRT workforce practised in the région de Montréal, while 13.1% worked in the région de la Capitale-Nationale and 10.5% worked in the région de la Montérégie.

Total Usual Weekly Hours of Work

- More than two-thirds (68.6%) of MRTs worked 35 to 37.5 hours per week. The rest worked more than 37.5 hours per week (4.5%), 22.5 hours to 34.9 hours per week (11.5%) or fewer than 22.5 hours per week (12.1%).

Quebec MRT Workforce Profile

Quebec—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Supply and Demographics							
Total Registered Medical Radiation Technologist Workforce		**4,471**		**4,610**		**4,827**	
Gender	Female	3,783	84.6%	3,884	84.3%	4,054	84.0%
	Male	688	15.4%	724	15.7%	773	16.0%
	Unknown	0	0.0%	2	0.0%	0	0.0%
Average Age	Years	40.5		40.1		39.7	
Age Group	<35	1,610	36.0%	1,743	37.8%	1,931	40.0%
	35–54	2,219	49.6%	2,210	47.9%	2,215	45.9%
	55+	642	14.4%	657	14.3%	681	14.1%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Education and Certification							
Level of Basic Education in MRT	Diploma	4,185	93.6%	4,316	93.6%	4,527	93.8%
	Baccalaureate	0	0.0%	0	0.0%	0	0.0%
	Master's	0	0.0%	0	0.0%	0	0.0%
	Doctorate	0	0.0%	0	0.0%	0	0.0%
	Unknown	286	6.4%	294	6.4%	300	6.2%
Location of Graduation for Basic Education in MRT	Canadian Trained	4,347	97.2%	4,478	97.1%	4,686	97.1%
	Foreign Trained	68	1.5%	71	1.5%	76	1.6%
	Unknown	56	1.3%	61	1.3%	65	1.3%
New Graduates in MRT	Yes—Graduated Within Last Two Years	385	8.6%	406	8.8%	429	8.9%
	No—Graduated More Than Two Years Ago	3,839	85.9%	3,953	85.7%	4,141	85.8%
	Unknown	247	5.5%	251	5.4%	257	5.3%
Initial MRT Certification Discipline	Magnetic Resonance Imaging	0	0.0%	0	0.0%	0	0.0%
	Nuclear Medicine	459	10.3%	463	10.0%	476	9.9%
	Radiation Therapy	486	10.9%	523	11.3%	554	11.5%
	Radiological Technology	3,514	78.6%	3,602	78.1%	3,774	78.2%
	Other or Unspecified	0	0.0%	0	0.0%	0	0.0%
	Unknown	12	0.3%	22	0.5%	23	0.5%
Employment							
Multiple Employment Status	Single Employer	3,768	84.3%	—	—	—	—
	Multiple Employers	703	15.7%	—	—	—	—
	Unknown	0	0.0%	—	—	—	—
Total Usual Weekly Hours of Work	<22.5	—	—	—	—	584	12.1%
	22.5–34.9	—	—	—	—	557	11.5%
	35.0–37.5	—	—	—	—	3,310	68.6%
	37.6+	—	—	—	—	218	4.5%
	Unknown	—	—	—	—	158	3.3%
Primary Employment							
Employment Category	Permanent Employee	3,952	88.4%	4,002	86.8%	4,106	85.1%
	Temporary Employee	347	7.8%	406	8.8%	484	10.0%
	Casual Employee	125	2.8%	137	3.0%	171	3.5%
	Self-Employed	0	0.0%	0	0.0%	0	0.0%
	Unknown	47	1.1%	65	1.4%	66	1.4%
Full-Time/ Part-Time Status	Full Time	3,439	76.9%	3,544	76.9%	3,633	75.3%
	Part Time	860	19.2%	864	18.7%	957	19.8%
	Unknown	172	3.8%	202	4.4%	237	4.9%
Place of Employment	General Hospital	3,755	84.0%	3,865	83.8%	4,036	83.6%
	Community Health Centre	57	1.3%	50	1.1%	46	1.0%
	Cancer Care	0	0.0%	0	0.0%	0	0.0%
	Free-Standing Imaging Facility/Clinic	504	11.3%	506	11.0%	540	11.2%
	Mobile Imaging Unit	0	0.0%	0	0.0%	0	0.0%
	Post-Secondary Educational Institution	75	1.7%	83	1.8%	94	1.9%
	Association/Government/Para-Governmental	*	*	*	*	*	*
	Industry, Manufacturing and Commercial	30	0.7%	33	0.7%	38	0.8%
	Other	3†	†	4†	†	4†	†
	Unknown	9	0.2%	29	0.6%	26	0.5%

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Quebec—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011 (cont'd)

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Position	Manager	55	1.2%	56	1.2%	65	1.3%
	Supervisor	175	3.9%	177	3.8%	178	3.7%
	Charge Technologist/Team Leader	104	2.3%	103	2.2%	100	2.1%
	Staff Technologist	3,815	85.3%	3,880	84.2%	4,084	84.6%
	Radiation Safety Officer	0	0.0%	0	0.0%	0	0.0%
	Consultant	*	*	*	*	*	*
	Information System Specialist	22	0.5%	27	0.6%	28	0.6%
	Quality Management Specialist	0	0.0%	0	0.0%	*	*
	Educator	9†	†	157	3.4%	146	3.0%
	Researcher	*	*	*	*	6	0.1%
	Sales	23	0.5%	25	0.5%	34	0.7%
	Other	167	3.7%	153	3.3%	157	3.3%
	Unknown	13	0.3%	28	0.6%	27	0.6%
Clinical Education/ Preceptor Activity Indicator	Yes	1,159	25.9%	1,320	28.6%	1,369	28.4%
	No	3,309	74.0%	3,275	71.0%	3,448	71.4%
	Unknown	3	0.1%	15	0.3%	10	0.2%
Major Function	Diagnostic and Therapeutic Services	—	—	—	—	—	—
	Administration	—	—	—	—	—	—
	Information Systems	—	—	—	—	—	—
	Teaching, Medical Radiation Technology–Related	—	—	—	—	—	—
	Research	—	—	—	—	—	—
	Other Major Function	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Area of Practice	Radiological Technology (General)	—	—	1,555	36.8%	1,740	34.6%
	Computed Tomography (CT)	—	—	346	8.2%	451	9.0%
	Nuclear Medicine (General)	—	—	366	8.7%	373	7.4%
	Breast Imaging	—	—	245	5.8%	224	4.5%
	Magnetic Resonance Imaging (General)	—	—	310	7.3%	261	5.2%
	Ultrasound/Diagnostic Medical Sonography	—	—	400	9.5%	430	8.6%
	Radiation Therapy (General)	—	—	—	—	269	5.4%
	Angiography/Interventional	—	—	96	2.3%	114	2.3%
	Bone Mineral Densitometry	—	—	46	1.1%	94	1.9%
	Treatment Planning	—	—	72	1.7%	67	1.3%
	Computed Tomography Simulator (CT/Sim)	—	—	43	1.0%	47	0.9%
	Single Photon Emission Computed Tomography (SPECT)	—	—	0	0.0%	0	0.0%
	Simulation	—	—	34	0.8%	38	0.8%
	Single Photon Emission Computed Tomography/ Computed Tomography (SPECT/CT)	—	—	0	0.0%	0	0.0%
	Positron Emission Tomography/Computed Tomography (PET/CT)	—	—	31	0.7%	38	0.8%
	Brachytherapy	—	—	18	0.4%	18	0.4%
	Positron Emission Tomography (PET)	—	—	0	0.0%	0	0.0%
	Other Area of Practice	—	—	661	15.7%	862	17.2%
Health Region (Statistics Canada PCCF Health Region Code)	Région du Bas-Saint-Laurent (2401)	158	3.5%	154	3.3%	170	3.5%
	Région du Saguenay–Lac-Saint-Jean (2402)	151	3.4%	164	3.6%	167	3.5%
	Région de la Capitale-Nationale (2403)	600	13.4%	609	13.2%	634	13.1%
	Région de la Mauricie et du Centre-du-Québec (2404)	258	5.8%	264	5.7%	281	5.8%
	Région de l'Estrie (2405)	226	5.1%	233	5.1%	244	5.1%
	Région de Montréal (2406)	1,689	37.8%	1,755	38.1%	1,826	37.8%
	Région de l'Outaouais (2407)	150	3.4%	156	3.4%	165	3.4%
	Région de l'Abitibi-Témiscamingue (2408)	68	1.5%	64	1.4%	77	1.6%
	Région de la Côte-Nord (2409)	53	1.2%	54	1.2%	58	1.2%
	Région du Nord-du-Québec (2410)	12	0.3%	15	0.3%	15	0.3%
	Région de la Gaspésie–Îles de la Madeleine (2411)	58	1.3%	57	1.2%	61	1.3%
	Région de Chaudière-Appalaches (2412)	173	3.9%	179	3.9%	169	3.5%
	Région de Laval (2413)	134	3.0%	137	3.0%	150	3.1%
	Région de Lanaudière (2414)	117	2.6%	115	2.5%	117	2.4%
	Région des Laurentides (2415)	167	3.7%	176	3.8%	171	3.5%
	Région de la Montérégie (2416)	442	9.9%	461	10.0%	506	10.5%
	Région du Nunavik (2417)	7	0.2%	9	0.2%	8	0.2%
	Région des Terres-Cries-de-la-Baie-James (2418)	*	*	*	*	*	*
	Unknown‡	*	*	†	†	*	*

Notes

* Value suppressed in accordance with CIHI's Privacy Policy; cell value is from 1 to 4.

† Value suppressed to ensure confidentiality.

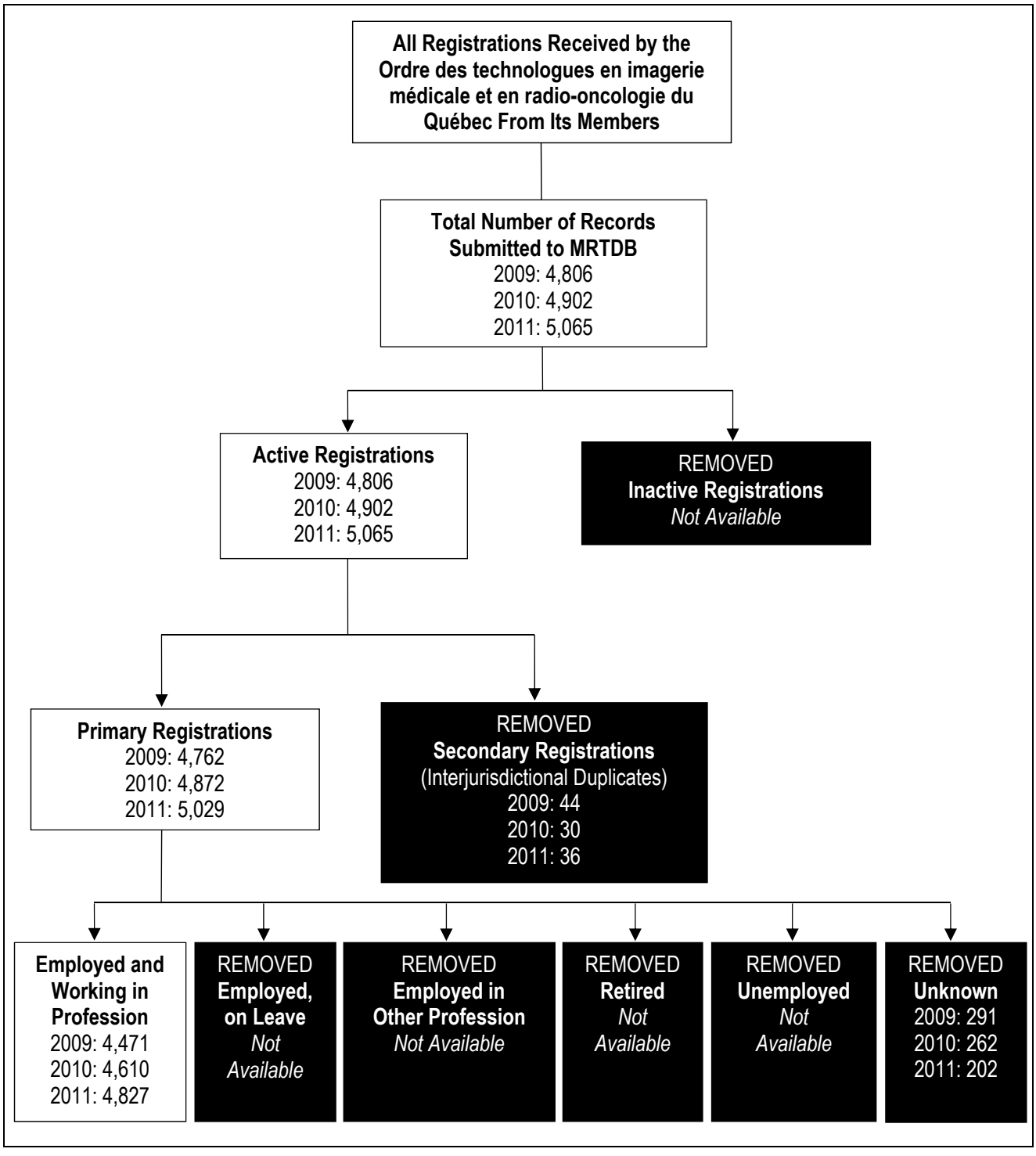
‡ There were a few records (fewer than six for each year) that stated a health region outside Quebec, although their actual location of employment was in Quebec. The health region is derived from the postal code submitted, which may represent a head office in another province. These records have been included under *unknown*.

— Data is not applicable, not collected or does not meet data selection criteria.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

Data Flow From the Ordre des technologues en imagerie médicale et en radio-oncologie du Québec to CIHI



2011 Data Highlights for Medical Radiation Technologists in Ontario

Workforce Supply and Demographics

- Ontario had 6,333 registered MRTs in 2011.
- More than three-quarters (78.0%) of this workforce was female.
- The average age of the MRT workforce was 43.
- MRTs younger than age 35 made up 27.4% of the workforce; 18.5% of the MRT workforce was age 55 or older.

Basic Education and Initial Certification

- More than two-thirds (69.5%) of the MRT workforce chose radiological technology for their initial MRT certification, while about one-tenth of the workforce chose either radiation therapy (13.0%) or nuclear medicine (10.5%).

Primary Employment

- Most MRTs (83.4%) were permanent employees for their primary employment.
- More than three-quarters (77.5%) of the MRT workforce were staff technologists.
- More than half of the MRT workforce (53.6%) provided clinical education/preceptor activities.
- The majority (86.6%) of MRTs indicated that they provided diagnostic and therapeutic services as their major function of primary employment.
- The top four areas in which the MRT workforce practised were radiological technology (general), 27.2%; computed tomography, 11.7%; bone mineral densitometry, 8.3%; and breast imaging, 7.9%.

Total Usual Weekly Hours of Work

- In 2011, 67.1% of the MRT workforce worked 37.5 hours or more per week, while 22.2% worked between 22.5 hours and 37.4 hours per week and 9.7% worked fewer than 22.5 hours per week.

