

Public Health

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A. Occupations

1) Epidemiologist

- Not a regulated profession in Ontario

Role

- Public health epidemiologists are scientists who first identify a disease in a population and then track it as it moves through the population.
- Epidemiologists research the cause and frequency of a disease by using statistics and demographics (i.e., ethnicity, race, and age) to prevent or control the spread of new diseases.
- *Source: <http://www.alphaweb.org/epidemiology.asp>*
They work with other public health professionals and the community to apply epidemiological findings to the control of disease and in planning, priority setting, policy development, evaluation of interventions and assessment of community concerns.
- Research; compile, write and present reports
- Liaison with other academic and epidemiological professionals

Educational Requirements

- 2 year Master's degree program in epidemiology
- *Source: <http://www.alphaweb.org/epidemiology.asp>*
Qualified epidemiologists require a graduate degree in epidemiology and biostatistics. In Ontario, degree programs in epidemiology and biostatistics are available from the University of Toronto, University of Western Ontario, University of Ottawa, McMaster University, University of Guelph, and Queen's University. These programs provide the practitioner with a background in statistics, epidemiology, research theory and practice, survey design theory and practice, demography, and often program and policy evaluation.

Skills/Qualities

Technical

- Basic computer skills: word processing, internet, email, presentation programs, spreadsheet manipulation and database knowledge
- Specialized software programs: statistical analysis programs (i.e., SPSS, SAS, Statistica)

Communication

- Superior oral and written communication skills

Other

- Knowledge of statistical and epidemiological methods, research theory and practice, survey design theory and practice, demography and program and policy evaluation
- Highly specialized knowledge of epidemiological principles, methods and applications
- Research methodologies, including longitudinal and cross sectional surveys and case control studies
- Disease surveillance
- Data development and management
- Knowledge of statistical analysis techniques
- Analytic, interpretive, evaluative, critical thinking and problem-solving abilities
- Ability to work both independently and as a team member
- Planning and project management skills
- Strong ability and interest in science
- Ability to follow a problem to conclusion
- Ability to work with governmental regulations
- Ability to exercise patience, flexibility, and a willingness to work in different locations under a variety of conditions
- Good interpersonal and presentation skills

Typical Employers

- Colleges/Universities
- Provincial/Territorial and Local government Health Departments
- Federal Government Health Agencies
- Research Institutions
- Large Medical Corporations

Average Hourly Wage

\$36.51/ hour (average)

Salaries vary according to such factors such as experience, level of responsibility, seniority, size of company, size of city, etc.

Are There Assistant Positions in the Field?

- Epidemiologist Assistant

2) Health Promotion Worker

- Not a regulated profession in Ontario

Role

- Health Promotion Workers inform people, groups, and communities about the causes and prevention of health problems, especially those that relate to lifestyle, work and cultural factors.
- They help others to improve their health by providing counseling, education, and community organization.
- Depending on the area of concentration, they implement programs on such topics as pollution, drug abuse, AIDS, STDs, nutrition, diabetes, pregnancy etc.

Source: http://www.settlement.org/sys/link_redirect.asp?link=http://www.onip.ca/article/11

- Needs assessment, identifying needs, issues, barriers
- Developing and implementing health promotion strategies and programs
- Designing and facilitating workshops
- Facilitating groups or offering individual support with focus on different health issues: pregnancy, childbirth, infant care, issues related to chronic conditions or disabilities

- Cooperation with various programs, organizations, governmental bodies, community and social groups
- May deal with different aspects of health education: social research, policy planning, program development and implementation.
- In some health promotion jobs you will develop information and educational materials, or you will work directly with patients and with the public to provide information and advice for a healthy life style.

