Radiation oncologists are medical specialists with unique knowledge, understanding and expertise in the diagnosis and care of patients with malignant disease. They are integrally involved in the formulation and execution of the management plan of cancer patients and therefore require specific knowledge and skills in the application of ionizing radiations to cancer treatment. Using an evidence-based approach, they are responsible for the appropriate recommendation, prescription and supervision of therapeutic ionizing radiation. The competent and ethical discharge of these responsibilities results in improved quality of life and/or survival for cancer patients, which in turn benefits families, society and future care.

Typically, a radiation oncologist practices in a multidisciplinary fashion in close collaboration with general and subspecialty surgeons, medical and gynecological oncologists. Ambulatory patient care is the norm. Cancer centres are generally located in large cities within academic health science centres, thus most radiation oncologists should expect to have an academic career.
Upon completion of medical school, to become certified in radiation oncology requires an additional 5 years of Royal College-approved residency training. This training includes:

- 1 year of approved basic clinical training to introduce and expose the trainee to independent responsibility for decisions involving clinical judgment skills, the further development of an effective, and mature physician-patient relationship, and the achievement of competence in primary technical skills across a broad range of medical practice. The first year of an approved family medicine program is acceptable in fulfillment of this requirement.

- 3 years of approved residency training in radiation oncology, 1 year of which must include: 6 months of approved residency training in internal medicine, which may include up to three months of hematology/oncology; and 6 months of approved training in clinical training, basic science, or research training.

For more detailed training requirements go to: [http://www.royalcollege.ca/portal/page/portal/rc/credentials/start/routes/traditional_route](http://www.royalcollege.ca/portal/page/portal/rc/credentials/start/routes/traditional_route)

Canadian Association of Radiation Oncology: [www.caroacro.ca](http://www.caroacro.ca)
# Number of physicians and physicians/100,000 population in Radiation Oncology in Canada, 2015

<table>
<thead>
<tr>
<th>Province/Territory</th>
<th>Physicians</th>
<th>Phys/100k pop'n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newfoundland/Labrador</td>
<td>10</td>
<td>1.9</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>4</td>
<td>2.7</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>15</td>
<td>1.6</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>8</td>
<td>1.1</td>
</tr>
<tr>
<td>Quebec</td>
<td>130</td>
<td>1.6</td>
</tr>
<tr>
<td>Ontario</td>
<td>220</td>
<td>1.6</td>
</tr>
<tr>
<td>Manitoba</td>
<td>16</td>
<td>1.2</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>10</td>
<td>0.9</td>
</tr>
<tr>
<td>Alberta</td>
<td>53</td>
<td>1.3</td>
</tr>
<tr>
<td>British Columbia</td>
<td>68</td>
<td>1.5</td>
</tr>
<tr>
<td>Territories</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>CANADA</strong></td>
<td><strong>534</strong></td>
<td><strong>1.5</strong></td>
</tr>
</tbody>
</table>

Source: 2015 CMA Masterfile
Physicians/100,000 population in Radiation Oncology in Canada, 1995 to 2015

Source: CMA Masterfile
Radiation Oncologists by gender and year in Canada, 1995 to 2015

Source: CMA Masterfile
Radiation Oncologists by age and gender in Canada, 2015

Source: 2015 CMA Masterfile
Radiation Oncologists by age and gender in Canada, 2015

- **65 and over**
  - Female: 7
  - Male: 29

- **55-64**
  - Female: 40
  - Male: 85

- **45-54**
  - Female: 45
  - Male: 100

- **35-44**
  - Female: 63
  - Male: 95

- **34 and Under**
  - Female: 19
  - Male: 19

Source: 2015 CMA Masterfile
Main work setting of Radiation Oncologists in Canada, 2014

- Academic Health Sciences Centre: 70%
- Non-AHSC Teaching Hospital: 14%
- Community Hospital: 8%
- Admin/Corp office: 4%
- Nursing home/long term care facility/seniors’ residence: 4%

Source: 2014 National Physician Survey. CFPC, CMA, Royal College
Practice organization for Radiation Oncologists in Canada, 2014

- Solo Practice: 84%
- Group Practice: 4%
- Interprofessional Practice: 12%
- Hospital-based Practice: NR
- NR: Other

Source: 2014 National Physician Survey. CFPC, CMA, Royal College
Hours worked per week (excluding on-call) by **Radiation Oncologists** in Canada, 2014

<table>
<thead>
<tr>
<th>Activity</th>
<th>Hours worked per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct patient care without teaching component</td>
<td>18.9</td>
</tr>
<tr>
<td>Direct patient care with teaching component</td>
<td>7.3</td>
</tr>
<tr>
<td>Teaching without patient care</td>
<td>2.5</td>
</tr>
<tr>
<td>Indirect patient care</td>
<td>9.1</td>
</tr>
<tr>
<td>Health facility committees</td>
<td>1.6</td>
</tr>
<tr>
<td>Administration</td>
<td>2.1</td>
</tr>
<tr>
<td>Research</td>
<td>4.5</td>
</tr>
<tr>
<td>Managing practice</td>
<td>1.1</td>
</tr>
<tr>
<td>Continued professional development</td>
<td>3.0</td>
</tr>
<tr>
<td>Other</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS PER WEEK</strong></td>
<td><strong>51.4</strong></td>
</tr>
</tbody>
</table>

