Application: Engage-MESH Study

Trevor Hart - trevor.hart@torontomu.ca
CTN+ Letter of Support Requests & Portfolio Study Submissions

Summary

ID: 0000000014
Status: In Review
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Labels: Fall 2025 Competition

Full Study Submission Form

Completed - Feb 26 2026

Full Study Submission Form

Please read the CTN+ Portfolio Study Submission and Review Process Guidance document prior to completing your submission.

If you have received a CTN+ Letter of Support and secured funding for your project, please use the form below to submit your study for full CTN+ support. Your application will be reviewed by the CTN+ review committee panel before receiving final adjudication at the next CTN+ Steering Committee meeting. In the case of incomplete information, you may be contacted by a CTN+ administrator with a request to provide additional details or documents.

If you have any questions or concerns about this process, please send an email to submissions@hivnet.ubc.ca.

Principal Applicant

First and Last Name

Trevor A. Hart

Email Address

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Institutional Affiliation

Toronto Metropolitan University

Is the Principal Applicant a CTN+ Researcher?

If you have not yet submitted the **CTN+ Researcher Application form**, please fill out the form via this link before submitting the Full Submission form.

Yes

Submitter

Leave blank if this form is being submitted by the Principal Applicant.

First and Last Name

Trevor A. Hart

Email Address

trevor.hart@torontomu.ca

Please upload the CTN+ Letter of Support you received for this project (if applicable).

Submission Details

Type of Submission

Re-Submission

Regional Team Affiliation

Responses Selected:

Quebec Region
Ontario Region
Prairies Region

Think Tank Affiliation

Responses Selected:

Prevention & Testing Think Tank

Study Details

Study Name

(Long and short versions)

Engage-MESH: Crystal Methamphetamine Use and Its Associations with Sexually Transmitted Infections Among GBM – Identifying Modifiable Treatment Targets

Study Hypothesis

(In one sentence)

We hypothesize that while 1) bacterial STI prevalence among GBM in Toronto will decline, 2) STI risk behaviours will increase, 3) overall PrEP uptake will increase and 4) crystal methamphetamine use will predict higher STI prevalence, psychiatric morbidity, and psychosocial vulnerabilities. See below for more details.

Lay Language Description

(300 words maximum)

Gay, bisexual, and other men who have sex with men (GBM) continue to be disproportionately affected by sexually transmitted infections (STIs), with increasing incidence of bacterial STIs. A related problem is the increasing crystal methamphetamine (CM) use among GBM. A robust body of literature supports an association between CM use with bacterial STIs. Among GBM, CM use and STIs are best understood as components of a syndemic, defined as multiple health conditions that cluster and worsen the health of a given population. Despite increasing bacterial STIs and CM use among GBM, little work has examined the modifiable mechanisms that could serve as intervention points in this syndemic for different types of CM use.

The goal of this multiphase biopsychosocial study is to examine CM use and bacterial STIs and promising interventions to intervene in the GBM CM use and STI syndemic. The first phase of the study will be a multi-city biobehavioural study, including both a survey and biomedical testing of bacterial STIs. This study will also identify different classes of CM using GBM. Secondly, qualitative interviews will be conducted with different types of CM using GBM to better understand their experiences of both CM use and bacterial STIs, to ask them about their health needs, and to learn which CM interventions would be most feasible and acceptable. Lastly, , we will ask expert panels to identify priority prevention and treatment interventions for GBM in each class. Upon completing this 3-phase study, we will work with our community partners to create or implement the most prioritized interventions to reduce CM use harms and bacterial STIs among GBM. Our team of GBM and CM use researchers brings together experts in large-scale, multicity data collection, CM and multi-substance use, STBBI prevention, and experts in community-based and clinic-based interventions for GBM. Our team is therefore well-placed to translate this study into future intervention research.

Number of Participants

(Total N, and N per Arm if applicable)

1640

Please list the participating sites.

(Use 1 row per Site. Leave any unused rows blank.)

	Investigator (total)	Institution	Target Enrolment
Site 1	17	Toronto Metropolitan University, University of Toronto, St. Michael's Hospital, University Health Network, Western University, University of Guelph, York University, McMaster University	720
Site 2	6	University of Quebec in Montreal, McGill University, Université de Sherbrooke	720
Site 3	3	University of Manitoba	200
Site 4			
Site 5			
Site 6			
Site 7			
Site 8			
Site 9			

Background Information and Study Rational

(500 words maximum)

Gay, bisexual, and other men who have sex with men (GBM) are disproportionately affected by sexually transmitted and blood-borne infections (STBBIs). In high-income countries, nearly universal increases in syphilis incidence among GBM have been observed. GBM accounted for 71% of male syphilis cases in Canada in 2020. Gonorrhea case rates have doubled among U.S. GBM between 2010 and 2015, and there has been a 242% increase in diagnoses among Canadian men in the general population from 2009 to 2018, with increasing rates of multidrug-resistant gonorrhea. In data from our study team, 11.4% of urban Canadian GBM had a recent diagnosed bacterial STBBI (syphilis, gonorrhea, or chlamydia). The PHAC-led Pan-Canadian STBBI Framework for Action suggests that to reverse these trends, more research examining drivers of bacterial STBBIs is needed among populations with high rates of STBBIs, such as GBM, including those who use substances.

Relatedly, crystal methamphetamine (CM) use has increased among both GBM and in the general population; however, the prevalence of CM use by GBM in Western countries is 20 times greater than the general population. We previously reported that, among urban Canadian GBM, 29.7% of GBM report CM use in the past 6 months. CM use may be increasing, as in the U.S., CM use has nearly doubled among GBM from 4.3% in 2011 to 9.5% in 2017. CM use patterns range from non-use to occasional use with no substance use-related symptoms, to severe CM use disorders. Although many GBM can and do use CMs safely, harms are greater with increasing use, including experiences of violence, unemployment, acute episodes of psychosis, physical health issues, and overdoses. Moreover, the association between CM use and bacterial STBBIs is robust and consistent across many studies, including previous work by our team. The term “syndemic” describes the interaction between 2 or more diseases or psychosocial problems, which synergistically contribute to the disease burden among marginalized populations. Among GBM, CM use and STBBIs form components of a syndemic, along with other mental health problems, including experiences of childhood sexual abuse, violence, depression, and anxiety.

This multiphase, sequential mixed-methods biopsychosocial study, called MESH (Men's Experiences of Substances and Sexual Health), aims to examine potential modifiable mechanisms that may explain different types of CM use and associated mental and sexual health outcomes among GBM. Despite increasing bacterial STBBIs and CM use among GBM, little past work has examined the modifiable mechanisms, such as attitudes, motivations, and behaviours, that could serve as points of future CM interventions. A secondary aim will be to get information to develop future CM interventions, including those that will prevent mental health and sexual health harms, including STTBIs.

Study Hypothesis and Design

(1000 words maximum)

This section must include:

1. the hypothesis;
2. the study design (methodology and statistical analysis, including the rationale for the sample size calculation);
3. the study population (including participant inclusion/exclusion criteria);
4. the specific study intervention details;
5. expected outcomes; and
6. expected results and implications for the field.

1. Study Hypotheses

- The point prevalence of syphilis, gonorrhea, and chlamydia among GBM in Toronto will decline between Engage Cohort Study (ECS, 2017–2019) and Engage-MESH (2024–2026).
- STI risk behaviours—including condomless anal intercourse and partner concurrency—will increase over the same period.
- Approximately 40% of GBM will report doxy-PEP/PrEP use; uptake will be associated with reduced condom use, more partners, but lower bacterial STI prevalence.
- HIV PrEP uptake among HIV-negative GBM will rise and be linked with greater STI risk behaviours.
- CM use will significantly predict bacterial STBBIs.
- Latent classes of CM use identified in ECS will differ in mental health and psychosocial correlates; new class structures in Engage-MESH will predict psychiatric disorders and modifiable psychosocial mechanisms.

2. Study Design

Engage-MESH is a multiphase, sequential mixed-methods observational cohort.

Phase 1: Quantitative cohort

- Biological testing: Participants will undergo comprehensive testing: venous blood for HIV, HBV, HCV, syphilis; urine, pharyngeal, and rectal swabs for gonorrhea and chlamydia (NAAT).
- CASI questionnaire: Participants will complete validated self-report measures on demographics, sexual behaviours, substance use, minority stress, mental health, and information–motivation–behavioural constructs.
- Diagnostic interviews: To strengthen psychiatric measurement, 15% (n=246) will complete the Diagnostic Assessment Research Tool (DART) for CM use disorder and other psychiatric diagnoses.

Statistical analysis:

- We will model prevalence and incidence using Generalized Estimating Equations (GEE) with a logit link, controlling for clustering due to RDS recruitment.
- Mediation models will be tested via Structural Equation Modeling (SEM), assessing pathways from CM use → psychosocial mechanisms → bacterial STIs.
- Latent Class Analysis (LCA) will replicate and extend ECS-defined CM use classes; multinomial logistic regression will test associations with demographic and psychosocial factors.
- Latent Transition Analysis (LTA) will assess class stability and transitions over time.

- Based on the previous Engage study, bacterial STI prevalence of 11.4% and 10% CM use at baseline, with 20% annual attrition, a sample size of N=1640 (Toronto = 720, Montreal = 720, and Winnipeg = 200) ensures >80% power to detect odds ratios ≥1.7 and adequately supports SEM (>500) and LCA/LTA (>300). Analyses will use STATA v18 and Mplus v8.10.

Phase 2: Qualitative interviews
≥20 participants per CM class will complete semi-structured interviews exploring:
- lived experiences of CM use and sexual health;
- discrimination (homophobia, racism, transphobia);
- motivations for substance use and sexual risk-taking;
- harm-reduction strategies and barriers to care;
- Negative and positive experiences with CM treatments and interventions.

Interviews will be transcribed, coded iteratively with community partners, and analyzed thematically using NVivo. Coding will follow Miles & Huberman's (2003) approach, ensuring triangulation and attention to convergence and divergence across CM classes.

Phase 3: Delphi studies
Two internet-based Delphi panels will gather consensus on priority interventions: (1) GBM community members; (2) healthcare providers. Each panel (n=30) will rate and rank interventions over three rounds. Consensus is defined as ≥60% agreement within two adjacent Likert points. Frequency counts and qualitative thematic analyses will supplement rankings, ensuring actionable results.

3. Study Population
Inclusion criteria:
- Identify as a man (cis or trans-masculine).
- Age ≥16.
- Sex with a man in the past 6 months.
- Resident of metropolitan Toronto or surrounding areas.
- Able to complete CASI in English and provide informed consent.

Recruitment:
We will employ respondent-driven sampling (RDS). Seed participants must be motivated to recruit, know ≥6 GBM (≥3 if age 16–18), and not have participated in Engage 1.0. A pre-screening tool will confirm eligibility and reduce fraudulent participation motivated by incentives.

4. Study Intervention
No experimental intervention will be delivered. Engage-MESH is an observational cohort, but findings will directly inform the design of future interventions to reduce CM-related and sexual health harms.

5. Expected Outcomes
- Bacterial STIs: Prevalence/incidence of gonorrhea, chlamydia, and syphilis; asymptomatic infection rates; doxy-PEP/PrEP uptake and effectiveness.
- HIV/HCV: Prevalence, viremia, treatment uptake, and awareness. Rapid point-of-care HIV testing will be offered, supplemented by RNA and resistance testing for positives.

- Risk behaviours: Condomless anal sex, partner concurrency, PrEP/PEP use, awareness of partners' viral load.
- Health service access: Utilization of STI testing/treatment, HPV/HepA/HepB vaccination, PrEP/PEP, anal cancer screening, mental health and substance use services.
- Substance use patterns: CM and polydrug use patterns via LCA/LTA, with psychosocial and psychiatric correlates.

Optional linkage to ICES health records will enable longitudinal outcome tracking beyond the study period.

6. Expected Results and Implications
- Scientific contribution: Engage-MESH will generate robust epidemiological data on the intersections of CM use, bacterial STIs, and mental health among GBM. It will clarify whether doxy-PEP and HIV PrEP are reshaping STI risk landscapes and provide the first Canadian estimates of psychiatric diagnoses associated with CM use classes.
- Intervention design: Mixed-methods findings will highlight modifiable mechanisms (e.g., motivations, coping strategies) and community- and provider-prioritized interventions. These insights will guide scalable harm-reduction, mental health, and sexual health interventions tailored to GBM subgroups.
- Policy and practice: By integrating clinical, community, and administrative health data, Engage-MESH will equip policymakers and public health agencies to refine guidelines on doxy-PEP, CM/stimulant use disorder treatment, and GBM-focused care pathways.

7. Prairie-Specific Leadership and Impact
Our study is being conducted in Winnipeg with the leadership of Dr. Rusty Souleymanov's Village Lab, in conjunction with their Community Advisory Board, Indigenous Elder, and Nine Circles Community Health Centre. Results will enable Prairie health systems to adapt harm-reduction and sexual health programming to CM realities, empower Indigenous and community-led responses, and guide clinical teams in integrating substance use, mental health, and STBBI care. In doing so, Engage-MESH will leave lasting capacity in the Prairie region beyond the study itself.

Please list any barriers/potential risks that may impede the study and include mitigation strategies.

(100 words maximum)

Potential risks include minor discomfort (e.g., bruising, fainting) during specimen collection, psychological distress from sensitive questions, discomfort approaching peers for recruitment, disclosure of illegal behaviours, and dual roles with staff. Risks will be mitigated by using experienced nurses following clinical standards; offering supine venipuncture, monitoring, and counselling; ensuring linkage to care and support for HIV/STI diagnoses; providing RDS training and ongoing support; engaging Community Engagement Committees with lived experience; securely separating identifying data from questionnaires; consulting legal/ethical guidance if disclosure is sought; and offering participants staff choice and reassurances about confidentiality and voluntary participation.

Estimated start date of recruitment/study start date

3/2025

Estimated final date of participant follow-up (if applicable)

3/2028

Estimated date of final study/project report

3/2030

Additional Documents

Please upload the Notice of Decision or Award Letter from your primary funding source.

Notice of Decision.pdf

Filename: Notice of Decision.pdf.pdf **Size:** 6.7 kB

Please upload the Reviewer Comments document related to the decision of funding (if applicable).

Reviewer Comments.pdf

Filename: Reviewer Comments.pdf.pdf **Size:** 9.4 MB

Please upload your Research Proposal document.

Research Proposal.pdf

Filename: Research Proposal.pdf.pdf **Size:** 848.2 kB

Please upload your Budget document.

Proposed budget.pdf

Filename: Proposed budget.pdf.pdf **Size:** 59.6 kB

Funding Source & CTN+ Service/Support Request

Confirmed funding source/agency/company name

The Canadian Institutes of Health Research

Is the study funded through a CIHR Project Grant?

Yes

If the study is *not* funded through a CIHR Project Grant, please list the type of grant or the type of agency/company support (e.g. Investigator-initiated grant in aid from a pharmaceutical company)

(If you responded "Yes" to the previous question, please leave this blank.)

(No response)

Please indicate which in-kind services you request from the CTN+ if your submission is approved.

You can find a full list of services on the resource page.

Responses Selected:

Basic Knowledge Mobilization services (plain language summary, recruitment materials, social media support)

Please indicate which of the following service support estimates you requested in your CTN+ Letter of Support to conduct your study.

You can find a full list of services on the resource page.