Educational Requirement

Source: http://www.settlement.org/sys/link_redirect.asp?link=http://www.onip.ca/article/11

- Many job postings require a Bachelor's or Master's degree in Health Promotion, Health Education or Health Planning.
- Community colleges also offer programs such as the Workplace Wellness and Health Promotion program at Centennial College
<http://www.centennialcollege.ca/applied/wellness/index.htm>
This program focuses on the well-being of individuals and groups within a corporate and community context. It emphasizes a holistic approach to achieving workplace, community, and personal wellness.
- Source: http://www.settlement.org/sys/link_redirect.asp?link=http://www.onip.ca/article/11 Often you will see the phrase: ".....or equivalent discipline", or "An equivalent combination of education and experience will be considered." In such cases a background in medicine (nursing, medical doctor) is usually acceptable, especially if you can demonstrate that you have experience in educating patients, or the general public
- Source: http://www.alphaweb.org/health_promotion.asp
Most entry level Health Promotion positions require a Baccalaureate or Graduate degree in health promotion, health sciences or social sciences from a recognized university.
Most experienced health promotion workers bring to their work a combination of formal education and practical experience in community work, social services, education or related disciplines.
Specialized University programs in health promotion have emerged within the last 15 years, and a wide variety of educational opportunities are now available. See the Association of Local Public Health Agencies for a listing of programs http://www.alphaweb.org/health_promotion.asp

Skills/Qualities

Technical

- Basic computer skills: word processing, internet, email, presentation programs, spreadsheet manipulation and database knowledge

Communication

- Excellent oral and written communication skills

Other

- Able to plan, implement, and evaluate community health education programs and act as a resource person for programs and activities
- Able to develop creative concepts and innovative techniques to reach populations with appropriate and useful health information
- Mature and tactful in dealing with people
- Experience working with families from diverse communities and backgrounds
- Experience in community health and multi-disciplinary team model
- Experience facilitating groups and utilizing adult learning techniques
- Understanding of different aspects of prevention, health promotion and the Canadian system of community services
- Strong coordination skills

- Group facilitation, conflict resolution skills
 - Counseling skills, public speaking ability
 - Able to work in cooperation with other groups and organizations – community services, different ethnic groups, marginalized groups, etc.
 - Strong teamwork skills
 - Research and statistical skills may be required
 - *Source: http://www.alphaweb.org/health_promotion.asp*
- Core skills are in the area of community development, social marketing, communication, advocacy, health education, project management, program planning, evaluation, media relations, and policy development

Typical Employers

- Public health units
- Community Health Centres
- Hospitals (i.e., Diabetes Clinic)
- Provincial Resource Centres
- Community centers
- Specialized Programs and Organizations (most often not-for-profit, serving particular client groups or addressing particular health issues) such as Planned Parenthood and the Canadian Diabetes Association.
- Health promotion professionals can now also be found working in larger public and private sector organizations where employee wellness is valued.
- In addition, some health promotion professionals work on a contract basis, and are sought out for their skills in group facilitation, communication planning and campaign development, proposal development, and community development.

Average Hourly Wage

\$15.38 (low) 28.43(high)

Salaries vary according to such factors such as experience, level of responsibility, seniority, size of company, size of city, etc.

3) Public Health and Environmental Health Inspectors

- Not a regulated profession in Ontario
- However, certification is required. To become a Certified Public Health Inspector it is necessary to obtain certification from the Canadian Institute of Public Health Inspectors www.ciphi.ca. This professional board controls entry into the profession.

Role

- Public health inspectors investigate health-related complaints and inspect facilities to ensure that they comply with public health legislation and regulations
- Evaluate and monitor health and safety hazards and develop strategies to control risks in the workplace
- Inspect restaurants, public facilities, industrial establishments, municipal water systems and other workplaces to ensure compliance with government regulations regarding sanitation, pollution control, the handling and storage of hazardous substances and workplace safety
- A Public Health Inspector employed in a health unit can be involved in education and promotion, community based planning and research, health and environmental risk assessments and communications.

