



### **IDENTIFICATION**

<b>Department</b>	<b>Position Title</b>	
Health & Social Services	Epidemiologist, Surveillance	
<b>Position Number</b>	<b>Community</b>	<b>Division/Region</b>
49-15106	Yellowknife	Population Health

### **PURPOSE OF THE POSITION**

The Epidemiologist, Surveillance provides accurate, reliable and useable analysis essential to decision makers for evidence based programs and services for NWT residents. The incumbent's work is performed in cooperation with other units and divisions within the Department of Health and Social Services (the Department) as well as partners outside the Department. This position is critical for timely surveillance of population health indicators. Through this work, the position has an important role in improving the health and wellness of the population, reducing the burden of mortality and morbidity in the population, and improving the effectiveness and efficiency of health and social programs.

### **SCOPE**

The Epidemiologist, Surveillance is appointed as a Public Health Officer under the *NWT Public Health Act*, and has a statutory duty to enforce this Act and accompanying regulations as delegated by the Chief Public Health Officer (CPHO). The position reports to the Territorial Epidemiologist. The position is located in Yellowknife. This position is critical to supporting the function of the Office of the CPHO. The CPHO must rely on the information and analyses prepared by the position to make appropriate decisions related to the containment and prevention of communicable disease outbreaks and other public health protection issues.

The position also provides essential health surveillance support to the broader mandate of the Department. The position provides expertise on data analysis and interpretation, surveillance systems, data visualization of health and social data and identifies and pursues opportunities for examining complex social and health issues. The position also provides information to other departments and organizations that have a mandate in health, community wellness and public safety programs and services.

## **RESPONSIBILITIES**

### **1. Analyzes morbidity, mortality and risk factor data for health events and social indicators under surveillance**

- Compile, analyze and interpret data related to health event under surveillance, including risk factors and trends (eg. immunizations, injuries, communicable infections)
- Assist in the design and application of statistical analytical techniques; provides methodological and data quality advice.
- Validating data, generating reports and responding to requests from within the Department.
- Act as a subject matter expert of the data repositories available for analysis.
- Automate re-occurring analytical requests
- Provide analytical support for the Department and external partners to support decision making and program development.
- Supporting other core functions of the Epidemiology and Disease Registries Unit, including assistance in routine reporting functions.

### **2. Develops approaches for data collection, synthesis, analytics and reporting**

- Provides expertise and support in the area of data development and integration and data management
- Identifies opportunities to use information analytics techniques and tools to improve decision-making for health programs and services
- Supports the design and implementation strategies for data collection, extraction and analysis procedures including the development of reporting standards across organization
- Coordinates the exchange of information and the development of data sharing within the Department and beyond
- Recommends data integration strategies for the organization in partnership with the IT department
- Integrates data into existing internal databases and maintains database integrity

### **3. Provides expert epidemiology and knowledge management support, and advise on data standards, quality assurance methodologies and database development**

- Keep abreast of developments with respect to data standards, reporting, technological advances and development to ensure currency with standards of practice for database maintenance and management
- Develop workflows, data collection procedures and reporting protocols using existing and new datasets
- Work closely with data architects to identify, extract, manipulate and clean appropriate data to be used in analytics initiatives

- Develop policies and standard operating procedures for the Departments to use to identify, review and maintain datasets for internal and external stakeholders
  - Engage with data producers and other internal stakeholders to convey the strategic importance of sharing information both internally and externally
  - Explore opportunities for open data within the NWT and articulate the innovation opportunities that can be realized
4. **Develop intuitive data visualizations and text for websites, reports, presentations and ad hoc internal and external requests.**
    - Design and update dashboards and other visualization products on public health and other health events to ensure information gathered is used appropriately to drive public health action
    - Transform quantitative and qualitative data to communicate compelling stories to diverse audiences using available data
    - Draft text to produce public and professional facing reports, presentations and documents in order to communicate public health messages.
  5. **Represent the Department in working groups or committees at federal, provincial, and territorial levels.**
  6. **Perform other duties as assigned by the Territorial Epidemiologist, including acting for the Territorial Epidemiologist in his/her absence.**

## **WORKING CONDITIONS**

### **Physical Demands**

The incumbent is expected to spend long periods using a computer, which can be a source of eye and muscle strain. The incumbent is expected to travel periodically.

### **Environmental Conditions**

No unusual environmental conditions.

### **Sensory Demands**

The position requires long periods of intense concentration reviewing and analyzing data.

### **Mental Demands**

The position works to strict, often competing deadlines. The incumbent is routinely involved in several varied and complex statistical projects simultaneously, which requires prioritization of work to meet competing pressures. Close attention is also required for development of statistical materials. Recommendations from the incumbent to senior management and clinical staff can have an impact on health outcomes and policy development.

## **KNOWLEDGE, SKILLS AND ABILITIES**

- Highly specialized knowledge in the field of human epidemiology including epidemiological concepts, principles and applications, with specific methodologies in cross-sectional studies, case control studies and health surveillance.
- Expert knowledge of bio-statistical research and analytical methodologies..
- Highly specialized knowledge of statistical analysis software (SAS, SPSS, R and Epi-info) including programming ability.
- Specialized knowledge of data visualization software (eg. PowerBI) and demonstrated ability to develop interactive dashboards with health information
- Highly specialized knowledge of information management principles and use of database management software systems language (eg. SQL, MS-Access, MS-Excel)
- Knowledge of geographic information systems and mapping, including using maps in interactive dashboards
- Knowledge of northern health care systems and structures, public health legislation, public health administration and northern cultures as they relate to health and social service issues.
- Knowledge of policy, ethical and legal issues related to confidentiality and data security.
- Knowledge of desktop publishing and presentation software.
- Strong problem-solving and trouble-shooting skills.
- Strong verbal and written communications skills.

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

- A post-graduate university qualification in epidemiology, public health or other biostatistics field at a minimum of master's level; and
- Minimum of 2 years' progressive, relevant experience in epidemiological and statistical analysis, including training or experience in the analysis and interpretation of population health surveys, development of research protocols, and interpretation of research.

## **ADDITIONAL REQUIREMENTS**

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

- No criminal records check required
- Position of Trust – criminal records check required
- Highly sensitive position – requires verification of identity and a criminal records check

### **French language (check one if applicable)**

- French required (must identify required level below)  
Level required for this Designated Position is:

**ORAL EXPRESSION AND COMPREHENSION**

Basic (B)  Intermediate (I)  Advanced (A)

**READING COMPREHENSION:**

Basic (B)  Intermediate (I)  Advanced (A)

**WRITING SKILLS:**

Basic (B)  Intermediate (I)  Advanced (A)

French preferred

**Indigenous language:** To choose a language, click here.

Required

Preferred