Ontario MRT Workforce Profile

Ontario—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Supply and Demographics							
Total Registered Medical Radiation Technologist Workforce		**6,154**		**6,338**		**6,333**	
Gender	Female	4,857	78.9%	4,983	78.6%	4,937	78.0%
	Male	1,297	21.1%	1,355	21.4%	1,396	22.0%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Average Age	Years	43.1		43.0		43.1	
Age Group	<35	1,619	26.3%	1,728	27.3%	1,734	27.4%
	35–54	3,436	55.8%	3,476	54.8%	3,427	54.1%
	55+	1,099	17.9%	1,134	17.9%	1,172	18.5%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Counts After the Exclusion of Non-Response‡		**5,730**		**5,917**		**6,130**	
Education and Certification							
Level of Basic Education in MRT	Diploma	4,606	80.4%	—	—	—	—
	Baccalaureate	737	12.9%	—	—	—	—
	Master's	1†	†	—	—	—	—
	Doctorate	*	*	—	—	—	—
	Unknown	374	6.5%	—	—	—	—
Location of Graduation for Basic Education in MRT	Canadian Trained	—	—	4,966	83.9%	—	—
	Foreign Trained	—	—	540	9.1%	—	—
	Unknown	—	—	411	6.9%	—	—
New Graduates in MRT	Yes—Graduated Within Last Two Years	—	—	—	—	—	—
	No—Graduated More Than Two Years Ago	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Initial MRT Certification Discipline	Magnetic Resonance Imaging	41	0.7%	39	0.7%	44	0.7%
	Nuclear Medicine	628	11.0%	636	10.7%	645	10.5%
	Radiation Therapy	756	13.2%	777	13.1%	794	13.0%
	Radiological Technology	4,155	72.5%	4,164	70.4%	4,259	69.5%
	Other or Unspecified	0	0.0%	0	0.0%	0	0.0%
	Unknown	150	2.6%	301	5.1%	388	6.3%
Employment							
Multiple Employment Status	Single Employer	—	—	—	—	3,917	63.9%
	Multiple Employers	—	—	—	—	2,072	33.8%
	Unknown	—	—	—	—	141	2.3%
Total Usual Weekly Hours of Work	<22.5	524	9.1%	532	9.0%	595	9.7%
	22.5–37.4	1,168	20.4%	1,232	20.8%	1,361	22.2%
	37.5+	3,921	68.4%	4,036	68.2%	4,114	67.1%
	Unknown	117	2.0%	117	2.0%	60	1.0%
Primary Employment							
Employment Category	Permanent Employee	4,956	86.5%	5,036	85.1%	5,112	83.4%
	Temporary Employee	124	2.2%	167	2.8%	208	3.4%
	Casual Employee	507	8.8%	545	9.2%	571	9.3%
	Self-Employed	10	0.2%	9	0.2%	8	0.1%
	Unknown	133	2.3%	160	2.7%	231	3.8%
Full-Time/ Part-Time Status	Full Time	4,094	71.4%	—	—	—	—
	Part Time	1,285	22.4%	—	—	—	—
	Unknown	351	6.1%	—	—	—	—
Place of Employment	General Hospital	—	—	—	—	—	—
	Community Health Centre	—	—	—	—	—	—
	Cancer Care	—	—	—	—	—	—
	Free-Standing Imaging Facility/Clinic	—	—	—	—	—	—
	Mobile Imaging Unit	—	—	—	—	—	—
	Post-Secondary Educational Institution	—	—	—	—	—	—
	Association/Government/Para-Governmental	—	—	—	—	—	—
	Industry, Manufacturing and Commercial	—	—	—	—	—	—
	Other	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—

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Ontario—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011 (cont'd)

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Position	Manager	171	3.0%	169	2.9%	184	3.0%
	Supervisor	71	1.2%	74	1.3%	63	1.0%
	Charge Technologist/Team Leader	534	9.3%	547	9.2%	570	9.3%
	Staff Technologist	4,466	77.9%	4,613	78.0%	4,750	77.5%
	Radiation Safety Officer	20	0.3%	17	0.3%	17	0.3%
	Consultant	14	0.2%	15	0.3%	15	0.2%
	Information System Specialist	39	0.7%	42	0.7%	43	0.7%
	Quality Management Specialist	10	0.2%	10	0.2%	12	0.2%
	Educator	114	2.0%	120	2.0%	123	2.0%
	Researcher	24	0.4%	21	0.4%	16	0.3%
	Sales	8	0.1%	8	0.1%	9	0.1%
	Other	61	1.1%	61	1.0%	78	1.3%
	Unknown	198	3.5%	220	3.7%	250	4.1%
Clinical Education/ Preceptor Activity Indicator	Yes	3,036	53.0%	3,159	53.4%	3,285	53.6%
	No	2,669	46.6%	2,691	45.5%	2,730	44.5%
	Unknown	25	0.4%	67	1.1%	115	1.9%
Major Function	Diagnostic and Therapeutic Services	5,012	87.5%	5,164	87.3%	5,311	86.6%
	Administration	243	4.2%	245	4.1%	268	4.4%
	Information Systems	53	0.9%	56	0.9%	60	1.0%
	Teaching, Medical Radiation Technology–Related	140	2.4%	148	2.5%	150	2.4%
	Research	32	0.6%	31	0.5%	32	0.5%
	Other Major Function	45	0.8%	46	0.8%	58	0.9%
	Unknown	205	3.6%	227	3.8%	251	4.1%
Area of Practice	Radiological Technology (General)	—	—	—	—	3,168	27.2%
	Computed Tomography (CT)	—	—	—	—	1,360	11.7%
	Nuclear Medicine (General)	—	—	—	—	673	5.8%
	Breast Imaging	—	—	—	—	920	7.9%
	Magnetic Resonance Imaging (General)	—	—	—	—	604	5.2%
	Ultrasound/Diagnostic Medical Sonography	—	—	—	—	368	3.2%
	Radiation Therapy (General)	—	—	—	—	754	6.5%
	Angiography/Interventional	—	—	—	—	518	4.4%
	Bone Mineral Densitometry	—	—	—	—	965	8.3%
	Treatment Planning	—	—	—	—	401	3.4%
	Computed Tomography Simulator (CT/Sim)	—	—	—	—	406	3.5%
	Single Photon Emission Computed Tomography (SPECT)	—	—	—	—	419	3.6%
	Simulation	—	—	—	—	303	2.6%
	Single Photon Emission Computed Tomography/Computed Tomography (SPECT/CT)	—	—	—	—	228	2.0%
	Positron Emission Tomography/Computed Tomography (PET/CT)	—	—	—	—	106	0.9%
	Brachytherapy	—	—	—	—	186	1.6%
	Positron Emission Tomography (PET)	—	—	—	—	73	0.6%
	Other Area of Practice	—	—	—	—	190	1.6%
Health Region (Statistics Canada PCCF Health Region Code)	Erie St. Clair (3501)	—	—	—	—	—	—
	South West (3502)	—	—	—	—	—	—
	Waterloo Wellington (3503)	—	—	—	—	—	—
	Hamilton Niagara Haldimand Brant (3504)	—	—	—	—	—	—
	Central West (3505)	—	—	—	—	—	—
	Mississauga Halton (3506)	—	—	—	—	—	—
	Toronto (3507)	—	—	—	—	—	—
	Central (3508)	—	—	—	—	—	—
	Central East (3509)	—	—	—	—	—	—
	South East (3510)	—	—	—	—	—	—
	Champlain (3511)	—	—	—	—	—	—
	North Simcoe Muskoka (3512)	—	—	—	—	—	—
	North East (3513)	—	—	—	—	—	—
	North West (3514)	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—

Notes

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† Value suppressed to ensure confidentiality.

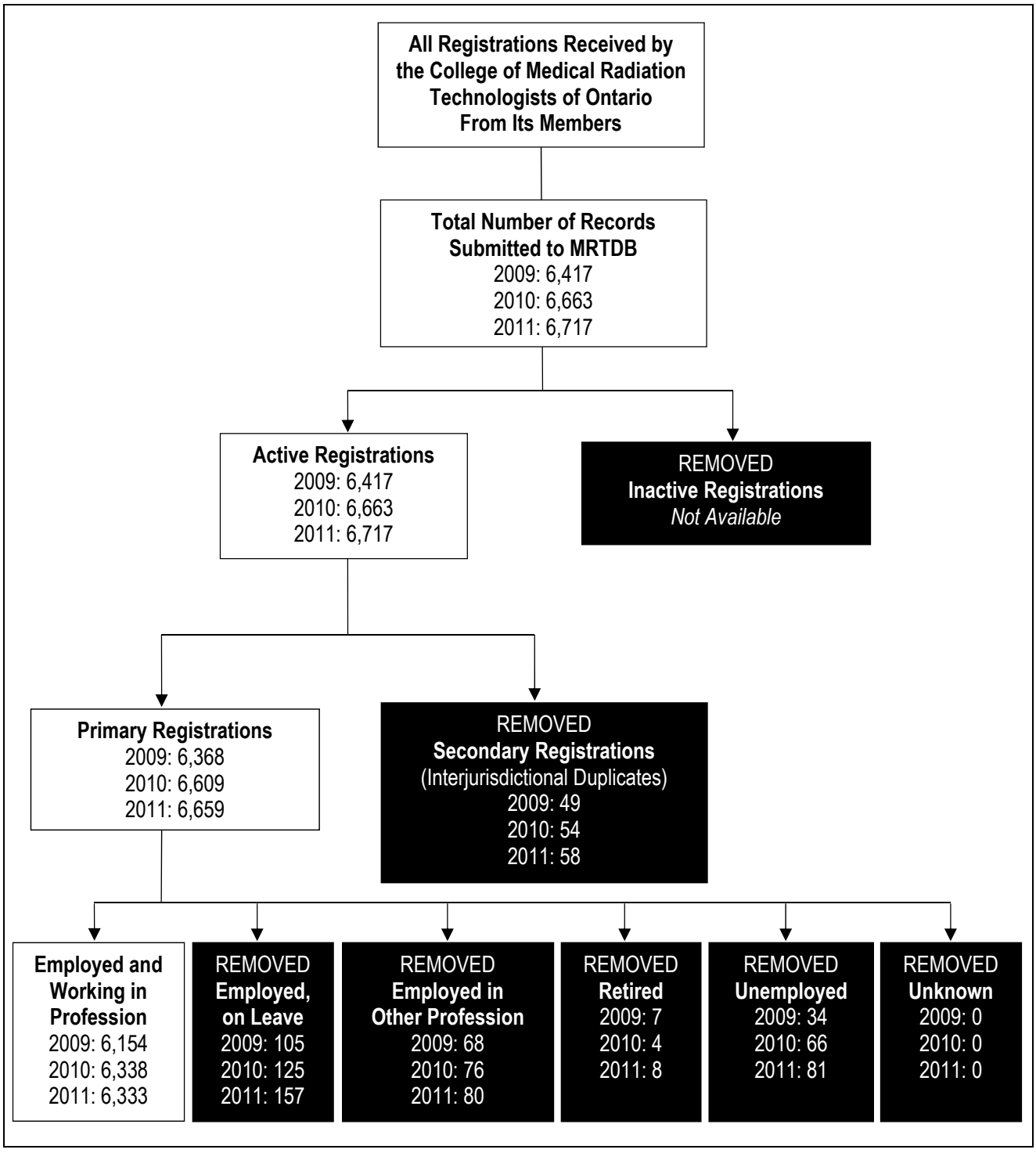
‡ A number of registrants (424 for 2009, 421 for 2010 and 203 for 2011) with Employment Status other than *employed in medical radiation technology* (but not on leave) and *unknown* values for education, certification and employment-related data elements are included for Gender, Average Age and Age Group. This adjustment resulted in totals of 6,154 in 2009, 6,338 in 2010 and 6,333 in 2011 for the workforce and above-mentioned data elements. These records are excluded from the statistics for other data elements, whose totals are 5,730 in 2009, 5,917 in 2010 and 6,130 in 2011.

— Data is not applicable, not collected or does not meet data selection criteria.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

Data Flow From the College of Medical Radiation Technologists of Ontario to CIHI



2011 Data Highlights for Medical Radiation Technologists in Manitoba

Workforce Supply and Demographics

- Manitoba had 672 registered MRTs in 2011.
- Female MRTs accounted for 81.0% of the total MRT workforce.
- The average age of the MRT workforce was 44.
- One-fifth (20.8%) of the MRT workforce was age 55 or older.

Education and Certification

- In 2011, 98.2% of the MRT workforce was Canadian-trained.
- A small percentage (2.7%) of the workforce had graduated from an MRT training program within the past two years.
- The majority (80.5%) of the MRT workforce had their initial MRT certification in radiological technology; a further 11.3% held an initial certification in radiation therapy and another 7.3% were initially certified in nuclear medicine.

Primary Employment

- Most (90.8%) registered MRTs were permanent employees in their place of primary employment.
- Approximately two-thirds (66.4%) of the MRT workforce were employed on a full-time basis.
- For place of primary employment, MRTs were employed in general hospitals (66.1%), cancer care centres (12.2%) and other facilities such as free-standing imaging facilities or clinics (10.7%) and community health centres (7.7%).
- The majority (78.3%) of the MRT workforce were staff technologists.
- The majority (94.5%) of MRTs indicated that they provided diagnostic and therapeutic services in their place of primary employment.
- More than one-third (38.7%) of the MRT workforce provided clinical education/ preceptor activities.
- The top four areas of practice for MRTs were radiological technology (general), 45.6%; computed tomography, 12.2%; radiation therapy (general), 6.9%; and breast imaging, 5.2%.
- The majority (67.6%) of the MRT workforce practised in the Winnipeg Regional Health Authority.

Manitoba MRT Workforce Profile

Manitoba—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Supply and Demographics							
Total Registered Medical Radiation Technologist Workforce		**684**		**671**		**672**	
Gender	Female	550	80.4%	542	80.8%	544	81.0%
	Male	134	19.6%	129	19.2%	128	19.0%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Average Age	Years	43.8		44.1		44.2	
Age Group	<35	178	26.0%	176	26.2%	169	25.1%
	35–54	369	53.9%	360	53.7%	362	53.9%
	55+	136	19.9%	134	20.0%	140	20.8%
	Unknown	1	0.1%	1	0.1%	1	0.1%
Education and Certification							
Level of Basic Education in MRT	Diploma	678	99.1%	66†	†	666	99.1%
	Baccalaureate	6	0.9%	*	*	6	0.9%
	Master's	0	0.0%	0	0.0%	0	0.0%
	Doctorate	0	0.0%	0	0.0%	0	0.0%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Location of Graduation for Basic Education in MRT	Canadian Trained	672	98.2%	659	98.2%	660	98.2%
	Foreign Trained	12	1.8%	12	1.8%	12	1.8%
	Unknown	0	0.0%	0	0.0%	0	0.0%
New Graduates in MRT	Yes—Graduated Within Last Two Years	43	6.3%	24	3.6%	18	2.7%
	No—Graduated More Than Two Years Ago	641	93.7%	647	96.4%	654	97.3%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Initial MRT Certification Discipline	Magnetic Resonance Imaging	0	0.0%	*	*	6	0.9%
	Nuclear Medicine	48	7.0%	4†	†	49	7.3%
	Radiation Therapy	77	11.3%	7†	†	76	11.3%
	Radiological Technology	559	81.7%	549	81.8%	541	80.5%
	Other or Unspecified	0	0.0%	0	0.0%	0	0.0%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Employment							
Multiple Employment Status	Single Employer	603	88.2%	572	85.2%	573	85.3%
	Multiple Employers	81	11.8%	99	14.8%	99	14.7%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Total Usual Weekly Hours of Work	<22.5	—	—	—	—	—	—
	22.5–37.4	—	—	—	—	—	—
	37.5+	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Primary Employment							
Employment Category	Permanent Employee	606	88.6%	603	89.9%	610	90.8%
	Temporary Employee	21	3.1%	17	2.5%	18	2.7%
	Casual Employee	4†	†	47	7.0%	40	6.0%
	Self-Employed	*	*	*	*	*	*
	Unknown	8	1.2%	*	*	*	*
Full-Time/ Part-Time Status	Full Time	449	65.6%	451	67.2%	446	66.4%
	Part Time	201	29.4%	190	28.3%	210	31.3%
	Unknown	34	5.0%	30	4.5%	16	2.4%
Place of Employment	General Hospital	443	64.8%	443	66.0%	444	66.1%
	Community Health Centre	59	8.6%	56	8.3%	52	7.7%
	Cancer Care	82	12.0%	77	11.5%	82	12.2%
	Free-Standing Imaging Facility/Clinic	76	11.1%	76	11.3%	72	10.7%
	Mobile Imaging Unit	5	0.7%	6	0.9%	6	0.9%
	Post-Secondary Educational Institution	†	†	8	1.2%	9	1.3%
	Association/Government/Para-Governmental	*	*	*	*	*	*
	Industry, Manufacturing and Commercial	*	*	0	0.0%	0	0.0%
	Other	*	*	*	*	*	*
	Unknown	7	1.0%	2	0.3%	2	0.3%

