

## Update

Ministry

**Describe: Basic Job Details****Position**

Position ID

Position Name (30 characters)

Current 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****Changes Since Last Reviewed**

Date yyyy-mm-dd

Responsibilities Added:

Responsibilities Removed:

**Job Purpose and Organizational Context**

Why the job exists:

The Research and Data Analyst reports to the Data Access Manager and is responsible for responding to requests for data subsets from the department's data holdings and business intelligence environment. Requests for data come internally from other branches/divisions in the Ministry as well as from external organizations and agencies. The external data requests come primarily from the research community, Health Shared Services, Health Quality Alberta,

In responding to data requests, this position performs a number of responsibilities and activities. The data requestors need to be contacted to clarify and confirm data specifications. Under unit approved circumstances, the incumbent will lead a virtual team or personally develop the data specifications if the data requestor or organization lacks the capacity or skill set. The incumbent must ensure data requests comply with protocols, policy and privacy legislation before extracting, transforming and disclosing data.

The Research and Data Analyst is expected to have the knowledge, skills and ability to engage in collaborative relationships with all requestors who want access to subsets of the Health administrative health data. The incumbent must be able to provide expert advice about the required health data. Effective responses to data requests are expected in a timely manner. The incumbent will also be expected to identify opportunities, initiate and lead projects that will improve the availability, access and quality of data sets and data views. Advanced knowledge of data collections and analysis techniques and database development is required.

The incumbent needs advanced understanding of information research design and methodology, qualitative and quantitative to respond to complex research requests and must have the technical expertise to link, match, transform and interpret data for use. The Research and Data Analyst must ensure reasonable timeliness, accuracy of documentation (e.g. Schedule C of data sharing agreements) and data quality for his/her own assigned requests and for those of new or junior team members in responding to a variety of data requests for research purposes, informed business planning, policy development and decision making.

## Responsibilities

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

### 1. Clarify/confirm data specifications, plan data extraction, estimate timelines and cost (when applicable).

- Confirm understanding of the high level data requirements and the proposal with Customer Relationship Management Specialist and Data Requestor.
- Consult and provide advice to requestors about Health administrative health care databases and recommendations about methodological opinions to produce information for research/business planning.
- Conduct pre-analysis (e.g. frequency counts) to inform and advise on aggregations and alternatives to comply with privacy legislation.
- Determine the most appropriate data elements of administrative data assets that meet the requestor (research) requirements, documents and confirms data specifications with the requestor; consult and educate requestors to be able to evaluate feasibility with respect to data availability, offer recommended alternatives as required.
- Develop detailed response timelines and resource requirements; developing scientifically rigorous project methodologies.

### 2. Extract and transform data.

- Perform and document specific data extraction and transformation process including writing computer programs using Visual Basic, SQL (Structured Query Language) and SAS (Statistical Analysis System) languages to perform data processes or analysis as needed.
- Conduct the process of data transformation to meet required data specifications. Through quality assurance ensure that the data prepared is appropriate, repeatable, comparable and within legislative parameters.
- Apply basic statistical analysis as required in the transformation process.

### 3. Prepare data and ready for disclosure in compliance with privacy legislation.

- Assure identifiable fields have been de-identified and that prepared data is as anonymous as possible.
- Encrypt and password-protect the final outgoing data extract results.
- Create appropriate graphs, figures, tables, reports, etc. when necessary to depict data.
- Prepare documentation that become part of legal documents (e.g. Schedule C defining data specifications for the data sharing agreement legislatively required for research projects).
- Engage in necessary follow-up with the requestor to assist with the interpretation of the de-identified data for accurate analysis.

### 4. Lead projects for the provision and utilization of standard data products and quality improvement.

- Establish and maintain effective linkages and ongoing communication with internal and external data requestors,

and provide expert data advice to strengthen scientific methodology used in research, utilization and data quality improvement studies.

- Collaborate in research opportunities internally, cross-Ministry and externally by bringing data expertise to virtual research teams.
- Work with the Data Services Unit and the Health Analytics Branch to transfer information about the improvements in functionality and available data sources to data requestors.
- Recommend and work with the Data Services Unit and the Health Analytics Branch in high level requirements for creation of new views and interactive data cubes, as known based on similar requests from multiple requestors or repetitive requests for the same subset of data or to meet a priority Ministry initiative.
- Work with the Data Services Unit for user acceptance testing of new and key enhanced datasets that are or may become core to data requests fulfilled by the Unit.
- Participate, initiate and lead projects and data working groups that improve the availability, access and quality of data.

#### **5. Collaborate with peers and internal subject matter resources (SMR) and mentor junior team members**

- Share knowledge and experience with team members and other colleagues in the Department.
- Coach and mentor junior team members on database structure and data processing techniques to complete team work effectively.
- Engage virtual teams and collaborate with internal SMRs to fulfill data access requests; and lead or participate on project teams to define and test data access enhancements.

