

Skills and Innovation in the Health and Bio-Science Sector

Colleges and Institutes support healthcare innovation and delivery for all Canadians

College and institute graduates form the majority of the personnel working in the health and bio-science sector. Thanks to their expertise and hands-on knowledge they help drive innovations that have a direct impact on the health and wellbeing of Canadians.



Education and Training

From technicians to nurses and paramedics, the need for skilled healthcare professionals is significant in Canada, and given our ageing population, is not expected to diminish anytime soon. Colleges and institutes therefore have a critical role to play to train people working across the spectrum of the Canadian health sector.

Over **195,000** companies in Canada are involved in the health and bio-science sector¹



CICan member colleges and institutes across Canada offer over

1,300

programs relevant to **healthcare and bio-science** leading to a **variety of credentials**, including:

470+
Diplomas

400+
Certificate Programs

180+
Degrees²

220+
Post-graduate Certificates or Diplomas

10+
Masters Degrees

Popular Programs



Primary Care

- Nursing, Practical Nursing
- Paramedic, Advanced Care Paramedic
- Health Care Assistant
- Health Care Administration
- Resident and Continuing Care



Pharmaceuticals & Bio-science

- Pharmacy Technology
- Medical Laboratory Technology
- Biotechnology
- Bioinformatics
- Biomedical Engineering Technology



Dental

- Dental Hygiene
- Dental Assisting
- Denturism
- Dental Office Administration

Applied Research and Innovation

Thanks to strong community connections, colleges and institutes have established local centres of excellence that drive innovation in the healthcare and bio-science sector, including patient-care and health service delivery.

Over **60 college-based research centres and laboratories** are dedicated to health and bio-science across the country. This includes centres such as:



The **Garbarino Girard Centre for Innovation in Seniors Care** at **Algonquin College (ON)** is charting a bold new course for geriatric care, providing a learning lab, applied research facility, and an opportunity to collaborate with local health authorities on an adult day-program for seniors with dementia.



The **mHealth & eHealth Development and Innovation Centre (MEDIC)** at **Mohawk College (ON)** aims to be a catalyst in the adoption of digital health in Canada and provides testing, teaming, tooling and training services for organizations and companies in the healthcare IT sector.



Collège Montmorency (QC) developed a neurofeedback lab with a new approach to helping students with attention deficit hyperactivity disorder (ADHD) — training them to reach deep inside to modulate their brain waves to control attention.



Centennial College (ON) paired people with an intellectual disability and undergraduate students in shared living arrangements to promote inclusion.

There are currently over **30 applied research projects³** focused on health and bio-science across the country. All are conducted in collaboration with local partners and employers. Examples include:



Nova Scotia Community College (NS) occupational therapy students designed a posture correction aid to assist both wheelchair-bound patients and their caregivers in response to a request from a Halifax long-term care facility.



Grande Prairie Regional College (AB) has partnered with the RCMP, Alberta Health Services and the City of Grande Prairie to improve responses to mental illness crises in remote communities.

¹Using the North American Industry Classification System (NAICS), we include in Health and Bio-Science the Pharmaceutical and Medicine Manufacturing, Research and Development in the Physical, Engineering and Life Sciences, Ambulatory Health Care Services, Hospitals, and Nursing and Residential Care Facilities sectors. See Industry Canada. "Canadian Industry Statistics," <https://www.ic.gc.ca/app/scr/app/cis/search-recherche> for details (accessed Summer 2017).

²Includes degree pathways.

³Research project data taken from Colleges and Institutes Canada's "Applied Research Survey," 2015-16.

