

New

Ministry

Describe: Basic Job Details

Position

Position ID

Position Name (30 characters)

Requested Class

Job Focus

Supervisory Level

Agency (ministry) code

Cost Centre

Program Code: (enter if required)

Employee

Employee Name (or Vacant)

Organizational Structure

Division, Branch/Unit

 Current organizational chart attached?

Supervisor's Position ID

Supervisor's Position Name (30 characters)

Supervisor's Current Class

Design: Identify Job Duties and Value

Job Purpose and Organizational Context

Why the job exists:

Reporting to the Manager, Infectious Disease Epidemiology, the epidemiologist is part of a multidisciplinary team focused on maintaining infectious disease health surveillance systems, and developing strategies to minimize negative health impacts resulting from infectious diseases.

This position will provide leadership in developing and maintaining information resources to support the creation of indicators for surveillance and public health planning. The position is responsible for the development of evidence and advice to support health policy and planning through the collection, analysis and interpretation of data on health, health determinants, risk factors, and health events.

This position performs, advises, directs and ensures the scientific integrity of data collection, analysis, assembly, interpretation, and reporting of health surveillance information. The position actively promotes and contributes to the effective use of health surveillance information in priority setting, quality assurance, and knowledge creation activities for internal and external stakeholders in the health sector including Federal, Provincial, and Alberta Health Services and academic and research collaborators. The position is also responsible for drafting communications to a range of stakeholders and leading the development and writing of technical reports such as surveillance reports.

Responsibilities

Job outcomes (4-6 core results), and for each outcome, 4-6 corresponding activities:

1. Compile accurate quantitative, graphical and textual health surveillance information for dissemination to stakeholders.

- Conducting complex modeling and statistical analysis of health information
- Executing independent investigations and development work to determine the most appropriate modeling and analysis techniques
- Involving key stakeholders in the proper interpretation of results
- Translating results and interpretation into data products, graphics, and reports
- Supervising others providing such translation and interpretation to ensure that best practices are followed.
- Generate and disseminate routine indicators in collaboration with branch members
- Provide technical and analytical support for branch initiatives and prepare reports, publications, briefings, and action requests to support the use of evidence in policy development.

2. Develop and validate methodologies and population health measures to ensure that indicators of the health of Albertans are accurately represented and reported regularly.

- Ensure the inclusion and accuracy of key population health performance measures in departmental reports including the Alberta Ministry of Health Annual Report, Alberta Health Three-Year Business Plan and other reports as required.
- Utilize knowledge of benchmarks, standards and performance measures to contribute to the development of new methodologies and measures to evaluate population-based programs.
- Examine methodologies and measures development and use in other jurisdictions, recommending alternatives to ensure the most appropriate calculation and display of measures. Act as a Branch and Division resource to ensure appropriate statistical analyses are conducted.
- Respond to information requests, take appropriate action including logging and examining requests and collaborating with appropriate staff members to ensure requests are met in a timely and professional manner.
- Ensure the highest standard possible of data analysis and reporting pertaining to indicators
- Process and monitor data requests/transfers in accordance with Legislation (e.g. *Health Information Act* and *Public Health Act*) and Department policies, and existing data sharing agreements with external stakeholders.

3. Provide epidemiological expertise for the control of communicable disease and enteric outbreaks.

- Design, implement and evaluate epidemiological surveillance systems including experiments or research protocols, surveys, and data collection systems to support work during and subsequent to an outbreak investigation.
- Support outbreak investigations, including tool design, statistical analysis and relevant epidemiological study as required;
- Provide epidemiological expertise for enteric and non-enteric disease outbreak investigation and response.

4. Provide statistical support and advice to support the development and maintenance of health surveillance methodologies and systems.

- Set standards for the calculation of epidemiological measures and statistical analysis.
- Use software such as R for calculation of population health indicators and measures of precision of these indicators.
- Provide statistical consultation for the Division and Department with respect to appropriate statistical analysis, to ensure best practices are followed.
- Develop and maintain scripts for the routine production of surveillance reports using software programs such as R.
- Provide training to junior staff on implementation and maintenance of these programs.

5. Foster collaborative relationships with internal and external stakeholders requiring health surveillance information to enhance the value and use of Alberta's health information.

