

UTM CAREER CENTRE

INDUSTRY PROFILE:

Public Health & Health Policy



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What Do Pharmaceutical Professionals Do?

Public health is a diverse field full of activists and advocates working together to build healthier communities and a healthier world.

What is Public Health?

The field of public health promotes and protects the health of people and the communities where they live, learn, work and play and works to prevent illness and injury. It also includes the laws and regulations governments enact to set health and safety standards and ensure a healthy population.

From conducting scientific research, to educating about health, to inspecting restaurants, public health professionals work to assure the conditions in which people can be healthy. That can mean vaccinating children and adults to prevent the spread of disease or educating people about the risks of alcohol and tobacco. Public health sets safety standards to protect workers and develops school nutrition programs to ensure children have access to healthy food. Public health works to track disease outbreaks and shed light on why some of us are more likely to suffer from poor health than others. The many facets of public health include speaking out for laws that promote smoke-free indoor air and seatbelts, spreading the word about ways to stay healthy and giving science-based solutions to problems.

Watch [this brief video](#) that explains public health.

What do Public Health and Health Policy professionals do?

The public health field is broad and diverse and spans many disciplines. Following are a few of the professionals who practice in public health and health policy.

Health Education Specialists

Health Education Specialists teach people how to live healthier lives. For example, those working in local communities create and present education programs and events to teach people how to eat better, avoid disease, and prevent injury. These specialists also educate people about HIV and sexually transmitted diseases, teach adolescents about the consequences of drug and alcohol abuse, organize childhood obesity awareness campaigns or develop programs for prescription adherence among the elderly population.

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What Do Pharmaceutical Professionals Do? (cont.)

Dietitians

Dietitians work with clients to evaluate their health and make recommendations on diet planning and which foods to eat or avoid to overcome specific diet-related issues to improve the client's overall health. For example, they often work in conjunction with physicians and health care staff to develop nutritional plans and dietary restrictions for patients with conditions such as diabetes, celiac or Crohn's disease. Dietitians work in a number of settings, including hospitals, public health clinics, assisted living facilities and in private practice. In Canada, Registered Dietitian (RD) is a protected title, which means that only individuals registered with a provincial regulatory body can call themselves a dietitian. Like doctors and nurses, dietitians are regulated health professionals. In Ontario, the provincial regulatory body is the College of Dietitians of Ontario.

Biostatistics Specialists

Biostatistics Specialists, also known as Biostatisticians, use math and statistics to conduct research in public health, environmental science, biology, medicine, and other fields. Biostatisticians specializing in public health use mathematical and scientific methods to identify factors causing injury and disease and track health trends within communities. For example, biostatisticians may identify communities where drunk driving and gun violence is prevalent, explain the probability of biological phenomena and health outcomes and evaluate the effectiveness of health programs.

Epidemiologists

Epidemiologists use statistical analysis, examine environmental, behavioral, and hereditary factors, and rely on their knowledge of molecular biology, biochemistry, immunology, and other sciences to identify potential threats to public health. During epidemics and food poisoning outbreaks, epidemiologists are responsible for determining the source and limiting its impact. Epidemiologists conduct research to identify what causes illness, at-risk populations, and how to prevent outbreaks. They also specialize in social and demographic trends affecting the spread of disease. Epidemiologists often first identify potential epidemics, such as the 2003 SARS outbreak in the GTA.

Global Health Specialists

Global Health Specialists work to improve public health for people worldwide. They typically specialize in health disorders that affect people around the world, such as HIV, infectious disease, and sexually transmitted diseases. Global health specialists often work to address maternal and child health issues in developing countries, which stem from poor prenatal and obstetrical care, undernutrition and inadequate resources.

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What Do Pharmaceutical Professionals Do? (cont.)

In addition to knowledge about health, global health specialists must understand organization management, finance, and healthcare systems. Some specialize exclusively in improving medical infrastructure and delivery systems in developing countries. Global health specialists find employment in government agencies, humanitarian and relief organizations, non-profits and refugee health organizations.

Public Health Policy Analysts

Governments at all levels make public policy, which is the system of laws, regulations and courses of action that touch every aspect of our lives. For example, when the Canadian government was considering legalizing recreational cannabis, they consulted Public Health Policy Analysts for advice on the impact to public health of such a policy. These professionals conduct environmental scans of emerging issues and trends affecting the health of populations. Policy analysts perform research, evaluate policy options, and consult with stakeholders to develop policy proposals, recommendations and positions on strategic and complex issues affecting public health. Based on this research, policy analysts provide their best advice for government to adopt. They also evaluate the results of health policy measures the government has undertaken. Professionals with a background in health policy are in demand due to an aging and growing population, new technologies and restructured health care systems.

Public Health Inspectors

Threats to public health exist in the community, in places where we eat, work, play and receive personal services. Environmental Public Health Professionals, also known as Public Health Inspectors, work to prevent people from contracting bacterial, viral and parasitic diseases such as food poisoning, rabies and giardiasis. They inspect premises such as restaurants, bakeries, daycares, public pools and spas, long-term care facilities, tattoo parlours and hair salons to ensure the operators are complying with relevant legislation. They work with agencies such as the Ministry of Health and Long-Term Care and the Ministry of Environment to reduce the risk of food and water-borne illness and ensure effective infection prevention practices are being applied. Public Health Inspectors may be called to provide expert testimony in court, and may issue tickets and orders to enforce compliance with public health legislation. These professionals must be certified by the Canadian Institute of Public Health Inspectors.