Responses Selected:

Database and/or Data Management

Statistical Analysis

Project Management for multi-center studies

Advanced Knowledge Mobilization support

Does your study include a Participant Informed Consent Form?

Yes (please attach the document via the upload function below)

Upload your Participant Informed Consent Form (if applicable)

Engage-MESH Consent Forms combined.pdf

Filename: Engage-MESH Consent Forms combined.pdf.pdf **Size:** 1.6 MB

Have you created a Community Engagement Plan?

Yes (please attach the document via the upload function below)

Upload your Community Engagement Plan (if applicable)

Community Engagement Plan.docx

Filename: Community Engagement Plan.docx.docx **Size:** 31.1 kB

Have you created an Indigenous Engagement Plan?

Yes (please attach the document via the upload function below)

Upload your Indigenous Engagement Plan (if applicable)

WorkingwithIndigenousPartners.docx

Filename: WorkingwithIndigenousPartners.docx.docx **Size:** 14.7 kB

Do you have a Knowledge Mobilization Plan for your study?

Yes (please attach the document via the upload function below)

Upload your Knowledge Mobilization Plan (if applicable)

Engage-MESH Knowledge Mobilization Plan.docx

Filename: Engage-MESH Knowledge Mobilization Plan.docx.docx **Size:** 29.8 kB

ENGAGE-MESH
TORONTO PARTICIPANT INFORMATION FORM

OFFICE USE ONLY

PARTICIPANT ID: _____ DATE: ____ / ____ / _____
DD MM YYYY

REFERRER ID: _____ ENTERED BY: _____ INITIALS: _____

The information you provide below will be entered into our password-protected, secure computer database immediately, and the original copy of this form will be kept in a locked file cabinet. Please let us know if you have any questions or concerns.

First Name: _____ Last Name: _____

Date of Birth: _____ / _____ / _____ OHIP Number: ___ ___ ___ ___ – ___ ___ ___ – ___ ___ ___ – ___ ___
Day Month Year VERSION CODE

Phone Number (Primary): _____ Phone Number (Secondary): _____

Email Address: _____

Home Address: _____
_____

WE MAINTAIN THE UTMOST DISCRETION IF WE NEED TO CONTACT YOU.
We may need to contact you to inform you about any incentive waiting for you, check in on how referring people to the study is going, and let you know about STI test results.

Can we contact you by	Yes	No	Preferred contact method (only choose ONE)
Phone	☐	☐	☐
Leave Voicemail	☐	☐	
E-Mail	☐	☐	☐
Text message/SMS/iMessage	☐	☐	☐

Note that we are legally required to notify you of any positive test results by phone or in person.

If you answered "Yes" to "leave a voicemail," can we say we're calling from the "Engage-MESH Study"? ☐ Yes ☐ No

If you answered "No" to the previous question, how would you like us to contact you regarding the study?

_____

Are there any specific confidentiality issues that you would like us to keep in mind when contacting you? (e.g., "My roommate doesn't know that I'm gay")

_____

Would you like to be notified of negative test results by email? ☐ Yes ☐ No

CONFIDENTIALITY

The Engage-MESH study has been granted ethics approval by the Research Ethics Boards of Toronto Metropolitan University (2024-211), the University of Toronto, and St. Michael's Hospital in Toronto. For a full list of ethics approvals, please visit engage-men.ca.

We will ensure that your confidentiality and privacy are protected to the strictest extent required by law.

You are being invited to participate in a study for Engage-MESH. Please read this consent form, and before you consent to participate, please ask any questions to be sure you understand what your participation will involve.

Engage-MESH Study Participation Consent Form

We invite you to participate in our study examining the sexual health of gay, bisexual, and other men who have sex with men (GBM), which we will refer to as the Engage-MESH Study. Please take the time to read this letter of information and consent form before participating.

TITLE

Engage-MESH: Gay, Bisexual, and Queer Men's Experiences of Substances and Sexual Health

STUDY TEAM INFORMATION

Principal Investigators at the Toronto Study Site

Name	Title	Department	Contact Information
Dr. Trevor Hart	Professor	Department of Psychology, Toronto Metropolitan University	trevor.hart@torontomu.ca
Dr. Ann Burchell	Associate Professor	Dalla Lana School of Public Health, University of Toronto	ann.Burchell@unityhealth.to
Dr. Darrell Tan (only for baseline visit)	Associate Professor	Department of Medicine, University of Toronto	darrell.Tan@unityhealth.to
Dr. Daniel Grace (only for baseline visit)	Associate Professor	Dalla Lana School of Public Health, University of Toronto	daniel.grace@utoronto.ca
Jody Jollimore (only for baseline visit)	Executive Director	Canadian AIDS Treatment Information Exchange	jjollimore@catie.ca

For a full list of investigators and collaborators at all study sites, please visit our website at https://www.engage-men.ca/our-team/.

FUNDING

This study is funded by the Canadian Institutes for Health Research (PJT-191887, PJT-186252)

If you have any questions or concerns about the research, please feel free to contact the Engage-MESH Toronto Research Coordinator by telephone at **416-979-5000 extension 552158** (follow operator's instructions) or by e-mail at mesh@torontomu.ca.

VOLUNTARY PARTICIPATION

Your participation in the study is completely up to you. If you choose to participate and later change your mind, you can simply stop participating in the study (i.e. "drop out") at any time without giving any reason for your decision. You can also decide that you no longer want us to use your data for the study (i.e. revoke or 'take back' your consent) at any time without giving any reason for your decision. Dropping out of any portion of the study or revoking your consent to use your data will not affect your relations with Toronto Metropolitan University, the research team, nor any collaborating institutes.

1) Dropping out of the study or revoking consent to use your data will not change the quality of care that you receive in any way, and if you have started participating at a study timepoint, you will still be offered the participant incentive even if you don't complete it.
2) If you drop out of the study either by closing your browser partway through the questionnaire, stop answering when we try to contact you etc., any information/data you have contributed to the study up to that point will still be kept and used to answer research questions.
3) If you decide that you no longer wish for your data to be used in research, please email the study team at mesh@torontomu.ca **with your participant ID** to revoke your consent and request that your data be removed from our database. By revoking your consent and requesting your data to be removed, we will delete your questionnaire responses/destroy any specimens we have on hand, and we will not use your data for future analyses after revoking consent. Please note, however, we won't be able to destroy info medical/treatment records in contradiction to regulatory/College standards, data that has already been published, data that has already been shared, and data that is being held externally (e.g., laboratory records of tests they have already performed). We will also retain your contact information; we will only give it to Environmental Health and Safety and/or external agents if required to by law (i.e., to public health officials if required for contact tracing).
4) You should not sign this form if the study staff has not answered your questions to your satisfaction.

If you wish to revoke your consent after data collection, the final date of withdrawal is five years after the end of the study data collection, which we anticipate will be September 1, 2035.

PURPOSE OF THIS RESEARCH

While diagnosis of HIV among gay, bisexual, and other men who have sex with men (GBM) in Canada have declined in recent years, GBM continue to experience the largest number of new HIV diagnoses in Canada among all populations at-risk. In addition, new diagnoses of bacterial STIs (e.g., syphilis, gonorrhea, and chlamydia) have been increasing in Canada over the past

decade, STI surveillance reports suggests that GBM accounted for 50 – 98% of new syphilis cases in British Columbia, with similar numbers in Ontario and Quebec.

Recently, the antibiotic doxycycline has been evaluated as pre-exposure (doxy-PrEP) or post-exposure prophylaxis (doxy-PEP) and has been shown to be 58 – 73% effective in reducing incidents of bacterial STIs among GBM.

In addition, recent research in our lab has shown that while substance use, such as crystal methamphetamine, may be associated with increased incidence of bacterial STIs, not all GBM who use crystal methamphetamine experience the same issues.

The goal of this study is twofold. First, we aim to investigate the social, psychological, and behavioral determinants of sexual health among GBM in Canada, focusing on STIs and uptake of doxycycline as pre-and-post exposure prophylaxis. Second, we are interested in examining the social, psychological, and behavioral determinants of substance use, particularly crystal methamphetamine, and factors associated with problematic and non-problematic use.

DESIGN OF THE STUDY

This study will enroll a target of 720 GBM in Toronto. Participants will also be recruited for related studies in Vancouver, Montreal, and Winnipeg so that results can be compared between major urban centers. Our recruiting strategy relies on participants recruiting other people they know. This sampling strategy, known as respondent-driven sampling, allows researchers to recruit large numbers of participants from smaller and hard-to-reach populations by tapping into the participant's social networks. In order to make accurate population-level estimates of things like STI incidence and PrEP uptake, the researchers will adjust estimates for social network size using both the voucher numbers and information provided in the survey. The researchers will not be able to identify participants with this information, as all identifiable information will remain separate and confidential.

Participants will be invited to repeat the study visit **every six months for a total of five visits**, with a subset of participants being invited to complete clinical diagnostic interview.

WHAT PARTICIPATION IN THIS STUDY MEANS

<u>You are being invited to take part in this research study because you:</u>

- identify as a man, including men who identify on the trans-masculine spectrum
- are 16 years of age or older
- have had sex (including oral sex) with another man in the previous six months
- live in the Greater Toronto Area
- are able to understand and answer a questionnaire written in English
- received a voucher to participate from a friend, sexual partner, acquaintance, or study staff person

People are not eligible to participate if they do not meet all 6 of the conditions above. Ineligible participants will not receive an incentive payment.

Participation in this longitudinal research study involves the following:

1. **At each study visit, you will complete a computer-based questionnaire taking around 80-110 minutes**. The questionnaire will ask you:
   - Demographic information such as your sexual orientation and gender identity, ethnicity, citizenship, relationship status, education, employment, income, and housing.
   - Questions on participation in various community activities; aspects of physical, sexual and mental health; activities with recent sexual partners; drug use; and experiences of discrimination and trauma.
   - Questions about your access to and use of health services; attitudes and beliefs regarding HIV risk; the sexual norms in your social circles; and how you feel about the risks and responsibilities concerning HIV and other sexually transmitted infections.
   - Questions about your sexual behaviour, mental health, physical health, financial well-being, and access and utilization of health services.
   - Should any questions cause you discomfort, you do not have to answer them. For this reason, we have included a "Prefer Not to Answer" option for most of the questions in the survey. However, there are a small number of questions about core aspects of our research, such as HIV status, that do not have this option. In addition, because the questionnaire is a critical part of the research, we ask that you please complete at least 90% of the questions asked in each section. For questions about difficult subjects, such as sexual/physical violence, childhood trauma, self-harm, and suicide, you will have the option to "Prefer Not to Answer" these questions.

2. **At each study visit, you will meet with a professional nurse employed by the study for about 50 minutes to provide samples for STI testing.** This will involve brief STI test counselling and then collection of the following samples:

   - **For HIV-negative participants:**
     - 2 small tubes of blood (5mL) to test for Syphilis infection, Hepatitis A immunity (if necessary), Hepatitis B immunity/infection (if necessary), Hepatitis C infection, and HIV infection.
     - Urine sample (20-30 mL) for Chlamydia and Gonorrhea testing.
     - One throat swab (collected by the nurse/staff or by yourself) and one rectal (ass) swab (collected by yourself) for Chlamydia and Gonorrhea testing via nucleic acid amplification (note: if culture testing is preferable, two swabs per site [one for Chlamydia and one for Gonorrhea] will be required).
     - You will also be offered an optional rapid Point-of-Care HIV test if you would like to receive your HIV test results right away.

- If your rapid test produces a reactive result, the nurse will draw up to <u>three additional tubes of blood</u> during the study visit or on another day to conduct HIV Viral Load testing (one 5mL tube, OR two 4mL tubes) and CD4 count testing (one 4mL tube), which help give a sense of the state of your HIV infection.
- If your blood work comes back positive for HIV infection, the nurse will draw an additional tube of blood (5mL) for HIV genotyping, which helps give a sense of the state of your HIV infection.
- If you previously had Hepatitis C, the nurse will draw an additional tube of blood (8mL) for Hepatitis C genotyping and viral load testing, which help give a sense of the state of your past or present Hepatitis C infection.

- **For HIV-positive participants:**
  - <u>2 small tubes of blood (5mL)</u> to test for Syphilis infection, Hepatitis A immunity (if necessary), Hepatitis B immunity/infection (if necessary), and Hepatitis C infection.
  - <u>Urine sample</u> (20-30 mL) for Chlamydia and Gonorrhea testing.
  - <u>One throat swab (collected by the nurse/staff or by yourself) and one rectal (ass) swab (collected by yourself)</u> for Chlamydia and Gonorrhea testing via nucleic acid amplification (note: if culture testing is preferable, two swabs per site [one for Chlamydia and one for Gonorrhea] will be required).
  - Allow us to contact your HIV care provider to ask for confirmation of your HIV status and your most recent HIV viral load **<u>OR</u>** allow the nurse to draw up to <u>two additional tubes of blood</u> during the study visit or on another day to conduct HIV serology and viral load testing (two 4mL tubes), which help give a sense of the state of your HIV infection.
  - If you previously had Hepatitis C, the nurse will draw an additional tube of blood (5mL) for Hepatitis C genotyping and viral load testing, which help give a sense of the state of your past or present Hepatitis C infection.

3. **After each study visit, your STI test results will be available within about one to two weeks.** The study nurse will contact you by phone or email to tell you your results. If any test results are positive, the study nurse will help identify a convenient clinic that you can go to for treatment. If you test positive for HIV, the study nurse will also provide a written referral to an HIV care specialist. If you need help accessing services, the nurse will work with you to connect you to support (e.g., accompaniment to a local sexual health clinic). If you wish, we can also have the study staff send your STI testing results to your primary care physician.

Clinical Diagnostic interview (2 hours): In addition to the online survey and nursing visit, some participants may be randomly invited to complete an additional clinical diagnostic interview via video call. In this interview, a clinical psychology graduate student or a clinical psychologist will administer an interview during which you will be asked about your mood, anxiety, and other

psychological symptoms. The purpose of the interview is to gather information about anxiety, mood, and other mental health concerns and to validate the larger questionnaire. If you are selected to complete this interview, you will have the opportunity to receive feedback from the assessor regarding your results.

POTENTIAL BENEFITS

There may be no direct benefit to you by participating in this study. However, you will receive standard-of-care screening for HIV and other STIs that are common among GBM. If you're HIV-negative or don't know your status, you will be offered a rapid HIV test with results available to you immediately. You will also receive standard HIV/STI test counselling at each visit from a trained study nurse, and responding to the questions on the behavioural questionnaire may increase your knowledge and allow you insight into your own behaviours, beliefs and feelings. Participants in similar studies have reported feeling satisfied for having contributed to HIV and sexual health research with GBM. Based on the information we will gather, we anticipate that the findings from this study will have benefits for GBM in Toronto and across Canada by producing further knowledge of the health of GBM.