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Manitoba—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011 (cont'd)

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Position	Manager	18	2.6%	19	2.8%	19	2.8%
	Supervisor	8	1.2%	8	1.2%	9	1.3%
	Charge Technologist/Team Leader	89	13.0%	79	11.8%	86	12.8%
	Staff Technologist	534	78.1%	537	80.0%	526	78.3%
	Radiation Safety Officer	6	0.9%	6	0.9%	5	0.7%
	Consultant	0	0.0%	0	0.0%	0	0.0%
	Information System Specialist	0	0.0%	*	*	*	*
	Quality Management Specialist	0	0.0%	0	0.0%	0	0.0%
	Educator	19	2.8%	17	2.5%	18	2.7%
	Researcher	0	0.0%	0	0.0%	*	*
	Sales	*	*	0	0.0%	0	0.0%
	Other	*	*	*	*	5	0.7%
	Unknown	6	0.9%	2	0.3%	2	0.3%
Clinical Education/ Preceptor Activity Indicator	Yes	247	36.1%	251	37.4%	260	38.7%
	No	430	62.9%	419	62.4%	411	61.2%
	Unknown	7	1.0%	1	0.1%	1	0.1%
Major Function	Diagnostic and Therapeutic Services	645	94.3%	641	95.5%	635	94.5%
	Administration	14	2.0%	12	1.8%	14	2.1%
	Information Systems	0	0.0%	0	0.0%	0	0.0%
	Teaching, Medical Radiation Technology–Related	1†	†	1†	†	1†	†
	Research	0	0.0%	0	0.0%	0	0.0%
	Other Major Function	*	*	*	*	*	*
	Unknown	8	1.2%	2	0.3%	2	0.3%
Area of Practice	Radiological Technology (General)	494	50.6%	481	47.4%	475	45.6%
	Computed Tomography (CT)	112	11.5%	124	12.2%	127	12.2%
	Nuclear Medicine (General)	43	4.4%	46	4.5%	48	4.6%
	Breast Imaging	56	5.7%	57	5.6%	54	5.2%
	Magnetic Resonance Imaging (General)	33	3.4%	36	3.5%	40	3.8%
	Ultrasound/Diagnostic Medical Sonography	10	1.0%	11	1.1%	14	1.3%
	Radiation Therapy (General)	69	7.1%	66	6.5%	72	6.9%
	Angiography/Interventional	2†	†	2†	†	26	2.5%
	Bone Mineral Densitometry	11	1.1%	17	1.7%	17	1.6%
	Treatment Planning	16	1.6%	17	1.7%	18	1.7%
	Computed Tomography Simulator (CT/Sim)	16	1.6%	16	1.6%	20	1.9%
	Single Photon Emission Computed Tomography (SPECT)	20	2.0%	30	3.0%	31	3.0%
	Simulation	15	1.5%	16	1.6%	19	1.8%
	Single Photon Emission Computed Tomography/Computed Tomography (SPECT/CT)	9	0.9%	16	1.6%	20	1.9%
	Positron Emission Tomography/Computed Tomography (PET/CT)	12	1.2%	13	1.3%	15	1.4%
	Brachytherapy	6	0.6%	7	0.7%	5	0.5%
	Positron Emission Tomography (PET)	*	*	*	*	5	0.5%
	Other Area of Practice	30	3.1%	34	3.3%	36	3.5%
Health Region (Statistics Canada PCCF Health Region Code)	Winnipeg Regional Health Authority (4610)	461	67.4%	454	67.7%	454	67.6%
	Brandon Regional Health Authority (4615)	36	5.3%	38	5.7%	43	6.4%
	North Eastman Regional Health Authority (4620)	5	0.7%	5	0.7%	*	*
	South Eastman Regional Health Authority (4625)	†	†	1†	†	15	2.2%
	Interlake Regional Health Authority (4630)	29	4.2%	25	3.7%	27	4.0%
	Central Regional Health Authority (4640)	36	5.3%	37	5.5%	35	5.2%
	Assiniboine Regional Health Authority (4645)	35	5.1%	36	5.4%	34	5.1%
	Parkland Regional Health Authority (4660)	20	2.9%	17	2.5%	16	2.4%
	NOR-MAN Regional Health Authority (4670)	14	2.0%	14	2.1%	14	2.1%
	Burntwood Regional Health Authority (4680)	11	1.6%	13	1.9%	16	2.4%
	Churchill Regional Health Authority (4690)	*	*	*	*	*	*
	Unknown	29	4.2%	15	2.2%	13	1.9%

Notes

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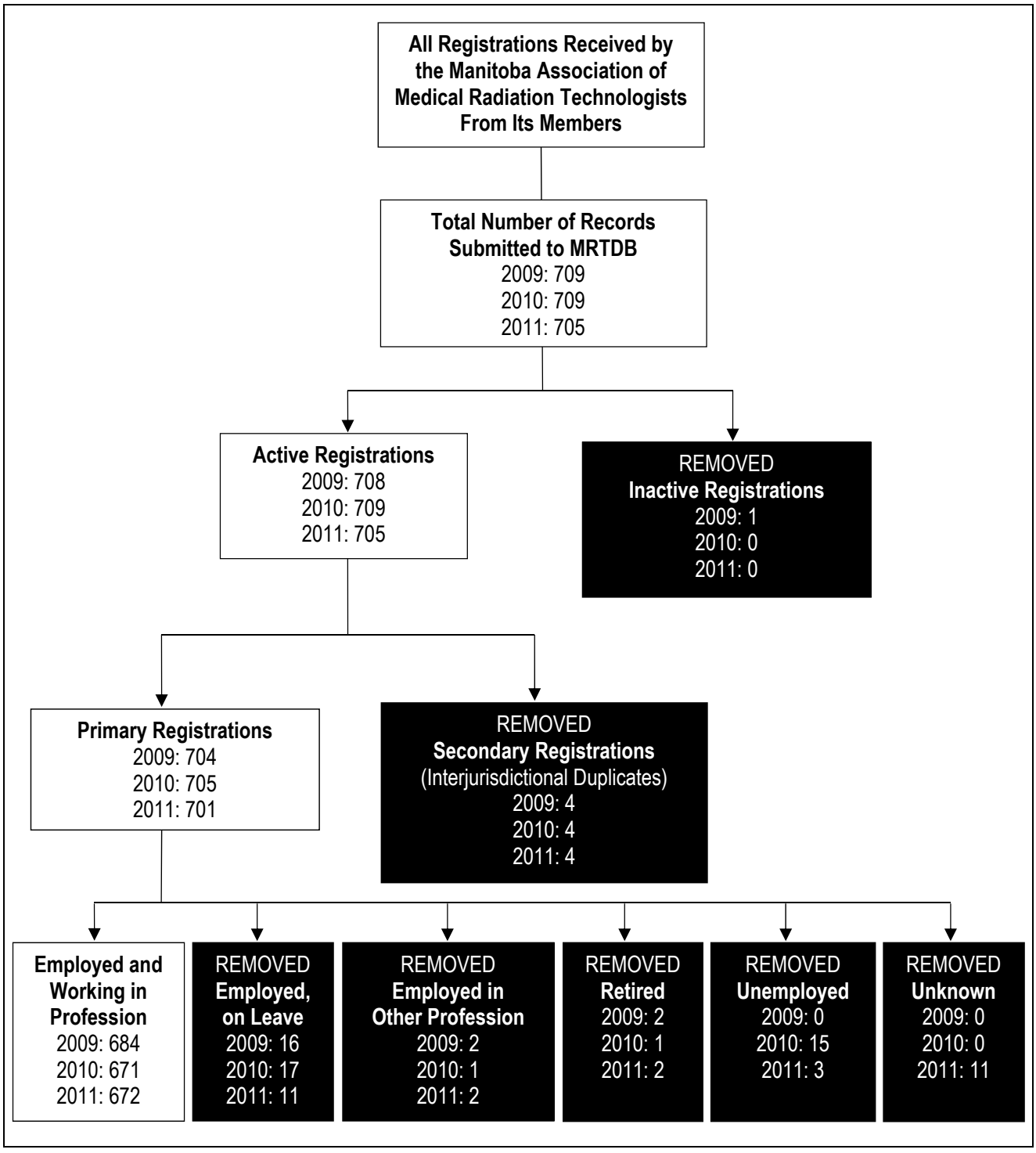
† Value suppressed to ensure confidentiality.

— Data is not applicable, not collected or does not meet data selection criteria.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

Data Flow From the Manitoba Association of Medical Radiation Technologists to CIHI



2011 Data Highlights for Medical Radiation Technologists in Saskatchewan

Workforce Supply and Demographics

- Saskatchewan had 468 registered MRTs in 2011.
- Female MRTs accounted for 80.3% of the workforce.
- The average age of the MRT workforce was 43.
- More than half (53.2%) of the MRT workforce was age 35 to 54.

Education and Certification

- In 2011, most (97.4%) of the MRT workforce was Canadian-trained.
- The majority (78.2%) of the MRT workforce had their initial MRT certification in radiological technology, a further 12.4% in radiation therapy and another 8.8% in nuclear medicine.

Primary Employment

- Most (88.0%) registered MRTs were permanent employees for their primary employment.
- Approximately three-quarters (76.5%) of the MRT workforce were employed on a full-time basis.
- The majority (76.5%) of the MRT workforce were staff technologists.
- Approximately two-thirds (64.1%) of MRTs offered clinical education/preceptor activities at their workplace.
- The majority (87.4%) of MRTs indicated that they provided diagnostic and therapeutic services in their place of primary employment.
- The top four areas of practice for MRTs were radiological technology (general), 38.3%; computed tomography, 10.8%; breast imaging, 7.7%; and radiation therapy (general), 6.7%.
- The two health authorities where most MRTs were employed were Saskatoon Regional Health Authority (40.2%) and Regina Qu'Appelle Regional Health Authority (35.0%).

Total Usual Weekly Hours of Work

- More than two-thirds (69.0%) of MRTs worked 37.5 hours per week, while 19.7% worked between 22.5 hours and 37.4 hours per week and 9.2% worked fewer than 22.5 hours per week.

Saskatchewan MRT Workforce Profile

Saskatchewan—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Supply and Demographics							
Total Registered Medical Radiation Technologist Workforce		**557**		**468**		**468**	
Gender	Female	442	79.4%	375	80.1%	376	80.3%
	Male	115	20.6%	93	19.9%	92	19.7%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Average Age	Years	—		42.0		42.8	
Age Group	<35	—	—	151	32.3%	135	28.8%
	35–54	—	—	236	50.4%	249	53.2%
	55+	—	—	81	17.3%	84	17.9%
	Unknown	—	—	0	0.0%	0	0.0%
Education and Certification							
Level of Basic Education in MRT	Diploma	—	—	46†	†	462	98.7%
	Baccalaureate	—	—	*	*	6	1.3%
	Master's	—	—	0	0.0%	0	0.0%
	Doctorate	—	—	0	0.0%	0	0.0%
	Unknown	—	—	0	0.0%	0	0.0%
Location of Graduation for Basic Education in MRT	Canadian Trained	—	—	458	97.9%	456	97.4%
	Foreign Trained	—	—	9	1.9%	11	2.4%
	Unknown	—	—	1	0.2%	1	0.2%
New Graduates in MRT	Yes—Graduated Within Last Two Years	—	—	28	6.0%	*	*
	No—Graduated More Than Two Years Ago	—	—	435	92.9%	460	98.3%
	Unknown	—	—	5	1.1%	†	†
Initial MRT Certification Discipline	Magnetic Resonance Imaging	0	0.0%	*	*	*	*
	Nuclear Medicine	43	7.7%	43	9.2%	41	8.8%
	Radiation Therapy	76	13.6%	5†	†	58	12.4%
	Radiological Technology	437	78.5%	365	78.0%	366	78.2%
	Other or Unspecified	0	0.0%	0	0.0%	*	*
	Unknown	1	0.2%	0	0.0%	0	0.0%
Employment							
Multiple Employment Status	Single Employer	—	—	436	93.2%	436	93.2%
	Multiple Employers	—	—	32	6.8%	32	6.8%
	Unknown	—	—	0	0.0%	0	0.0%
Total Usual Weekly Hours of Work	<22.5	—	—	42	9.0%	43	9.2%
	22.5–37.4	—	—	90	19.2%	92	19.7%
	37.5+	—	—	324	69.2%	323	69.0%
	Unknown	—	—	12	2.6%	10	2.1%
Primary Employment							
Employment Category	Permanent Employee	—	—	412	88.0%	412	88.0%
	Temporary Employee	—	—	17	3.6%	20	4.3%
	Casual Employee	—	—	3†	†	3†	†
	Self-Employed	—	—	*	*	*	*
	Unknown	—	—	1	0.2%	1	0.2%
Full-Time/ Part-Time Status	Full Time	—	—	357	76.3%	358	76.5%
	Part Time	—	—	110	23.5%	109	23.3%
	Unknown	—	—	1	0.2%	1	0.2%
Place of Employment	General Hospital	—	—	—	—	—	—
	Community Health Centre	—	—	—	—	—	—
	Cancer Care	—	—	—	—	—	—
	Free-Standing Imaging Facility/Clinic	—	—	—	—	—	—
	Mobile Imaging Unit	—	—	—	—	—	—
	Post-Secondary Educational Institution	—	—	—	—	—	—
	Association/Government/Para-Governmental	—	—	—	—	—	—
	Industry, Manufacturing and Commercial	—	—	—	—	—	—
	Other	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—

(continued on next page)

Saskatchewan—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011 (cont'd)

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Position	Manager	—	—	22	4.7%	23	4.9%
	Supervisor	—	—	3†	†	33	7.1%
	Charge Technologist/Team Leader	—	—	23	4.9%	22	4.7%
	Staff Technologist	—	—	361	77.1%	358	76.5%
	Radiation Safety Officer	—	—	*	*	*	*
	Consultant	—	—	*	*	*	*
	Information System Specialist	—	—	9	1.9%	9	1.9%
	Quality Management Specialist	—	—	0	0.0%	0	0.0%
	Educator	—	—	13	2.8%	12	2.6%
	Researcher	—	—	*	*	*	*
	Sales	—	—	0	0.0%	0	0.0%
	Other	—	—	*	*	*	*
	Unknown	—	—	3	0.6%	3	0.6%
Clinical Education/ Preceptor Activity Indicator	Yes	—	—	299	63.9%	300	64.1%
	No	—	—	154	32.9%	153	32.7%
	Unknown	—	—	15	3.2%	15	3.2%
Major Function	Diagnostic and Therapeutic Services	—	—	409	87.4%	409	87.4%
	Administration	—	—	33	7.1%	32	6.8%
	Information Systems	—	—	8	1.7%	8	1.7%
	Teaching, Medical Radiation Technology–Related	—	—	13	2.8%	13	2.8%
	Research	—	—	*	*	*	*
	Other Major Function	—	—	*	*	*	*
	Unknown	—	—	1	0.2%	1	0.2%
Area of Practice	Radiological Technology (General)	—	—	305	38.1%	307	38.3%
	Computed Tomography (CT)	—	—	84	10.5%	87	10.8%
	Nuclear Medicine (General)	—	—	40	5.0%	38	4.7%
	Breast Imaging	—	—	61	7.6%	62	7.7%
	Magnetic Resonance Imaging (General)	—	—	20	2.5%	21	2.6%
	Ultrasound/Diagnostic Medical Sonography	—	—	6	0.7%	6	0.7%
	Radiation Therapy (General)	—	—	54	6.7%	54	6.7%
	Angiography/Interventional	—	—	42	5.2%	42	5.2%
	Bone Mineral Densitometry	—	—	15	1.9%	14	1.7%
	Treatment Planning	—	—	21	2.6%	22	2.7%
	Computed Tomography Simulator (CT/Sim)	—	—	29	3.6%	29	3.6%
	Single Photon Emission Computed Tomography (SPECT)	—	—	28	3.5%	26	3.2%
	Simulation	—	—	25	3.1%	25	3.1%
	Single Photon Emission Computed Tomography/Computed Tomography (SPECT/CT)	—	—	29	3.6%	27	3.4%
	Positron Emission Tomography/Computed Tomography (PET/CT)	—	—	0	0.0%	0	0.0%
	Brachytherapy	—	—	16	2.0%	16	2.0%
	Positron Emission Tomography (PET)	—	—	0	0.0%	0	0.0%
	Other Area of Practice	—	—	26	3.2%	26	3.2%
Health Region (Statistics Canada PCCF Health Region Code)	Sun Country Regional Health Authority (4701)	—	—	†	†	†	†
	Five Hills Regional Health Authority (4702)	—	—	15	3.2%	15	3.2%
	Cypress Regional Health Authority (4703)	—	—	14	3.0%	14	3.0%
	Regina Qu'Appelle Regional Health Authority (4704)	—	—	164	35.0%	164	35.0%
	Sunrise Regional Health Authority (4705)	—	—	20	4.3%	21	4.5%
	Saskatoon Regional Health Authority (4706)	—	—	191	40.8%	188	40.2%
	Heartland Regional Health Authority (4707)	—	—	*	*	*	*
	Kelsey Trail Regional Health Authority (4708)	—	—	14	3.0%	14	3.0%
	Prince Albert Parkland Regional Health Authority (4709)	—	—	19	4.1%	21	4.5%
	Prairie North Regional Health Authority (4710)	—	—	21	4.5%	21	4.5%
	Mamawetan Churchill River Regional Health Authority (4711)	—	—	0	0.0%	0	0.0%
	Keewatin Yatthé Regional Health Authority (4712)	—	—	0	0.0%	0	0.0%
	Athabasca Health Authority (4713)	—	—	0	0.0%	0	0.0%
	Unknown	—	—	0	0.0%	0	0.0%

Notes

* Value suppressed in accordance with CIHI's Privacy Policy; cell value is from 1 to 4.

