Nephrology Profile
Updated December 2019
# Table of Contents

- **General Information** 3-5
- **Total number & number/100,000 population by province, 2019** 6
- **Number/100,000 population, 1995-2019** 7
- **Number by gender & year, 1995-2019** 8
- **Percentage by gender & age, 2019** 9
- **Number by gender & age, 2019** 10
- **Percentage by main work setting, 2019** 11
- **Percentage by practice organization, 2017** 12
- **Hours worked per week (excluding on-call), 2019** 13
- **On-call duty hours per month, 2019** 14
- **Percentage by remuneration method** 15
- **Professional & work-life balance satisfaction, 2019** 16
- **Number of retirees during the three year period of 2016-2018** 17
- **Employment situation, 2017** 22
- **Link to additional resources** 23
General information

Nephrology is a subspecialty of internal medicine. Practitioners diagnose and treat diseases of the kidneys and urinary system. Nephrologists are motivated by the opportunity to restore chronically ill patients to productive lives and are often challenged by life-and-death situations. The practice of nephrology is closely linked to a teaching hospital so these specialists incorporate a major component of teaching and research into their overall activity profile. This may be viewed as one of the attractions of nephrology, in as much as it allows for tremendous diversity and flexibility.

The resident must acquire a working knowledge of the theoretical basis of the specialty, including its foundations in the basic medical sciences and research. On completion of the program, the resident should be able to demonstrate the knowledge, attitudes and skills needed to independently care for patients with kidney disease (including the management of dialysis and renal transplantation) and with disturbances of acid-base, fluid and electrolyte metabolism.

Source: Pathway evaluation program
General information

It is important for the nephrologist to have a working knowledge of the basic sciences (physiology, pathophysiology and immunology) and applied sciences (pharmacology, pathology) as they apply to renal disease and their treatments. These physicians should be able to act as both an attending physician and as a consultant.

They work in a variety of health care settings including acute and chronic care hospitals, dialysis units (hemodialysis and peritoneal dialysis), as well as ambulatory care clinics (general nephrology, pre-dialysis, renal transplantation). They should function as a member of a multi-disciplinary team, effectively collaborating with other health professionals.

Upon completing medical school, only candidates certificated by the Royal College of Physicians and Surgeons of Canada in internal medicine or pediatrics may be eligible for the Certificate of Special Competence in nephrology.

Source: Pathway evaluation program
General information

This involves about 6 years of training in total. Once certified in one of these two specialties, a further 2 years of Royal College-approved residency in adult or pediatric nephrology is required. Residency must incorporate the principal of graded responsibility and include 1 year of approved clinical residency at a senior level in adult or pediatric nephrology, and 1 year of further training.

For further details on training requirements please go to:
Royal College of Physicians and Surgeons of Canada
Canadian Society of Nephrology

Source: Pathway evaluation program
## Total number & number/100,000 population by province, 2019

<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>14</td>
<td>2.7</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>19</td>
<td>2.0</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>12</td>
<td>1.6</td>
</tr>
<tr>
<td>Quebec</td>
<td>199</td>
<td>2.4</td>
</tr>
<tr>
<td>Ontario</td>
<td>261</td>
<td>1.8</td>
</tr>
<tr>
<td>Manitoba</td>
<td>34</td>
<td>2.5</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>21</td>
<td>1.8</td>
</tr>
<tr>
<td>Alberta</td>
<td>79</td>
<td>1.8</td>
</tr>
<tr>
<td>British Columbia</td>
<td>74</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>715</strong></td>
<td><strong>1.9</strong></td>
</tr>
</tbody>
</table>

Source: 2019 CMA Masterfile
Number/100,000 population, 1995 to 2019

Source: 1995-2019 CMA Masterfiles
Number by gender & year, 1995 to 2019

Source: 1995-2019 CMA Masterfiles
Percentage by gender & age, 2019

Excludes those where gender or age is unknown.