- Participate as part of collaborative teams involved in research or related activities with internal collaborators from within the ministry and external collaborators from federal and provincial government ministries, Alberta health regions and agencies within the health system, and researchers from Alberta universities and institutions of learning,
- Provide knowledge and expertise about the availability and effective and scientifically accurate use of health surveillance information in these contexts

Problem Solving

Typical problems solved:

- The incumbent requires a creative approach to taking administrative and other data sources, and transforming the data into useful information to support health policy and planning.
- A major challenge of this position is to combine advanced content expertise with technical expertise and project management skills in an environment of changing priorities and time constraints.
- Analyzing and interpreting health status of Albertans at the zone, provincial, federal and international levels.
- This position requires a creative approach to a diverse range of projects from both the department and the government as a whole. The incumbent is required to pro-actively identify issues through environmental scanning, trend analysis, and evaluation of changing business needs.
- Exercising good judgment and utilize strong interpersonal skills to co-ordinate projects and to represent the interests and goals of the branch to stakeholders.
- Analyzing and developing solutions to system issues in relation to existing operational functions, giving consideration to financial, personnel, organizational and system constraints.
- Ability to translate and effectively communicate complex epidemiological analyses into clear and concise messages for stakeholders in a complex, dynamic environment.
- Ability to identify and productively resolve conflicting needs and priorities.

Types of guidance available for problem solving:

- The majority of the guidance will come from the supervisor and/or leadership within the branch.
- Guidance, advice and/or recommendations will also also come from OCMOH or the Public Health Division on tasks such as the production of annual reports.
- Best coding practice such as reproducibility, coding, readability, version control and documentation will be followed.
- Familiarity with the notifiable disease guidelines is recommended for problem-solving purposes.
- Standard Operating Procedures (SOPs) will be followed or developed for routine work.

Direct or indirect impacts of decisions:

- This position will interface with a broad range of stakeholders including Alberta Health Services, other jurisdictions (both provincial/territorial and federal) and other provincial government departments. Contacts within Alberta Health include staff from Information Management, Information Technology, Health Protection, Public Health, Strategic Policy and Planning, the Office of the Chief Medical Officer of Health, Communications, and others as necessary and have both direct and indirect impacts.
- Colleagues on the team will be directly impacted by the development of different data products and analyses. The person in this position will have advanced knowledge in epidemiology and statistics and will offer guidance and advice to others within the team.
- OCMOH and the Public Health Division will be directly impacted by the data products and analyses developed for decision related to policy changes and implementation related to infectious diseases.
- Other Alberta Health branches/divisions, provincial departments, Albert Health Services, and federal government

will be indirectly impacted by the publication of reports and policy changes implemented as a result of evidence developed by the person in this position.

- The public will be directly and indirectly impacted by the publication of data products and reports and the decisions made based on evidence generated.

Key Relationships

Major stakeholders and purpose of interactions:

- Manager of Infectious Disease Epidemiology - Direction / recommendations / results
- Health Analytics Branch staff - Collaboration and coordination/Provision of Advice/Indicator Development
- Health Protection - Provision of advice and analytic results
- Public Health - Provision of advice and analytic results
- Office of the Chief Medical Officer of Health - Provision of advice and analytic results
- Other Alberta Health and Wellness Branches - Provision of advice and analytic results
- Alberta Health Services - reporting requirements / indicator development / provision of advice and analytic results
- Public Health Agency of Canada - Reporting requirements / indicator development / provision of advice and analytic results
- Health Canada - Reporting requirements / indicator development / provision of advice and analytic results

Required Education, Experience and Technical Competencies

Education Level	Focus/Major	2nd Major/Minor if applicable	Designation
Master's Degree	Other	Science	

If other, specify:

Epidemiology, statistics, health sciences, or social sciences

Job-specific experience, technical competencies, certification and/or training:

Knowledge

- This position must have extensive and current technical knowledge of biostatistics, epidemiology, survey methods, experimental design, and information systems and their application to Health Surveillance and Health Indicators. The position must also have a broad understanding of the Ministry business especially as this relates to the use of evidence in decision-making.
- Advanced knowledge of epidemiology research methods and statistical techniques.
- Advanced computer knowledge including database design, statistical programming, spreadsheets and communications software.
- Strong knowledge of the Branch's business application systems, and awareness of other projects and activities that will/may have an impact on these application systems.
- Good understanding of personal computer hardware, software, system requirements and basic operation system functions.
- An understanding of the health sector and system in Alberta and nationally.
- Understanding of Legislation and related regulations such as the *Health Information Act*, *Public Health Act* and *Alberta Health Care Insurance Premiums Act* and regulations.
- Understanding of Alberta Health Business Plan.