† Value suppressed to ensure confidentiality.

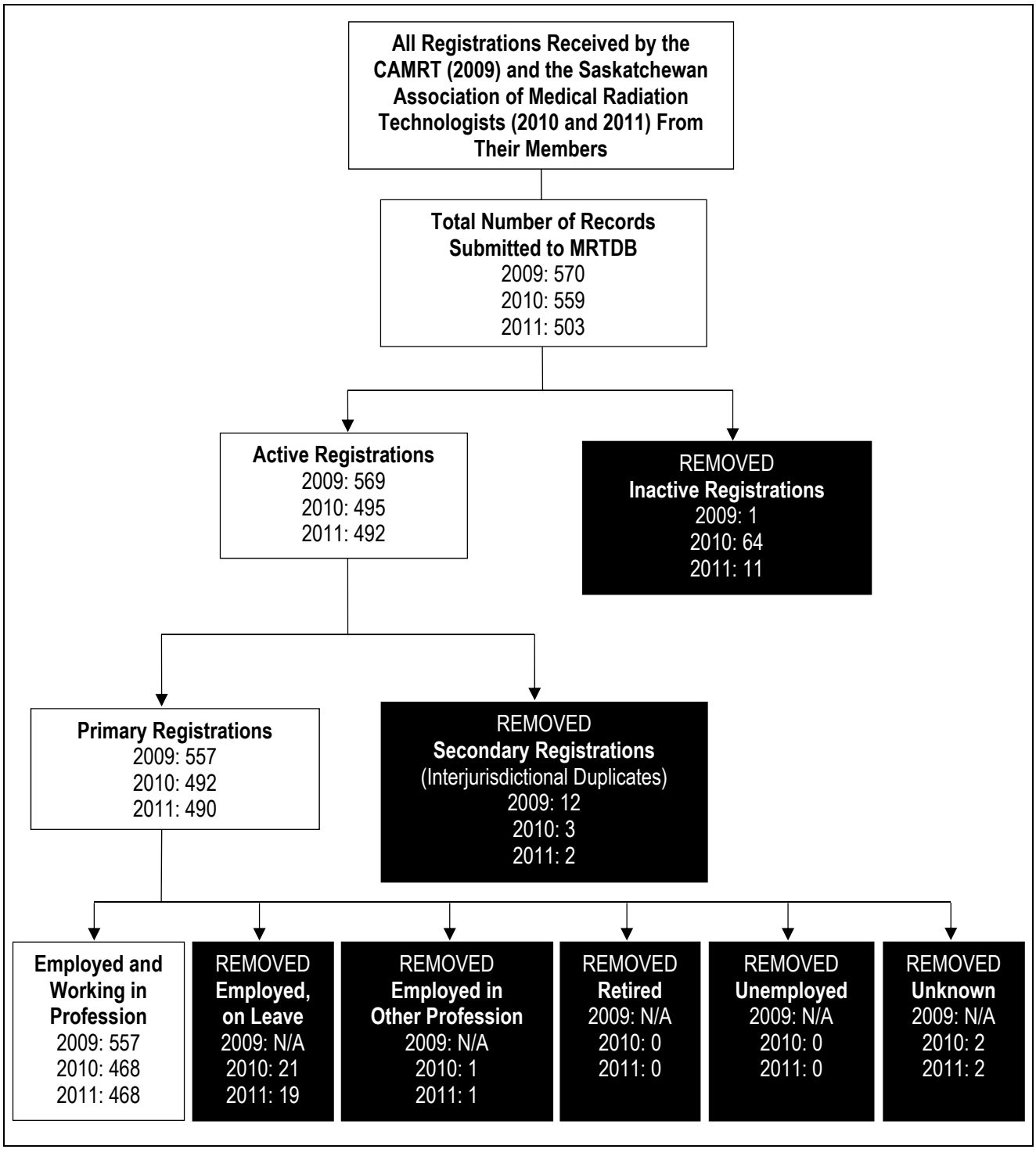
— Data is not applicable, not collected or does not meet data selection criteria.

The 2009 data submitted by the Saskatchewan Association of Medical Radiation Technologists (SAMRT) does not have sufficient detail for most data elements. CIHI requested aggregate-level information from the CAMRT for MRTs who worked in Saskatchewan in 2009. Due to different time frames, the totals of the CAMRT data and the SAMRT data are close but not exactly the same. In consultation with the SAMRT, the total workforce size for 2008 and 2009 provided by the SAMRT was allocated among the Gender and Initial MRT Certification Discipline values according to the distribution for those data elements provided by the CAMRT.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

Data Flow From the CAMRT (2009) and the Saskatchewan Association of Medical Radiation Technologists (2010 and 2011) to CIHI



2011 Data Highlights for Medical Radiation Technologists in Alberta

Workforce Supply and Demographics

- Alberta had 1,880 registered MRTs in 2011.
- Most (83.5%) of the MRT workforce was female.
- The average age of the workforce was 43.
- Half of the MRT workforce was age 35 to 54 (50.1%), while 30.6% were younger than age 35 and 19.3% were age 55 or older.

Education and Certification

- Almost all of the MRT workforce (98.7%) held a diploma in medical radiation technology for their basic education.
- Most (96.3%) of the MRT workforce was Canadian-trained.
- Of the MRT workforce, 6.9% had graduated from an MRT training program for basic education within the past two years.
- Three-quarters (75.3%) of the MRT workforce held their initial MRT certification in radiological technology. Other disciplines of initial MRT certification included nuclear medicine (11.2%), radiation therapy (9.3%) and magnetic resonance imaging (3.9%).

Primary Employment

- Most of the MRT workforce was employed in general hospitals (55.2%), free-standing imaging facilities or clinics (26.2%) and cancer care centres (10.9%).
- In 2011, 28.9% of the MRT workforce provided clinical education/preceptor activities.
- The top four areas of practice were radiological technology (general), 38.2%; computed tomography, 11.0%; breast imaging, 9.8%; and nuclear medicine (general), 7.2%.
- Close to three-quarters of the MRTs worked in two health regions: Edmonton Health Region (42.0%) and Calgary Health Region (38.6%).

Alberta MRT Workforce Profile

Alberta—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Supply and Demographics							
Total Registered Medical Radiation Technologist Workforce		**1,747**		**1,792**		**1,880**	
Gender	Female	1,446	82.8%	1,494	83.4%	1,570	83.5%
	Male	301	17.2%	298	16.6%	310	16.5%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Average Age	Years	42.7		42.7		42.6	
Age Group	<35	516	29.5%	531	29.6%	576	30.6%
	35–54	920	52.7%	923	51.5%	942	50.1%
	55+	311	17.8%	338	18.9%	362	19.3%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Education and Certification							
Level of Basic Education in MRT	Diploma	1,741	99.7%	1,781	99.4%	1,855	98.7%
	Baccalaureate	6	0.3%	11	0.6%	25	1.3%
	Master's	0	0.0%	0	0.0%	0	0.0%
	Doctorate	0	0.0%	0	0.0%	0	0.0%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Location of Graduation for Basic Education in MRT	Canadian Trained	1,689	96.7%	1,727	96.4%	1,810	96.3%
	Foreign Trained	54	3.1%	60	3.3%	58	3.1%
	Unknown	4	0.2%	5	0.3%	12	0.6%
New Graduates in MRT	Yes—Graduated Within Last Two Years	119	6.8%	115	6.4%	130	6.9%
	No—Graduated More Than Two Years Ago	1,628	93.2%	1,677	93.6%	1,750	93.1%
	Unknown	0	0.0 %	0	0.0 %	0	0.0 %
Initial MRT Certification Discipline	Magnetic Resonance Imaging	6†	†	70	3.9%	73	3.9%
	Nuclear Medicine	208	11.9%	207	11.6%	211	11.2%
	Radiation Therapy	162	9.3%	170	9.5%	175	9.3%
	Radiological Technology	1,313	75.2%	1,337	74.6%	1,415	75.3%
	Other or Unspecified	*	*	8	0.4%	6	0.3%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Employment							
Multiple Employment Status	Single Employer	—	—	1,579	88.1%	1,646	87.6%
	Multiple Employers	—	—	208	11.6%	215	11.4%
	Unknown	—	—	5	0.3%	19	1.0%
Total Usual Weekly Hours of Work	<22.5	—	—	—	—	—	—
	22.5–37.4	—	—	—	—	—	—
	37.5+	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Primary Employment							
Employment Category	Permanent Employee	—	—	—	—	—	—
	Temporary Employee	—	—	—	—	—	—
	Casual Employee	—	—	—	—	—	—
	Self-Employed	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Full-Time/ Part-Time Status	Full Time	—	—	—	—	—	—
	Part Time	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Place of Employment	General Hospital	—	—	992	55.4%	1,037	55.2%
	Community Health Centre	—	—	57	3.2%	64	3.4%
	Cancer Care	—	—	209	11.7%	205	10.9%
	Free-Standing Imaging Facility/Clinic	—	—	468	26.1%	493	26.2%
	Mobile Imaging Unit	—	—	0	0.0%	0	0.0%
	Post-Secondary Educational Institution	—	—	31	1.7%	32	1.7%
	Association/Government/Para-Governmental	—	—	9	0.5%	†	†
	Industry, Manufacturing and Commercial	—	—	*	*	*	*
	Other	—	—	1†	†	20	1.1%
	Unknown	—	—	5	0.3%	19	1.0%

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Alberta—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011 (cont'd)

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Position	Manager	—	—	—	—	—	—
	Supervisor	—	—	—	—	—	—
	Charge Technologist/Team Leader	—	—	—	—	—	—
	Staff Technologist	—	—	—	—	—	—
	Radiation Safety Officer	—	—	—	—	—	—
	Consultant	—	—	—	—	—	—
	Information System Specialist	—	—	—	—	—	—
	Quality Management Specialist	—	—	—	—	—	—
	Educator	—	—	—	—	—	—
	Researcher	—	—	—	—	—	—
	Sales	—	—	—	—	—	—
	Other	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Clinical Education/ Preceptor Activity Indicator	Yes	413	23.6%	507	28.3%	544	28.9%
	No	1,334	76.4%	1,285	71.7%	1,336	71.1%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Major Function	Diagnostic and Therapeutic Services	—	—	—	—	—	—
	Administration	—	—	—	—	—	—
	Information Systems	—	—	—	—	—	—
	Teaching, Medical Radiation Technology–Related	—	—	—	—	—	—
	Research	—	—	—	—	—	—
	Other Major Function	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Area of Practice	Radiological Technology (General)	632	37.6%	765	37.5%	812	38.2%
	Computed Tomography (CT)	187	11.1%	223	10.9%	234	11.0%
	Nuclear Medicine (General)	126	7.5%	156	7.7%	154	7.2%
	Breast Imaging	170	10.1%	199	9.8%	208	9.8%
	Magnetic Resonance Imaging (General)	85	5.1%	122	6.0%	130	6.1%
	Ultrasound/Diagnostic Medical Sonography	12	0.7%	11	0.5%	10	0.5%
	Radiation Therapy (General)	82	4.9%	103	5.1%	103	4.8%
	Angiography/Interventional	70	4.2%	86	4.2%	84	4.0%
	Bone Mineral Densitometry	112	6.7%	143	7.0%	151	7.1%
	Treatment Planning	20	1.2%	25	1.2%	25	1.2%
	Computed Tomography Simulator (CT/Sim)	15	0.9%	18	0.9%	21	1.0%
	Single Photon Emission Computed Tomography (SPECT)	41	2.4%	40	2.0%	49	2.3%
	Simulation	15	0.9%	18	0.9%	17	0.8%
	Single Photon Emission Computed Tomography/Computed Tomography (SPECT/CT)	24	1.4%	33	1.6%	36	1.7%
	Positron Emission Tomography/Computed Tomography (PET/CT)	20	1.2%	19	0.9%	19	0.9%
	Brachytherapy	*	*	6	0.3%	6	0.3%
	Positron Emission Tomography (PET)	13	0.8%	13	0.6%	11	0.5%
	Other Area of Practice	5†	†	59	2.9%	56	2.6%
Health Region (Statistics Canada PCCF Health Region Code)‡	South Zone (4831)	—	—	124	6.9%	127	6.8%
	Calgary Zone (4832)	—	—	701	39.1%	726	38.6%
	Central Zone (4833)	—	—	141	7.9%	138	7.3%
	Edmonton Zone (4834)	—	—	747	41.7%	790	42.0%
	North Zone (4835)	—	—	72	4.0%	80	4.3%
	Unknown	—	—	7	0.4%	19	1.0%

Notes

* Value suppressed in accordance with CIHI's Privacy Policy; cell value is from 1 to 4.

† Value suppressed to ensure confidentiality.