Educational Requirements

- *Source: <http://www.alphaweb.org/inspection.asp>*
Must have completed a 4 year Bachelor of Applied Science in Public Health program at Ryerson University in Ontario and completed at least a 12 weeks practicum in a health unit, submitted written reports and presented themselves before the oral board of the Canadian Institute of Public Health Inspectors www.ciphi.ca to demonstrate a level of competency to become a Certified Public Health Inspector.
- A two year Master's program is also available at Lakehead University

Skills/Qualities

Technical

- Basic computer skills: word processing, internet, email, presentation programs, spreadsheet manipulation and database knowledge

Communication

- Excellent oral and written communication skills

Other

- Strong interpersonal skills
- Problem-solving and decision-making skills
- Enjoy having clear rules and organized methods for their work, analyzing information and dealing with people
- Conflict resolution skills
- Able to work independently

Typical Employers

- Employed throughout the public and private sectors (primarily public sector)
- Public health inspectors spend a significant portion of their time conducting inspections in a wide range of work settings. While in their offices, they prepare reports, set up schedules and answer questions from the public. They normally work alone but may consult with other health team members and health professionals.
- Other employment opportunities include quality assurance, health education, promotion and planning, epidemiology, infectious disease control, food hygiene and safety, housing and building environments and occupational health and safety.
- There are consulting opportunities with environmental, engineering and occupational health and safety firms.
- Opportunities with regional, provincial and national health departments include: environmental and pollution control departments, industry, sewage and water treatment plants, agencies interested in industrial health and hygiene or food sanitation, solid waste management agencies etc.
- The greatest number of public health inspector positions are found in local public health agencies.

Average Hourly Wage

\$27.38 (average)

Salaries vary according to such factors such as experience, level of responsibility, seniority, size of company, size of city, etc.

4) Asthma Educator/ COPD Educator/ Diabetes Educator

- These are not regulated health professions in Ontario
- Board Certification in Diabetes Education offered by the Canadian Diabetes Educator Certification Board (CDECB).
- National certification examination for Asthma Educators offered by the Canadian Network for Asthma Care (CNAC)

Role

- The roles of the Asthma/ COPD/ Diabetes Educators have grown from being "experts" giving out information, to one of "facilitators", helping people with the disease to manage the disease themselves
- Partner with patients and their families to teach the necessary steps involved in self-managing their disease (controlling symptoms, anxiety and exacerbation)
- Design, implement, and evaluate a asthma/COPD/diabetes education programs

Educational Requirements

- Asthma and COPD continuing education programs (6 months minimum) are offered at Michener Institute
- Diabetes Educator continuing education program (12 months minimum) are offered at Michener Institute
- Very often Registered Nurses perform these jobs

Skills/Qualities

Technical

- Basic computer skills: word processing, internet, email, presentation programs, spreadsheet manipulation and database knowledge

Communication

- Excellent oral and written communication skills - effectively communicate with patients, their families and colleagues

Other

- Experts in the disease state
- Understanding of behavior change
- Knowledge of preventative health care
- Skilled at educating and motivating patients regarding their health
- Program design, implementation and evaluation skills
- Capable of establishing a partnering relationship with both the patient and the patient's family
- Able to integrate cultural and lifestyle aspects into the educational process
- Able to assess individual patients' needs and take advantage of the expertise and support of other team members
- Understand how to manage the disease, through prevention, pharmacotherapy and non-pharmacotherapy
- Strong interpersonal, counselling and presentation skills
- Mature and tactful in dealing with people

Typical Employers

- Hospitals, pharmacies, private practice and non-profit centres.

Average Hourly Wage

Source:

http://www.labourmarketinformation.ca/standard.asp?ppid=81&lcode=E&prov=35&gaid=9219&occ=3152&se arch_key=1&search_type=&employer_potential=&new_search=

Nurses: \$27.80 (average) \$34.23 (high) \$19.46 (low)

Salaries vary according to such factors such as experience, level of responsibility, seniority, size of company, size of city, etc.