Occupational Health and Safety Specialists

Occupational Health and Safety Specialists identify and analyze health and safety conditions in the workplace, with the ultimate goal of eliminating hazards that result in occupational illnesses and injuries. Occupational Health and Safety Specialists inspect workplaces to ensure the organization is adhering to safety rules and regulations, design and implement workplace processes and procedures aimed at improving the work environment, investigate accidents to determine the cause and find solutions to prevent future accidents, and conduct education and training programs on subjects such as emergency preparedness.



Fast Facts

Public spending

on health care in Ontario - \$4,125 per person in 2016 – was the lowest among all provinces, and lower than the Canadian average of \$4,487 per person, according to Health Quality Ontario.

More than 1 in 7

Ontarians aged 12 and older reported smoking cigarettes in 2017, while just over 1 in 4 aged 18 or older were obese, and about 1 in 6 aged 12 and older reported being heavy drinkers.

Opioid-related deaths

in Ontario have nearly doubled in three years and tripled over the last 12 years, rising to 10.2 per 100,000 population in 2018, from 5.3 in 2015 and 3.4 in 2006. That's a total of 1,473 opioid poisoning deaths in 2018, up from 728 in 2015, and 436 in 2006. An Organization for Economic Co-operation and Development (OECD) report on the opioid crisis found that the U.S. and Canada had the highest rates of opioid-related deaths among 25 OECD countries for which data are available.

The average lifespan

of Canadians has increased by more than 30 years since the early 1900s, and 25 of those years are attributable to advances in public health.

According to the

Canadian Public Health Association, every dollar invested in immunizing children with the measles-mumps-rubella vaccine saves \$16 in health care costs

Every dollar invested

in tobacco prevention programs saves up to \$20 in future health care costs

Approximately 19,050 people

work as Health policy researchers, consultants and program officers in Ontario.

About 12,300 people

work as Inspectors in public and environmental health and Occupational health and safety in Ontario.

Around 5,800 people

work as Dietitians and nutritionists in Ontario.

An estimated 5,550 people

work as Epidemiologists and Biostatisticians and actuaries in Ontario.



Industry Trends

I Major change is in the works for Ontario's public health sector.

Factors Affecting the Health of Populations

A multitude of factors affect the health of populations, from the safety of our food and water, to infectious diseases like the flu, to environmental risks such as climate change, to the effects of tobacco smoke, poor diet and a sedentary lifestyle. All of these are the concerns of public health and health policy professionals.

Provincial Responsibility

In Canada, health care is a provincial responsibility. In Ontario, there are 35 public health units, organized to cover a specific geographic area, where professionals such as nurses, health educators, inspectors and epidemiologists work to promote health and prevent illness. Each unit is led by a medical officer of health and the province has a chief medical officer of health. The province and municipalities jointly fund these public health units which are governed by local independent boards of health. The Ontario Public Health Standards are the mandated public health programs and services that public health units are required to deliver, such as food safety, infectious and communicable disease prevention and control, healthy growth and development, immunization, safe water, school health, chronic disease prevention as well as monitoring population health data and managing outbreaks.

Growing Population

Creating new challenges for public health is Canada's growing and more diverse population due to immigration, along with an aging population (for the first time in the history of our country, the number of Canadians aged 65 years and older has surpassed the number 18 years of age and younger).

Along with this demographic shift is the increasing incidence of mental illness, the opioid crisis, vaping and the legalization of recreational cannabis. More income inequality and lack of affordable housing also influence people's health. It is well known that those of lower socioeconomic status are more likely to have poorer health outcomes than those at the higher end, while persons of colour and Indigenous Peoples are over-represented at the lower end. The effects of climate change also have a marked impact on public health with increased respiratory illness from wildfire smoke and health problems related to heat waves.

A strong and coordinated public health system, working with other government and community partners, is needed to help confront these challenges.

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Industry Trends (cont.)

Government Plan

In April, 2019, the Ford government announced a plan to modernize public health in Ontario, reducing the number of public health units from 35 to 10, and cutting provincial spending on public health by \$200 million annually, roughly 26 per cent. Some of the changes were to be implemented immediately.

Although the cost of public health is split between the province and the municipalities, some funding comes from Health Canada and other ministries and organizations. The province funds 100 per cent of some programs and 75 per cent of others. Along with reducing the number of health boards, the province also plans to change cost-sharing with municipalities to a ratio of 70-30 or even 60-40 and, in the case of Toronto, 50-50 over the next few years.

These changes are part of a larger plan to restructure health care delivery in the province and help reduce “hallway health care”, as a result of overcrowded hospital emergency rooms and a shortage of hospital beds.

