

## S RTP - Project Description Form #232

### PART I:

**Name of Schulich faculty member who will supervise the project** Dr. Elisabeth (Lisette) Yorke

**Supervisor's Schulich, Western, Hospital or Lawson Email** lisette.yorke@lhsc.on.ca

**Schulich Department** Paediatrics

### PART II - Project Description

**Title of Project** Knowledge, Attitudes, and Practices of Adolescent and Young Adult Community Providers in HIV Pre-Exposure Prophylaxis (PrEP) Care

#### Background

HIV remains a significant concern to the Canadian paediatric medical community, as nearly a quarter of all HIV incidence annually is in youth ages 15-29. Effective prophylactic therapies like HIV pre-exposure prophylaxis (PrEP), specifically Tenofovir Disoproxil Fumarate/Emtricitabine, have demonstrated over 95% efficacy in reducing HIV risk in adults. The United States has expanded its use to include youths and in Canada, PrEP supported by open-label trials and used for pediatric HIV treatment.

In the United States, surveys reveal that while practitioners are generally aware of PrEP and willing to prescribe it, a fraction actually do, citing barriers like lack of experience, safety concerns, unclear guidelines, and costs. Youth-related concerns include legal issues regarding prescribing to minors without parental consent and youths' ability to comprehend treatment risks and benefits.

In Canada, a 2020 McMaster University survey of family physicians mirrored U.S. findings, with 90% awareness but only 27.5% prescription rates of PrEP for adults. Barriers included insufficient PrEP knowledge, adherence concerns, insurance coverage, and monitoring. However, this survey did not include providers caring for youth. Youth aged 15-29 in Canada are the fastest growing population for new HIV+ cases, and targeted interventions for increased prescription of HIV PrEP would greatly benefit this population and HIV rates in Canada. However, as previously stated, care providers tend to lack the understanding and comfort to both address sexual health for youth patients, and to prescribe and manage HIV PrEP.

To address this gap, a survey questionnaire has been developed for Canadian healthcare providers involved in youth care. Objectives include describing current PrEP attitudes and prescribing practices, capturing providers' perceptions of the need for HIV PrEP in adolescents, understanding their experiences with individuals seeking PrEP, and identifying barriers faced by adolescents and youth seeking PrEP.

#### Hypothesis

We hypothesize that healthcare providers' perceptions and practices related to HIV pre-exposure prophylaxis (PrEP) prescription for youth and adolescents in Canada are influenced by a complex interplay of factors, including their level of awareness and knowledge about PrEP, concerns regarding patient adherence and safety, insurance coverage considerations, the clarity of follow-up guidelines, as well as doctor-patient confidentiality with respect to youths and their parents/guardians. In the Canadian context, we hypothesize that providers will want more clarity on PrEP guidelines for adolescents in Indigenous communities. Additionally, we posit that providers who have prior experience prescribing PrEP for adults may exhibit a higher likelihood of prescribing to youth and adolescents. Understanding these factors will help in the development of the teaching module for providers, and identify any further intervention that could support increased HIV PrEP provision for eligible youth in Canada.

### **Proposed Methodology**

Via e-mail, providers will be given access to a secure, web-based application (REDCap) to participate in the survey. Potential participants will be identified through accessible databases of registered medical society members. All providers who care for youth in Canada will be eligible for inclusion. In order to reach as many eligible providers as possible, we will distribute the survey via several health professional organizations, including the Canadian Paediatric Society, the Ontario HIV Treatment Network (OHTN), the College of Family Physicians of Canada (CFPC), and the Canadian Association of Nurses in AIDS Care (CANAC).

Analyses will be performed using SPSS statistical software. Descriptive statistics including proportions and 95% confidence intervals will be calculated for all variables. Associations between potential predictors and dependent variables will be evaluated using Chi square and Fisher's exact tests.

In the second year of the project, a teaching module will be developed for the purposes of educating providers on HIV PrEP care. Qualitative methods will be employed, using semi-structured interviews (n=30) and a survey questionnaire. We will study the effects of the module on providers' knowledge, attitudes, and practices in prescribing HIV PrEP. Once more, analyses will be performed using SPSS. For the qualitative data, thematic analyses will be conducted, followed by interpretation and explanation of all findings.

### **Expected Outcomes**

Year 1:

- Complete mandatory research ethics board training
- Synthesize and update the literature review
- Collect qualitative and quantitative data, employing a survey to be disseminated to pediatricians (n=288) and family physicians (n=375)
- Compile and analyze the data
- Present findings in form of presentation and manuscript

Year 2:

- Present findings to CTN PrEP for youth working group and develop teaching module accordingly
- Study the effects of the module on provider knowledge, attitudes, and practices in regards to prescribing PrEP
- Improve the module according to feedback
- Disseminate results in form of presentation and manuscript

### **Research Environment - Description of the number of research personnel, primary location of research, size of lab, etc**

The project will be based out of Victoria Hospital & Children's Hospital, where Dr. Nancy Nashid and I (Dr. Lisette Yorke) practice. Dr. Nashid is a member of the CIHR Canadian HIV Trials Network (CTN) PrEP for youth working group and will work alongside Drs. Sean Leonard, Jason Brophy, and Darrell Tan, as well as the student, to plan and execute this project. The CTN is a Canada-wide research partnership committed to developing treatments, preventions, and a cure for HIV and related health conditions.

### **Names and titles of other individuals who will be involved with the research project?**

Dr. Lisette Yorke – Adolescent Medicine Physician at LHSC

Dr. Nancy Nashid – Paediatric Infectious Disease Physician at LHSC

Dr. Sean Leonard – Paediatrician working on research to publish national guidelines for HIV PrEP for adolescents and

young adults

Dr. Jason Brophy - Pediatric Infectious Disease Physician at University of Ottawa

Dr. Darrell Tan - Adult Infectious Disease Physician at University of Toronto

Raymond Tu - first year medical student at Schulich School of Medicine & Dentistry - Western University

**Can this project be done remotely?** Yes

**Duration of Project** Two Summers

**Expected Objectives/Accomplishments for Student for Year 1?**

Year 1:

- Complete mandatory research ethics board training
- Synthesize and update the literature review
- Collect qualitative and quantitative data, employing a survey to be disseminated to pediatricians (n=288) and family physicians (n=375)
- Compile and analyze the data
- Present findings in form of presentation and manuscript

**Expected Objectives/Accomplishments for Student for Year 2?**

Year 2:

- Present findings to CTN PrEP for youth working group and develop teaching module accordingly
- Study the effects of the module on provider knowledge, attitudes, and practices in regards to prescribing PrEP
- Improve the module according to feedback
- Disseminate results in form of presentation and manuscript

**PART III - Certifications**

**If the project will require any certification - Human Ethics approvals from one or more of the following offices, please check the appropriate box below.**

**Human Ethics: If you have the protocol information, please enter it below (or enter the status of the approval).** Ethics submission in progress

**Note: certification approval should be obtained prior to the start of the summer. Projects without this approval will not be a priority for funding.**