POTENTIAL RISKS OR DISCOMFORTS

- If another person refers you to participate in this study, your participation might be known to the referrer, however this person will not know your responses to the survey, nor your lab test results.
- Some of the questions will be on topics related to sexuality, drug use, and trauma. It is possible that some of these topics might cause psychological discomfort if discussion of sexuality or drug use makes you uncomfortable. At the end of the survey, we will provide you with a debriefing form that contains a link to a comprehensive list of resources that may be of interest.
- Possible complications of drawing blood could include minor bruising, irritation, redness, minor bleeding and/or swelling where the blood is taken. A Research Nurse will be on site to monitor any issues.
- Some people may experience dizziness, nausea, or fainting in response to seeing blood or having blood taken. This reaction usually goes away within a few minutes. If you tell the nurse that you have had a reaction like this in the past, additional steps will be taken to ensure your comfort and safety (for example, blood can be taken while you lie on a cot), and you may be asked to stay for additional monitoring after your blood draw.
- You may experience slight, temporary discomfort during your throat or rectal swabs.
- If you don't know that you have a sexually transmitted infection and then test positive for one, then finding this out might cause emotional upset. You will be offered information about appropriate supports and the study nurse will refer you to care and treatment.

PUBLIC HEALTH PRECAUTIONS

In cases where this study involves in-person interactions, there is some risk that you may be infected with a communicable disease during study participation. We will take precautions in accordance with provincial, federal, Toronto Metropolitan University and other public health guidelines to minimize the risk of transmission of public health threats, such as COVID-19 and mpox. If you feel that you are from a vulnerable group with respect to COVID-19 effects (e.g., senior, immuno-compromised), please discuss your participation with the study staff before consenting. Because you are coming onto campus, Environmental Health and Safety guidelines must be followed, which may include:

- Screening – as per requirements for persons coming onto campus.
- Taking appropriate precautions (e.g., face covering / cloth mask) if taking public transportation and entering public indoor spaces.
- Washing your hands upon coming onto campus / entrance to building. Hand sanitizer will be made available to you.
- Physical distancing, and if not possible wear a face covering / cloth mask. Otherwise, we will provide you with PPE.
- Notifying us and/or your local public health unit if you experience symptoms or test positive for COVID-19 or mpox after visiting the lab.

There is a possibility that during your research activities you could come into contact with someone with COVID-19 or mpox. If this highly unlikely event were to occur, we may be required by the Ontario public health units to retain on file your email address or phone number to share with them for contact tracing purposes.

CONFIDENTIALITY, DATA SECURITY AND PRIVACY

Your confidentiality will be respected. Your personal information or information that could identify you will be protected as required by law.

Information Storage

The study site is located on Toronto Metropolitan University premises at 105 Bond St., Toronto. Signed consent forms and paper documents containing laboratory test results and related documents will be stored securely in locked filing cabinets. The filing cabinets are kept in a locked office at the study site. The electronic questionnaire data will be stored temporarily on the computer you use to fill out the questionnaire until the questionnaire is completed. Once the questionnaire is completed, the data will be encrypted and sent securely over a private network to a secure server. For the initial visit, this server is located at the BC Centre for Excellence in HIV/AIDS (BCCfE, which is our Vancouver site), in a highly secure area of the BCCfE that is accessible only to the authorized staff. Laboratory test results and relevant clinical information will also be entered into the secure server. Only the Toronto study coordinator, support staff, and research assistants will have access to the consent forms and other hardcopy documents (e.g., test results). Some hardcopy documents (i.e., test results) will also be reviewed by the study's medical monitor, and these will be couriered to and from him by hand/in person. For the

follow-up visit, this server is located at Toronto Metropolitan University, using the Database management software Qualtrics to store raw survey data and laboratory results (which only contain unique identifiers and not identifiable contact information) and the shared drive at Central File and Print Services (CFAPS). Participants' contact information and scheduling are kept separate from the survey and nursing data Database management software like Redcap and MS Access/Excel, also located at Toronto Metropolitan University. Data storage procedures and access to the information remain the same as the baseline visit.

Data from the clinical diagnostic interviews will initially be logged onto Qualtrics by a trained assessor. No personally identifiable information (e.g., name, birth date, contact information, demographic information) will be logged on Qualtrics, and then stored on secure, password-protected servers, at Toronto Metropolitan University.

Only members of the study team (Principal Investigators, Co-Investigators, their trainees, and statisticians) will have access to the electronic data. **No personally identifying information (like name, birth date, or contact information) will ever be associated with your questionnaire answers or clinical diagnostic interviews in our secure electronic data storage system**. Every study participant will have an assigned unique random number to link their questionnaire and lab results in the database. These numbers will be stored in a separate, password-protected database only accessible to study staff.

Information Retention Period

The Canadian Institutes for Health Research requires that data and consent forms be retained until the end of the 5th year of study completion. We estimate this date to be September 1, 2035. After this date, paper data, including physical consent forms and contact information. Electronic copies of survey responses will be retained after this date for the purpose of publication and verification of study results. Specimens taken for the purposes of STI testing are sent to provincial and community labs for processing and destroyed after testing.

Third-party software and confidentiality

Survey data is collected using an in-house survey software platform developed by the BCCfE and a survey software platform called Qualtrics. Data will be analyzed using the following statistical programs: SPSS, SAS, MPlus, and R. All these statistical programs function locally on the researcher's work station, and will access data securely through the BCCfE and Toronto Metropolitan University's servers. This data will not be accessible by these companies.

Clinical diagnostic interview data will initially be logged by assessors using the online survey platform Qualtrics, an online survey platform commonly used in the social sciences. Their data privacy and protection policy can be found below:

https://www.qualtrics.com/support/survey-platform/getting-started/data-protection-privacy/

While clinical diagnostic interview data will be collected on Qualtrics, clinical assessors will not log any personally identifiable information (e.g., name, birth date, contact information, demographic information), nor will Qualtrics have access to the survey data or STI lab testing results.

DATA AND HEALTH INFORMATION LINKAGES

Engage-MESH is a joint initiative of two larger national GBM health research projects, which draw on similar questionnaire and clinical data. These national studies are 1) Engage 2.0 (in Toronto, Vancouver, and Montreal), which will only use data from the baseline visit, and 2) MESH/MECS (in Toronto, Montreal and Winnipeg), which will use data from all study visits. As such, your questionnaire and clinical data will also be linked to data from the other study sites, and help contribute to a stronger understanding of GBM health across Canada. Since this information can be useful for other researchers working to improve GBM health in Canada, other researchers will be able to apply to use the data in their work. However, data will be shared only with those researchers who have approved proposals for how they will be using the data.

To process your laboratory tests, your first name, last name, date of birth and personal health (OHIP) number will be sent with any samples for laboratory testing by the Public Health Ontario Laboratory or a publicly funded commercial laboratory (e.g., LifeLabs). The information sent to the laboratories will be protected under the strictest provincial and federal privacy and confidentiality standards that apply to these health institutions.

You are **not required** to share your OHIP number to participate in the study. Test results linked to an Ontario personal health number (OHIP) will automatically be accessible to authorized healthcare providers in your 'circle of care' through the provincial electronic health system (eHealthOntario/OLIS) that provides a lifetime record of your health history. Authorized users of this system are held to strict privacy standards by Ontario Health. You can also control which provers have access to your information through eHealth Ontario. You can learn more about eHealth Ontario and how they protect your privacy at ehealthontario.on.ca or by calling the Ontario Health Privacy Office at 1-866-250-1554.

LEGALLY REQUIRED INFORMATION DISCLOSURES

Disclosure for health care purposes

HIV, Hepatitis A, Hepatitis B, Hepatitis C, Chlamydia, Gonorrhea, and Syphilis are mandated reportable diseases, which means that all new positive tests for these STIs will be automatically reported, by law, to Toronto Public Health or another relevant public health unit (e.g., Region of Peel). Toronto Public Health or another public health unit will communicate with the study nurse and the clinic you're referred to for treatment to ensure you receive treatment. The study nurse will also encourage you to contact recent sexual partners to advise them to get

tested and/or treated, and offer to help by contacting these sexual partners for you (without disclosing your identity), if this is of interest.

Our research project is subject to oversight and monitoring from our grant funders and ethics boards for quality assurance to make sure that the required laws and guidelines are followed. For this purpose, research records and health or other source records (which might include personal information) may be inspected in the presence of the Investigator or his or her designate by representatives of the Canadian Institutes of Health Research or the National Institutes of Health (affiliated with the study in Vancouver), and relevant University Research Ethics Boards (including the Toronto Metropolitan University Research Ethics Board).

Your personal information or information that could identify you will not otherwise be revealed without your express consent, unless required by legal authorities. The circumstances in which our staff may be required by legal authorities to breach your confidentiality are:

a) You intend to harm yourself
b) You intend to harm someone else
c) You inform us that a child is currently at risk for abuse or neglect
d) You report sexual abuse by a health care practitioner
e) Your records are subject to a subpoena by the courts
f) *Or*, to the extent required by the law

We believe that the questionnaire does **not** contain questions that could be used by legal authorities to criminalize your reported past behaviours, and as researchers, our team has an ethical duty to resist such disclosure attempts. In the unlikely event that we ever receive such a request we will week legal counsel and protect your information to the greatest extent possible.

Signing this consent form in no way limits your legal rights against the sponsors, investigators, or anyone else, and you do not release the study healthcare providers or participating institutions from their legal and professional responsibilities.

INCENTIVE

In order to recognize your valuable contribution to the study, you will be offered a $70 incentive for participation for each survey you participate in. In addition, you will be provided a limited number of vouchers to refer other participants to the study, and will receive $20 for each successful voucher (for the baseline only). Finally, if you are selected for a clinical diagnostic interview, you will be compensated an additional $60 for this interview. You can receive the incentive via either cash or Interac e-Transfer.

If you are traveling from a location outside a 10 km radius of the study office (South Bond Bldg, 105 Bond St, Toronto, ON M5B 1Y3), you are eligible for travel reimbursement, such as gas

mileage and the cost of travel via public transit or rideshare, for a maximum of $25. Receipts are required to be eligible for reimbursement.

CONTACT INFORMATION ABOUT THE STUDY

If you have any questions about the research now, please ask. If you have questions later about the research, you may contact the Engage-MESH Research Coordinator at 416-979-5000 extension 552158 (follow operator's instructions) or mesh@torontomu.ca.

This study has been reviewed by the Toronto Metropolitan University Research Ethics Board (REB # 2024-211), Dalhousie University (REB# 2024-7613), Louisiana State University in Shreveport, McMaster University, Simon Fraser University (REB# 30002998), St. Michael's Hospital (REB# 24-262), Université de Sherbrooke (N/Réf. 2024-737/Hart), University of Toronto (RIS# 48085), and York University (e2025-030). If you have questions regarding your rights as a participant in this study, please contact:

Research Ethics Board
c/o Office of the Vice President, Research and Innovation
Toronto Metropolitan University
350 Victoria Street
Toronto, ON M5B 2K3
416-979-5042
rebchair@torontomu.ca

DISSEMINATION OF RESEARCH RESULTS

Data and results from this study will be disseminated through various avenues including: (i) plain language (i.e., non-technical language) updates and reports, (ii) scientific conferences and articles in scientific journals and through various local community-based. In addition, data from this project may be used as part of undergraduate and graduate major research papers, theses, and dissertations.

No information that can identify an individual is ever used in these updates and reports or in presentations or articles.

CONSENTING TO PARTICIPATE IN "Engage-MESH"

PARTICIPANT CONSENT

My signature on this consent form means:

- I have read and understood the study information and consent form.
- I have had the opportunity to ask questions and have had satisfactory responses to my questions.
- I understand that my participation in this study is voluntary and that I am completely free to refuse to participate or to withdraw from this study at any time without this changing the quality of care that I will receive, and that if I withdraw from the study after I've started participating, I will still receive the participant incentive.
- I understand that I am not waiving any of my legal rights as a result of signing this consent form.
- I will receive a signed copy of this consent form for my own records if requested.
- I consent to participate in this study.

OPTIONAL CONSENT TO BE CONTACTED FOR FUTURE STUDIES

As a study participant, you have the option to be contacted for future studies covering similar research topics that you may be eligible for based on your demographic information, answers you self-reported, and/or your STI testing results (with additional incentives for participation). Would you like to be contacted for these studies?

- ❑ **YES,** I would like to be contacted about future related studies that I may be eligible for
- ❑ **NO,** I am not interested in being contacted about future related studies

OPTIONAL CONSENT FOR ADMINISTRATIVE DATA LINKAGE

With your consent, your questionnaire and STI testing information from the Engage-MESH can be linked to health-related data held by key health databases, including the Institute for Clinical Evaluative Sciences (ICES), Public Health Ontario (PHO), and the Canadian Institute for Health Information (CIHI). This may include information such as your CD4 count, viral load, and use of antiretroviral medications, laboratory and testing information for HIV and STIs, and physician and other health- and drug-related information.

We hope to use these data linkages to 1) understand your clinical and health service history further and 2) better answer our research questions about trends of bacterial STIs over the course of the study and its relationship with doxy prevention and crystal methamphetamine use.

For all optional data linkages, identifying information such as your name, date of birth and Personal Health Number will be used for matching purposes only. Once the matching has been completed, all identifying information will be discarded and only an alias (e.g. xb100000009) will be used. Any matched information will be protected under the strictest provincial and federal privacy and confidentiality standards that apply to these health institutions and destroyed after the matching process is complete. Since the study only collects and is interested in STI-related health data, we will not include whole genome sequencing or similar technologies that may pose a substantial risk of re-identification of the participant or identification of material incidental findings.

You **DO NOT** have to consent to data linkage to participate in this study.

- ❑ **YES,** I consent that the information found about me in the ICES, PHO, and CIHI will be combined with the information about me that I have given to the researcher(s) and that combined information will be used for purposes of this study
- ❑ **NO,** I do not consent

OPTIONAL CONSENT FOR STORING AND SHARING DATA IN AN ONLINE REPOSITORY

De-identified and anonymized data generated from the information you provide in this research may be stored and shared publicly as requested by journal open access policies and will be stored in repositories such as GitHub and the Open Science Framework to advance knowledge. Our team will remove or replace personal information that could identify you before the data are shared in an effort to ensure that no one will be able to identify you.

You do not have to consent to data storing and sharing to participate in this study.

- ❑ **YES,** I would like my data to be placed in an online repository where others are able to find it
- ❑ **YES,** I would like my data to be shared in an online repository where others are able to find it
- ❑ **NO,** I would not like data to be either placed or shared in an online repository.

Printed name of participant	Signature	Date
Printed name of Principal Investigator or Designate	Signature	Date

You are being invited to participate in a clinical diagnostic interview for the Engage-MESH study. Please read this consent form, and before you consent to participate, please ask any questions to be sure you understand what your participation will involve.

Engage-MESH Clinical Diagnostic Interview Participation Consent Form

TITLE

Engage-MESH: Gay, Bisexual, and Queer Men's Experiences of Substances and Sexual Health

STUDY TEAM INFORMATION

Supervisor and Health Information Custodian (HIC) of the Clinical Diagnostic Interview

Name	Title	Department	Contact Information
Dr. Trevor Hart	Professor	Department of Psychology, Toronto Metropolitan University	trevor.hart@torontomu.ca

Principal Investigators of Engage-MESH at the Toronto Study Site

Name	Title	Department	Contact Information
Dr. Trevor Hart	Professor	Department of Psychology, Toronto Metropolitan University	trevor.hart@torontomu.ca
Dr. Ann Burchell	Associate Professor	Dalla Lana School of Public Health, University of Toronto	ann.Burchell@unityhealth.to
Dr. Darrell Tan (only for baseline visit)	Associate Professor	Department of Medicine, University of Toronto	darrell.Tan@unityhealth.to
Dr. Daniel Grace (only for baseline visit)	Associate Professor	Dalla Lana School of Public Health, University of Toronto	daniel.grace@utoronto.ca
Jody Jollimore (only for baseline visit)	Executive Director	Canadian AIDS Treatment Information Exchange	jjollimore@catie.ca

For a full list of investigators and collaborators at all study sites, please visit our website at https://www.engage-men.ca/our-team/.

