

Making the Shift: A Youth Homelessness Social Innovation Lab

Canadian Observatory on Homelessness

Biostatistician

Job Title: BioStatistician, Making the Shift Youth Homelessness Demonstration Projects, Canadian Observatory on Homelessness

Salary: \$75,000 - \$80,000 plus benefits and 3 weeks' vacation (in addition to 2 weeks over the winter break). Comprehensive benefits package included.

Deadline to apply: 1 May 2023

Start Date: ASAP

The Organization:

The Canadian Observatory on Homelessness (COH) is a non-partisan research and policy partnership between academics, policy and decision makers, service providers, and people with lived experience of homelessness. Led by Stephen Gaetz, President & CEO, the COH works in collaboration with partners to conduct and mobilize research designed to have an impact on solutions to homelessness. The COH evolved out of a 2008 Social Sciences and Humanities Research Council funded project called the Canadian Homelessness Research Network and is housed at York University.

In an effort to bridge the gap between research, policy, and practice, the COH goes beyond the mandate of a traditional research institute. As one of the largest homelessness-dedicated research institutes in the world, we support service providers, policy makers, and governments to improve their capacity to end homelessness. Our philosophy is simple: through research, evaluation and design, we can develop evidence-based solutions, and together, solve homelessness.

The **Biostatistician** will support the COH research agenda. This will include participating in the work of the **Making the Shift Youth Homelessness Social Innovation Lab (MtS),** which is a partnership between A Way Home Canada (AWHC) and the Canadian Observatory on Homelessness (COH) housed at York University. MtS' mandate is to contribute to the transformation of how we respond to youth homelessness through research and knowledge mobilization specific to youth homelessness prevention and housing stabilization.

As part of our work, we have implemented <u>Demonstration Projects</u> on interventions including Housing First for Youth (using a Randomized-Controlled Trial), Youth Reconnect, Enhancing Family and Natural Supports, and the Upstream Project in communities across Canada. To test the different interventions, we are conducting outcomes and process evaluation of all the projects with a focus on mixed methods approaches. This includes longitudinal quantitative and qualitative data collection, as well as reviews of program fidelity. The project is intended to help build an evidence base for youth homelessness prevention in Canada and to inform work on youth homelessness internationally.



At the Canadian Observatory on Homelessness (COH), we believe anti-racism and anti-oppression must be at the center of our work. Indigenous, Black, and racialized communities are disproportionately represented among people experiencing homelessness as a result of social, political, and economic inequities that create pathways to homelessness, and mainstream systems that keep these communities on the margins. Therefore, to address homelessness, we need to speak to the root of racial disparities, proactively engage in courageous conversations about power, privilege, and whiteness (including white supremacy and fragility); and follow through with meaningful action.

Job Details

To fill an immediate core quantitative need in our team, we are currently looking for an experienced Biostatsitican with expertise in clinical studies, epidemiology, public health, or allied fields to be able to take on the data analysis tasks related to a Randomized Controlled Trial (RCT) of Housing First for Youth (HF4Y) study being underway in Toronto and Ottawa. The data analysis tasks include:

- Conducting appropriate statistical analyses (e.g., a mixed-effects modeling for repeated measures) to detect statistically significant differences between the intervention group and the control group across various outcomes areas and subdomains.
- Assessing how the drop-out rates, missed intervals, and non-compliance between the intervention group and the control group could affect the outcomes.
- Addressing inconsistent data collection time points (e.g., some participants may have completed the 12-month survey battery at 15-month).
- Handling missing data at different levels (e.g., missed intervals, missed measures, missed items) using imputation methods due to loss to follow-up, withdrawal, missed interviews, non-response on specific subscale items, etc.

The successful candidate will work with a team of researchers, while playing a key role in planning, designing, and implementing research studies, and in processing and analyzing clinical and self-reported data that are being collected for analysis and evaluation purposes. The Biostatistician will report to the Managing Director of Research, DEMs, and be expected to work collaboratively with practicum students, trainees, and staff members from the COH and AWHC in the analyses of varied projects.