In response to the proposed changes, municipalities and those working in the public health sector pushed back, asking for a longer timeframe and more substantial consultation. In November 2019, the Ontario government released a discussion paper on public health modernization and started a consultation process with feedback to be received by mid-February 2020.

The discussion paper points out that some public health units lack staff with the necessary skills and expertise to deliver all of the programs and services the Ontario Public Health Standards require. This means that all citizens are not getting the same level of service, leaving some smaller communities vulnerable. Other concerns include barriers to collaborating effectively among public health, health care and social services, poor coordination and duplication of work and inconsistent priorities.

The government’s plan to create fewer, regional boards of health, along with other policy proposals, is an attempt to address these issues.

Those considering a career in public health in Ontario over the next few years would do well to keep abreast of the changes as they develop.



Employment Outlook for Public Health Professionals

According to the Ontario Government's most recent outlook report, the employment outlook for Dietitians (NOC 3132) in Ontario is above average up to 2021, with job growth of 110% across Canada between 2008 and 2017.

Epidemiologists

The employment outlook will be good for Epidemiologists (NOC 2161) in Ontario for the 2019-2021 period according to the Government of Canada's most recent outlook report. A fair number of job openings are expected for Biostatisticians and epidemiologists within this occupational group. Ontario has a strong cluster of health research institutions and pharmaceutical companies which continue to make large investments including in clinical trials, particularly in light of the prevalence of chronic illnesses and the associated costs on the health care system.

Health Policy Researchers

The employment outlook will be fair for Health policy researchers, consultants and program officers (NOC 4165) in Ontario for the 2019-2021 period. The total projected number of job openings is between 4,000 and 5,000 with job growth expected to be between 11 and 12%. The employment outlook will be fair for Inspectors in public and environmental health and occupational health and safety (NOC 2263) in Ontario for the 2019-2021 period. Close to a third of workers are employed in public administration. A smaller proportion of workers are also employed in the professional, scientific and technical services, manufacturing, and health care and social assistance sectors. Ongoing concerns and regulations related to food, environmental, and workplace safety could potentially sustain the demand for these workers. However, growth in public sector employment at the provincial level may weaken over the forecasted period due to budgetary constraints.

Public Health Inspectors

Public Health Inspectors employed by the Province of Ontario undergo a nine-month training program consisting of classroom instruction and field experience before assuming their positions.

Public Health and Occupational Health and Safety Inspectors may be required to work irregular hours and flexibility is considered an asset. Employers often require applicants to have a valid Class G driver's license.

What You Need To Succeed

What you need to succeed

Although the field of public health is very broad with diverse specializations, there is a core set of competencies that are expected of professionals. These include analytical and assessment skills to identify data and information relevant to community health; policy development and program planning to develop and implement strategies for improvement; oral and written communication skills and cultural proficiency to select and evaluate the best approaches for sharing public health information with diverse audiences; collaboration skills to build good working relationships with community partners; skills in public health sciences for evidence-based decision-making; financial planning and management skills and leadership and systems thinking.

As a student, getting involved in public health through internships or volunteering will help in understanding the challenges and in narrowing down the area in which you wish to specialize.



In-Demand Jobs and Salary Ranges

Job Title	Salary Range
Biostatistician	\$38,933 - \$73,468
Dietitian	\$32,654 - \$101,400
Epidemiologist	\$41,994 - \$112,597
Global Health Specialist	\$73,139 - \$83,880
Health Education Specialist	\$58,267 - \$81,081
Health Policy Analyst	\$70,538.00 - \$103,944.00
Occupational Health and Safety Specialist	\$31,912 - \$81,730
Public Health Inspector	\$37,120 - \$107,738

Where the Jobs Are

These industries show the strongest demand for public health professionals:

- Community care agencies
- Federal, provincial and municipal governments
- Hospitals and clinics
- Humanitarian and relief organizations
- Non-profit organizations
- Private laboratories
- Public health units
- Universities and research organizations



Industry Associations

Industry Associations	Website Link
Association of Local Public Health Agencies	https://www.alphaweb.org/
Canadian Centre for Occupational Health and Safety	https://www.ccohs.ca/
Canadian Foundation for Healthcare Improvement	https://www.cfhi-fcass.ca/
Canadian Institute of Public Health Inspectors	https://www.ciphi.ca/
Canadian Public Health Association	https://www.cpha.ca/open-letter-premier-and-minister-health-ontario
College of Dietitians of Ontario	https://www.collegeofdietitians.org/home.aspx
Institute of Health Policy, Management and Evaluation	https://ihpme.utoronto.ca/research/research-centres-initiatives/
Ontario Dietitians in Public Health	https://www.osnpvh.on.ca/
Ontario Public Health Association	https://opha.on.ca/Home.aspx
Public Health Agency of Canada	https://www.canada.ca/en/public-health.html



Where to Find More Information

Sources:

- [Association of Local Public Health Agencies](#)
- [Canadian Public Health Association](#)
- [Explore Health Careers](#)
- [Healthy Debate](#)
- [Learn How to Become: How to work in Public Health](#)
- [Public Health Ontario](#)

Stay connected with the UTM Career Centre:

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Find more career-related resources at:

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