FUNDING

This study is funded by the Canadian Institutes for Health Research (PJT-191887, PJT-186252)

If you have any questions or concerns about the research, please feel free to contact the Engage-MESH Toronto Research Coordinator by telephone at **416-979-5000 extension 55-2158** (follow operator's instructions) or by e-mail at mesh@torontomu.ca.

INTRODUCTION

In addition to the online survey and nursing visit, you are one of the 108 participants who have been randomly invited to complete an additional clinical diagnostic interview via video call.

In this interview, a clinical psychology graduate student or a clinical psychologist will administer an interview using the **Diagnostic Assessment Research Tool (DART)**, during which you will be asked about your mood, anxiety, and other psychological symptoms. DART is an open-access, semi-structured diagnostic interview for assessing DSM-5 mental disorders, which was developed by psychologists at St. Joseph's Healthcare Hamilton who are also affiliated with the Department of Psychiatry & Behavioural Neurosciences at McMaster University.

The purpose of the interview is to gather information about anxiety, mood, and other mental health concerns and to validate the larger questionnaire. You will have the opportunity to receive feedback from the assessor regarding your results.

VOLUNTARY PARTICIPATION

Your participation in the study is completely up to you. If you choose to participate and later change your mind, you can simply stop participating in the study (i.e., "drop out") at any time without giving any reason for your decision. You can also decide that you no longer want us to use your data for the study (i.e., revoke or 'take back' your consent) at any time without giving any reason for your decision. Dropping out of any portion of the study or revoking your consent to use your data will not affect your relations with Toronto Metropolitan University, the research team, nor any collaborating institutes.

1. Dropping out of the study or revoking consent to use your data will not change the quality of care that you receive in any way, and if you have started participating at a study timepoint, you will still be offered the participant incentive even if you don't complete it.
2. If you drop out of the study either by closing your browser partway through the questionnaire, stop answering when we try to contact you etc., any information/data you have contributed to the study up to that point will still be kept and used to answer research questions.
3. If you decide that you no longer wish for your responses from the semi-structured interview to be used in research, please email the study team at mesh@torontomu.ca **with your participant ID** to revoke your consent and request that your data be removed from our database. By revoking your consent and requesting your data to be removed, we will delete your responses and assessor's notes from the semi-structured interview,

and we will not use your data for future analyses after revoking consent. Please note, however, we won't be able to destroy medical/treatment records in contradiction to regulatory/College standards. We will also retain your contact information; we will only give it to Environmental Health and Safety and/or external agents if required to by law (i.e., to public health officials if required for contact tracing).

4. <u>You should not sign this form if the study staff has not answered your questions to your satisfaction</u>.

If you wish to revoke your consent after data collection, the final date of withdrawal is five years after the end of the study data collection, which we anticipate will be September 1, 2035.

POTENTIAL BENEFITS

The assessment process can help participants better understand their condition and the factors contributing to it, empowering them to take an active role in their care. We provide you with an optional personalized feedback form to help you understand your psychological state.

POTENTIAL RISKS

Discussing difficult or sensitive topics may evoke emotional distress or discomfort. If you do feel uncomfortable, you are free to decline to answer any question or to stop participating, either temporarily or permanently.

VIDEO CONFERENCING

Zoom for Healthcare will be used for the online assessments. You will need a connection to the internet and a device (smartphone, tablet, or computer) with a web camera and microphone. You will be assigned a unique link for the assessment.

In Zoom for Healthcare, all data is encrypted end-to-end by TLS 1.2 using 256-bit Advanced Encryption Standard (AES-256). Additional in-meeting security features allow the host to limit attendance and lock the virtual room, and all security features apply regardless of the device being used (i.e., computer, tablet, cell phone). Zoom for Healthcare is compliant with both PIPEDA and PHIPA as well as HIPAA, and its security features are monitored regularly by independent third-party auditors. Zoom regularly performs vulnerability scans and penetration tests to evaluate security measures and identify new or potential threats.

CONFIDENTIALITY, DATA SECURITY AND PRIVACY

Your confidentiality will be respected. Your personal information or information that could identify you will be protected as required by law.

Information Storage

The study site is located on Toronto Metropolitan University premises at 105 Bond St., Toronto. Signed consent forms and paper documents will be stored securely in locked filing cabinets. The filing cabinets are kept in a locked office at the study site.

Notes from the semi-structured interview will be entered by trained assessors into a secure password-protected Qualtrics. These notes are to help the assessors assess your symptoms and we will not collect any personally identifiable information (e.g., name, birth date, contact information, demographic information). Data from these semi-structured interviews (i.e., if symptoms are present or absent, severity of symptoms) may be linked with your de-identified responses to the Engage/MESH survey via your participation ID.

Only the Toronto study coordinator, support staff, and research assistants will have access to the consent forms. Your assessment responses will also be reviewed by the study's Supervisor and Health Information Custodian (HIC).

Only members of the study team (Supervisor, Health Information Custodian, Principal Investigators, Co-Investigators, their trainees, and statisticians) will have access to the electronic data. Every study participant will be assigned a unique random number to link their assessment responses in the database. These numbers will be stored in a separate, password-protected database, accessible only to study staff and the supervisor.

Information Retention Period
The Canadian Institutes for Health Research requires that data and consent forms be retained until the end of the 5th year of study completion. We estimate this date to be September 1, 2035. After this date, paper data, including physical consent forms and contact information. Electronic copies of survey responses will be retained after this date for the purpose of publication and verification of study results.

Third-party software and confidentiality
Clinical diagnostic interview data will initially be logged by assessors using Qualtrics, an online survey platform commonly used in the social sciences. Their data privacy and protection policy can be found below:

https://www.qualtrics.com/support/survey-platform/getting-started/data-protection-privacy/

While clinical diagnostic interview data will be collected on Qualtrics, clinical assessors will not log any personally identifiable information (e.g., name, birth date, contact information, demographic information), nor will Qualtrics have access to the survey data or STI lab testing results.

Limits of confidentiality

Some participants might share their living space with other individuals. This could potentially cause a breach in confidentiality while talking with an assessor. To protect your confidentiality, we encourage you to attend the online assessment from a safe and private location. If you do not have access to a private location or the required technology, please let our staff know, and we can arrange a private room at our labs for you to complete the assessments.

Assessors will conduct the assessments from a private clinic at our lab or from their homes. White-noise machines will be used to sound-proof therapist and assessor location during video calls. The computers at our lab are password protected and accessible only by the lab staff, therapists, and assessors.

LEGALLY REQUIRED INFORMATION DISCLOSURES

Our research project is subject to oversight and monitoring from our grant funders and ethics boards for quality assurance to make sure that the required laws and guidelines are followed. For this purpose, research records and health or other source records (which might include personal information) may be inspected in the presence of the Investigator or his or her designate by representatives of the Canadian Institutes of Health Research or the National Institutes of Health (affiliated with the study in Vancouver), and relevant University Research Ethics Boards (including the Toronto Metropolitan University Research Ethics Board).

Your personal information or information that could identify you will not otherwise be revealed without your express consent, unless required by legal authorities. The circumstances in which our staff may be required by legal authorities to breach your confidentiality are:

a. You intend to harm yourself
b. You intend to harm someone else
c. You inform us that a vulnerable person, such as a child, an elder in an elder care facility, is currently at risk for abuse or neglect
d. You report sexual abuse by a health care practitioner
e. Your records are subject to a subpoena by the courts
f. *Or*, to the extent required by the law

We believe that the assessment does **not** contain questions that could be used by legal authorities to criminalize your reported past behaviours, and as researchers, our team has an ethical duty to resist such disclosure attempts. In the unlikely event that we ever receive such a request we will seek legal counsel and protect your information to the greatest extent possible.

Signing this consent form in no way limits your legal rights against the sponsors, investigators, or anyone else, and you do not release the study healthcare providers or participating institutions from their legal and professional responsibilities.

INCENTIVE

In order to recognize your valuable contribution to the study, you will be offered a $60 incentive for participation. You can receive the incentive via either cash or Interac e-Transfer.

If you are traveling from a location outside a 10 km radius of the study office (South Bond Bldg, 105 Bond St, Toronto, ON M5B 1Y3), you are eligible for travel reimbursement, such as gas mileage and the cost of travel via public transit or rideshare, for a maximum of $25. Receipts are required to be eligible for reimbursement.

CONTACT INFORMATION ABOUT THE STUDY

If you have any questions about the research now, please ask. If you have questions later about the research, you may contact the Engage-MESH Research Coordinator at 416-979-5000 extension 55-2158 (follow operator's instructions) or mesh@torontomu.ca. You may also contact the supervisor directly and/or request a meeting, should you wish.

This study has been reviewed by the Toronto Metropolitan University Research Ethics Board (REB # 2024-211). If you have questions regarding your rights as a participant in this study, please contact:

Research Ethics Board
c/o Office of the Vice President, Research and Innovation
Toronto Metropolitan University
350 Victoria Street
Toronto, ON M5B 2K3
416-979-5042
rebchair@torontomu.ca

DISSEMINATION OF RESEARCH RESULTS

Data and results from this study will be disseminated through various avenues including: (i) plain language (i.e., non-technical language) updates and reports, (ii) scientific conferences and articles in scientific journals and through various local community-based. In addition, data from this project may be used as part of undergraduate and graduate major research papers, theses, and dissertations.

No information that can identify an individual is ever used in these updates and reports or in presentations or articles.

CONSENTING TO PARTICIPATE IN THE CLINICAL DIAGNOSTIC INTERVIEW OF ENGAGE-MESH

PARTICIPANT CONSENT

My signature on this consent form means:

- I have read and understood the study information and consent form.
- I have had the opportunity to ask questions and have had satisfactory responses to my questions.
- I understand that my participation in this study is voluntary and that I am completely free to refuse to participate or to withdraw from this study at any time without this changing the quality of care that I will receive, and that if I withdraw from the study after I've started participating, I will still receive the participant incentive.
- I understand that I am not waiving any of my legal rights as a result of signing this consent form.
- I will receive a signed copy of this consent form for my own records if requested.
- I consent to participate in this study.

Printed name of participant	Signature	Date
Printed name of Principal Investigator or Designate	Signature	Date

You are being invited to participate in Engage-MESH. Please read this consent form, and before you consent to participate, please ask any questions to be sure you understand what your participation will involve.

Engage-MESH Optional Consent Form to Disclose and Request Personal Health Information

STUDY TEAM INFORMATION

Principal Investigators at the Toronto Study Site

Name	Title	Department	Contact Information
Dr. Trevor Hart	Professor	Department of Psychology, Toronto Metropolitan University	trevor.hart@torontomu.ca
Dr. Ann Burchell	Associate Professor	Dalla Lana School of Public Health, University of Toronto	ann.burchell@unityhealth.to
Dr. Darrell Tan (only for baseline visit)	Associate Professor	Department of Medicine, University of Toronto	darrell.tan@unityhealth.to
Dr. Daniel Grace (only for baseline visit)	Associate Professor	Dalla Lana School of Public Health, University of Toronto	daniel.grace@utoronto.ca
Jody Jollimore (only for baseline visit)	Executive Director	Canadian AIDS Treatment Information Exchange	jjollimore@catie.ca

For a full list of investigators and collaborators at all study sites, please visit our website at https://www.engage-men.ca/our-team/.

FUNDING

This research study was funded by the Canadian Institutes of Health Research (PJT-191887, PJT-186252).

CONTACTING YOUR FAMILY DOCTOR/ATTENDING SPECIALIST/PREFERRED CLINIC

As mentioned in the general consent form, your participation in this study includes blood work for testing related to HIV, Hepatitis A, Hepatitis B, Hepatitis C, and Syphilis, and the collection of a urine sample, throat swabs, and rectal swabs for Gonorrhea and Chlamydia testing. For individuals who are HIV positive or who have a reactive HIV point-of-care test, we also perform blood work to confirm your HIV status and to complete HIV viral load tests (as well as CD4/CD8 tests, genotyping, and drug resistance testing in the case of a new HIV diagnosis).

We hereby ask your permission to send and receive specific information externally with the aim to ensure that you receive appropriate care and to minimize the number of specimens you'll be

asked to provide as part of study visits. Specifically, if you do give the authorization for us to send information to and receive information from your family doctor/attending specialist/an appropriate sexual health or walk-in clinic (hereinafter, primary care provider, **PCP**), this means:

1) We can send the results of the tests completed during your participation in the study to your PCP at your request for proper follow-up treatment and care. We can also request confirmation of treatment after we send the results to your PCP.
2) We can use this authorization to reduce the number of tests conducted during your nursing visit. For example, if you are HIV-positive and have had HIV viral load testing completed in the past three months with your PCP, we will request that your PCP send testing results to our study office so that you can bypass some of the testing during study visits (i.e., reduce the number of tubes of blood we will collect from you).

Additionally, we ask for your permission to request historical syphilis, hepatitis B, and hepatitis C lab results from your PCP or the Public Health Ontario Laboratory (PHOL) in order to interpret your current lab results. While Public Health aids us in the identification of new reportable infections, we can interpret your results faster if we have your permission to request historical results directly. The historical results themselves will not be used for our data analysis.

CONFIDENTIALITY

All communication with your PCP will be conducted confidentially so that only individuals directly involved in your care will be involved. Only information outlined above that is directly related to the study will be sent and requested; no other health information will be exchanged. This consent form will only be effective from the date of your consent until the last date of your participation in the study. You can terminate this form by withdrawing your consent at any time without impacting your participation in the study.

CONTACT INFORMATION ABOUT THE STUDY

If you have any questions about the research now, please ask. If you have questions later about the research, you may contact the Engage-MESH Research Coordinator at 416-979-5000 extension 552158 (follow operator's instructions) or mesh@torontomu.ca.

This study has been reviewed by the Toronto Metropolitan University Research Ethics Board (Reference number: 2024-211). If you have questions regarding your rights as a participant in this study, please contact:

Research Ethics Board
c/o Office of the Vice President, Research and Innovation
Toronto Metropolitan University
350 Victoria Street
Toronto, ON M5B 2K3
416-979-5042
rebchair@torontomu.ca

Consent to Disclose and Request Personal Health Information

I, _____**,** authorize the Engage-MESH team to **disclose** (share/send) and **request** (receive), **for research and clinical purposes,** my personal information consisting of this form and:

☐ Information related to the testing, diagnosis, treatment, and prevention of sexually-transmitted and blood-borne infections, including laboratory reports, referrals for care, confirmation of HIV status, recent HIV viral load results, and confirmation of treatment.

☐ Other:

_____

_____

With/From and the below specific doctor/specialist/clinic:

Name:_____Phone:_____

Address:_____ Fax: _____

☐ I authorize Engage-MESH to request historical syphilis, hepatitis B, and hepatitis C results directly from Public Health Ontario Laboratory (PHOL) for the purpose of interpreting the test results from my study visit.

By signing below, I agree that:

1) I have read and understood the study information and consent form.
2) I have had the opportunity to ask questions and have had satisfactory responses
3) I understand that I am not waiving any of my legal rights by signing this form.
4) I acknowledge that this consent form is valid for the duration of my study participation, unless revoked by me.
5) I can change the name of the PCP that the study staff may send/receive health information to/from at any time by sending a written request via email.
6) Understand that I can refuse to sign this consent form.