Source: 2019 CMA Masterfile
Number by gender & age, 2019

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;35</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>35-44</td>
<td>88</td>
<td>101</td>
</tr>
<tr>
<td>45-54</td>
<td>100</td>
<td>151</td>
</tr>
<tr>
<td>55-64</td>
<td>42</td>
<td>91</td>
</tr>
<tr>
<td>65+</td>
<td>10</td>
<td>48</td>
</tr>
</tbody>
</table>

Excludes those where gender or age is unknown.

Source: 2019 CMA Masterfile
Percentage by main work setting, 2019

- **Academic Health Sciences Centre**: 54%
- **Community Hospital**: 24%
- **Non-AHSC Teaching Hospital**: 11%
- **Private Office/Clinic**: 6%
- **University**: 4%
- **Nursing home/long term care facility/seniors’ residence**: 2%

Source: 2019 CMA Physician Workforce Survey. Canadian Medical Association
Percentage by practice organization, 2017*

Solo Practice: 65%
Group Practice: 17%
Interprofessional Practice: 9%
Hospital-based Practice: 2%
NR: 2%

*Most recent available data for this specialty
Source: 2017 CMA Workforce Survey. Canadian Medical Association
## Hours worked per week (excluding on-call), 2019

<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>26.2</td>
</tr>
<tr>
<td>Direct patient care with teaching component</td>
<td>6.1</td>
</tr>
<tr>
<td>Teaching without patient care</td>
<td>2.1</td>
</tr>
<tr>
<td>Indirect patient care</td>
<td>7.8</td>
</tr>
<tr>
<td>Health facility committees</td>
<td>1.1</td>
</tr>
<tr>
<td>Administration</td>
<td>4.8</td>
</tr>
<tr>
<td>Research</td>
<td>2.8</td>
</tr>
<tr>
<td>Managing practice</td>
<td>1.2</td>
</tr>
<tr>
<td>Continued professional development</td>
<td>2.9</td>
</tr>
<tr>
<td>Other</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>TOTAL HOURS PER WEEK</strong></td>
<td><strong>55.2</strong></td>
</tr>
</tbody>
</table>

Source: 2019 CMA Physician Workforce Survey. Canadian Medical Association
On-call duty hours per month, 2019

- 92% provide on-call services
- On-call hours = 103 hours/month
- On-call hours spent in direct patient care = 46 hours/month

Source: 2019 CMA Physician Workforce Survey. Canadian Medical Association
Percentage by remuneration method

Primary payment method\(^1\) in 2017

- **90% + fee-for-service**: 24%
- **90% + salary**: 69%
- **90% + other\(^*\)**: 3%
- **Blended**: 4%
- **NR**: 0%

Average gross payment per physician for Internal Medicine & subspecialties in 2017/18 (those earning at least $60,000) = $437,000\(^2\)

Average percent overhead reported by Nephrologists in 2017 = 19\(^%\)\(^3\)

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\(^1\) Other includes capitation, sessional, contract and other methods

\(^2\) 2017 CMA Workforce Survey. Canadian Medical Association

\(^3\) 2017 CMA Workforce Survey. Canadian Medical Association
Professional & work-life balance satisfaction, 2019

Balance of personal & professional commitments
- 30% Dissatisfied or very dissatisfied
- 33% Neutral
- 37% Satisfied or very satisfied

Current professional life
- 9% Dissatisfied or very dissatisfied
- 17% Neutral
- 74% Satisfied or very satisfied

Source: 2019 CMA Physician Workforce Survey. Canadian Medical Association
Number of retirees during the three year period of 2016-2018

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>34 and Under</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>35-44</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>45-54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55-64</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>65 and over</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>4</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.
Employment situation, 2017

- Overworked in my discipline: 33%
- Employed in my discipline to my satisfaction: 50%
- Underemployed in my discipline: 8%
- Not employed in my discipline: 9%
- No response: 0%

Source: 2017 CMA Workforce Survey. Canadian Medical Association
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