

Job Description

Job Title:	ITC Senior Data Analyst
Department:	Psychology
Reports To:	Director, DMC and ITC Administrative Manager
Jobs Reporting:	N/A
Salary Grade:	USG 10
Effective Date:	February 2019

Primary Purpose

The Senior Data Analyst works closely with other Data Analysts, the Director (Dr. Mary Thompson) and Associate Director (Dr. Christian Boudreau) of the DMC, Research Scientists, Research Associates, Senior Managers, and Investigators to ensure the timely and accurate collection, organization, documentation, analysis, and release of data for the International Tobacco Control Policy Evaluation Project (ITC Project), and provide support for creation of documentation related to that data.

Key Accountabilities

Data Analysis

In consultation with the DMC Director and Associate Director, ITC Data Analysts, the ITC Knowledge Translation Manager, the ITC Research Scientist and Research Associates, and the ITC Principal Investigator, provide data analysis for the ITC project including the following support:

- Analyze survey data using a range of data analysis techniques including multivariate analyses.
- Interpret and summarize data for statistical and analytical reports.
- Work proficiently in SAS and R, and be familiar with additional statistical software
- Plan and conduct relevant analyses involving sophisticated statistical methods (e.g., multilevel modeling, longitudinal analysis, analysis with multiple measures and clustered data)
- Use various statistical packages (e.g., SAS, STATA, SPSS) to meet the needs of the analysis and stakeholders.
- Understand and implement new methods for analysis of longitudinal data.
- Develop and implement standard operating procedures to create, organize, store, document, extract/export, convert, merge and manipulate large and small data files.
- Identify, investigate and resolve data anomalies and discrepancies.
- Lead the analyses of data from several large and small projects involving various combinations of Investigators and staff.

Knowledge Translation

In consultation with the DMC Director and Associate Director, ITC Data Analysts, Principal Investigator, ITC Knowledge Translation Manager, and ITC Research Scientist, provide the following knowledge translation support:

- Facilitate the dissemination of research and findings by making presentation and scientific meetings (national/international), contributing to scientific papers, and writing technical reports.
- Assume responsibility for the results published in peer-reviewed journals including accuracy of published data and assurance of scientific integrity.

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- Make original contributions to research papers and reports both in the area of population health and in the development of analytical methods.
- Contribute as author to scientific papers.
- Write documentation reports to accompany the release of large datasets, including microdata user guides, public use microdata files, and data codebooks.

Project Consultation and Design

- Provide consultation for staff and investigators regarding study design, data management, analysis, and reporting.
- Take the lead using statistical methods to design multi-centre studies involving complex survey designs (e.g. multi-stage) and/or longitudinal designs in natural experiments.
- Contribute to overall planning and coordination of ITC projects.
- Use statistical methods to contribute to study design using complex survey methods and/or longitudinal data across a variety of study types (randomized trials, natural experiments, etc.)
- Prepare reports for Investigators, staff, data users, and internal and stakeholders and funders.

Teamwork

- Initiate and maintain working relationships with technical and scientific personnel from external agencies.
- Function as an integral part of project teams.
- Utilize excellent written and verbal communication skills for interacting with staff, investigators, and external stakeholders.
- Provide guidance and direction to project managers, new analysts, and students as needed.
- Take responsibility for accuracy of datasets and results.

Required Qualifications

Education

- Master's Degree in statistics, biostatistics, mathematics, computer science or a math-related discipline; or equivalent education plus experience is required.

Experience

- 5 years of experience and expertise with complex statistical methods and scientific theories and principles.
- Experience or familiarity with health behaviour or social science research designs and methods of data analysis preferred.
- Demonstrated ability to acquire and use new technologies and techniques.
- Demonstrated proficiency in managing competing priorities and time demands from multiple sources.
- Ability to prioritize and respond to ad hoc and routine data inquiries.
- Ability to independently plan and implement multivariate statistical analyses (e.g., logistic regression, multiple regression, factor analysis).
- Knowledge and experience with statistical analyses of cross sectional survey data. Knowledge and experience with longitudinal survey data is an asset.
- Knowledge and experience with SAS or R is required. Knowledge and experience with SAS preferred.
- Knowledge of other statistical packages (e.g., SPSS, S-Plus/R) is an asset.
- Familiarity with the use of Microsoft Access, Word, systems-query language (SQL) and data base programming is an asset.

Knowledge/Skills/Abilities

- Advanced knowledge of MS Office programs.

- Strong research skills, including an ability to think critically and analytically, to contribute to scientific papers, proposals for research funding, and to make presentations at scientific meetings.
- Solid, in-depth knowledge of methods for the design and analysis of data related to different types of population health research and evaluation studies.
- Experience or familiarity with health behaviour or social science research designs and methods of data analysis preferred.
- Ability to independently plan and implement multivariate statistical analyses (e.g., logistic regression, multiple regression, factor analysis).
- Knowledge and experience with statistical analyses of cross sectional survey data, is essential.
- Knowledge and experience with longitudinal survey data.
- Ability to take an active role in writing scholarly papers for submission to refereed journals.
- Ability to work on multiple projects either independently or under the direction of the PI's.
- Proven ability to work with data that is confidential in nature.
- Ability to multi-task and to work quickly and efficiently under pressure.
- Ability to stay focused on a task in a busy workplace.
- Ability to maintain a creative and positive approach to support under tight timelines.
- Excellent problem solving skills, resourcefulness.
- Excellent written and verbal communication.
- Proven ability to be meticulous, organized, and detail-oriented.

Nature and Scope

- **Contacts:** Internally, communicates with all data management and ITC project team members in all groups and departments, to provide consultation, guidance, and results of data analysis for research initiatives.
- **Level of Responsibility:** The position is responsible for developing, maintaining, and ensuring the accuracy and integrity of ITC data. Also responsible for the results published in peer-reviewed journals including accuracy of published data and assurance of scientific integrity.
- **Decision-Making Authority:** Responsible for consulting with ITC Data Management leadership and ITC Principal Investigator to determine best approaches to data analysis and to provide insight and guidance to all project team members.
- **Physical and Sensory Demands:** Minimal demands typical of a data analyst operating within a team-oriented and multi-project office environment. Time spent at an ergonomically appropriate work station with suitable computer equipment and accessories. There are deadline pressures and demand for thoroughness and accuracy. Extended hours are occasionally required.
- **Working Environment:** Minimal exposure to disagreeable conditions typical of a data analyst position. Position has leadership support for prioritization of workload within multiple projects. There are frequent opportunities for meetings and interaction with co-workers.