My Name: _____ Telephone: _____

Signature: _____ Date: _____

WITNESS

_____	_____	_____
Printed name of Principal Investigator or Designate	Signature	Date

Budget Request

Funding Opportunity

Project Grant: Project Grant (2023-09-14)

Applicant

Last Name	First Name	Institution
HART	Trevor	Toronto Metropolitan University

Period of support requested: **5 Year(s) 0 Month(s)**

Research Staff $459 000

Description

Funding is requested for two full-time Registered Nurses (Toronto and Montreal) and one part-time Registered Nurse (Winnipeg).

We require registered nurses for HIV/STI testing who need 2.5 hours per participant for 5 times and perform pre- and post-test counselling, collect/process samples for HIV/STI testing, store samples for lab pick-up, follow up with the lab for test results, provide test results and linkage to care, and contact tracing. Each full-time nurse will be compensated at $37/hr for an annual salary of $88,450 (including 20% benefits). Given the relatively smaller sample size in Winnipeg, we will recruit a part-time nurse also at the rate of $37/hr and hire at 0.3 FTE, for an annual salary of $26,535 (including 20% benefits). Deducting Engage 2.0's funding for the baseline nursing visit of $219,600, we estimate the total nursing cost to be $390,705 ($88,450 x 3 years x 2 sites + $26,535 x 3 years - $219,600 = $390,705).

Funding is also requested for one part-time Research Coordinator for the Winnipeg site. Winnipeg's Research Coordinator will support the recruitment, screening, and enrollment of study participants, as well as the administration of questionnaires, data collection and management, and maintaining research documentation according to the appropriate regulatory guidelines. The Research Coordinator will further support the PI in project execution through the preparation of presentations, maintaining and creating databases, and preparation of data for analysis and literature searches, and supporting manuscript preparation for publication as well as abstract preparation and submission. They will also facilitate communications with Indigenous community members and Elders and Knowledge Keepers. They will be compensated at $29/hr for 0.3 FTE from years 1-3, for an annual salary of $20,500 (including 20% benefits). In total, we estimate the cost to be $61,500 ($20,500 x 3 = $61,500).

Toronto, Montreal, and Vancouver sites will share the Research Coordinator with Engage 2.0. However, Montreal's Research Coordinator will dedicate extra time to help prepare the translation of the qualitative questionnaire into French as well as administer it in phase 2, and therefore, requires an extra 0.1 FTE compensation at $29/hr for 0.1 FTE for a total of $6,700 (including 20% benefits).

Trainees $398 000

Description

Funds are requested for a Post-doctoral Research Fellow with a Ph.D. in clinical psychology for the duration of the grant. The post-doctoral fellow will serve at the Toronto site as the National coordinator and participant assessor. The Fellow will prepare and submit the Research Ethics Board protocol, recruit participants, screen participants for eligibility, and obtain informed consent. The fellow will administer psychodiagnostic interviews in Phase 1 and qualitative interviews in Phase 2. They will also set up the database with the help of HV Prevention Lab's biostatistician(s), manage participant honoraria, participate in data entry and analysis, and coordinate community dissemination/ knowledge translation and exchange activities. This role will be filled by one person in Years 1-2 and a second person in Years 3-4 in order to maximize the number of researchers in Canada who are trained in integrated mental health and HIV prevention. They will be compensated an annual stipend of $62,000 for years 1-4, at a total cost of $248,000.

Funds are requested to support two Ph.D. level Clinical Psychology Graduate Student per year for years 1-3, with one of them who can speak French and English in the Montreal sites. They will serve as the assessor for Phase 1 and qualitative interviewer for Phase 2, under the supervision of Dr. Hart and the Post-doctoral Research Fellow. In addition, the Ph.D. students will participate in data analyses and manuscript preparation. They will complete two-thirds of the total interviews ((354 psychodiagnostic interviews + 120 qualitative interviews) * 2/3 = 316 interviews) and be compensated an annual stipend of $25,000 per year. In total, they will be compensated $150,000 over the course of 3 years ($25,000 x 3 years x trainees = $150,000).

Budget Request

Consumables $32 000

Description

Recruitment protocol forms (e.g., telephone screening procedure), informed consent forms, and SCIDs for each participant will need to be printed. We estimated the cost to be $500/year for years 1-4, for a total of $2,000 ($500 x 4 = $2,000). In addition, it is estimated that at least 2 posters will need to be printed for 3 research conferences, at an average cost of $100 each, for a total of $600 ($100 x 2 posters x 3 conferences = $600). The total estimated cost for photocopying and poster printing is $2,000 for photocopying + $600 for poster printing = $2,600.

During the nursing visits in phase 1, we require clinical supplies to conduct STBBI tests. These supplies include but are not limited to medical tapes, hand sanitizers, rubbing alcohol, testing kits, and tourniquets. We estimated the cost to be $2 per participant per year for years 1-3, for a total of $11,280 (1,640 Toronto, Montreal, and Winnipeg participants x $2 x 3 years = $9,840, 720 Vancouver participants x $2 x 1 year baseline = $1440). At each nursing visit, participants will also be offered optional HIV rapid tests. We estimated the cost to be $5,000 per year for years 1-3, for a total of $15,000 ($5,000 x 3 = $15,000). Study sites will be billed for the medical services for participants whose provincial Medicare does not cover STI testing. We estimated the testing cost to be $2,000 per year for years 1-3, for a total of $6,000 ($2,000 x 3 = $6,000). Deducting Engage 2.0 supplement for Years 1-3 of $3,000, we are requesting $29,280 in total ($11,280 + $15,000 + $6,000 - $3,000 = $29,280).

Given the shared data collection at the baseline visit in Phase 1, funds are requested to cover the service of a data analyst to help manage data integration. We estimate the service to be $10,000.

Non-Consumables $10 000

Description

A license for the Structured Clinical Interview for DSM-5 Disorders (SCID-5) costs approximately $2,000 in Canadian dollars in years 1-2.

Funds are requested to cover the costs of promotional advertisements in social/sexual networking applications and websites to recruit seed participants and raise awareness of the present study. We found this was our most successful recruitment method in combination with Respondent Driven Sampling from previous experience, and using these websites was common among sexually active GBQM participants. Some websites offer free advertising for nonprofit organizations (e.g., Scruff's Benevolads), which we will use, whereas others are more productive but expensive (e.g., Grindr). We will also use less expensive, traditional recruitment methods, such as posting advertisements in listservs and flyers in community venues. We estimate the total promotional cost during Phase 1 and 2 to be $5,000/year for the Winnitopa site. Toronto, Montreal, and Winnipeg sites will share the participant pool with Engage 2.0, which will cover the promotional cost. In Phase 3, we estimated another $3,000 promotional cost to recruit expert panellists. In total, we estimated the promotional cost to be $8,000.

Knowledge Translation $29 000

Description

Funds are requested for hosting knowledge translation events to help disseminate the information into the community. Examples of costs include community venue renting, advertisement for the event, catering, and audio/video equipment. We estimate a cost of $1,500/year for five years, for a total of $7,500 ($1,500 x 5 = $7,500).

Funds are requested for research team members and trainees to attend 3 professional meetings or scientific conferences to present the study findings in years 3-5. Travel estimates include the conference registration fee, economy airfare, 3 nights' hotel accommodations, and meals. We estimated the total cost to be $9,000 ($3,000 x 3 conferences = $9,000).

Funds are requested to pay for 2 open-access journal articles on the present study's findings per year for years 3-5, for a total of $12,000 ($2,000 x 2 articles x 3 years = $12,000).

Budget Request

Other $362 000

Description

Participants will be paid an honorarium for their time and effort. In phase 1, all 2,360 participants will be invited to complete online computer-assisted self-interviewing (CASI) and provide biological specimens for STBBI testing. Toronto, Montreal, and Winnipeg participants (n=1,640) will be invited 5 times, and Vancouver participants (n=720) will only complete the baseline visit. Engage 2.0 will cover the financial needs for the baseline honorarium, and each participant will be compensated $50 for each visit after baseline, for a total of $328,000 ($50 x 1,640 x 4 times = $328,000). We will also administer the Structured Clinical Interview for DSM-5 (SCID-5) to a random 15% of the 2,360 participants at baseline (n=354). Each participant will be compensated $10 for the session, for a total of $3,540 ($10 x 354 = $3,540). In phase 2, we will conduct semi-structured interviews with a sub-sample of 120 GBM. Each participant will be compensated $50 per interview for a total of $6,000 ($50 x 120 = $6,000). In phase 3, we will create two expert panels to conduct two independent Delphi studies, with 30 experts per panel. Each participant will be compensated $50 for completing a survey, for a total of $50 x 30 panelists x 2 panels = $3,000. In total, we estimate the total cost to be $328,000 (phase 1) + $6,000 (phase 2) + $3,000 (phase 3+) = $337,000.

We will collaborate with Indigenous Elders and Knowledge Keepers to help host targeted recruitment and KTE events, guide CECs, perform ceremonies, and support the healing needs of our Indigenous participants for 5 years. We estimated the cost to be $2,000 per year, for a total of $10,000 ($2,000 x 5 = $10,000).

We will create Community Engagement Committees (CECs) in each city to consult on our projects, provide community insight, and ensure our initiatives are impactful. Each CEC will have 6 members (one-third of members with lived experience with CM use) and host a meeting 3 times a year. Each member will be compensated $50 per meeting for a total of $13,500 ($50 x 6 members x 3 meetings/year x 3 CECs x 5 years = $13,500).

Total $1 290 000

January/Janvier 31, 2024

DC0190GP

Canadian Institutes of Health Research / Instituts de recherche en santé du Canada

Notice of Decision / Avis de décision

Application Number/Numéro de la demande: 508218

Committee Code/Code du comité: GSH

Applicants/Candidats: Dr. Trevor Adam Hart; Dr. Ann Natalie Burchell; Professeur Jorge Martin Flores-Aranda; Dr. Roustam Souleymanov

With/Avec: Mr. G. Berlin; Professeure K. Bertrand; Dr. K. Card; Mr. Y. Deng; Dr. S. Dermody; Professeur M. Goyette; Dr. D. Grace; Dr. C. Grey; Prof. D. Lafortune; Docteur D. Milot; Dr. D. Moore; Dr. S. Noor; Dr. S. Skakoon-Sparling; Dr. S. Stewart; Dr. D. Tan; Dr. J. Wardell

Institution paid/ Établissement payé: Toronto Metropolitan University

Title/Titre: Crystal Methamphetamine Use and Its Associations with Sexually Transmitted Infections Among GBM: Identifying Modifiable Treatment Targets

Primary Inst./ Inst. principal: Infection and Immunity / Maladies infectieuses et immunitaires

Other Related Inst./ Autres inst. connexes: Neurosciences, Mental Health and Addiction / Neurosciences, santé mentale et toxicomanies; Population and Public Health / Santé publique et des populations; Indigenous Peoples' Health / Santé des Autochtones

Competition Outcome/Résultats du concours: Project Grant / Subvention Projet

September/Septembre 14, 2023

Number in competition/Nbre de demandes dans le concours:	2175
Number approved in the competition / Nombre de demandes approuvées dans le concours:	374
Number of applications approved without equalization / Nombre de demandes approuvées sans rééquilibrage:	350
Additional number of applications approved through equalization / Nombre de demandes approuvées en vertu du rééquilibrage:	24

Decision on your application/ Décision sur votre demande:	Approved / Approuvée
Total Funding Amount:/ Montant total du financement:	$986,850
Term/Durée:	**5 yrs/ans 0 months/mois**

Peer Review Committee Recommendation, for your information and use/ Recommandation du comité d'examen par les pairs, pour fins d'information et d'utilisation:

Committee/Comité:	Gender, Sex & Health / Genre, sexe et santé
Number reviewed/ Nbre de demandes examinées:	41
Number approved in the committee / Nombre de demandes approuvées dans le comité:	7
Number of applications approved without equalization / Nombre de demandes approuvées sans rééquilibrage:	7
Additional number of applications approved through equalization / Nombre de demandes approuvées en vertu du rééquilibrage:	0
Application rank within the committee/ Rang de la demande dans ce comité:	2
Percent Rank Within the Committee/ Rang en pourcentage au sein du comité:	97.5%
Rating/ Cote:	4.49

Additional Funding Opportunities/ Opportunités de financement additionnelles	Decision/ Décision	Total Funding Amount/Montant total du financement	Competition Code/Cote de concours	Application Number/ Numéro de la demande
Project Grant - Priority Announcement: HIV/AIDS and STBBI/Subvention Projet - Annonce de priorité - VIH/sida et ITSS	Not Approved/ Non approuvée	$0	202309PJH	511428
Project Grant - PA: Neurosciences, Mental Health and Addiction/Subvention Projet - AP: Neurosciences, santé mentale et toxicomanies	Not Approved/ Non approuvée	$0	202309PJ8	511995

This document is for information only. Official payment is stated on the CIHR Authorization for Funding.
Document à titre d'information seulement. Le paiement officiel est indiqué sur l'autorisation de financement des IRSC.

Review Type / Type d'évaluation:	Reviewer 1 / Évaluateur 1
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Adjudication Criteria/Critères de sélection

Initial Score/Cote Initiale: 3.8

Top/Bottom Selection/Groupe supérieur/inférieur

◯ **Top/Groupe supérieur**
◉ **Bottom/Groupe inférieur**

Review Type / Type d'évaluation:	Reviewer 1 / Évaluateur 1
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Summary of Application/Résumé de la demande:

The study is based on a multisite research network with a large group of diverse applicants including knowledge users

The proposal outlines a “repeat” of the Engage study a cohort study in 3 cities focused on sexual health in participants which self-identify as gay, bisexual and men having sex with men. While the Engage study was focused on virally sexually transmitted diseases, they now want to focus on bacterially transmitted diseases in the same group of participants.

Review Type / Type d'évaluation:	Reviewer 1 / Évaluateur 1
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Strengths and Weaknesses/Forces et faiblesses:

The author report that in 2018 79% of the syphilis cases were accounted for by males, who self-identify as gay, bisexual and other men who have sex with men.

A recent report by the government of Canada actually reads:

“Although the proportion of cases who self-identify as gay, bisexual and other men who have sex with men decreased from 54% to 38% between 2018 and 2020, they still represent a high proportion of cases (according to data from eight P/Ts)”

The authors do not discuss prevalence and incidence data which are still relatively low.

Aside from stimulant use they want to test three psychosocial models (syndemic theory, minority stress theory, and the information - motivation - behavioural stress model. It is nor complete clear why the select specific assessments based on three theories (or models). Aside from the assertion that they are empirically supported there is no information on the reason for these assessments.

Advantages are the team being assembled and having experience, the question is the novelty of the current study, as the authors seem to repeat the same study with limited novel approaches.

It seems that the cluster analysis will be based on the standardized interviews and self-assessment. The applicants argue themselves against the self-report as a measure, but then rely on MINI and ASSIST which are standardized assessments, but self-report in principle. The MINI does only provide diagnostic assessment of alcohol use and one other substance.

The authors have a strong KT plan based on the previous Engage study.