5) Other Positions in the Field of Public Health

Blood Donor Clinic Assistant:

- Sets up equipment; maintains supplies; records information on donors; monitors donors throughout procedure under the supervision of a registered nurse; and labels and processes donated blood.

International Health Service Worker

- The International Health Service Program at Seneca College (one semester) <http://www.senecac.on.ca/fulltime/IHP.html> offers a multidisciplinary approach to health care and the development of the knowledge base and skills required to work in areas of the world disadvantaged by undeveloped or depleted health care resources. The program focuses on the individual's role as a health teacher, primary care worker and trainer for village health workers.

Public Health Planner

- Often requires an Registered Nursing degree

B) Labour Market Prospects

Public and Environmental Health Inspectors

Source: <http://www.alphaweb.org/inspection.asp>

There is a greater public awareness of health and safety issues and Public Health Inspectors are front and centre. These issues have heightened the public's knowledge of the profession and the public is demanding more public health inspectors and government interventions to ensure their safety and well-being.

COPD Educator

Source: <http://www.lung.ca/breathworks/G02.html>

- As Canada's population ages, more and more people will be diagnosed with COPD. More than 750,000 Canadians already suffer from the disease. Hundreds of thousands more have COPD but have not been diagnosed.

Source: http://www.michener.ca/ce/postdiploma/copd_program.php#career

- Historically high smoking rates and aging baby boomers are resulting in more cases of COPD in ever-younger patients. As a result, pulmonary rehabilitation programs and the demand for COPD Educators are growing in hospitals and nursing homes, as well as in home care and private industry.

Asthma Educator

Source: http://www.michener.ca/ce/postdiploma/asthma_educator.php#career

- Asthma rates have quadrupled over the past twenty years - there are now over 60,000 admissions to Canadian hospitals for the treatment of asthma. As a result, Asthma Education

programs are growing in hospitals and pharmacies, as well as in private practice and non-profit centres.

Diabetes Educator

Source: http://www.michener.ca/ce/postdiploma/diabetes_educator.php#career

The combination of an aging population and the rapidly escalating incidence of diabetes is increasing the global demand for certified Diabetes Educators.

C) ITPs in the Field

Health Promotion Worker / COPD, Asthma, Diabetes Education

- All ITPs have knowledge of diseases, their risk factors and prevention, and experience in delivering health education programs.
- ITPs who are pulmonologists, internists and family physicians are most prepared for Asthma and COPD Educator roles
- ITPs who are internists and family physicians are most prepared for the Diabetes Educator role

Epidemiology

- Most ITPs who are general practitioners, family physicians and internists have the knowledge of occupational and environmental diseases, their assessment, treatment and prevention. They also have experience in research activities and health education.

D) Links

Educational Institutions

- Michener Institute <http://www.michener.ca/ce/postdiploma/>
- Ryerson University www.ryerson.ca/programs/occhealth.html
- Lakehead University <http://mph.lakeheadu.ca/wp/?pg=1>
- Listing of Occupational Health and Safety courses
http://www.ccohs.ca/oshanswers/information/courses.html#_1_2

Professional Organizations

- Canadian Network for Asthma Care (CNAC) www.cnac.net
- Canadian Lung Association www.lung.ca
- Canadian Diabetes Assoc. www.diabetes.ca
- Canadian Diabetes Educator Certification Board (CDECB)
- Assoc. of Public Health Epidemiologists in Ontario www.apheo.ca
- Canadian Centre for Occupational Health and Safety <http://www.ccohs.ca>

Related Web Sites

- Association of Local Public Health Agencies <http://www.alphaweb.org/executive.asp>
- Health Promotion career http://www.alphaweb.org/health_promotion.asp
- Health Promotion Ontario <http://www.hpoph.org/>
- Alberta Occupational Information, Public Health Inspector – <http://www.alis.gov.ab.ca/occinfo>
- ONIP, Health Educator article <http://www.onip.ca/article/11/>