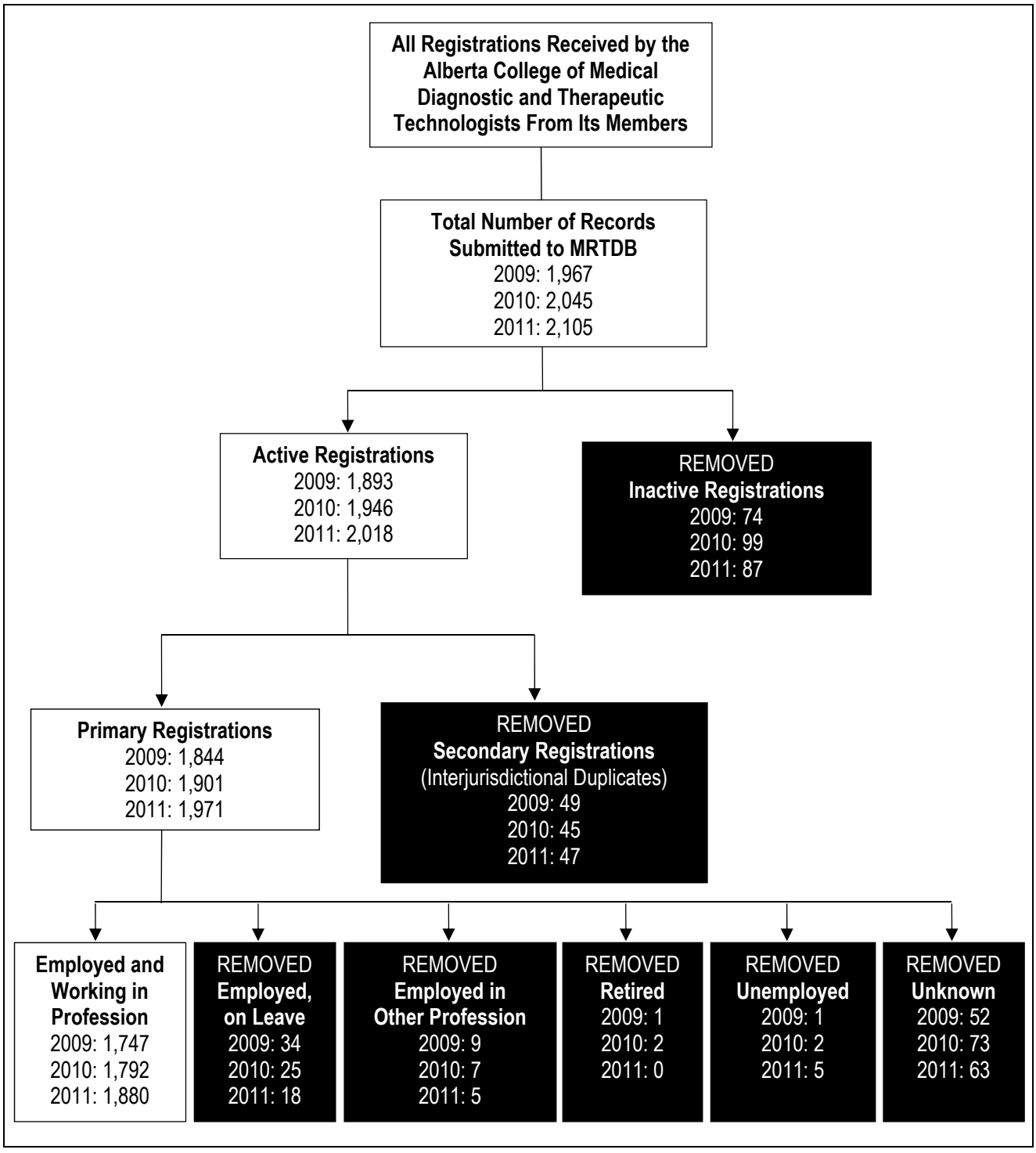
‡ Alberta is reported by the five planning zones that replaced the former nine health regions (areas): South Zone (former Chinook Health Region and Palliser Health Region); Calgary Zone (former Calgary Health Region); Central Zone (former David Thompson Regional Health Authority and East Central Health); Edmonton Zone (former Capital Health); and North Zone (former Aspen Regional Health Authority, Peace Country Health and Northern Lights Health Region). Boundaries are those that were in effect as of December 2010 and per direction from Alberta Health Services.

— Data is not applicable, not collected or does not meet data selection criteria.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

Data Flow From the Alberta College of Medical Diagnostic and Therapeutic Technologists to CIHI



2011 Data Highlights for Registered Medical Radiation Technologists in British Columbia

Workforce Supply and Demographics

- In 2011, 1,988 MRTs were registered with the CAMRT.
- More than three-quarters (78.3%) of this workforce was female.
- The average age of the registered MRT workforce was 42.
- More than half of this workforce (52.7%) was age 35 to 54.

Education and Certification

- In 2011, 7.5% of the MRT workforce had graduated from basic education programs in medical radiation technology within the past two years.
- The majority of the MRT workforce (78.8%) chose radiological technology for their initial MRT certification, with most of the remainder choosing either nuclear medicine (10.7%) or radiation therapy (10.3%).

British Columbia Registered MRT Workforce Profile

British Columbia—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Supply and Demographics							
Total Registered Medical Radiation Technologist Workforce		**1,983**		**2,078**		**1,988**	
Gender	Female	1,549	78.1%	1,634	78.6%	1,557	78.3%
	Male	434	21.9%	444	21.4%	431	21.7%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Average Age	Years	42.4		42.6		42.1	
Age Group	<35	585	29.5%	632	30.4%	629	31.6%
	35–54	1,080	54.5%	1,084	52.2%	1,048	52.7%
	55+	308	15.5%	352	16.9%	300	15.1%
	Unknown	10	0.5%	10	0.5%	11	0.6%
Education and Certification							
Level of Basic Education in MRT	Diploma	—	—	—	—	—	—
	Baccalaureate	—	—	—	—	—	—
	Master's	—	—	—	—	—	—
	Doctorate	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Location of Graduation for Basic Education in MRT	Canadian Trained	—	—	—	—	—	—
	Foreign Trained	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
New Graduates in MRT	Yes—Graduated Within Last Two Years	—	—	195	9.4%	149	7.5%
	No—Graduated More Than Two Years Ago	—	—	1,883	90.6%	1,839	92.5%
	Unknown	—	—	0	0.0%	0	0.0%
Initial MRT Certification Discipline	Magnetic Resonance Imaging	*	*	*	*	5	0.3%
	Nuclear Medicine	209	10.5%	217	10.4%	213	10.7%
	Radiation Therapy	24†	†	24†	†	204	10.3%
	Radiological Technology	1,505	75.9%	1,588	76.4%	1,566	78.8%
	Other or Unspecified	0	0.0%	0	0.0%	0	0.0%
	Unknown	24	1.2%	23	1.1%	0	0.0%
Employment							
Multiple Employment Status	Single Employer	—	—	—	—	—	—
	Multiple Employers	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Total Usual Weekly Hours of Work	<22.5	—	—	—	—	—	—
	22.5–37.4	—	—	—	—	—	—
	37.5+	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Primary Employment							
Employment Category	Permanent Employee	—	—	—	—	—	—
	Temporary Employee	—	—	—	—	—	—
	Casual Employee	—	—	—	—	—	—
	Self-Employed	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Full-Time/ Part-Time Status	Full Time	—	—	—	—	—	—
	Part Time	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Place of Employment	General Hospital	—	—	—	—	—	—
	Community Health Centre	—	—	—	—	—	—
	Cancer Care	—	—	—	—	—	—
	Free-Standing Imaging Facility/Clinic	—	—	—	—	—	—
	Mobile Imaging Unit	—	—	—	—	—	—
	Post-Secondary Educational Institution	—	—	—	—	—	—
	Association/Government/Para-Governmental	—	—	—	—	—	—
	Industry, Manufacturing and Commercial	—	—	—	—	—	—
	Other	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—

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British Columbia—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011 (cont'd)

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Position	Manager	—	—	—	—	—	—
	Supervisor	—	—	—	—	—	—
	Charge Technologist/Team Leader	—	—	—	—	—	—
	Staff Technologist	—	—	—	—	—	—
	Radiation Safety Officer	—	—	—	—	—	—
	Consultant	—	—	—	—	—	—
	Information System Specialist	—	—	—	—	—	—
	Quality Management Specialist	—	—	—	—	—	—
	Educator	—	—	—	—	—	—
	Researcher	—	—	—	—	—	—
	Sales	—	—	—	—	—	—
	Other	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Clinical Education/ Preceptor Activity Indicator	Yes	—	—	—	—	—	—
	No	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Major Function	Diagnostic and Therapeutic Services	—	—	—	—	—	—
	Administration	—	—	—	—	—	—
	Information Systems	—	—	—	—	—	—
	Teaching, Medical Radiation Technology–Related	—	—	—	—	—	—
	Research	—	—	—	—	—	—
	Other Major Function	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—
Area of Practice	Radiological Technology (General)	—	—	—	—	—	—
	Computed Tomography (CT)	—	—	—	—	—	—
	Nuclear Medicine (General)	—	—	—	—	—	—
	Breast Imaging	—	—	—	—	—	—
	Magnetic Resonance Imaging (General)	—	—	—	—	—	—
	Ultrasound/Diagnostic Medical Sonography	—	—	—	—	—	—
	Radiation Therapy (General)	—	—	—	—	—	—
	Angiography/Interventional	—	—	—	—	—	—
	Bone Mineral Densitometry	—	—	—	—	—	—
	Treatment Planning	—	—	—	—	—	—
	Computed Tomography Simulator (CT/Sim)	—	—	—	—	—	—
	Single Photon Emission Computed Tomography (SPECT)	—	—	—	—	—	—
	Simulation	—	—	—	—	—	—
	Single Photon Emission Computed Tomography/Computed Tomography (SPECT/CT)	—	—	—	—	—	—
	Positron Emission Tomography/Computed Tomography (PET/CT)	—	—	—	—	—	—
	Brachytherapy	—	—	—	—	—	—
	Positron Emission Tomography (PET)	—	—	—	—	—	—
	Other Area of Practice	—	—	—	—	—	—
Health Region (Statistics Canada PCCF Health Region Code)	East Kootenay (5911)	—	—	—	—	—	—
	Kootenay-Boundary (5912)	—	—	—	—	—	—
	Okanagan (5913)	—	—	—	—	—	—
	Thompson/Cariboo (5914)	—	—	—	—	—	—
	Fraser East (5921)	—	—	—	—	—	—
	Fraser North (5922)	—	—	—	—	—	—
	Fraser South (5923)	—	—	—	—	—	—
	Richmond (5931)	—	—	—	—	—	—
	Vancouver (5932)	—	—	—	—	—	—
	North Shore/Coast Garibaldi (5933)	—	—	—	—	—	—
	South Vancouver Island (5941)	—	—	—	—	—	—
	Central Vancouver Island (5942)	—	—	—	—	—	—
	North Vancouver Island (5943)	—	—	—	—	—	—
	Northwest (5951)	—	—	—	—	—	—
	Northern Interior (5952)	—	—	—	—	—	—
	Northeast (5953)	—	—	—	—	—	—
	Unknown	—	—	—	—	—	—

Notes

* Value suppressed in accordance with CIHI's Privacy Policy; cell value is from 1 to 4.

† Value suppressed to ensure confidentiality.

— Data is not applicable, not collected or does not meet data selection criteria.

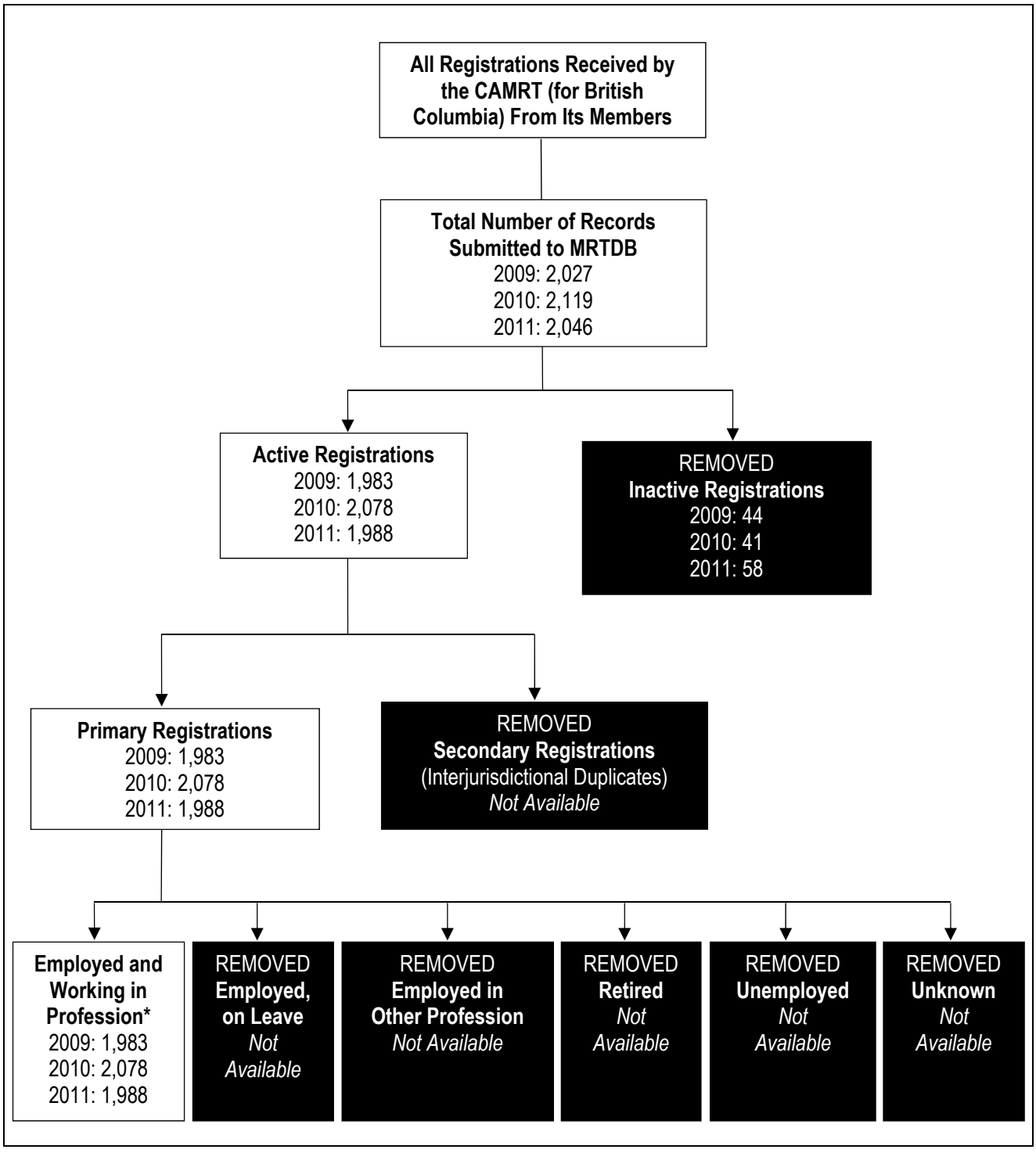
Workforce Count and Regulation Status

The data was provided by the CAMRT at the aggregate level. The workforce count may not represent the entire workforce due to voluntary registration with the CAMRT. Refer to Appendix B for more information.

Source

Canadian Association of Medical Radiation Technologists.

Data Flow From the Canadian Association of Medical Radiation Technologists (for British Columbia) to CIHI



Note

* The method for identifying secondary registrations is not applicable to the aggregate data received from the CAMRT. The number of active registrations is carried over for primary registrations and workforce numbers.

2011 Data Highlights for Registered Medical Radiation Technologists in the Territories (Yukon, Northwest Territories, Nunavut)

Workforce Supply and Demographics

- In 2011, 23 MRTs were registered with the CAMRT and worked in Yukon, the Northwest Territories or Nunavut.
- The average age of the registered MRT workforce for the territories was 38.

Education and Certification

- Most of the registered MRT workforce in the territories held a diploma in medical radiation technology for their basic education.
- Almost all members of the registered MRT workforce in the territories held an initial certification in radiological technology.

Primary Employment

- Most of the registered MRTs (82.6%) in the territories were permanent employees in their primary employment.
- Almost the entire registered MRT workforce in the territories (95.7%) worked in a general hospital setting.
- Radiological technology (general) was the area (34.6%) in which most of the registered MRT workforce in the territories practised, followed by computed tomography at 28.8% and breast imaging at 17.3%.