Review Type / Type d'évaluation:	Reviewer 1 / Évaluateur 1
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Budget Recommendation/Recommandation budgétaire:

The authors request 1,775,000 CD for 3 year study to assess 1200 individuals over five visits, which seems very reasonable.

Review Type / Type d'évaluation:	Reviewer 1 / Évaluateur 1
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Please indicate your appraisal of the integration of sex as a biological variable as a strength, weakness, or not applicable to the proposal./Prière de sélectionner une option pour donner votre évaluation de l'intégration du sexe comme variable biologique en tant que point fort ou point faible de la proposition, ou en tant qu'élément non applicable à la proposition.

- (●) **Strength/Point fort**
- ( ) **Weakness/Point faible**
- ( ) **Not applicable/Non applicable**

Please indicate your appraisal of the integration of gender as a socio-cultural determinant of health as a strength, weakness, or not applicable to the proposal./Prière de sélectionner une option pour donner votre évaluation de l'intégration du genre comme déterminant socioculturel de la santé en tant que point fort ou point faible de la proposition, ou en tant qu'élément non applicable à la proposition.

- (●) **Strength/Point fort**
- ( ) **Weakness/Point faible**
- ( ) **Not applicable/Non applicable**

Review Type / Type d'évaluation:	Reviewer 1 / Évaluateur 1
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
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Sex and/or Gender Considerations/Notions de sexe et/ou de genre:

The applicates are not completely clear if they assess gender, even if they do plan to characterize gender focused variables.

Review Type / Type d'évaluation:	Reviewer 2 / Évaluateur 2
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Adjudication Criteria/Critères de sélection

Initial Score/Cote Initiale: 3.7

Top/Bottom Selection/Groupe supérieur/inférieur

◯ **Top/Groupe supérieur**
◉ **Bottom/Groupe inférieur**

Review Type / Type d'évaluation:	Reviewer 2 / Évaluateur 2
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Summary of Application/Résumé de la demande:

The current proposal aims at increasing our understanding of the interface between stimulant misuse in the GBM community and STBBIs. The proposal includes 3 phases, using a mix-method design across three sites (Mtl, Winnipeg and Toronto).

The first phase is a quantitative data collection (biospecimens and survey) to obtain information on substance and sexual behaviours.

The second phase will involve qualitative interviews for each subgroup (identified from phase 1).

And the third phase will involve a delphi study to identify priority prevention or treatment interventions according to the subgroups and issues collected at phase 2.

For phase 1: 1200 participants are anticipated, using Respondent-driven sampling. For phase 2, following Latent-class analysis, more or less 20 participants per identified subgroup; and for phase 3: 30 per panel (2 panels: one community, one health care providers).

Review Type / Type d'évaluation:	Reviewer 2 / Évaluateur 2
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Strengths and Weaknesses/Forces et faiblesses:

Strengths:

The team has conducted a previous study on STBBIs in the GBM community (mostly linked to HIV risky behaviours and condom use) and has demonstrated its ability to conduct large studies over multiple sites, such as this one wants to do, and has published the results. The Engage study was funded from 2019-2023 (over 2 million$). The study generated 22 articles and KT initiatives. This study aims at exploring the stimulant angle in more depth.

The already existing infrastructure for the Engage study is also an advantage, although it is not mentioned why Vancouver was dropped as a site and Winnipeg included instead.

The theme is important – we currently have a stimulant use problem across Canada and we know that the GBM community suffers the consequences.

The LCA, qualitative and Delphi methodologies are all sound methods.

The self-report measures are linked to their model, and are well justified.

Very big team (27!!), most with strong track records.

Weaknesses:

The team mentions several problems linked to stimulant use – psychosis should be mentioned as well.

The size of the team is also a weakness - it is difficult to determine how each person will contribute and their role - a diagram of some sort is needed.

It is not clear, at this point, what new knowledge will be generated. The team has conducted a systematic review strongly linking risky behaviours in GBM and stimulant use, others have done qualitative studies on the topic (in UK mostly), and the Engage study also has generated some information about this topic. Conducting a large study on GBM to study less than a third of participants seems a bit extreme (especially since Engage has some data on STBBIs/stimulant use already).

I am mostly concerned with the need for such an intrusive data collection (anal swab, blood work+ mention that this will be shared with public health) - seems like this could be a deterrent for participants, which would result in a biased convenience sample. Couldn't the team work with community clinics and approach only those who got a positive test result and ask if they use stimulants? Or recruit those who use stimulants only and ask if they have STBBI (if they don't know ask if they wish to get tested?)

It is not clear how those biospecimen results will be used either – other than collecting prevalence rates (not an objective of this proposal). Not clear why longitudinal data is needed either (the main research questions are linked to behaviors and risk

– why should these change over time?).

In terms of feasibility, given how hard it is to recruit and keep stimulant users in a study (the proposal mentions a 40% loss to follow-up), I would like to see a mitigation plan.

The analyses are justified but could be described in more details (what/why 15 covariates?)

KT activities are mentioned but the KT plan is not clearly spelled out.

Review Type / Type d'évaluation:	Reviewer 2 / Évaluateur 2
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Budget Recommendation/Recommandation budgétaire:

Participant payment or lottery??? Seems odd to propose this (not sure it is ethical).

Review Type / Type d'évaluation:	Reviewer 2 / Évaluateur 2
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Please indicate your appraisal of the integration of sex as a biological variable as a strength, weakness, or not applicable to the proposal./Prière de sélectionner une option pour donner votre évaluation de l'intégration du sexe comme variable biologique en tant que point fort ou point faible de la proposition, ou en tant qu'élément non applicable à la proposition.

- (●) **Strength/Point fort**
- ( ) **Weakness/Point faible**
- ( ) **Not applicable/Non applicable**

Please indicate your appraisal of the integration of gender as a socio-cultural determinant of health as a strength, weakness, or not applicable to the proposal./Prière de sélectionner une option pour donner votre évaluation de l'intégration du genre comme déterminant socioculturel de la santé en tant que point fort ou point faible de la proposition, ou en tant qu'élément non applicable à la proposition.

- (●) **Strength/Point fort**
- ( ) **Weakness/Point faible**
- ( ) **Not applicable/Non applicable**

Review Type / Type d'évaluation:	Reviewer 2 / Évaluateur 2
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
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Sex and/or Gender Considerations/Notions de sexe et/ou de genre:

The proposal is specifically tailored for a sex (men) but will also consider gender, as well as EDI aspects in their analyses and questions. They are also working closely with First nations.

Review Type / Type d'évaluation:	Reviewer 3 / Évaluateur 3
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Adjudication Criteria/Critères de sélection

Initial Score/Cote Initiale: 3.6

Top/Bottom Selection/Groupe supérieur/inférieur

◯ **Top/Groupe supérieur**
◉ **Bottom/Groupe inférieur**

Review Type / Type d'évaluation:	Reviewer 3 / Évaluateur 3
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
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Summary of Application/Résumé de la demande:

The prevalence of sexually transmitted infections is high among gay, bisexual, and other men who have sex with men (GBM). There is strong evidence that stimulant use increases the risk of being affected by bacterial sexually transmitted infections. Among GBM, stimulant use and STIs are components of what is referred to as a syndemic, which is defined as "multiple health conditions that cluster and worsen the health of a given population". Despite an observed increase in stimulant use and bacterial STIs among GBM, little work has been done to better understand the complex relationships between the components of this syndemic, and the mechanisms involved in the evolution of these components. The fundamental objectives of this grant application are to better understand the interactions between the components of this syndemic and to identify the most promising and appropriate interventions for this complex population. In a first phase, the team proposes to conduct a biopsychosocial study in 3 Canadian sites (Toronto, Montreal and Winnipeg) including both a survey and biomedical testing of bacterial STBBIs, as well as a longitudinal follow-up. Latent class analyses will be performed to identify profiles of stimulant use in GBM. In the second phase of the project, qualitative interviews will be conducted to better understand the subjective experiences of stimulant use and bacterial STBBIs among GBM selected according to their class membership identified in phase 1 of the project. In the final phase of the project, a Delphi study will be carried out with 2 groups of expert panels: on the one hand, GBM community members, and on the other hand, health providers. This Delphi study will aim to identify prevention methods and clinical interventions that can respond to the needs and concerns of the GBM belonging to the classes identified in phase 1. Taken together, these different phases could help identify risk factors for simulant use that could be targeted by interventions, as well as identify prevention and intervention approaches for this complex population.

Review Type / Type d'évaluation:	Reviewer 3 / Évaluateur 3
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Strengths and Weaknesses/Forces et faiblesses:

Strengths

- Considering that there is a meth crisis in some Canadian cities, that Canadian society is increasingly concerned about diversity and inclusion issues, and that STBBIs can have significant health impacts, this grant application targets a syndemic that touches on several public health priorities in the country

- The 3 phases of the grant application appear to be complementary and are logically and clearly interrelated. The choice of questionnaires to be administered in Phase 1 of the project is based on theoretical models of interest, such as syndemic theory

- In the recent past, the team successfully completed a longitudinal cohort study (Engage study) on HIV and sexual health of 2449 GBM recruited at 3 Canadian sites. This study has resulted in over 20 publications. This success not only highlights the team's expertise in the field, but also their ability to conduct the study proposed here

- To recruit the population of interest, the team intends to use respondent-driven sampling strategy. Although the approach has its won limits, it seems like an appropriate strategy for recruiting hard-to-reach populations

- The team applying for this grant is large, with members having diverse expertise in GBM, substance use, STBBIs, multi-site data acquisition, longitudinal and qualitative data processing, clinical and community interventions, and it also includes decision makers who can ensure knowledge transfer.

Limitations

Issues

- In the ongoing study (Engage), the loss to follow-up observed to date is 30-35%, and the expected loss to follow-up for the proposed cohort is 40%. These are significant loss to follow-up rates. One can obviously understand that the complex population of interest presents its own set of challenges. Still, it would still be necessary to ensure that the sub-cohort that will be followed is representative of the whole cohort. And if not, what will be the mitigation strategies?

- The team is composed of 27 investigators, presumably because the project will take place at 3 sites (Montreal, Toronto & Winnipeg) and because the project includes a Delphi study. However, in the current form of the application, it is difficult to determine who will really play an active role in the project. This makes it difficult to evaluate the quality of the team.

Review Type / Type d'évaluation:	Reviewer 3 / Évaluateur 3
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
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- There are some issues that need to be clarified regarding the cluster analyses defined in Objective 2. 1) Why target stimulant use exclusively? 2) Are we talking about frequency of use? what about quantities? are they measured in the project? 3) Why not exploit the richness of the longitudinal data instead of using baseline data only? 4) Is the cluster analysis plan the most optimal and will it ensure that cluster analyses add real value?

- In the Background section, the team makes a compelling case for studying the complex relationships between meth use, GBM and sexually transmitted infections. However, when we look at the different components of the application, we see that this logic is not always followed. For example, in phase 3 of the project, a Delphi study will be conducted to identify the specific needs of profiles of people who are defined solely based on their stimulant use. If the identification of sub-groups is not optimal, how can we expect that the identification of clinical interventions will be appropriately tailored?

Minor issues

- Given that the MINI diagnostic interview will be administered to a minority of participants, how useful will it be?

- To estimate the required sample size, a power of 80% and a p-value of 0.05 were used. This seems a bit tight to carry out all the planned analyses.

- Even though the team has all the necessary members to ensure a credible KT plan, the section on the KT plan is under-developed

Review Type / Type d'évaluation:	Reviewer 3 / Évaluateur 3
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
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Budget Recommendation/Recommandation budgétaire:

A significant portion of the budget is allocated to research assistants and nursing time. No major concerns, but the budget seems a bit high, though. That said, it should be taken into consideration that the study is taking place at 3 sites and that the study population is complex.

Review Type / Type d'évaluation:	Reviewer 3 / Évaluateur 3
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
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- (●) **Strength/Point fort**
- ( ) **Weakness/Point faible**
- ( ) **Not applicable/Non applicable**

Please indicate your appraisal of the integration of gender as a socio-cultural determinant of health as a strength, weakness, or not applicable to the proposal./Prière de sélectionner une option pour donner votre évaluation de l'intégration du genre comme déterminant socioculturel de la santé en tant que point fort ou point faible de la proposition, ou en tant qu'élément non applicable à la proposition.

- (●) **Strength/Point fort**
- ( ) **Weakness/Point faible**
- ( ) **Not applicable/Non applicable**

Review Type / Type d'évaluation:	Reviewer 3 / Évaluateur 3
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
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Sex and/or Gender Considerations/Notions de sexe et/ou de genre:

Considering the very nature of the project, this is a strength of this application.

Review Type/Type d'évaluation:	SO Notes /Notes de l'agent scientifique
Name of Applicant/Nom du chercheur:	Hart, Trevor Adam
Application No./Numéro de demande:	487684
Agency/Agence:	CIHR/IRSC
Competition/Concours:	2022-09-14 Project Grant/Subvention Projet
Committee/Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title/Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Assessment/Évaluation:

Based on the assessment of the assigned reviewers, your application was identified as eligible for streamlining. As there were no objections from any committee members, your application did not proceed with an extended discussion at the committee meeting and was streamlined. As a result, no Scientific Officer notes were generated. Your reviews are available on ResearchNet.

Streamlined applications are ineligible to receive funding through a Priority Announcement.

For general information on the streamlining process, please see the Peer Review Manual – Project (http://www.cihr-irsc.gc.ca/e/49564.html#4.3.1).

Note: The final rating of the application, provided in the Notice of Recommendation (NOR) and Notice of Decision (NOD), is the averaged rating from the assigned reviewers and may differ from the ratings provided by the assigned reviewers in their respective reviews.

L'évaluation des évaluateurs a permis d'établir que votre demande pouvait être écartée par rationalisation. Puisqu'aucune objection n'a été émise par les membres du comité, votre demande n'a pas fait l'objet d'une discussion approfondie à la réunion et a été écartée par rationalisation. L'agent scientifique n'a produit aucune note, mais vos évaluations sont accessibles dans RechercheNet.

Les demandes écartées par rationalisation ne peuvent être financées dans le cadre d'une annonce de priorité.

Pour obtenir des renseignements généraux sur le processus de rationalisation, consultez le Guide d' évaluation par les pairs – Projet (http://www.cihr-irsc.gc.ca/f/49564.html#4.3.1).

Remarque : La cote définitive de la demande, qui apparaît dans l'avis de recommandation et l'avis de décision, représente la moyenne des cotes accordées par les évaluateurs. Elle peut donc différer de celle donnée par les évaluateurs dans leur évaluation respective.