Source: 2014 National Physician Survey. CFPC, CMA, Royal College
On-call duty hours spent per month by Radiation Oncologists in Canada, 2014

Time spent on call in direct patient care = 14 hrs./month

Source: 2014 National Physician Survey. CFPC, CMA, Royal College
Remuneration for **Radiation Oncologists** in Canada

**Primary payment method** in 2013

- 53%: 90% + fee-for-service
- 25%: 90% + salary
- 17%: 90% + other
- 3%: Blended
- 2%: NR

*Other includes capitation, sessional, contract and other methods*

Average gross clinical earnings for all medical specialties in 2013/14 (those earning at least $60,000) = $339,556

Average percent overhead reported by all medical specialists in 2010 = 20%

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1. National Physician Survey, 2013, CFPC, CMA, Royal College
2. National Physician Database, 2013/14, CIHI
Satisfaction among Radiation Oncologists in Canada, 2013

Balance of personal & professional commitments
- Very dissatisfied: 6%
- Dissatisfied: 3%
- Neutral: 29%
- Satisfied: 16%
- Very satisfied: 41%
- NR: 5%

Current professional life
- Very dissatisfied: 6%
- Dissatisfied: 2%
- Neutral: 15%
- Satisfied: 49%
- Very satisfied: 14%
Radiation Oncologists who are Royal College, CFPC or CMQ certified in Canada, 2014

99%

Royal College: 99%
CFPC: 4%
CMQ: 8%
Outside Canada: 11%

Note: Subset of those who reported a certification. Physicians could indicate more than one certification body.

Source: 2014 National Physician Survey. CFPC, CMA, Royal College
Number of Radiation Oncologists who retired during the THREE year period of 2012 to 2014

Source: CMA Masterfile - year over year comparisons
Note: “Retired” is based on giving up licence and is therefore excludes those who have retired from clinical practice but are still licensed; it includes physicians who have temporarily given up their licence but may return to practice at a later date.
## Total and Ministry funded postgraduate MD trainees in 2014/15 – Radiation Oncology

<table>
<thead>
<tr>
<th>Faculty of Medicine</th>
<th>Ministry funded</th>
<th>Total</th>
<th>Faculty of Medicine</th>
<th>Ministry funded</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memorial U N&amp;L</td>
<td>0</td>
<td>0</td>
<td>McMaster U</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Dalhousie U</td>
<td>5</td>
<td>0</td>
<td>UWO</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>U Laval</td>
<td>5</td>
<td>5</td>
<td>NOSM</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>U Sherbrooke</td>
<td>0</td>
<td>0</td>
<td>U Manitoba</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>U Montréal</td>
<td>6</td>
<td>7</td>
<td>U Sask</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>McGill U</td>
<td>11</td>
<td>22</td>
<td>U Alberta</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>U Ottawa</td>
<td>8</td>
<td>17</td>
<td>U Calgary</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Queens U</td>
<td>10</td>
<td>11</td>
<td>UBC</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>U Toronto</td>
<td>26</td>
<td>51</td>
<td>Canada</td>
<td>120</td>
<td>188</td>
</tr>
</tbody>
</table>

Source: 2014/15 Annual Census of Post-MD Trainees, CAPER
First year and exiting postgraduate-MD trainees in 2014/15 – Radiation Oncology

Source: 2014/15 Annual Census of Post-MD Trainees, CAPER
Postgraduate-MD trainees in 2014/15 – Radiation Oncology

• Total of 21 first year Radiation Oncology trainees representing 18% of all Radiation Oncology trainees.

• Total of 120 Radiation Oncology trainees representing 1% of all Ministry funded trainees.

• Total of 56 visa trainees in Radiation Oncology.

• Total of 28 Radiation Oncology trainees completed postgraduate training in 2014.

Source: 2014/15 Annual Census of Post-MD Trainees, CAPER
Location of 2013 Postgraduate-MD exits in 2015 – Radiation Oncology

Of the 30 exits in 2013, 24 (80%) were known to be practising in Canada

Source: 2014/15 Annual Census of Post-MD Trainees, CAPER
Stress associated with finding employment at end of residency

Source: 2012 National Physician Survey of residents. CFPC, CMA, Royal College
Links of the organizations supplying information for this document

National Physician Survey
http://www.nationalphysiciansurvey.ca

Canadian Radiation Association
http://www.cma.ca/pdc

Association of Faculties of Medicine of Canada
http://www.caper.ca/

Royal College of Physicians and Surgeons of Canada
http://www.royalcollege.ca/portal/page/portal/rc/credentials/start/routes/traditional_route

College of Family Physicians of Canada
http://www.cfpc.ca

Canadian Institute for Health Information
http://www.cihi.ca