Territories Registered MRT Workforce Profile

Yukon, Northwest Territories and Nunavut—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Supply and Demographics							
Total Registered Medical Radiation Technologist Workforce		**14**		**18**		**23**	
Gender	Female	1†	†	1†	†	1†	†
	Male	*	*	*	*	*	*
	Unknown	0	0.0%	0	0.0%	0	0.0%
Average Age	Years	40.8		40.4		37.6	
Age Group	<35	*	*	†	†	1†	†
	35–54	8	57.1%	9	50.0%	10	43.5%
	55+	*	*	*	*	*	*
	Unknown	0	0.0%	0	0.0%	0	0.0%
Education and Certification							
Level of Basic Education in MRT	Diploma	1†	†	1†	†	1†	†
	Baccalaureate	*	*	*	*	*	*
	Master's	0	0.0%	0	0.0%	0	0.0%
	Doctorate	0	0.0%	0	0.0%	0	0.0%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Location of Graduation for Basic Education in MRT	Canadian Trained	14	100.0%	1†	†	2†	†
	Foreign Trained	0	0.0%	*	*	*	*
	Unknown	0	0.0%	0	0.0%	0	0.0%
New Graduates in MRT	Yes—Graduated Within Last Two Years	0	0.0%	0	0.0%	*	*
	No—Graduated More Than Two Years Ago	14	100.0%	18	100.0%	2†	†
	Unknown	0	0.0%	0	0.0%	0	0.0%
Initial MRT Certification Discipline	Magnetic Resonance Imaging	0	0.0%	0	0.0%	0	0.0%
	Nuclear Medicine	0	0.0%	0	0.0%	*	*
	Radiation Therapy	0	0.0%	0	0.0%	0	0.0%
	Radiological Technology	14	100.0%	18	100.0%	2†	†
	Other or Unspecified	0	0.0%	0	0.0%	0	0.0%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Employment							
Multiple Employment Status	Single Employer	14	100.0%	1†	†	2†	†
	Multiple Employers	0	0.0%	*	*	*	*
	Unknown	0	0.0%	0	0.0%	1	4.3%
Total Usual Weekly Hours of Work	<22.5	*	*	*	*	—	—
	22.5–37.4	0	0.0%	*	*	—	—
	37.5+	1†	†	16	88.9%	—	—
	Unknown	0	0.0%	0	0.0%	—	—
Primary Employment							
Employment Category	Permanent Employee	1†	†	1†	†	19	82.6%
	Temporary Employee	0	0.0%	0	0.0%	*	*
	Casual Employee	*	*	*	*	*	*
	Self-Employed	0	0.0%	0	0.0%	0	0.0%
	Unknown	0	0.0%	0	0.0%	1	4.3%
Full-Time/ Part-Time Status	Full Time	1†	†	1†	†	17	73.9%
	Part Time	*	*	*	*	5	21.7%
	Unknown	0	0.0%	0	0.0%	1	4.3%
Place of Employment	General Hospital	14	100.0%	18	100.0%	22	95.7%
	Community Health Centre	0	0.0%	0	0.0%	0	0.0%
	Cancer Care	0	0.0%	0	0.0%	0	0.0%
	Free-Standing Imaging Facility/Clinic	0	0.0%	0	0.0%	0	0.0%
	Mobile Imaging Unit	0	0.0%	0	0.0%	0	0.0%
	Post-Secondary Educational Institution	0	0.0%	0	0.0%	0	0.0%
	Association/Government/Para-Governmental	0	0.0%	0	0.0%	0	0.0%
	Industry, Manufacturing and Commercial	0	0.0%	0	0.0%	0	0.0%
	Other	0	0.0%	0	0.0%	0	0.0%
	Unknown	0	0.0%	0	0.0%	1	4.3%

(continued on next page)

Yukon, Northwest Territories and Nunavut—Total Registered Medical Radiation Technologist Workforce, 2009 to 2011 (cont'd)

		2009		2010		2011	
		Count	Percentage	Count	Percentage	Count	Percentage
Position	Manager	—	—	*	*	*	*
	Supervisor	—	—	*	*	*	*
	Charge Technologist/Team Leader	—	—	*	*	*	*
	Staff Technologist	—	—	12	66.7%	15	65.2%
	Radiation Safety Officer	—	—	0	0.0%	0	0.0%
	Consultant	—	—	0	0.0%	0	0.0%
	Information System Specialist	—	—	0	0.0%	*	*
	Quality Management Specialist	—	—	0	0.0%	0	0.0%
	Educator	—	—	0	0.0%	0	0.0%
	Researcher	—	—	0	0.0%	0	0.0%
	Sales	—	—	0	0.0%	0	0.0%
	Other	—	—	0	0.0%	0	0.0%
	Unknown	—	—	0	0.0%	1	4.3%
Clinical Education/ Preceptor Activity Indicator	Yes	—	—	9	50.0%	13	56.5%
	No	—	—	8	44.4%	9	39.1%
	Unknown	—	—	1	5.6%	1	4.3%
Major Function	Diagnostic and Therapeutic Services	—	—	1†	†	18	78.3%
	Administration	—	—	*	*	*	*
	Information Systems	—	—	0	0.0%	*	*
	Teaching, Medical Radiation Technology–Related	—	—	0	0.0%	0	0.0%
	Research	—	—	0	0.0%	0	0.0%
	Other Major Function	—	—	0	0.0%	0	0.0%
	Unknown	—	—	0	0.0%	1	4.3%
Area of Practice	Radiological Technology (General)	12	33.3%	15	34.9%	18	34.6%
	Computed Tomography (CT)	7	19.4%	10	23.3%	15	28.8%
	Nuclear Medicine (General)	0	0.0%	0	0.0%	0	0.0%
	Breast Imaging	7	19.4%	9	20.9%	9	17.3%
	Magnetic Resonance Imaging (General)	0	0.0%	0	0.0%	0	0.0%
	Ultrasound/Diagnostic Medical Sonography	*	*	*	*	*	*
	Radiation Therapy (General)	0	0.0%	0	0.0%	0	0.0%
	Angiography/Interventional	*	*	*	*	*	*
	Bone Mineral Densitometry	*	*	*	*	*	*
	Treatment Planning	0	0.0%	0	0.0%	0	0.0%
	Computed Tomography Simulator (CT/Sim)	0	0.0%	0	0.0%	0	0.0%
	Single Photon Emission Computed Tomography (SPECT)	0	0.0%	0	0.0%	0	0.0%
	Simulation	0	0.0%	0	0.0%	0	0.0%
	Single Photon Emission Computed Tomography/Computed Tomography (SPECT/CT)	0	0.0%	0	0.0%	0	0.0%
	Positron Emission Tomography/Computed Tomography (PET/CT)	0	0.0%	0	0.0%	0	0.0%
	Brachytherapy	0	0.0%	0	0.0%	0	0.0%
	Positron Emission Tomography (PET)	0	0.0%	0	0.0%	0	0.0%
	Other Area of Practice	*	*	*	*	*	*
Health Region (Statistics Canada PCCF Health Region Code)	Yukon (6001)	6	42.9%	8	44.4%	12	52.2%
	Northwest Territories (6101)	†	†	†	†	†	†
	Nunavut (6201)	*	*	*	*	*	*
	Unknown	0	0.0%	0	0.0%	1	4.3%

Notes

* Value suppressed in accordance with CIHI's Privacy Policy; cell value is from 1 to 4.

† Value suppressed to ensure confidentiality.

— Data is not applicable, not collected or does not meet data selection criteria.

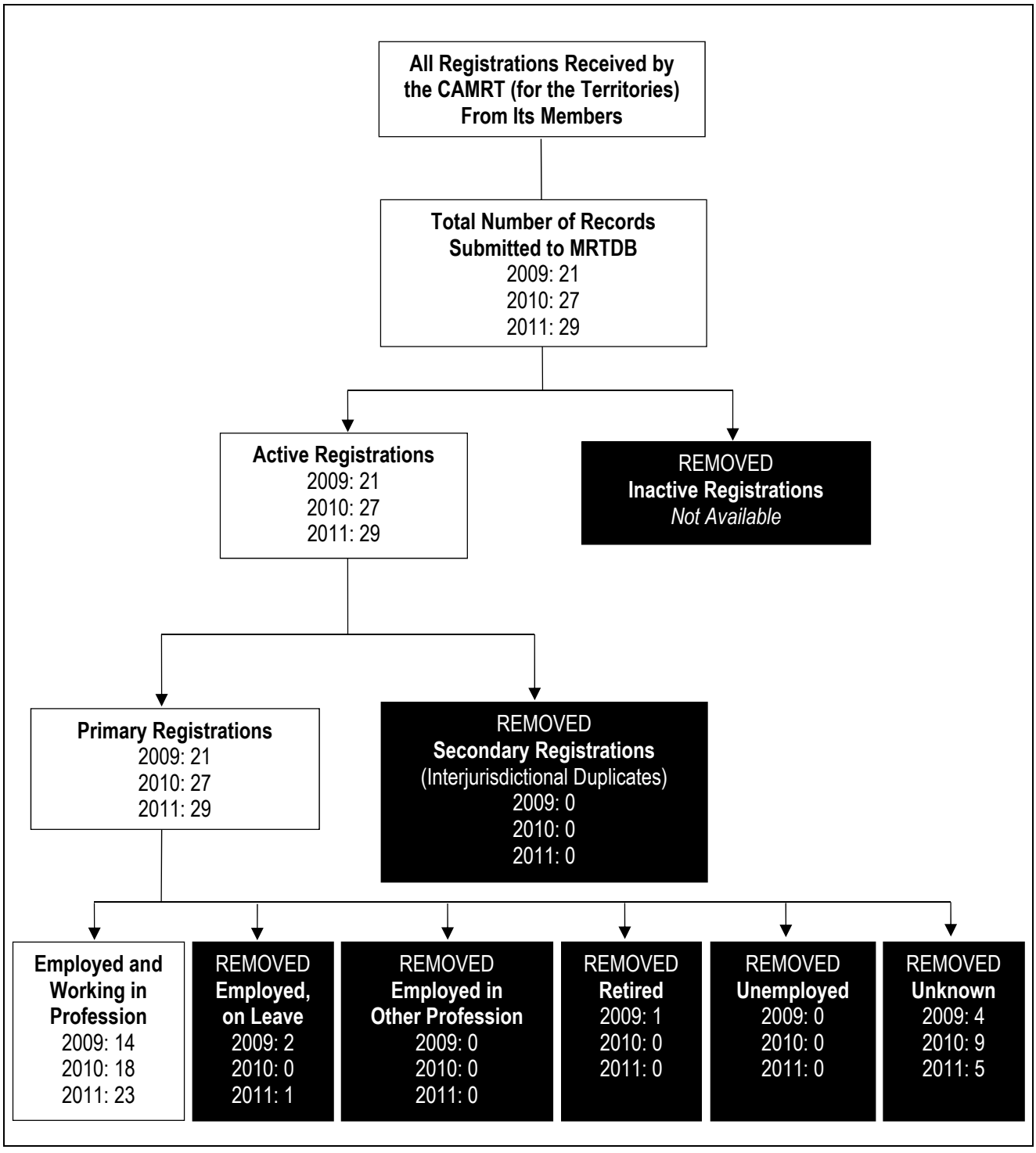
Workforce Count and Regulation Status

The workforce count may not represent the entire workforce due to voluntary registration with the CAMRT. Refer to Appendix B for more information.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

Data Flow From the Canadian Association of Medical Radiation Technologists (for Yukon, the Northwest Territories and Nunavut) to CIHI



Methodological Notes

All notes pertaining to the Medical Radiation Technologist Database (MRTDB) and its publications are documented separately. The general notes that pertain to the basic concepts and routines of the MRTDB, which remain the same every year, are included in a stand-alone document called *Technical Notes*. Notes that outline the underlying methodologies, particularly the methodologies for handling data quality issues up to 2011, are included in this Methodological Notes section. The *Technical Notes* and Methodological Notes together will help provide a better understanding of the strengths and limitations of the data and demonstrate the ways in which the data can be used effectively. This information is of particular importance when making comparisons with data from other sources and when making conclusions based on changes over time.

Topics covered in the *Technical Notes*:

MRTDB population of interest and reference; period of reference for annual reports; data inclusion and exclusion for the MRTDB; point-in-time data collection method; data collection, processing, validation and verification methods; key concepts and definitions of data elements and missing values; information gaps, under-coverage, over-coverage and other identified data quality issues associated with the MRTDB.

See the full document *Medical Radiation Technologist Database Technical Notes* on CIHI's website at www.cihi.ca.

CIHI relies on superior principles of data quality, privacy and confidentiality. CIHI's commitment to ensuring the collection of quality data in a privacy-sensitive manner is applied to data collection, processing, analysis and dissemination. For further details regarding CIHI's privacy principles, which are outlined in *Privacy Policy on the Collection, Use, Disclosure and Retention of Health Workforce Personal Information and De-Identified Data* and *Health Human Resources Database Privacy Impact Assessment*, go to www.cihi.ca.

Data Selection Criteria for This Publication

While the overall number of registrations or active registrations held in the MRTDB is summarized in some of the data tables in this publication, most data tables and charts concentrate on the MRT workforce. The workforce data is selected based on a number of criteria, described below.

1. MRTs must be registered, have an active membership with a provincial MRT regulatory body, a provincial professional association or the CAMRT and be working in medical radiation technology, with the registration being recognized as a primary registration. Inactive registrations, active but secondary registrations and registrations with an Employment Status other than *employed in medical radiation technology* are excluded.[iv]

   For Nova Scotia (2011 data only), Saskatchewan (2008 and 2009 data only) and B.C., secondary registrations cannot be identified due to the aggregate level of the data; they are therefore included in the workforce data.

iv. *Other* Employment Status than *employed in medical radiation technology* refers to registrants who work outside of the profession; registrants who are retired, unemployed or employed in the profession but on leave; and registrants whose status is *unknown*.

2. When all values for a selected data element (by reporting year or province/territories of registration) are presented in a data table, the percentage of *unknown* values must be less than 7% of the total count. Setting this criterion helps CIHI balance the data that can be published while considering the limitations of data with *unknown* values.

   For Newfoundland and Labrador's and Ontario's 2009 to 2011 data, the criterion was applied to education and employment data elements after removing registrants who did not respond. This approach enables CIHI to report on the majority of the workforce, who submitted high-quality data, assuming the statistics of this sample data represent the entire workforce. More details can be found in the Data Adjustments section of this document.

3. Under certain circumstances, a data element that has met the above criteria may not be included in the analysis. The reason may be that the data element primarily serves data validation or derivation purposes (for example, Province/Territory of Residence or Province/Territory of Primary Employment). Or it may be that the distribution of the values for this data element has an obvious bias due to the volume of *unknown* values or other data quality issues.

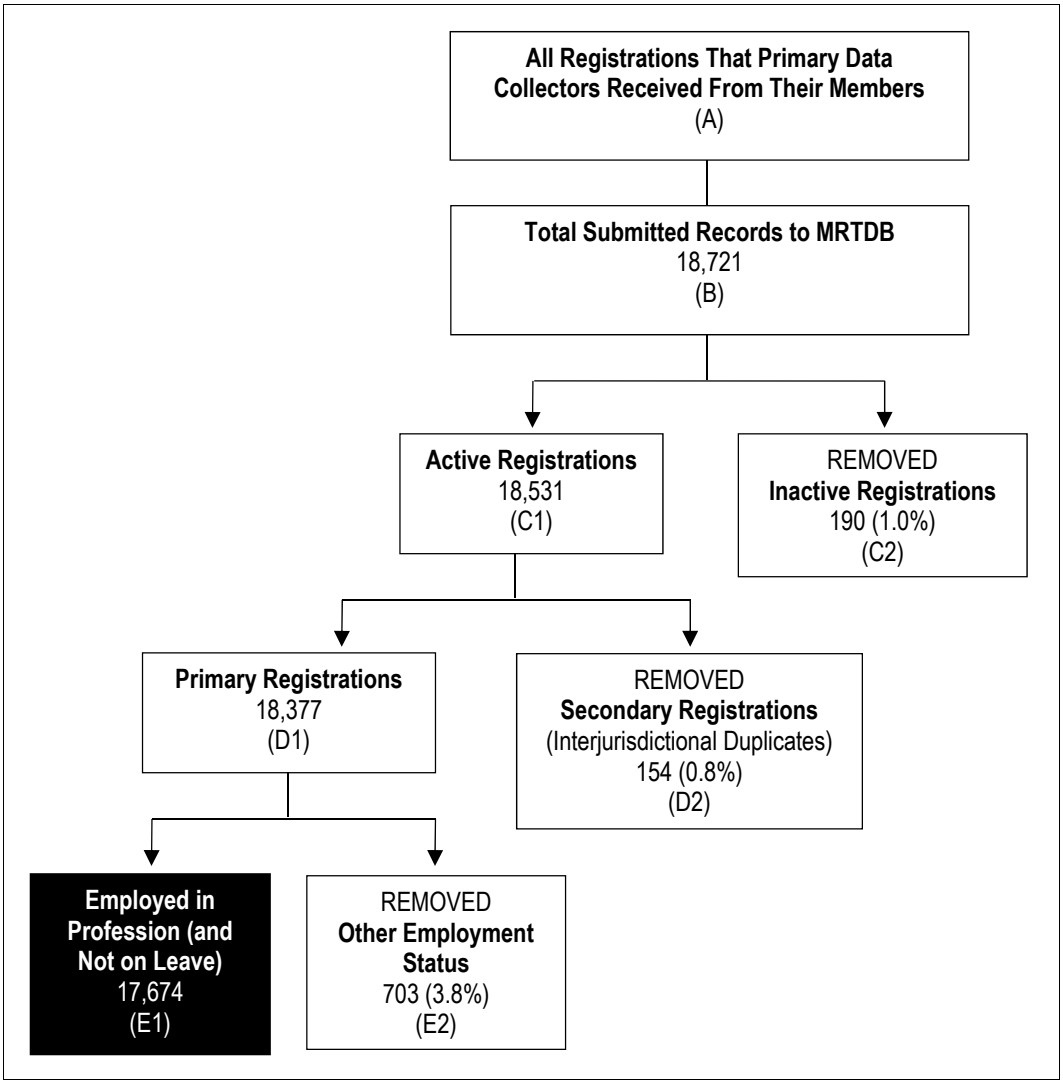
4. If all or most values for a data element are suppressed to protect privacy and confidentiality of personal information and the presentation of this data element would not add any value to the report, this data element may be removed from the report.

