

Medical Imaging in Canada 2017: Provincial Summary for Ontario

CADTH's Canadian Medical Imaging Inventory collects data on medical imaging equipment across Canada. The national results are published in a comprehensive report (cadth.ca/imaginginventory). This provincial summary consolidates Ontario's data from the report. If additional information on the technical characteristics of imaging equipment is required, please send a request to requests@cadth.ca.

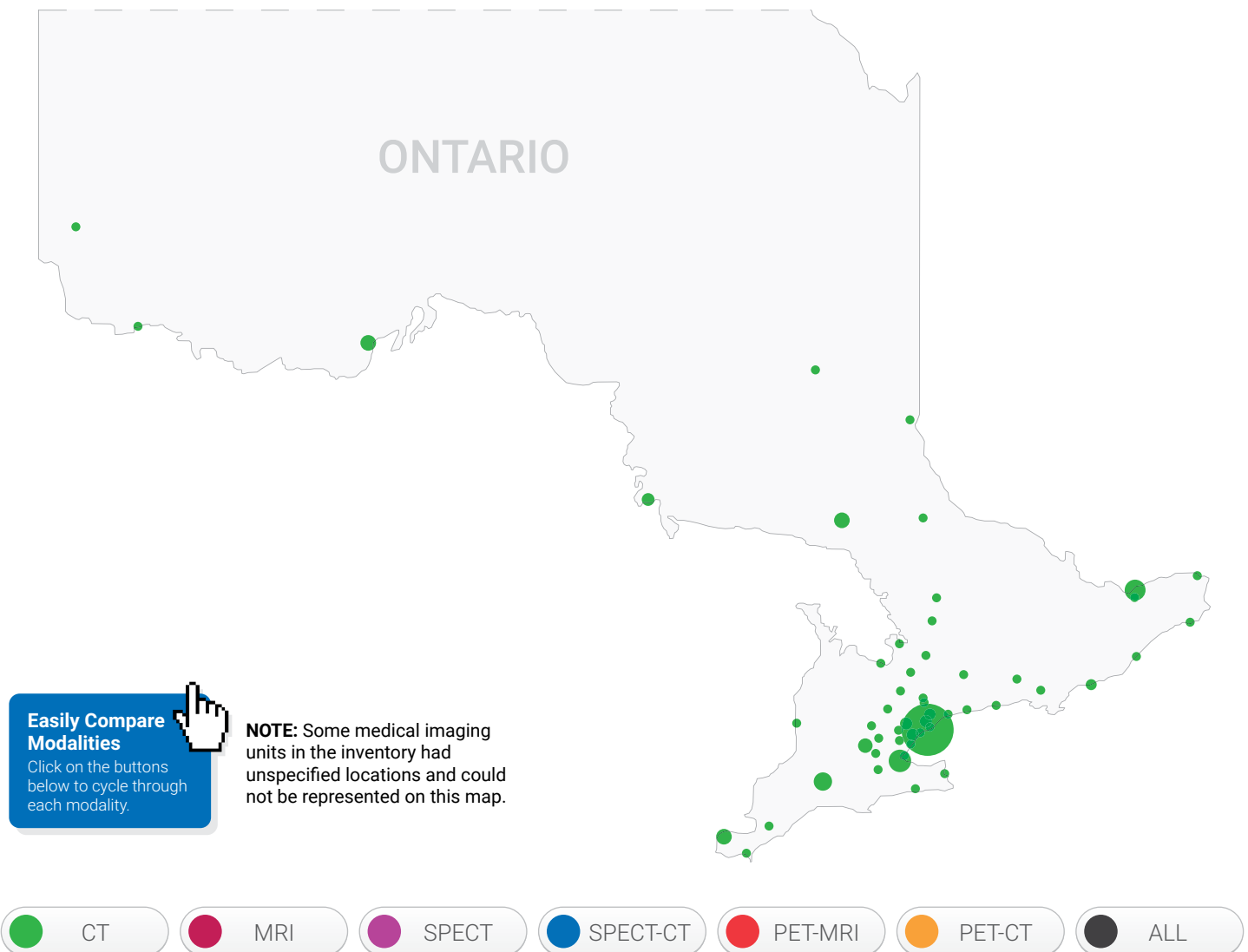


Table 1: Imaging Units in Ontario

	CT	MRI	PET/CT	SPECT	SPECT/CT
Number of imaging units out of national total 2017	184/561	120/366	17/51	151/330	78/261
Number of imaging units out of national total 2007 ^a	130/419	72/222	12/31	250/603 ^b	19/35
Units per million population 2017	13.0	8.5	1.2	10.7	5.5
Mobile equipment	0	0	1	4	0

CT = computed tomography; MRI = magnetic resonance imaging; PET = positron emission tomography; SPECT = single-photon emission computed tomography.

^a Canadian Institute for Health Information, *Medical Imaging in Canada, 2007* (Ottawa, Ont.: CIHI, 2008).

^b For all nuclear medicine.

Table 2: Operation and Age of Medical Imaging Units in Ontario

	CT	MRI	PET/CT	SPECT	SPECT/CT
Total Publicly Funded Exams in Ontario					
Exams per year out of national imputed total for 2017	2,430,739	866,953	10,998	200,833	
Exams per 1,000 people	172.0	61.3	0.8	14.2	
Hours of Operation in Ontario Facilities					
Average hours of operation per week	82.9	108.6	29	43.1	46.1
Number of machines in operation 24 hours a day	17	7	0	0	0
Number of machines in operation on the weekend	48	31	0	3	4
Average Age of Units in Canada					
Average age of units (years)	7.2	7.6	7.7	11.5	6.3
Age of oldest unit (years)	20	19	12	30	17
Age of newest unit (years)	0	0	2	0	0

CT = computed tomography; MRI = magnetic resonance imaging; PET = positron emission tomography; SPECT = single-photon emission computed tomography.