### **Problem Solving**

Typical problems solved:

Data issues found during projects (e.g., missing data, changes to data collected over time)

Differences in methodology between analysts, teams, etc.

Ability to identify and productively resolve conflicting needs and priorities.

Exercising good judgement and strong interpersonal skills to coordinate projects and interests and goals of the branch to stakeholders.

Types of guidance available for problem solving:

The analyst is expected to research and work through problems independently and within their network.

Additionally, the analyst can seek guidance from:

- Internal GoA policies, guidelines, and procedures;
- Other analysts within the branch, division, ministry, and across the GoA;
- Subject matter experts, within the branch, division, and across GoA; and
- Manager, Customer Relationship Management and Data Access.
- Director, Customer Relationship Management and Data Access.

Direct or indirect impacts of decisions:

- Data access and disclosure practices are consistent and comply with policies, standards and legislative requirements.
- program areas and external stakeholders can leverage data to inform policy/decision making to assist with the benefiting the delivery of care to Albertans.
- data is used ethically and privacy is protected; and
- leadership is provided with strategic, timely advice and recommendations.

### **Key Relationships**

Major stakeholders and purpose of interactions:

Internal - Provide advice/share experiences and information

Subunit Team Members - Provide advice/share experiences and information

Manager, Data Access - Provide advice/share experiences and results

Branch Staff - Provide advice/share experiences and results

Branch Managers - Provide advice/share experiences and results

Director - Provide advice/share experiences and results  
 Executive Director - Provide advice/share experiences and results  
 Other Department Management and Staff - Project participation/issues advice/gaining access to expertise in other areas  
 External - Develop working relationships, seek knowledge, and participate in an advisory and consultative capacity.  
 Health System Stakeholders  
 Contractors and Consultants  
 Alberta Cross Government  
 Other Health Jurisdictions

### Required Education, Experience and Technical Competencies

Education Level	Focus/Major	2nd Major/Minor if applicable	Designation
Bachelor's Degree (4 year)	Other	Science	

If other, specify:

Epidemiology, biostatistics, health informatics, health sciences, medical humanities, public health

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

- Solid skills in a range of computer software:
  - Must have SAS (Statistical Analysis System) (Classic or Enterprise Guide)
  - Must have SQL (Structured Query Language)
  - Microsoft Excel
  - Statistical packages (SAS, SPSS - Statistical Package for the Social Sciences, RStudio, Posit workbench)
  - Graphic packages (Power Point)
  - Git tools like Bitbucket
  - GIS packages (Geographic Information System - Map Info)
- Well-developed communication, presentation, teaching and coaching skills.
- Ability to coordinate and manage large diverse projects.
- Strong organization skills to meet the deadline and challenges of this position.
- Ability to work independently or as part of a team.
- Ability to effectively manage internal and external data resources to achieve project goal.
- Prior public health research experience is preferred.

### 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Engages the community and resources at hand to address issues: <ul style="list-style-type: none"> <li>• Engages perspective to seek root causes</li> <li>• Finds ways to improve complex systems</li> <li>• Employs resources from other areas to solve problems</li> <li>• Engages others and encourages debate and idea generation to solve problems while addressing risks</li> </ul>	This position requires problem-solving skills and the ability to develop innovative solutions related to understanding health data, methodology, and creating high-quality products.  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.
Drive for Results	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Works to exceed goals and partner with others to achieve objectives:	Due to the high workload and demand the person must be able to monitor

		<ul style="list-style-type: none"> <li>• Plans based on past experience</li> <li>• Holds self and others responsible for results</li> <li>• Partners with groups to achieve outcomes</li> <li>• Aims to exceed expectations</li> </ul>	<p>their performance to ensure they are on track to generate the results required.</p> <p>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.</p>
Agility	○ ○ ● ○ ○	<p>Identifies and manages required change and the associated risks:</p> <ul style="list-style-type: none"> <li>• Identifies alternative approaches and supports others to do the same</li> <li>• Proactively explains impact of changes</li> <li>• Anticipates and mitigates emotions of others</li> <li>• Anticipates obstacles and stays focused on goals</li> <li>• Makes decisions and takes action in uncertain situations and creates a backup plan</li> </ul>	<p>Priorities can change depending on the current situation and this person may be required to quickly shift their priorities and adapt to the current situation.</p> <p>Be able to identify ways to better complete tasks given shifting and changing priorities</p>
Build Collaborative Environments	○ ○ ○ ● ○	<p>Involves a wide group of stakeholders when working on outcomes:</p> <ul style="list-style-type: none"> <li>• Involves stakeholders and shares resources</li> <li>• Positively resolves conflict through coaching and facilitated discussion</li> <li>• Uses enthusiasm to motivate and guide others</li> <li>• Acknowledges and works with diverse perspectives for achieving outcomes</li> </ul>	<p>Numerous stakeholders are generally required to collaborate on a range of tasks. Coordination is generally required within PPHS and between Health Shared Services, academic institutions, and external stakeholders.</p> <p>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</p>