Data Flow From Primary Data Collector to CIHI

Data providers of the MRTDB collect membership data on an annual basis for their registration/licensing purposes. This administrative data is submitted to the MRTDB according to the established standards.

Figure M-1 illustrates the data flow when this methodology is applied. Explanations of each step within the data flow are provided below.

Figure M-1: Tracing Data Flow From Primary Data Collectors to MRTDB, 2011



Box A: Includes all registrations that the data providers for the MRTDB collected from their members.

Box B: Includes all registrations that are received by the MRTDB at CIHI. The cut-off date for data collection is August 1 of the collection year.

Box C1: Includes registrations that are identified as an active registration type.

Box C2: Includes registrations that are identified as an inactive registration type. These records are removed from the final count for the workforce.

Box D1: Represents primary registrations, where the province or territory of registration reflects the registrant's primary jurisdiction of practice.

Box D2: MRTs in Canada can work in more than one jurisdiction concurrently as long as they meet the licensure or employment requirements in the jurisdictions. In the interest of preventing double-counting across jurisdictions, this box represents the secondary registrations or interjurisdictional duplicates to be removed from the final count for the workforce. The methodology that identifies primary and secondary registrations is explained in the *Technical Notes*.

Boxes E1 and E2: CIHI's statistics for the MRT workforce include registrants who explicitly state that they are employed (and not on leave) in medical radiation technology (Box E1) at the time of registration or renewal with a provincial regulatory body, a provincial professional association or the CAMRT who provided data to the MRTDB. Those MRTs who are on leave, employed outside of medical radiation technology, retired or unemployed, or whose Employment Status is *unknown*, are excluded from the final statistics for the workforce (Box E2).

The results of this methodology and breakdown by province/territories of registration are shown in Table M-1.

Table M-1: Record Composition by Province or Territories of Registration, 2011

	All Submitted Records (A)	Remove Inactive Records (B)	Remove Duplicate Registrations* (C)	Remove Records if Employment Status Not Identified as Working MRTs† (D)	Registered MRT Workforce (A – B – C – D)
Total	**18,721**	**190**	**154**	**703**	**17,674**
Regulated Provinces					
N.S.	585	21	—	—	564
N.B.	580	11	2	12	555
Que.	5,065	—	36	202	4,827
Ont.	6,717	—	58	326	6,333
Sask.	503	11	2	22	468
Alta.	2,105	87	47	91	1,880
Unregulated Provinces With Mandatory Registration With Provincial Associations and CAMRT					
N.L.	284	—	—	9	275
P.E.I.	102	2	5	6	89
Man.	705	—	4	29	672
Unregulated Province/Territories With Voluntary CAMRT Registration					
B.C.‡	2,046	58	—	—	1,988
Territories§	29	—	—	6	23

Notes

* Duplicate registrations between the provinces/territories are identified and removed from the workforce according to CIHI's primary/secondary registration methodology.

† Employment Status included in this column: *employed in medical radiation technology but on leave*, *employed outside of medical radiation technology*, *retired*, *unemployed* and *unknown*.

‡ Nova Scotia and B.C. data is provided by the CAMRT at the aggregate level. B.C. data represents voluntary registrations.

§ The territories include Yukon, the Northwest Territories and Nunavut. Data represents the workforce with voluntary registration with the CAMRT.

— Information not available.

All cells that have values of less than 5 in this table are composed of different values or are the result of a more complicated methodology that was used so that the individuals represented by these small cells cannot be identified. For this reason, these small cells are not suppressed.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

CIHI's Methodology for Identifying the Medical Radiation Technologist Workforce

Data Adjustments

To better utilize data from the provinces and territories, CIHI assesses the overall quality of the data elements. Depending on the situation, adjustments using various methods have been made either by the data providers or by CIHI (after consulting with the data providers and receiving their explicit consent to publish the data).

I. Adjustment for Employment Status

The proportion of registrants with *unknown* or *employed outside of medical radiation technology* Employment Status is unreasonably high in some jurisdictions; adjustments have been made to include these registrants in the workforce by converting their Employment Status to *employed in medical radiation technology*.

1. **Nova Scotia, 2009:** The *unknown* Employment Status was reclassified as *employed in medical radiation technology* to count them for the MRT workforce. The adjustment was made in the database.
2. **Quebec, 2008 to 2011:** In Quebec, some members who worked as MRT clinical instructors, chiefs of staff, etc., incorrectly claimed to be *employed outside of medical radiation technology*. The Employment Status for these registrants was reclassified to *employed in medical radiation technology* to include them in the MRT workforce count. This adjustment was made outside of the database.
3. **Ontario, 2008 to 2011:** MRTs with Employment Status *unknown* were reclassified as *employed in medical radiation technology* in order to count them for the MRT workforce. The adjustment was made in the database, with the exception of 2008. The adjustment method used for Ontario 2008 data is different from that used in previous years. See details in the section Estimation Methodology below.

This type of adjustment is based on the assumption that most of these individuals are employed in the profession of medical radiation technology. Although the adjustment may cause over-coverage, the bias will be smaller than leaving them out of the workforce altogether. The number of registrations and the percentage of the workforce that was affected by the above adjustments are summarized in Table M-2.

Table M-2: Reclassification of Employment Status, 2008 to 2011

Province	Data Collection Year	Number of Reclassified Registrations	Estimated Workforce	Percentage of the Workforce
N.S.	2009	348	514	67.7%
Que.	2008	583	4,560	12.7%
	2009	579	4,762	12.2%
	2010	348	4,610	7.5%
	2011	376	4,827	7.8%
Ont.	2008	720	6,030	11.9%
	2009	455	6,154	7.4%
	2010	464	6,338	7.3%
	2011	237	6,333	3.7%

II. Adjustment for Reporting More Data Elements

A small number of registrants who entered *unknown* values for certain groups of data elements was excluded from the information reported on these data elements. This approach enables CIHI to report the majority of the workforce, who submitted high-quality data, assuming that the statistics of this sample data represent the entire workforce. After this adjustment, the same data selection criterion (less than 7% missing values) was applied to determine which data elements should be included in the report. Please see Table M-3 for detailed information.

1. **Newfoundland and Labrador, 2009 to 2011:** Close to 10% of the members in 2009, and about 8% to 9% in 2010 and 2011, who registered with the Newfoundland and Labrador Association of Medical Radiation Technologists (NLAMRT) did not provide information to the association for most data elements. However, the NLAMRT was able to submit data for these members for gender, age and initial certification discipline. As such, these members are included in the statistics for total workforce, gender, age and initial certification discipline. Nevertheless, since most other data elements did not meet CIHI's data submission requirements for these members, most of these members were excluded so that the remaining members from the province can be reported in the data tables that include those data elements. Level of Basic Education in Medical Radiation Technology and Place of Work for Primary Employment were used as the screening tool for exclusion; if the values of these data elements were *unknown*, the record was excluded. Consequently, the total in these data tables does not match the total workforce (or the totals for gender, age and initial certification discipline). This adjustment was made outside the database and included in this report only.
2. **Ontario, 2009 to 2011:** After reclassifying the registrants with *unknown* Employment Status to *employed in medical radiation technology* (see above section Adjustment for Employment Status), some data elements did not meet the 7% selecting criterion for reporting. A number of key data elements for basic education, initial certification and primary employment were used as the screening tool to exclude the registrants who did not report these data elements from the analysis. Data for total workforce counts, age and gender remains unadjusted.

The number of registrations and the percentage of the workforce for which the above adjustments were used are summarized in Table M-3 below.

Table M-3: Exclusion of Registrations From the Analysis for Certain Data Elements, 2008 to 2011

Province	Data Collection Year	Number of Excluded Registrations	Percentage of the Workforce	Excluded From
N.L.	2009	23	9.3%	All except for total workforce count, age, gender and initial certification
	2010	23	8.6%	
	2011	22	8.0%	
Ont.	2008	720	11.9%	All except for total workforce count
	2009	424	6.9%	All except for total workforce count, age and gender
	2010	421	6.6%	
	2011	203	3.2%	

III. Estimation Methodology

1. **Saskatchewan, 2008 and 2009:** Data submitted by the Saskatchewan Association of Medical Radiation Technologists (SAMRT) does not have sufficient detail for most data elements. CIHI requested aggregate-level information from the CAMRT for MRTs who worked in Saskatchewan in 2008 and 2009. Due to different time frames, the totals of the CAMRT data and of the SAMRT data are close but not exactly the same. In consultation with the SAMRT, the total from the SAMRT was proportioned for the values of each data element according to the distribution of the data element provided by the CAMRT.

The following formula shows the calculation for the number of female MRTs in Saskatchewan in 2009:

Number of female MRTs
= Total from the SAMRT
× (Female count from the CAMRT／Total from the CAMRT)
= 557 × (384／484)
= 442

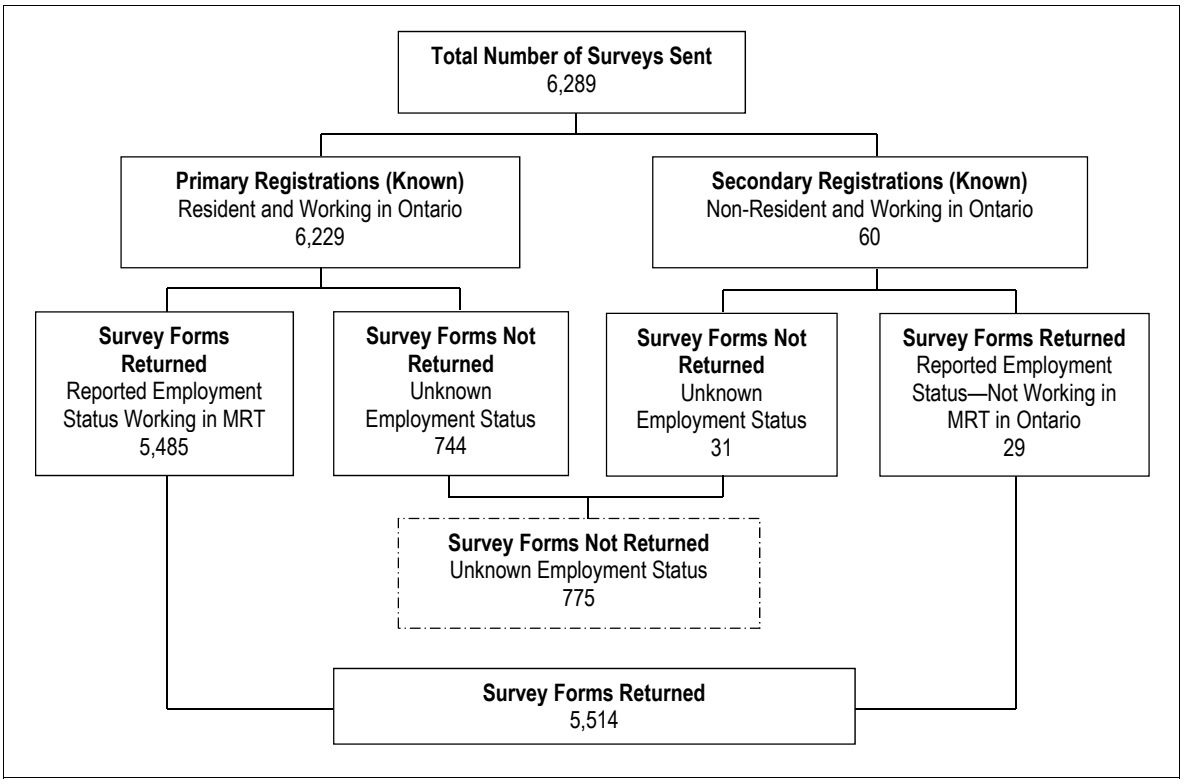
This methodology was performed on both 2008 and 2009 data, on only the data elements that are available from the CAMRT.

2. **Ontario, 2008:** The total number of MRTs shown in the Ontario provincial profile is 5,310, which does not represent the total workforce of the province. The estimated total MRT workforce in 2008 for the province was 6,030. Details are below.

   In 2008, the College of Medical Radiation Technologists of Ontario (CMRTO) sent its members a survey to collect the data required for the MRTDB. Altogether, 6,289 CMRTO members were surveyed; 5,514 completed surveys were received by the college. This resulted in *unknown* values for Employment Status and other data elements for 775 records. Some information is known of the 775 members, such as Province of Residence. The CMRTO has recommended that CIHI include the 775 members when estimating the total MRT workforce in Ontario. The following assumptions were made to obtain the estimated values for these missing records:

   - The majority of the 775 members are likely to be employed in MRT. They should therefore be included in the MRT workforce.
   - Recognizing that, a small portion of the members may be on leave, working outside of medical radiation technology, retired or unemployed.

Figure M-2: Illustrations of the Records Breakdown



Following consultation with the CMRTO, CIHI estimated the workforce through the steps below.

Step 1—**identify and exclude secondary registrations:** 60 records were identified as secondary registrations due to interjurisdictional duplicates, according to CIHI's methodology. These included 31 records that had *unknown* Employment Status (as a part of the 775 unreturned survey forms). The remaining 6,229 records (6,289 minus 60), which included 5,485 records with known Employment Status and 744 records (775 minus 31) with *unknown* Employment Status, were carried over to the next steps for processing.

Step 2—**estimation methodology:** The records with a known Employment Status (5,485 records) were broken down into two categories: MRTs who were employed in medical radiation technology and those who fell into the other Employment Status categories (*on leave*, *employed outside of medical radiation technology*, *retired* or *unemployed*). The percentage breakdown between these categories was used to estimate the percentage breakdown for the records in the *unknown* Employment Status group (744 records).

Step 3—**calculation:** Of the 5,485 CMRTO members with a known Employment Status, 96.8% (or 5,310) of them stated that they were *employed in medical radiation technology*. The remaining 3.2% (or 175) members were either *on leave*, *working outside of medical radiation technology*, *retired* or *unemployed*. These proportions were applied to the total number of primary registrations that had *unknown* values for Employment Status (744), using the following calculations:

Estimated MRT workforce in Ontario

= 5,310 + (744 × 96.8%) = 6,030

Estimated number of primary registrations with Employment Status *other than employed in medical radiation technology*

= 175 + (744 × 3.2%) = 199

These 199 records, together with the 60 records that were identified as secondary registrations (not working in Ontario), were excluded from the estimates for the Ontario MRT workforce.

These estimates are included in Data Table 3.1 in the Cross-Jurisdictional Data Tables and Table 1 and Figure 1 in the Methodological Notes for the 2008 data release.

The 744 primary registrations that had *unknown* Employment Status also did not have information for most other data elements. As a result, these records were not included in the data tables for demographic, education, certification and employment information. Only 5,310 CMRTO members who submitted detailed information for the reporting data elements were included in these tables.

