



## IDENTIFICATION

Department	Position Title	
Health & Social Services	Epidemiologist, Chronic Disease Surveillance	
Position Number(s)	Community	Division/Region(s)
49-10322	Yellowknife	Population Health

## PURPOSE OF THE POSITION

The Epidemiologist, Chronic Disease Surveillance provides accurate, reliable and useable information essential to understanding the incidence, prevalence, distribution and patterns of diabetes and other specific chronic diseases and associated medical conditions, including cancer, in the Northwest Territories. The incumbent's work is performed in part in accordance with the terms and conditions of a Memorandum of Understanding and Work Plan agreed to between the Department of Health and Social Services (the Department) and the Public Health Agency of Canada. The main end result of the incumbent's work is the provision of a diabetes surveillance system and associated products as the NWT's contribution to the National Diabetes Surveillance System and the NWT Diabetes Strategy.

## SCOPE

The position is located in Yellowknife and reports directly to the Territorial Epidemiologist. The information provided through this position can directly influence the priorities, planning, service delivery effectiveness and efficiency, and expenditures for diabetes, cancer and other chronic disease programs and services of the Department and Health and Social Services (HSS) Authorities across the NWT. The position also provides information to other departments and organizations that are responsible for or are stakeholders in health, community wellness, and public safety programs and services, including Aboriginal organizations and members of the public. The position manages and coordinates many diverse projects concurrently. These projects are described in the responsibilities section and are subject to broad policies and operational goals of the organization and to managerial direction of a general nature.

Responsibilities are undertaken in accordance with GNWT and HSS priorities, policies, and directives. This ensures the availability of accurate, valid, timely and useable information as a sound basis for public policy and legislation, and for programmatic activities for policy analysts, decision makers and client groups.

## **RESPONSIBILITIES**

Reporting to the Territorial Epidemiologist, the incumbent is responsible for:

- 1. Designing, developing, implementing, evaluating and overseeing a surveillance strategy to efficiently monitor diabetes, cancer, chronic diseases and other public health issues, risk factors and health determinants in the NWT.**
  - Identify key determinants and outcome indicators to track chronic diseases
  - Develop and ensure the accuracy of surveillance methods used by the Department including current tools, surveys, questionnaires and other methods
  - Provide analysis and interpretation of data collected
  - Collaborate on strategies for chronic diseases and other emerging health conditions
  - Respond to inquiries from various clients in the Department, regional HSS Authorities, federal agencies, media and others concerning database systems, surveillance methods, and data needs.
  - Advise on planning and interpretation of epidemiological studies related to chronic disease and cancer
- 2. Planning and implementing research projects and other studies designed to produce critical information with respect to diabetes and other chronic conditions in the NWT.**
  - Identify, develop and lead research projects relevant to population health assessment
  - Assist in design of research methods, population sampling, interview questions, questionnaire formatting and others
  - Conduct research using a variety of methodologies including Internet searches, literature reviews and statistical trend analysis
  - Develop proposals for external funding for new research initiatives
  - Advise on the nature and relevance of proposed research conducted within, or external to the department
- 3. Advising on data standards, quality assurance methodologies and database development.**
  - Keep abreast of developments with respect to data standards, reporting, technological advances and development
  - Ensure currency with standards of practice for database maintenance and management
  - Meet current and forecasted information standards with respect to diabetes, cancer and other chronic disease conditions
  - Evaluates statistical packages and develops strategies for computer-aided analysis
- 4. Analyzing data for morbidity, mortality, risk factors and identify trends for diabetes, cancer and other chronic diseases**
  - Compile, analyze and interpret data related to diabetes, cancer and other chronic diseases for mortality, morbidity, risk factors and trends
  - Prepare reports to disseminate resulting information to diverse audiences, including policy makers, program managers and the general public, including developing briefing notes