Major Duties

- Provide statistical expertise and take on all aspects of the data analysis and evaluation of the HF4Y RCT study including those as outlined above.
- Conduct statistical analyses and prepare outputs for review including graphs, tables, and interpretation for a broader audience.
- Ensure accuracy and validity of all statistical approaches, methods, and interpretations associated with publications emanating from the HF4Y body of work.
- Support the writing and development of publications related to HF4Y, particularly in terms of quantitative and statistical methods and approaches.
- Create, process, and maintain a database for all HF4Y evaluation data files, datasets, and data protocols.
- Provide training in statistical methods and analyses for the research staff.



Other Duties

- Contribute to the methodological development of grant applications, RFPs, peer-reviewed manuscripts, public-facing reports, and academic and professional presentations.
- Support the development, implementation, and evaluation of clinical and longitudinal research studies, including Randomized Controlled Trials (RCTs) across MtS DEMs.
- Collaborate with a variety of stakeholders including data scientists, senior researchers, and principal investigators to identify data challenges and propose useful and practical statistical solutions.
- Collaborate with partner agencies in planning, design, implementation, and evaluation of communitybased, clinical, and longitudinal studies.
- Support the COH's senior leadership and research team in considering the most effective approaches to designing administrative data collection and management systems within the homelessness sector in ways that will support application of preventive interventions.
- Keep abreast of the latest developments and issues related to statistical approaches to clinical, RCT, and longitudinal studies.
- Providing training for colleagues and students on quantitative data analysis and techniques
- Carry out other responsibilities as assigned by and agreed with the Managing Director of Research, DEMs and/or the Executive Vice President.

Qualifications

- Master's degree in Biostatistics or Statistics is required. Holding a PhD will be an asset/is preferred.
- At least 3+ years of experience in clinical research studies, RCTs, longitudinal studies related to public health or related fields, preferably in an academic or NGO environment.
- Knowledge of qualitative research methodologies will be an asset.
- Knowledge of homelessness and social justice issues will be an asset.
- Prior experience in the healthcare field in clinical and applied research is an asset.

Required Skills and Competencies

- Strong and working knowledge of statistical concepts and techniques as related to RCT and longitudinal studies such as mixed models for repeated measures, generalized estimating equations models, etc.
- Strong and working knowledge of statistical methods addressing missing data in RCT and longitudinal studies such as multiple imputation with chained equations.
- Demonstrated ability to work with statistical programs is a must (e.g., SPSS, R, STATA, SAS).
- The ability to write code and work with statistical programming languages and computational methods.
- Strong statistical inference and interpretation skills with the ability to generate analytical reports.
- Proven ability to communicate statistical issues, results, and outputs clearly to a broader audience with little statistical background.
- Ability to prioritize and manage multiple projects with competing deadlines.
- Ability to work in a diverse team environment either, in-person or remotely.
- Excellent oral and written communication skills.
- Excellent organizational, planning, coordination and analytical skills.
- Fluency in English; Fluency in French is an asset.



Benefits & Perks:

- Competitive compensation package
- Generous vacation entitlement starting at 3 weeks (plus additional 2 weeks over Winter break)
- Flexible working hours; (all staff currently work from home)
- Growth and development opportunities
- Health benefits Medical, Dental & Vision
- Casual, diverse and inclusive work environment

Our Commitment to a Diverse Culture & Reconciliation

Authentic Reconciliation benefits everyone; we believe in a diverse, equitable and inclusive environment. We ensure equal opportunity for all applicants and encourage people of all visible minorities, including Indigenous applicants, and those of any religion, sex, age, ability, sexual orientation, gender identity or expression to apply for our job opportunities. **How to Apply:**

Your complete application package must include a cover letter and resume. **Please ensure that "Biostatistician" is quoted in the email subject line.** Submit your application by email to: Dr. Ahmad Bonakdar, Managing Director of Research, DEMS, <u>bonakdar@yorku.ca</u> at your earliest possible convenience. **Three references may be requested from candidates invited to the interview stage.**

We thank all applicants for their time and interest, but only those selected for an interview will be contacted.