Data Limitations

Voluntary Registration in B.C., Yukon, the Northwest Territories and Nunavut

Data in the MRTDB for B.C. and the territories (Yukon, the Northwest Territories and Nunavut) captures only those MRTs who voluntarily registered with the CAMRT. The total supply of the MRTs and their distributions in these jurisdictions, as well as across the country, are therefore not as accurate as they would be if all MRTs were registered.

Data Processing for B.C. and Nova Scotia Data

Aggregate data received from the CAMRT for B.C. and for Nova Scotia (2011 data) did not go through data validation, derivation, identification of primary/secondary registrations and verification with compare reports, since these processes are applicable only to record-level data. The CAMRT provided aggregate data at the request of CIHI in order to conform to the letter of agreement.

Combined Territorial Information

Information for Yukon, the Northwest Territories and Nunavut, wherever data is available, is combined and labelled “Territories” to avoid small counts that could potentially lead to the identification of individuals.

Privacy and Confidentiality

The Privacy and Legal Services Secretariat at CIHI has developed a set of guidelines to safeguard the privacy and confidentiality of data received by CIHI. These policies govern the release of data in publications and media releases, on CIHI’s website and through ad hoc requests and special studies. The documents entitled *Privacy Policy on the Collection, Use, Disclosure and Retention of Health Workforce Personal Information and De-Identified Data* and *Health Human Resources Database Privacy Impact Assessment* can be found on CIHI’s website (www.cihi.ca).

MRTDB Workforce Products and Services

The following publications relevant to this publication may be downloaded in electronic (PDF) format, free of charge, at www.cihi.ca:

- *Medical Radiation Technologist Database Reference Guide, Version 1.0*
- *Medical Radiation Technologist Database Technical Notes*
- *Medical Radiation Technologists in Canada, 2010*
- *Medical Radiation Technologist Database, 2009 Data Release*
- *Medical Radiation Technologist Database, 2008 Data Release*
- *Medical Radiation Technologists and Their Work Environment*

Request for Services

CIHI completes ad hoc requests and special analytical projects on a cost-recovery basis using data from the MRTDB. Such requests that are short queries generally can be handled through standard reports and do not require major programming resources, while special analytical projects require project planning and the commitment of extra resources.

For further information on CIHI's data request procedure associated with these products and services, including process and pricing, please visit our website at www.cihi.ca/requestdata.

Appendix A—12-Month Registration Periods* by Province or Territories, 2011

	2010			2011												2012		
Jurisdiction	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March
N.L.				xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
P.E.I.				xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
N.S.				xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
N.B.		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
Que.							xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Ont.				xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
Man.					xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx		
Sask.	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
Alta.				xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
B.C.*				xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
Territories*, †				xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			

Notes

* Registration periods for MRTs in B.C. and the territories (Yukon, the Northwest Territories and Nunavut) are represented by voluntary registrations with the Canadian Association of Medical Radiation Technologists.

† The territories include Yukon, the Northwest Territories and Nunavut.

xxx Denotes that the month is included as part of the jurisdiction's 12-month registration period.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

Appendix B—Regulation Status of Provinces and Territories

Regulation Status of Provinces and Territories	
Regulated Provinces	**First Year of Regulation**
N.S.	1967*
N.B.	1958†
Que.	1973‡
Ont.	1980/1993/2004§
Sask.	1994/2006/2011**
Alta.	1986/2005††
Unregulated Provinces With Mandatory Registration With Provincial Professional Associations and the CAMRT	**First Year of Mandatory Registration With the CAMRT**
N.L.	—
P.E.I.	1958‡‡
Man.	—
Unregulated Provinces and Territories With Voluntary CAMRT Registration	
B.C.	N/A
Y.T.	N/A
N.W.T.	N/A
Nun.	N/A

Notes

* Nova Scotia has been regulated in certain areas—radiological technology, nuclear medicine and radiation therapy.

† New Brunswick has been regulated in certain areas—radiological technology, nuclear medicine and radiation therapy.

‡ Quebec has been regulated in certain areas—radiodiagnostic, nuclear medicine and radiation therapy.

§ Ontario has been regulated in certain areas since the following years: 1980—radiation therapy and radiological technology; 1993—nuclear medicine; 2004—magnetic resonance.

** Saskatchewan has been regulated since 1994; regulation toward radiological technology, nuclear medicine and radiation therapy came into effect in 2006; regulation toward magnetic resonance came into effect in 2011.

†† Alberta has been regulated in certain areas since the following years: 1986—radiological technology, nuclear medicine and radiation therapy; 2005—magnetic resonance.

‡‡ P.E.I. was a division of the New Brunswick Association of Medical Radiation Technologists prior to 1982.

— Information not available.

N/A: not applicable.

CAMRT: Canadian Association of Medical Radiation Technologists.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

Appendix C—Data Sources

Data Source	Corresponding Province/ Territory of Data Submission	Province/Territory Abbreviation
Newfoundland and Labrador Association of Medical Radiation Technologists	Newfoundland and Labrador	N.L.
Prince Edward Island Association of Medical Radiation Technologists	Prince Edward Island	P.E.I.
Nova Scotia Association of Medical Radiation Technologists	Nova Scotia	N.S.
New Brunswick Association of Medical Radiation Technologists	New Brunswick	N.B.
Ordre des technologues en imagerie médicale et en radio-oncologie du Québec	Quebec	Que.
College of Medical Radiation Technologists of Ontario	Ontario	Ont.
Manitoba Association of Medical Radiation Technologists	Manitoba	Man.
Saskatchewan Association of Medical Radiation Technologists	Saskatchewan	Sask.
Alberta College of Medical Diagnostic and Therapeutic Technologists	Alberta	Alta.
Canadian Association of Medical Radiation Technologists (CAMRT)	Nova Scotia* Saskatchewan* British Columbia* Yukon Northwest Territories Nunavut	N.S. Sask. B.C. Y.T. N.W.T. Nun.

Note

* Aggregate-level data for Nova Scotia (2011), Saskatchewan (2008 and 2009) and B.C. is provided by the CAMRT.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

Appendix D—Medical Radiation Technologist Records Where Data Is Not Collected and Percentage of Records With *Unknown* Values for Core Data Elements, by Jurisdiction, Canada, 2010 to 2011

Data Element	N.L.		P.E.I.		N.S.		N.B.		Que.		Ont.		Man.		Sask.		Alta.		B.C.		Y.T.		N.W.T.		Nun.	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
Gender (%)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
Year of Birth (%)	0.4	2.5	0.0	0.0	1.0		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
Level of Basic Education in Medical Radiation Technology (%)	0.7	3.3	0.0	0.0	58.3		0.0	0.0	6.4	6.2	8.1	10.5	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
Year of Graduation for Basic Education in Medical Radiation Technology (%)	1.1	4.4	0.0	0.0	58.5		0.0	0.0	5.4	5.3	19.5	22.1	0.0	0.0	1.1	1.1	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
Institution of Graduation for Basic Education in Medical Radiation Technology (%)	3.0	5.5	0.0	0.0	60.6		13.8	12.8	2.9	2.4	0.0	18.1	1.0	0.7	0.4	0.4	0.3	0.6			0.0	0.0	0.0	0.0	0.0	0.0
Province/Territory of Graduation for Basic Education in Medical Radiation Technology (%)	0.7	2.9	0.0	0.0	58.7		13.8	12.8	1.9	1.9	0.7	18.7	0.0	0.0	0.2	0.2	0.3	0.6			0.0	0.0	0.0	0.0	0.0	0.0
Country of Graduation for Basic Education in Medical Radiation Technology (%)	0.7	2.9	0.0	0.0	59.3		13.8	12.8	1.3	1.3	6.5	18.1	0.0	0.0	0.2	0.2	0.3	0.6			0.0	0.0	0.0	0.0	0.0	0.0
Level of Post-Basic Education in Medical Radiation Technology 1 (%)	0.0	4.0	0.0	0.0	73.6		0.0	0.0	97.1	95.7	86.9	89.7	0.0	0.0	0.0	0.0	0.0	0.0			0.0	7.7	0.0	11.1	0.0	0.0
Year of Graduation for Post-Basic Education in Medical Radiation Technology 1 (%)	0.0	4.4	0.0	0.0	83.7		0.0	0.0	97.1	95.7	87.7	91.2	0.0	0.0	0.0	0.0	0.1	0.1			100	7.7	100	11.1	100	0.0
Institution of Graduation for Post-Basic Education in Medical Radiation Technology 1 (%)	0.0	4.0	0.0	0.0	77.0		93.2	92.4	98.6	96.6	0.0	90.1	0.3	0.3	0.0	0.0	0.1	0.2			0.0	7.7	0.0	11.1	0.0	0.0
Province/Territory of Graduation for Post-Basic Education in Medical Radiation Technology 1 (%)	0.0	4.0	0.0	0.0	77.4		93.2	92.4	97.1	95.8	0.1	90.2	0.0	0.0	0.0	0.0	0.1	0.2			0.0	7.7	0.0	11.1	0.0	0.0
Country of Graduation for Post-Basic Education in Medical Radiation Technology 1 (%)	0.0	4.0	0.0	0.0	77.6		93.2	92.4	97.1	95.8	86.1	90.1	0.0	0.0	0.0	0.0	0.1	0.2			0.0	7.7	0.0	11.1	0.0	0.0
Initial MRT Certification (%)	0.7	0.7	0.0	0.0	63.0		0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
Initial MRT Certification Discipline (%)	0.7	0.7	0.0	0.0	62.8		14.6	91.7	0.5	0.5	4.7	6.1	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
Year of Initial MRT Certification (%)	13.9	12.4	0.0	0.0	64.0		49.6	91.7	0.1	0.0	28.5	31.1	0.0	0.0	4.7	4.9	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
Year of Initial Canadian Employment in Medical Radiation Technology (%)	25.8	23.6	1.1	1.1	60.8		X	X	3.9	1.3	3.1	1.4	0.0	0.0	0.4	0.4	6.8	6.9			0.0	0.0	0.0	11.1	0.0	0.0
Initial Province/Territory of Canadian Employment in Medical Radiation Technology (%)	23.6	21.5	1.1	1.1	60.8		X	X	6.1	3.5	3.8	2.4	0.0	0.0	2.6	2.4	4.8	4.8			0.0	0.0	0.0	11.1	0.0	0.0

Data Element	N.L.		P.E.I.		N.S.		N.B.		Que.		Ont.		Man.		Sask.		Alta.		B.C.		Y.T.		N.W.T.		Nun.	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
Total Usual Weekly Hours of Work (%)	2.2	1.8	0.0	0.0	62.2		0.0	0.0	8.7	3.3	1.8	0.9	16.2	11.3	2.6	2.1	18.8	18.6			0.0	7.7	0.0	11.1	0.0	0.0
Employment Category (for Primary Employment) (%)	1.9	2.2	0.0	0.0	60.0		0.7	0.0	1.4	1.4	2.5	3.6	0.4	0.4	0.2	0.2	7.1	7.9			0.0	0.0	0.0	11.1	0.0	0.0
Full-Time/Part-Time Status (for Primary Employment) (%)	1.9	2.2	0.0	0.0	61.0		10.4	10.1	4.4	4.9	6.9	8.3	4.5	2.4	0.2	0.2	10.4	12.4			0.0	0.0	0.0	11.1	0.0	0.0
Postal Code of Employment (for Primary Employment) (%)	9.4	12.4	0.0	0.0	70.5		4.5	3.8	0.0	0.0	11.5	11.9	2.2	1.9	0.0	0.0	0.3	1.0			0.0	0.0	0.0	11.1	0.0	0.0
Position (for Primary Employment) (%)	1.1	0.4	0.0	0.0	60.2		0.7	0.0	0.6	0.6	3.5	3.9	0.3	0.3	0.6	0.6	18.2	19.3			0.0	0.0	0.0	11.1	0.0	0.0
Place of Employment (for Primary Employment) (%)	0.7	0.0	0.0	0.0	60.2		1.1	0.4	0.6	0.5	11.5	11.8	0.3	0.3	89.5	75.9	0.3	1.0			0.0	0.0	0.0	11.1	0.0	0.0
Clinical Education/Preceptor Activity Indicator (for Primary Employment) (%)	1.5	1.1	0.0	0.0	66.7		X	X	0.3	0.2	1.1	1.8	0.1	0.1	3.2	3.2	0.0	0.0			0.0	0.0	0.0	11.1	50.0	0.0
Major Function (for Primary Employment) (%)	1.1	0.4	0.0	0.0	62.6		X	X	12.9	7.2	3.6	4.0	0.3	0.3	0.2	0.2	25.8	26.5			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Magnetic Resonance Imaging (General) (%)	59.6	53.5	0.0	0.0	76.8		0.0	0.0	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Nuclear Medicine (General) (%)	59.6	53.5	0.0	0.0	75.4		0.0	0.0	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Radiation Therapy (General) (%)	59.6	53.5	0.0	0.0	75.6		0.0	0.0	90.5	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Radiological Technology (General) (%)	59.2	53.5	0.0	0.0	68.7		0.0	0.0	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Angiography/ Interventional (%)	59.6	53.5	0.0	0.0	75.8		0.0	0.0	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Bone Mineral Densitometry (%)	59.6	53.5	0.0	0.0	76.4		0.0	0.0	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Brachytherapy (%)	59.6	54.2	0.0	0.0	77.2		X	X	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Breast Imaging (%)	59.6	53.5	0.0	0.0	74.6		0.0	0.0	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Computed Tomography (CT) (%)	59.6	53.5	0.0	0.0	74.0		0.0	0.0	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Computed Tomography Simulator (CT/Sim) (%)	59.6	54.2	0.0	0.0	77.0		X	X	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0

Data Element	N.L.		P.E.I.		N.S.		N.B.		Que.		Ont.		Man.		Sask.		Alta.		B.C.		Y.T.		N.W.T.		Nun.	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
Area of Practice for Primary Employment—Positron Emission Tomography (PET) (%)	59.6	53.5	0.0	0.0	77.0		X	X	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Positron Emission Tomography/Computed Tomography (PET/CT) (%)	59.6	53.5	0.0	0.0	76.8		X	X	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Simulation (%)	59.6	54.2	0.0	0.0	77.4		X	X	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Single Photon Emission Computed Tomography (SPECT) (%)	59.6	54.2	0.0	0.0	76.8		X	X	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Single Photon Emission Computed Tomography/ Computed Tomography (SPECT/CT) (%)	59.6	54.2	0.0	0.0	78.0		X	X	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Treatment Planning (%)	59.6	54.2	0.0	0.0	77.6		X	X	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Ultrasound/ Diagnostic Medical Sonography (%)	59.6	53.5	0.0	0.0	77.2		0.0	0.0	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Area of Practice for Primary Employment—Other Area of Practice (%)	59.6	54.2	0.0	0.0	77.0		X	X	0.0	0.0	1.1	1.8	0.0	0.0	0.2	0.2	0.0	0.0			0.0	0.0	0.0	11.1	0.0	0.0
Main Area of Practice for Primary Employment	59.2	54.2	0.0	0.0	61.0		0.0	0.0	20.0	27.7	3.5	3.4	0.0	0.0	0.2	0.2	0.7	0.7			0.0	0.0	0.0	11.1	0.0	0.0

Notes

X Indicates that items are not collected or submitted.

Percentages indicate the *unknown* rate in the Medical Radiation Technologist Database.

Source

Medical Radiation Technologist Database, Canadian Institute for Health Information.

Production of this report is made possible by financial contributions from Health Canada and provincial and territorial governments. The views expressed herein do not necessarily represent the views of Health Canada or any provincial or territorial government.

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ISBN 978-1-77109-149-7 (PDF)

How to cite this document:
Canadian Institute for Health Information. *Medical Radiation Technologists in Canada, 2011*. Ottawa, ON: CIHI; 2012.

Cette publication est aussi disponible en français sous le titre *Technologues en radiation médicale au Canada 2011*.
ISBN 978-1-77109-150-3 (PDF)

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