5. **Providing professional advice and support with respect to diabetes, cancer and chronic disease conditions to the Territorial Epidemiologist, program managers, department executive, regional health officers and regional management and ensure that information meets epidemiological and statistical standards.**
  - Identify data and information deficiencies and makes recommendations on how to correct the situation
  - Design and delivers training courses, seminars and workshops in the areas of chronic disease epidemiology, collection of information, analysis of information and interpretation of data
  - Assist analysts in other divisions as required
6. **Participating in division and departmental business and strategic planning activities.**
7. **Liaising and consulting with federal, provincial and territorial colleagues to seek creative solutions to common issues and to maximize the potential for shared opportunities.**
8. **The Epidemiologist, Chronic Disease Surveillance may also be asked to represent the department in working groups or committees at the Federal/Provincial/Territorial levels.**
9. **The Epidemiologist, Chronic Disease Surveillance may also be asked to perform other duties as assigned by the Territorial Epidemiologist.**
10. **The Epidemiologist, Chronic Disease Surveillance may also be asked to act for the Territorial Epidemiologist in his/her absence.**

### **KNOWLEDGE, SKILLS AND ABILITIES**

- Highly specialized knowledge in the field of epidemiological principles, including epidemiological concepts, principles and applications
- Highly specialized knowledge of analytical methodologies
- Highly specialized knowledge of research methodology, including survey and questionnaire design, longitudinal, cross-sectional and case control studies
- Highly specialized knowledge of disease surveillance
- Highly specialized knowledge of statistical analysis software (SAS, SPSS and Epi-info) including programming ability
- Highly specialized knowledge of database management software including database development, evaluation and search, and spreadsheet software (Excel and MS-Access).
- Highly specialized knowledge of natural histories of diabetes, other common chronic diseases and cancer
- Specialized knowledge of health administrative data such as health insurance, physician claims and hospitalization data

- Specialized knowledge of health determinant and health outcome indicators and risk factors associated with diabetes and associated conditions, other chronic diseases and cancers.
- Specialized knowledge of the World Health Organization's International Classification of Diseases (ICD) coding
- Knowledge of northern health care systems and the particular health challenges and opportunities faced by its population
- Advanced skills to interpret data, critical thinking and problem solving skills
- Excellent ability to work both independently and as a team member
- Advanced written and oral communication skills, including the ability to communicate effectively with diverse audiences
- Excellent planning, evaluation and project management skills
- Highly dedicated to results and strongly committed to excellence in the public service
- Knowledge of policy, ethical and legal issues related to confidentiality and data security
- Effective oral and written communication skills, including the ability to communicate statistical analyses and interpretations in lay terms

**Typically, the above qualifications would be attained by:**

Post-graduate university qualification in epidemiology at a minimum of master's level, and experience in epidemiological and statistical analysis, with emphasis on analysis of large population health databases is required. Training and experience in biostatistics and development of research protocols, interpretation of research and community health or social services are also fundamental to the position. Knowledge of SPSS/SAS software is considered an asset. Other relevant training or experience would include the analysis and interpretation of population health surveys, development of research protocols, interpretation of research.

**WORKING CONDITIONS**

*(Working Conditions identify the **unusual and unavoidable**, externally imposed conditions under which the work must be performed and which create hardship for the incumbent.)*

**Physical Demands**

There is limited physical effort required for the position. There are long periods where the incumbent is required to stay seated and use a computer. The incumbent is expected to travel periodically. Major physical demands include: low back and neck strain from intense concentration for long hours in a seated position. The incumbent is expected to spend long periods using a computer, which can be a source of eye and muscle strain.

**Environmental Conditions**

The incumbent is provided with a cubicle within a larger working pod. The physical environment can be a source of stress due to interruptions and noise from adjacent cubicles and offices. It is also set up to be a collaborative environment in which to consult with other epidemiologists.

### **Sensory Demands**

The incumbent must also spend long periods of intense concentration reviewing and analyzing data.

### **Mental Demands**

The incumbent must deal with many different people and is often privy to confidential information of a sensitive nature concerning known individuals. This can result in emotional stress. The incumbent is also faced with tight deadlines and urgent situations, which significantly increase the stress level of the position.

### **ADDITIONAL REQUIREMENTS**

#### **Position Security (check one)**

- ☒ Position of Trust – criminal records check required
- ☐ Highly sensitive position – requires verification of identity and a criminal records check