Medical Genetics
Profile

Updated March 2018
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GENERAL INFORMATION

Medical Genetics is the specialty requiring in-depth knowledge of basic genetic principles and of genetic diseases as they affect all body systems. Medical geneticists must have a good understanding of the principles of genetic counseling. Frequently, the geneticists work collaboratively as part of multidisciplinary teams, providing expertise in diverse areas of medical genetics, including dysmorphology, inborn errors of metabolism, prenatal diagnosis, cancer genetics, teratology, developmental delay/mental retardation, and others.

The geneticist provides counseling services to the patient/family supportively when genetic conditions are diagnosed, and must inform referring practitioners about the implications, prognosis, and risks associated with the genetic disorder. Geneticists must have excellent communication and counseling skills, as well as clinical, diagnostic and technical skills. This specialty also has ample opportunity for clinical and laboratory research.

Source: Pathway evaluation program
GENERAL INFORMATION

The most common illnesses that are dealt with in medical genetics are:

- counseling with respect to risk of genetic disease in an individual with family history of the disease;
- diagnosis of congenital malformation syndromes, usually in infants and children;
- prenatal diagnosis, most often of chromosomal abnormalities or fetal malformations;
- diagnosis of heritable malformation syndromes;
- identification of genetic contribution to the problem in patients with mental deficiency.

Source: Pathway evaluation program
GENERAL INFORMATION

Upon completion of medical school, to become certified in medical genetics requires an additional 5 years of Royal College-approved residency training. This training includes:

- 2 years of training in pediatrics, internal medicine, genetics and obstetrics;
- 3rd and 4th years are spent doing rotations in clinical genetics and laboratory work in cytogenetics and biochemical and molecular genetics;
- The 5th year includes clinical genetics, research or training in other areas.

For further details on training requirements please go to:

Royal College of Physicians and Surgeons of Canada

Canadian College of Medical Geneticists

Source: Pathway evaluation program
## Total number & number/100,000 population by province, 2017

<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>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>4</td>
<td>0.4</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Quebec</td>
<td>31</td>
<td>0.4</td>
</tr>
<tr>
<td>Ontario</td>
<td>32</td>
<td>0.2</td>
</tr>
<tr>
<td>Manitoba</td>
<td>6</td>
<td>0.5</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Alberta</td>
<td>17</td>
<td>0.4</td>
</tr>
<tr>
<td>British Columbia</td>
<td>13</td>
<td>0.3</td>
</tr>
<tr>
<td>Territories</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>CANADA</strong></td>
<td><strong>105</strong></td>
<td><strong>0.3</strong></td>
</tr>
</tbody>
</table>

Source: 2017 CMA Masterfile
Number/100,000 population, 1995 to 2017

Source: 1995-2017 CMA Masterfiles
Number by gender & year, 1995 to 2017

Source: 1995-2017 CMA Masterfiles
Percentage by gender & age, 2017

**Gender**
- Male: 38%
- Female: 62%

**Age Group**
- <35: 5%
- 35-44: 38%
- 45-54: 28%
- 55-64: 15%
- 65+: 14%

Excludes those where gender or age is unknown.
Source: 2017 CMA Masterfile
Number by gender & age, 2017

- **65+**
  - Female: 5
  - Male: 9

- **55-64**
  - Female: 7
  - Male: 8

- **45-54**
  - Female: 18
  - Male: 10

- **35-44**
  - Female: 27
  - Male: 10

- **<35**
  - Female: 4
  - Male: 1

Excludes those where gender or age is unknown.

Source: 2017 CMA Masterfile
Remuneration

Average gross fee-for-service payment per physician for all medical specialties in 2015/16 (those earning at least $60,000) = $350,629\textsuperscript{1}

Average percent overhead reported by all medical specialists in 2010\textsuperscript{*} = 20\%\textsuperscript{2}

\textsuperscript{*Most recent available data for this specialty}

\textsuperscript{1} National Physician Database, 2014/15, CIHI
\textsuperscript{2} National Physician Survey, 2010, CFPC, CMA, Royal College
Number of retirees during the three year period of 2014-2016

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>34 and Under</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>35-44</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>45-54</td>
<td>1</td>
<td>1</td>
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<tr>
<td>55-64</td>
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<tr>
<td>65 and over</td>
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<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: CMA Masterfile – year over year comparisons
Note: “Retired” is based on giving up licence and therefore excludes those who have retired from clinical practice but are still licensed; those younger than 45 may include physicians who have temporarily given up their licence but return to practice at a later date.
Links to additional resources

- Association of Faculties of Medicine of Canada
- Canadian Institute for Health Information
- Canadian Medical Association’s Physician Data Centre
- Canadian Post-MD Education Registry (CAPER)
- College of Family Physicians of Canada
- National Physician Survey (2004-2014)
- Royal College of Physicians and Surgeons of Canada