Crystal Methamphetamine Use and Its Associations with Sexually Transmitted Infections Among GBM: Identifying Modifiable Treatment Targets

1.0 Overview of the Study Rationale and Methods

Gay, bisexual, and other men who have sex with men (GBM) are disproportionately affected by sexually transmitted and blood-borne infections (STBBIs). In high-income countries, nearly universal increases in syphilis incidence among GBM have been observed.[1–3] GBM accounted for 71% of male syphilis cases in Canada in 2020.[3] Gonorrhea case rates have doubled among U.S. GBM between 2010 and 2015, and there has been a 242% increase in diagnoses among Canadian men in the general population from 2009 to 2018,[1,4] with increasing rates of multidrug-resistant gonorrhea.[5] In data from our study team, 11.4% of urban Canadian GBM had a recent diagnosed bacterial STBBI (syphilis, gonorrhea, or chlamydia).[6] The PHAC-led *Pan-Canadian STBBI Framework for Action* suggests that to reverse these trends, more research examining drivers of bacterial STBBIs is needed among populations with high rates of STBBIs, such as GBM, including those who use substances.[7]

Relatedly, crystal methamphetamine (CM) use has increased among both GBM and in the general population[1,8]; however, the prevalence of CM use by GBM in Western countries is 20 times greater than the general population.[9–11] We previously reported that, among urban Canadian GBM, 29.7% of GBM report CM use in the past 6 months.[12] CM use may be increasing, as in the U.S., CM use has nearly doubled among GBM from 4.3% in 2011 to 9.5% in 2017.[11] CM use patterns range from non-use to occasional use with no substance use-related symptoms, to severe CM use disorders.[13–15] Although many GBM can and do use CMs safely,[16] harms are greater with increasing use, including experiences of violence, unemployment, acute episodes of psychosis, physical health issues, and overdoses.[17,18] Moreover, the association between CM use and bacterial STBBIs is robust and consistent across many studies,[15,19–22] including previous work by our team.[6] The term **"syndemic"** describes the interaction between 2 or more diseases or psychosocial problems, which synergistically contribute to the disease burden among marginalized populations.[23,24] Among GBM, CM use and STBBIs form components of a syndemic, along with other mental health problems, including experiences of childhood sexual abuse, violence, depression, and anxiety.[25]

This multiphase, sequential mixed-methods biopsychosocial study,[26,27] called SASSY (Substance And Sex StudY), aims to examine potential modifiable mechanisms that may explain different types of CM use and associated mental and sexual health outcomes among GBM. Despite increasing bacterial STBBIs and CM use among GBM, little past work has examined the modifiable mechanisms, such as attitudes, motivations, and behaviours, that could serve as points of future CM interventions. A secondary aim will be to get information to develop future CM interventions, including those that will prevent mental health and sexual health harms including STTBIs.

1.1 Study Objectives:

1. To examine relationships between CM use and STBBIs, primarily focusing on bacterial STBBIs. We hypothesize that 1) CM use and 2) bacterial STBBIs will rise over the 2-year observation period, and 3) CM use will predict bacterial STBBIs.
2. To examine how classes of CM use (e.g., low CM risk/high STBBIs, medium CM risk, low STBBIs) found in our previous *Engage* study differ in their mental health, including psychiatric disorders, and modifiable psychosocial mechanisms over a 2-year period. If the CM use classes differ between the present study and *Engage*, we will examine how the new CM use classes predict these variables over time.
3. To ask participants using qualitative interviews, about their CM use and related mental health and STBBI needs, and the interventions that best meet each class's needs.

4. Using Delphi studies, to identify GBM community and healthcare provider priorities for targeted interventions that reduce both CM use-related harms and STBBIs along the continuum of CM use.

2.0 Unmet needs to manage the CM use and STBBIs epidemics among GBM

SASSY will also extend beyond most previous research through a mixed methods approach. We will first replicate the quantitative data from *Engage* cohort study of 2449 GBM that identified distinct groups (**"classes"**) based on CM use via latent class analysis (LCA)[28,29] with 2 years of follow-up data. These 4 classes are:1) Minimal CM risk/high STBBIs, 2) Medium CM risk/low STBBIs, 3) High CM risk/low STBBIs, and 4) High CM risk/high STBBIs. The new data collection from SASSY will allow us to look at the motivational and other psychosocial mechanisms by which CM is associated with STBBIs (not available in *Engage*). We will next conduct qualitative interviews[30] with GBM in each class to better understand experiences of substance use and bacterial STBBIs and to identify feasible interventions, including harm reduction, counselling, and psychotherapies that would improve mental and sexual health outcomes. Finally, our Delphi studies[31] with community members and healthcare providers will identify priority prevention and treatment interventions for GBM in each class.

We designed SASSY to meet the needs identified in Canadian action plans for substance use and STBBIs, including the *Canadian Drugs and Substances Strategy*, *The Government of Canada's Five-year Action Plan on STBBIs*, and the *Ontario Aboriginal HIV/AIDS Strategy to 2026*.[32] All three plans note the importance of furthering our understanding of the epidemiology of the growing STBBI epidemics among key populations, including GBM; research examining homophobia and other discrimination; and preventing and reducing any harms of substance use. This approach extends from the 2021 report by the Community Based Research Centre for GBM health and the BC Centre on Substance Use,[33] which documented a need for evidence-informed, graded approaches to treatment that appropriately meet the needs of marginalized people including GBM who use CM.[34] The BC Centre for Substance Use notes that psychosocial treatment is the standard of care for stimulant use disorder.

Attention to Diverse GBM. Our plans will also examine unmet needs to promote the health of intersectional GBM. Racialized, economically disadvantaged, and trans and non-binary GBM are more likely to experience poor health outcomes, but are underserved by existing interventions.[35] In the general Canadian population, STBBIs rates are higher among Indigenous compared to white settler populations, and accessing sexual health services is lesser among newcomers and longer-term immigrants than the Canadian-born population.[32] Thus, our approach will examine upstream social drivers such as transphobia, racism, colonialism, and lack of financial resources that may be driving the associations between CM and any mental health harms and STBBI-related harms in each class.[36,37]

2.2 Evidence-based Theoretical Models Guiding Our Work

Empirically-supported theoretical models provide helpful guidance. The **syndemic** of CM use, STBBIs, and related mental health problems is exacerbated by adverse social conditions, such as anti-GBM discrimination,[25,38,39] and may be worsened among GBM with intersecting marginalized positions/identities, such as GBM who are living with HIV, transgender, Indigenous or from racialized communities.[40–43] The **Minority Stress Model**[22] posits that stigma, prejudice, and discrimination toward GBM, which are not easily modifiable by interventions, and internalized stressors that are modifiable (e.g., internalized homophobia) create a hostile social environment, resulting in increased mental health and substance use problems. Syndemic theory and the Minority Stress Model have been used, including by our study team, to explain HIV acquisition among GBM[44,45] and to develop other interventions outside of CM use.[46,47]

The Information-Motivation-Behavioural Skills (IMB) model has been used by our team[40] and others[48–51] to create efficacious interventions to change STBBI health behaviours; it posits that both information and motivation to engage in positive behaviour change increase behaviours directly and indirectly via the use of health behavioural skills. The IMB model has been used to identify modifiable factors for HIV prevention interventions.[52,53] However, given increasing bacterial STI incidence and increasing use of biomedical HIV prevention approaches such as the use of HIV Pre-exposure Prophylaxis (PrEP) medications by HIV-negative GBM or the use of antiretroviral treatment to prevent HIV transmission from GBM living with HIV,[54,55] more research is needed to reverse the ongoing increases in bacterial STBBIs, especially among GBM who use drugs.[56]

To identify modifiable targets for intervention, one must specifically attend to the motivations of GBM using CMs, consistent with the empirically-supported IMB model.[57,58] CM may be used to increase sexual desire, make intercourse more pleasurable, decrease sexual inhibition, facilitate sexual experimentation, and make anal intercourse easier and less painful. CM is taken with other drugs (e.g., GHB, Ketamine) and erectile dysfunction medications to enhance sexual performance, often referred to as 'Party 'n Play,' or PnP, or sometimes as 'chemsex.'[14,59,60] CM is the most common drug among GBM who PnP.[61,62] PnP can also serve the function of helping some GBM to avoid the stress of thinking about or negotiating safer sex or to reduce anxiety during sex.[63] Our proposed study will examine whether and how CM use and/or bacterial STBBI interventions could be tailored to different patterns of CM use by examining these motivations.

3.0 Overview of Study Methods

The multi-city nature of SASSY will allow us to examine city/provincial differences in CM use, STBBIs, and related healthcare services, as our recent work suggests that there may be differences in bacterial STI prevalence and bacterial STBBI testing across Canadian cities.[64] In **Phase 1 (Objectives 1 & 2)**, we will recruit a community-based sample of 2360 GBM (n=720 each in Montreal, Toronto, and Vancouver, and n=200 in Winnipeg). We will use Respondent Driven Sampling (RDS), a formalized peer-recruitment strategy to recruit representative samples of marginalized populations. The use of similar mixed quantitative-qualitative methods in our new study and the previous *Engage* study will provide comparable data regarding CM use and STBBIs in similarly representative city sample samples. Using the SASSY baseline sample of 2360 GBM, we will use Latent Class Analysis (LCA)[65] to replicate CM use patterns found in Engage, and we will examine the modifiable factors associated with each class. For example, we have previously found 4 CM use classes in *Engage*: Class 1) Minimal CM risk/high STBBIs, Class 2) Medium CM risk/low STBBIs, Class 3) High CM risk/low STBBIs, and Class 4) High CM risk/high STBBIs. These classes also differed in demographic variables (e.g., HIV status, education), and distress. Although we know from *Engage* that the classes differ in distress and STBBIs, we do not have data from *Engage* about 1) diagnostic differences between the classes (e.g., substance use disorders, other psychiatric disorders) and 2) the modifiable mechanisms that could be used to develop and adapt interventions. (See Response to Reviews attachment). Similarly, using the data that would be made available in SASSY (and that are not available in *Engage*), we may find that Class 3 has different experiences, knowledge about STBBI, motivations for CM use, or motivations for sex than Class 4 despite having similarly severe CM use symptoms. These data will help guide probes for the subsequent interviews. In **Phase 2 (Objectives 2 & 3),** we will conduct qualitative interviews with ≥20 GBM from each CM use class to understand and expand upon the quantitative results; we will ask men about perceived needs for substance use support services; service use barriers, including social drivers of health disparities; and ideas for meeting their support service needs, including substance use treatment services. In **Phase 3 (Objective 4)**, we will conduct 2 Delphi studies of expert panellists to identify priority interventions for GBM in each CM use class. A Delphi study is one where experts are asked about their opinions on a given topic, and they can see the results from previous rounds of

opinion gathering, allowing them to consider the opinions of other panellists and to reconsider their own opinions. The goal is to identify some areas of consensus.[66] This approach has been used in multiple studies, such as identifying how to reach more equitable HIV care in Southern Africa,[67] by our team to develop new approaches for STBBI prevention for GBQM.[68]

Most members of the SASSY study team have worked together on the nearly completed *Engage* cohort study of sexual health among GBM, and just recently received CIHR funding to conduct a study called *Engage 2.0* in Montreal, Toronto, and Vancouver. The *Engage 2.0* study will serve as the survey and medical data baseline for SASSY (with the exception of Winnipeg, which will be funded by SASSY only). *Engage 2.0* will also cross-sectionally examine how STBBI biomedical prevention (e.g., doxycycline-based STBBI post-exposure prophylaxis) is associated with STBBI among GBM. We will leverage the SASSY Team's experience with the *Engage* cohort study and *Engage 2.0* to conduct a novel sequential mixed-methods study[69] in Montreal, Toronto, Vancouver, and Winnipeg. Winnipeg was added to move beyond the largest cities of Canada and to increase Indigenous representation. (The *Engage 2.0* Vancouver site will not participate in SASSY beyond baseline due to it not being logistically feasible to collect nurse-administered data after baseline at their study site.) This new funding for *Engage 2.0* represents a cost-savings of $622,200 of SASSY's financial needs. See Table in Appendix F for a comparison of *Engage, Engage 2.0,* and SASSY.

3.0.1 Community-Engaged Approach

Our study design was developed in collaboration with GBM community partners (see **Letters of Support**), diverse community members including GBM who are 2-Spirit or GBM of other Indigenous sexual identities, and with our *Engage* cohort study Community Engagement Committees (CECs, comprising staff from local community-based organizations focused on GBM health promotion). For the present study, we will expand our engagement with the community by having 1 study team member with lived experience with CM use. These co-Knowledge Users have co-designed the study and will guide the study recruitment, data collection, analyses, writeup, and KTE plan. In addition, we will retain the city-specific CEC model; each CEC will include ≥ one third members with lived experience with CM use. CEC roles will consist of providing advice to the study team on (1) recruitment from diverse GBM; (2) analysis and interpretation of quantitative findings to finalize the qualitative interview guide; and (3) KTE and next steps regarding intervention development and implementation research stemming from our Delphi study. The CECs will meet 3+ times a year.

3.1 Phase 1: Quantitative Methods

The SASSY cohort design is informed by our previous *Engage* cohort study.[64,70] At baseline and follow-up visits every 6 months for two years (total = 5 visits), participants will complete online computer-assisted self-interviewing (CASI) and provide biological specimens for STBBI testing. Eligibility criteria will be (1) aged ≥16 years, (2) self-identifying as a man (cisgender or transgender), (3) able to read English or French, (4) live in the Montreal, Toronto, or Winnipeg metropolitan areas, and (5) engaged in sexual activity with another man in the preceding 6 months.

We will use **respondent-driven sampling (RDS)** to recruit participants as per our previous success with *Engage*.[64,71] RDS is a modified form of chain referral sampling designed to approximate probabilistic samples by adjusting for selection bias.[72] Statistical analyses are adjusted to account for biases in the recruitment design, which can provide reliable estimates for the underlying population. RDS starts with non-randomly selected initial participants (called "seed participants") who recruit eligible members from their social networks, who then recruit from their networks, until the target sample size is reached. Each city site will initiate recruitment with ≤30 seed participants using guidance from the local CECs to ensure diverse racial/ethnic backgrounds, gender identities, HIV statuses, risk

factors for HIV and other STBBIs, lived experience with CM use, and ages. Advertisements on mobile phone applications, such as Grindr, Facebook, and Craigslist, will also be used to raise awareness of the study and reach diverse potential seed participants.[71,73] After providing written informed consent, seed participants and subsequent participants will complete the CASI and provide biological specimens. They will be briefly educated on how to refer other eligible GBM. Participants will receive study vouchers they will use to recruit up to 6 GBM from their social or sexual networks. Participants will receive $50 in compensation per visit and a secondary incentive of $15 for each eligible GBM they recruit. Each voucher will have a unique number to link a participant to his recruiter (thereby establishing recruitment chains and allowing for RDS statistical adjustments) and to facilitate the secondary incentive payment. We will emphasize the voluntary nature of recruitment and participation.

3.1.1 Provision of biological specimens and STBBI testing

SASSY will focus on the three most common bacterial STBBIs: syphilis, chlamydia and gonorrhea. Additionally, given that CM use is also associated with viral STBBIs, including HIV and hepatitis C,[8] we will complete a full panel for STBBI testing. Participants will provide a venous blood sample permitting serological testing for HIV, hepatitis C virus (HCV), hepatitis B virus (HBV), and syphilis; these tests will be done according to provincial laboratory algorithms, which are similar across the three cities. Infection with HIV will be ascertained using 4th generation testing (detection of HIV antibodies and p24 antigen); reactive results will be confirmed using complementary testing (e.g., Western blot analysis). Similar testing will confirm HIV infection for participants living with HIV. Hepatitis C infection will be determined based on a positive hepatitis C antibody result. For men reporting or found to have a current or past hepatitis C infection, hepatitis C RNA testing will evaluate active hepatitis C infection. Hepatitis B status will be ascertained using testing for hepatitis B surface antigen (HBsAg). A history of syphilis infection will be based on a positive antitreponemal antibody test and (1) a rapid plasma reagin (RPR) titre >1:4, or (2) if the RPR titre was ≤1:4, a reactive *Treponema pallidum* particle agglutination assay (TP-PA) or another treponeme-specific test. Participants will provide urine, pharyngeal swabs and rectal swabs for screening for *Chlamydia trachomatis* and *Neisseria gonorrhoeae* using nucleic acid amplification testing (NAAT); any positive result will be coded as a detected infection.