There are 184 computed tomography (CT) units in Ontario, three of which are 320-slice units located at CHEO (the Children's Hospital of Eastern Ontario) in Ottawa, the Timmins and District Hospital in Timmins, and the Women's College Hospital in Toronto. At least 48 sites across the province provide weekend access to CT, with 17 of these providing 24-hour a day access. There are currently 120 magnetic resonance imaging (MRI) units in service. Access to MRI on the weekend is provided by at least 31 facilities, with 24-hour a day access available at seven facilities. Ontario has 17 positron emission tomography (PET)/CT units, including one mobile PET/CT at Precision Diagnostic Imaging in Windsor. There are 151 single-photon emission computed tomography (SPECT) units in service in Ontario, compared to 250 SPECT units available in 2007. There are 78 SPECT/CT units in Ontario, an increase from 19 units in 2007.

Data Limitations

Data were imputed for a limited number of missing values if no response was obtained. In particular, if the questions regarding the mobility of imaging equipment or weekend and 24-hour availability were left blank, the answer was assumed to be no. Technical information, including the age of machines, was incomplete for some sites. If the age of equipment was not available, it was excluded from the calculation of averages. Out-of-range values for the number of hours of operation per week (more than 168 hours) were set to missing.

By preference, examination data supplied by the validators was reported. If we did not have validator data for a given province or territory, then data from the survey was used. Not all sites reported examination data. Where sites with available unit counts were missing data for the total number of examinations for 2017, we imputed the missing data. These imputed values were gathered by calculating the mean number of exams per unit for sites that reported examination data, and then using this mean to impute the total number of exams for the remaining units. The total number of exams for each province or territory was the sum of the exams reported and exams imputed.

Additional details on the methodology used for the collection and imputation of this data are available in the 2017 Canadian Medical Imaging Inventory report.

Questions or comments about CADTH or this tool?



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CADTH receives funding from Canada's federal, provincial, and territorial governments, with the exception of Quebec.

December 2017