Skills

- Well-developed software skills including database management (Access, SQL), spreadsheet (Excel), and presentation software (PowerPoint), statistical software (e.g.R or SAS).
- Strong verbal and written communication and interpersonal skills.
- Experience in the manipulation of large administrative databases, including data analysis and data management

- Negotiation and facilitation skills.
- Public health business and technical skills
- Organization and project management skills.
- Excellent problem solving abilities and attention to detail.
- Technical Writing.
- Presentation Skills.

Abilities:

- Ability to communicate effectively with multiple stakeholders in a complex environment.
- Ability to identify and productively resolve conflicting needs and priorities.
- Customer service orientation.
- Ability to translate complex epidemiological analyses into clear and concise messages for stakeholders.

Formal Education/Courses

- Related university degree, preferably postgraduate, in epidemiology, statistics, health sciences, or social sciences or an equivalent combination of education and experience.

Behavioral Competencies

Pick 4-5 representative behavioral competencies and their level.

Competency	Level					Level Definition	Examples of how this level best represents the job
	A	B	C	D	E		
Creative Problem Solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<p>Creates the environment for innovative problem solving:</p> <ul style="list-style-type: none"> • Generates new ways of thinking; ensures right questions are being asked about a problem • Eliminates barriers to creativity and innovation • Encourages a culture of innovation 	<p>This position requires extensive problem-solving and the ability to develop innovative solutions related to analysis design, implementation, and interpretation of data.</p> <p>There are a multitude of stakeholders impacted by the work in the position and the person will need to know which person to notify or seek advice from.</p>
Systems Thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<p>Shapes APS goals with a view of entire network:</p> <ul style="list-style-type: none"> • Considers whole system and links; sets goals for long-term outcomes and broad perspectives • Evaluates short, medium, and long-term impacts to inform progress • Shapes organization to meet client needs; helps 	<p>Priorities often shift depending on the current situation and this person may be required to quickly shift their priorities and adapt to the current situation. These priorities can be urgent and required quickly, especially in outbreak situations.</p>

		others see their role in this	Be able to identify ways to improve efficiency and streamline reporting. Must be able to understand how changes to surveillance/reporting impact other groups.
Build Collaborative Environments	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	Creates an open environment of communication: <ul style="list-style-type: none"> • Promotes sharing of expertise • Initiates strategic communication systems • Anticipates and addresses potential conflict areas • Inspires with a bold, complete and shared vision • Leads cross-functional collaboration 	A number of stakeholders often are required to collaborate on a range of tasks including reporting. Coordination between AHS, PHAC and FNHIB are often required for reporting and policy development. Promoting collaboration within the team and unit is essential to prevent duplication and ensure efficiency due to the large volume of requests for data and analysis from a range of stakeholders
Drive for Results	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Works to remove barriers to outcomes, sticking to principles: <ul style="list-style-type: none"> • Forecasts and proactively addresses project challenges • Removes barriers to collaboration and achievement of outcomes • Upholds principles and confronts problems directly • Considers complex factors and aligns solutions with broader organization mission 	Due to the high workload and demand the person must be able to monitor their performance to ensure they are on track to generate the results required. Often there are data limitations, so the person must be able to identify those barriers. They will also need to use their creative problem solving to attempt to those barriers or be able to effectively communicate why the limitations exist.

Benchmarks

List 1-2 potential comparable Government of Alberta: [Benchmark](#)

Assign

The signatures below indicate that all parties have read and agree that the job description accurately reflects the work assigned and required in the organization.

Employee Name

Date yyyy-mm-dd

Employee Signature

Supervisor / Manager Name

Date yyyy-mm-dd

Supervisor / Manager Signature

Director / Executive Director Name

Date yyyy-mm-dd

Director / Executive Director Signature