

St. Michael's

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Data Science Specialist - Epidemiologist

Competition #:817712
Job Title:Data Science Specialist C-UHS
Job Category:Research
New Work Type:Full-Time Temporary
Positions Available:1
Union Affiliation:NU
Posted Date:24/01/18
Closing date:14/02/18
Salary Range:\$34.60 - \$43.25 per hour
Length of Temporary Assignment:1 year
FTE Assignment (Cas=0.000001):1.0

Please apply directly at:

<http://www.recruitingsite.com/csbsites/stmichaels/JobDescription.asp?CategoryCode=14444&JobNumber=817712&JobTitle=DataScienceSpecialistCUHS>

Our research lab in Mathematical Modeling for Program Science at the Centre for Urban Health Solutions, St. Michael's Hospital is looking for a **Data Scientist - Epidemiologist**. Our lab develops data-driven mathematical models as experimental frameworks for the strategic design, implementation, monitoring, and evaluation of public health programs to control HIV/STI epidemics. We generate new, actionable knowledge in the service of HIV/STI prevention and care at a population-level. The research program is led by Dr. Sharmistha Mishra, in close collaboration with the HIV Clinical Prevention Unit and the Centre for excellence in Economic Analysis (CLEAR) at St. Michael's Hospital, and with investigators, community-based organizations, and public health programs across Canada and in the following countries: India, Kenya, Sierra Leone, Ukraine, and more recently – South Africa. We collaborate with investigators in Canada (in particular, the Center for Global Public Health, University of Manitoba); United States (Key Populations Program, Center for Public Health and Human Rights, Johns Hopkins University); and United Kingdom (Imperial College and Bristol University). Our lab members and collaborators are passionate about making a difference with their unique skills and perspectives within a diverse team, and are working together on what they love to do.

We are recruiting a motivated **epidemiologist, public health scientist, or data scientist** with exceptional analytic, scientific writing, and organizational skills to be part of a growing team of mathematical modelers, statisticians, epidemiologists, and students who are working together to create knowledge that facilitates public health decision-making. The position involves working in collaboration with communities and persons with lived experience, such as persons living with HIV; and with investigators, public health teams, and community members in low and middle-income countries and across socio-cultural contexts. The incumbent must be flexible to work beyond the job description at times as work demands. The position will involve some short-term travel to low and middle-income countries (LMIC) where our wider team of collaborators and knowledge-users are based - for activities directly related to projects and for local capacity-building.

Duties and Responsibilities:

- Statistical analyses and data visualization
- Systematic or comprehensive literature review and meta-analyses or synthesis of parameter inputs for mathematical models of HIV/STI transmission, including generating probability distributions

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- Design, develop, and manage datasets of parameters and probability distributions for mathematical models of HIV/STI transmission
- Design, conduct, and interpret observational epidemiology projects including nested case-control, cohort, and cross-sectional studies from retrospective study, programmatic, or administrative data; including proposing and executing a statistical analysis plan
- Design study tools for bio-behavioral surveys related to sexual health, and clinical case-report forms
- Prepare findings for publications, presentations, or reports (tailored to different audiences)
- Manuscript writing and editing for peer-reviewed publications as well as scientific and stakeholder presentations
- Facilitate and provide mentorship during manuscript writing and analyses workshops and other research capacity-building activities in LMIC
- Develop research proposals and protocols
- Effectively manage projects and organize competing priorities in order to deliver projects within established time frames
- Chair research meetings (in-person or virtual)
- Support research processes (e.g., grant submission, research ethics review, subcontracts)
- Prepare tables, figures, maps, and reports for end-users, including clinicians, researchers, community-based organizations, public health decision-makers
- Produce high quality ad hoc and standard reports customized per study
- Train and supervise students and data entry clerks, ensuring data quality and reproducibility of analytics
- Communicate and liaise with research, policy, program, and community partners

Qualifications:

- A Master's degree in Epidemiology, Health Economics, Public Health, Health Promotion, Social Work, Sociology, and/or related discipline
- Minimum 2-5 years' relevant experience in research
- Must have excellent scientific writing and editing skills
- Strong analytical skills and an aptitude for accuracy, detail and problem-solving, with minimum 3 years experience in data management and statistical analysis
- Must be proficient in the use of at least one statistical software program (R preferred; Stata, SAS, SPSS, etc. accepted)
- Prior experience in designing study tools, cleaning raw data, exploratory data analyses
- Experience in HIV/STI research is preferred
- Collaboration in, or experience working with, mathematical modeling studies (especially infectious disease transmission models, including HIV/STI transmission models) - preferred
- Fully proficient in MS Office software (Word, Excel, PowerPoint, Outlook, Internet Explorer, etc.), and reference manager software (Mendeley, Endnote, etc.)
- Peer-reviewed publications and/or reports to policy-makers, non-governmental agencies, etc. where the candidate contributed to >75% of the writing as first author or co-author (submitted publications acceptable)
- Previous experience in protocol development, grant writing, and making presentations to scientific audiences, preferred
- Demonstrated experience in grey literature search, and systematic reviews and meta-analyses, preferred
- Experience with multiple study design formats including cross-sectional surveys, cohort studies, case-control studies, and demonstrated understanding of various sources of biases in data
- Demonstrated understanding of various complex survey sampling strategies (including respondent-driven and cluster sampling) is an asset

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- Data and project management and/or monitoring experience is an asset
- Excellent verbal communication skills – especially in communicating complex analytics to a variety of stakeholders
- Excellent written communication / documentation of code (analyses)
- An aptitude for accuracy, reproducibility, details and problem-solving
- Demonstrated ability to work both independently and as part of a team in a highly collaborative and interdisciplinary research environment
- Short-term (average 1-4 week) travel to study-sites outside Canada for fieldwork and to support data-collection

Other Skills:

- Work collaboratively with internal team members (including students), external stakeholders, and with persons with lived experience and communities affected by HIV/STIs and other infectious diseases
- Motivated, self-starting, with strong time management and project coordination skills
- Ability to understand and interpret complex study analysis plans
- Enthusiasm for self-directed learning and to adapt new analytic approaches relevant to research questions
- Ability to multi-task, work accurately and effectively under pressure, meet deadlines, and remain composed in high-pressure situations
- Experience working or volunteering in low and middle-income countries (preferred)
- Flexible to work beyond the job description at times as work demands
- Excellent decision making and problem solving skills
- Superior organizational and time management skills to manage and prioritize workload

Relevant SMH/LKSKI Websites:

- C-UHS: <http://stmichaelshospitalresearch.ca/research-programs/urban-health-solutions/>
- Sharmistha Mishra: <http://stmichaelshospitalresearch.ca/researchers/sharmistha-mishra/>
- CLEAR: <http://www.hubresearch.ca/>
- HIV Clinical Prevention Unit: <http://stmichaelshospitalresearch.ca/researchers/darrell-tan/>