3.1.2 Self-Report Measures in Computer-Assisted Self-Interviewing (CASI)

As noted above, our choice of measures was guided by evidence-based theories (see Appendix D). Measures will include self-reported sexual orientation, gender identity, race and ethnicity, Indigenous status (First Nations, Inuit, or Metis), immigration status (including years in Canada for immigrant GBM), HIV status, income, and perceived financial strain. Syndemic Theory-informed measures include CM, experiences of violence, and other mental health factors such as substance use, depression, anxiety. Minority Stress Theory-informed measures[74] include external anti-GBM stressors such as experiences of anti-GBM childhood and adult bullying and discrimination,[75] femme-phobic discrimination (including from other GBM), and internalized anti-GBM attitudes[76] such as internalized homophobia and fear of rejection. For GBM who are Indigenous or People of Colour, we will examine racist stressors, including racism experienced in the larger GBM community For GBM living with HIV, we will examine experiences of HIV stigma. For trans and non-binary participants, we will examine transphobic experiences. For all GBM, we will assess GBM minority strengths such as social support, community connectedness, and GBM identity pride.[45,77,78] From the Information-Motivation-Behavioural Skills Model,[57] we will assess Information variables such as knowledge about CMs, other substances, and bacterial and other STBBIs, and resources where GBM can learn how to prevent or treat these problems. Motivation variables will include motivations for substance use (e.g., to enhance pleasure, to enhance intimacy, to manage low mood), motivations for sex, motivations to use substances to reduce stress about safer sex, coping motives, and motivations for preventing or treatment

of these problems.[79–82] Behavioural Skills variables will include skills for reducing CM use and other substance use-related harms and negotiating safer sex.

CM use and STBBI risk and protective behaviours in the past 6 months: will include CM use, use of other substances (legal and illegal), and self-report of sexual behaviours including condomless anal sex, number of sexual partners and sex while intoxicated with a CM or other substances. We will administer the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) self-report screening scales for substance use disorders.[83] For sexual behaviours, we will examine whether the sexual behaviour occurred while the participant or their partner had an undetectable HIV viral load, was using anti-HIV pre-exposure prophylaxis medications (PrEP), or whether the participant had taken doxycycline PEP for bacterial STBBIs in either ongoing clinical trials or as off-label use.[84,85] We will ask whether sexual behaviour was in the context of substance use within 2 hours or during sexual behaviour (e.g., PnP or chemsex) and which substances were used (e.g., CMs, GHB, ketamine, poppers, Viagra). We will also ask about the frequency of substance use and depression and anxiety symptoms. Finally, we will ask about knowledge, interest in using, and past 6-month use of sexual health care services (e.g., STBBI testing, STBBI treatment, PrEP or PEP medications for HIV, doxycycline PEP for bacterial STIs) and mental health and substance use services (both for prevention and treatment). For services received, we will ask whether services were received at clinics or community-based organizations and by primary care providers (e.g., family MDs, NPs), specialist providers (e.g., social workers, psychology, infectious disease), or community-based outreach workers.

3.1.3 Psychodiagnostic Interviews

Recent research suggests that using diagnostic interview data or self-report data only may lead to missed diagnoses[86] and that only 51%-61% of cocaine or other substance use disorders are detected by healthcare providers, even with training.[87] Thus, we will administer the **Structured Clinical Interview for DSM-5 (SCID-5)**[88] to a random 15% of the 2360 participants at baseline (n=354) to determine whether participants meet diagnostic criteria for a CM use disorder or any other psychiaric disorder. These diagnostic data extend beyond the survey data gathered in most GBM studies, which is critical given that most people with a CM use disorder are unaware of it.[89,90] The diagnostic interviews will also provide data on how LCA classes differ as a function of substance use disorder and substance use disorder severity, which will help the clinical researchers on the team and our community-based partners to develop and implement clinic-based treatments for those who need substance use treatment. We will use SCID data to cross-validate the data from the self-report measures of risks for CM use and other substance use disorders (e.g., **the ASSIST**).

3.1.4 Quantitative Power and Statistical Analyses

In the *Engage* study of 2449 GBM, the baseline prevalence of bacterial STBBI (syphilis, gonorrhea and chlamydia) was 11.4%, with an incidence rate of 75/100 person-years (PY) at 1-year follow-up. We also observed that about 10% of baseline participants reported CM use in the last 6 months and had 2.59 (95%CI:1.93-3.49; $p<.001$) greater odds of being diagnosed with a recent STBBI. We observed a 13.1% (13.3% among CM users) annual loss to follow-up. Taking a conservative approach (20% annual attrition), our proposed recruitment of 2360 GBM (720 each in Montreal, Toronto, and Vancouver, and 200 in Winnipeg) at baseline will be able to detect at least an odds ratio of 1.7 (1-β=.81; α=.05) of a bacterial STBBI among CM users. For Objective 1, a sample size of N=1640 (Montreal, Toronto, and Winnipeg samples) will also provide enough power (80%) to detect a significant (α=0.05) linear trend for both STBBI and CM use over the 2-year period, as well as to test the proposed regression models even including up to 15 covariates (e.g., city, age, race, HIV status). We will use Generalized Estimating Equations (GEE) with a logit link, controlling for the covariates as well as recruiting-related clustering (i.e., RDS-II clustering).[91] This will also allow us to examine covariates' relative (direct and indirect) contribution to STBBI prevalence and the relationship between

CM use and STBBI. We will use Structural Equation Modeling (SEM) to test the mediation model[92] whereby CM use is associated with bacterial STIs via information, motivation, and behavioural skills variables. SEM is a quantitative statistical analysis technique that allows researchers to model complex relationships while considering measurement errors of latent variables.

For Objective 2, we will use LCA to replicate the distinct classifications of CM use found in *Engage.*[65] LCA is a person-centred modelling technique to identify distinct response patterns within a defined item set. Rather than grouping similar items and variables, LCA groups individuals into classes on shared patterns of behaviours. GBM within classes will be more alike than those between classes.[93] If the LCA classes differ between *Engage* and SAASY, we will use the SASSY classes in our longitudinal analyses. Treating the LCA classes as outcome variables, we will use multinomial logistic regression with covariate adjustment to examine associations between the classes and demographic and psychosocial variables at 2-year follow-up. Further, we will use Latent Transition Analysis (LTA) to examine intra-individual stability in CM use over the study period. LTA is an extension of LCA with the measurement (latent class) and structural (latent transition) components modeled simultaneously[94,95] and estimates transition probabilities between categories within the latent classes at successive measurement points (e.g., between Visits 1 and 2) Finally, we will fit regression models to identify demographic and psychosocial characteristics predicting transition. A rule of thumb is having 500+ participants for SEM and 300 for LCA/LTA.[92,96] Therefore, **Phase 1** of our study is well-powered to test the proposed hypotheses and addresses our most major potential challenges with recruitment, attrition, and statistical power. We will use STATA v.18 and Mplus v.8.10 for data analyses.[97,98]

3.2 Phase 2: Qualitative Methods

In Year 3, to further meet Objective 2, we will conduct semi-structured interviews to understand the experiences of CM use and STBBI, and related prevention and treatment interventions, for each CM-using class of GBM identified in Phase 1. Participants will have the opportunity to be interviewed by someone with lived CM use experience or an academic member of the team. In our sequential mixed-methods design, the qualitative phase aims to ask new research questions to explain the quantitative results.[69] Specifically, the qualitative component aims to explain and understand each class identified by the LCA. Although the exact number of interviews per class will depend on the number of classes identified, there will be a minimum of 20 participant interviews per class. We will use purposive sampling to interview information-rich cases.[99] From an intersectional perspective,[100] the qualitative sample will be diversified in age, gender identity, ethnocultural origin, and Indigenous versus non-Indigenous status. However, interviews may stop when empirical saturation is reached.

The themes to be addressed in interviews will be based on the results of the LCA and will be guided by the three theoretical models of the study. We anticipate that these will include: how their perceive their health needs and of their peers with a profile similar to theirs; living conditions, such as housing, financial strain, access to services, mental health status, violence; experiences of discrimination, including homophobia, transphobia, fear of being perceived as feminine, racism, and other forms of oppression; motivations regarding the use of CMs, perception of and management of risks. We will also specifically ask about harm reduction strategies they and their peers use, and the services they would need and would attend, and facilitators and obstacles to using these services. The interview guide will be developed from the literature consulted and from consultations with our CEC, other community partners, and people with lived experience. Please see Appendix C for the Interview Guide.

The interviews will be transcribed, and the analyses will be conducted as the data collection progresses.[101] Our community partners and people with lived experience will be involved in data analysis. The analyses will occur through the first half of Year 4 and will follow the steps by Miles and

Huberman.[102] First, the content will be codified. The research team will define the codes in collaboration with community partners and people with lived experience. Codes will be reviewed as the codification process progresses. We will then draw up a list of themes. Subsequently, thematic sets will be identified according to specific characteristics: recurrence, divergence, convergence, and complementarity. We anticipate that two team members will co-code 10% of the material, with discrepancies resolved by consensus. The analysis will be performed with NVivo software.

3.3 Phase 3: Using GBM Community and Provider Expertise to Identify Targeted Interventions

For Objective 3, using both quantitative and preliminary qualitative data identified in Years 1-3, in the third quarter of Year 4, we will conduct an Internet-based Delphi study to gather community and healthcare provider opinions as to the most promising interventions for each substance use class to reduce the CM use and STI epidemics among GBM. Our research will follow previous[103] web-based Delphi studies. Delphi studies[104,105] have been successfully used over the past 60 years to collect data from expert opinions in healthcare.[106] Anonymous participation reduces the effect of a few dominant individuals and social desirability bias.[107] In Phase 3, panellists will rate interventions in terms of their priority for each class identified in the LCA, and panellists will rank their preferences by selecting their top 3 preferred interventions in three rounds of data collection.

SASSY will create two expert panels to conduct two independent Delphi studies: (1) GBM community members from each LCA class; (2) healthcare providers for GBM. The inclusion and exclusion criteria for the community member panel will be the same as for the main biobehavioural study. Given the higher burden of STBBIs among younger GBM, Indigenous GBM, and GBM of colour, for our GBM community panellists, we also set overlapping target goals to recruit a minimum of 1) 40% to be men aged ≤40 years, 2) 15% to identify as Indigenous GBM, 3) 30% to identify as a GBM of colour, and 4) 50% to identify as CM users. For the healthcare provider panel, participants must have >1-year of experience providing either substance use or STI testing and treatment working with GBM in any of the 3 cities for the present study. To ensure panellists represent each city, we will stratify recruitment so no more than 1/3 of the panel comes from any city. We will recruit 30 experts with diverse backgrounds (ethnoracial identity, gender identity, sexual orientation, and age) for each panel, including those using Delphi study methods.[106,107] Initial invitations for the healthcare provider panel will be informed by our team's community and professional networks. Panellists will be encouraged to refer other eligible panellists to reduce potential bias from our team's selection of members.

Online surveys will be delivered through Qualtrics. Although a personalized link will be used to access the survey, personal information will not be stored, and contact details will be removed from the completed survey. They will be stored separately for panellist honoraria. Because there is no standard definition of consensus for Delphi studies,[106] we will define consensus as having ≥60% of members (≥18/30) indicate a preference within 2 adjacent response points (+/−1) on a 7-point Likert scale. The top 3 ranked interventions will be determined based on frequency counts. Should this occur, we will supplement the quantitative analyses with a thematic analysis of open-ended text data[108] to better understand disagreements within and between panels.

4.0 Working with Our Indigenous Partners

SASSY team members acknowledge and respect the Indigenous right to self-determination, including the jurisdiction to decide about research in their communities. Indigenous communities have the right to follow cultural codes of conduct and community protocols, and it may be necessary for Indigenous community members to seek advice and support from community Elders (e.g., Elder McLeod in Winnipeg) and other community leadership (Dr. Randy Jackson, Director of the Feast Centre for Indigenous STBBI Research). We will engage with and honour Indigenous communities through

protocols of respect and reciprocity.[109] All our research will proceed respectfully according to the cultural standards of Indigenous peoples and communities. This includes ensuring community self-determination by honouring the frameworks of engaging with Indigenous communities, such as the principles of Ownership, Control, Access and Possession for First Nations,[109] the Ownership, Control, Access and Stewardship framework (OCAS) for Métis,[110] and the Inuit Nipingit (National Inuit Committee on Ethics and Research) of the Inuit.[111] Regarding Indigenous data governance, we will also follow the CARE Principles[112] that address historical inequities by creating value from Indigenous data grounded in Indigenous worldviews and by realizing opportunities for Indigenous Peoples within the knowledge economy.

Given the high proportion of Indigenous peoples in Winnipeg,[113] this site will be guided by an Indigenous Elder (A. McLeod) who will share his wisdom and ensure that we are grounded in Indigenous culture, ceremony, and ways of knowing, which will be essential to engage Indigenous communities in all phases of the project. The KTE component of this study may also be grounded within several ceremony-related elements, including sweat lodges, smudging, pipe ceremony, and utilizing sharing circle format (or as indicated by communities).

5.0 Feasibility of the Proposed Study and Team Strengths

We are experts in large-scale data collection and longitudinal data analyses. SASSY's recruitment goal is feasible based on our previous success in recruiting large numbers of GBM in Toronto, Montreal, and Vancouver in short periods for *Engage.*. Our team has been highly productive, with 37+ articles from Engage in the past 3 years.[64,71,114–118] *Engage 2.0* is a cross-sectional study. *Engage 2.0* will begin data collection in May 2024, the exact start date for data collection for SASSY. The SASSY methods will be combined with *Engage 2.0,* as we will have the same data collection for our questionnaire and STBBI testing for the baseline of SASSY **Phase I.** To avoid delaying our shared studies, the SASSY team will seek an REB amendment in advance at our shared sites to include the SASSY specific measures and procedures so we are ready to begin data collection at the same time as *Engage 2.0.* We will also use our expertise in retaining participants to mitigate study attrition, such as through study newsletters and KTE events to engage GBQM communities.

SASSY will extend beyond *Engage 2.0* in five critical ways. We will: **1)** collect 2 years of follow-up data for **Phase 1**, including a) mental health and substance use diagnostic interview data not funded in *Engage 2*.0, b) motivations for sex and CM, and other substance use to identify the modifiable mechanisms underlying the CM use and bacterial STBBI epidemics among different classes of CM users. 3) collect qualitative interviews with diverse classes of CM users in **Phase 2,** and 4) collect data on the most effective interventions using health expert panelists in **Phase 3.** We will also 5) collect data in Winnipeg, a site with increasing Indigenous STBBI prevalence that is not a part of *Engage 2.0.*

Our multidisciplinary (e.g., psychology, public health, medicine, social science, biostatistics) team includes decision-makers who work in public health (e.g., Tran and Grewal at Public Health Ontario, Moore at BC Centre for Excellence in HIV/AIDS; Milot at la Direction de santé publique du CISSS Montérégie-Centre), researchers who test and develop behavioural interventions, and biomedical treatments for both substance use and STBBI (Blanchette, Hart, Goyette, Lafortune, Stewart, Tan, Berlin, Skakoon-Sparling, Guiang, Moore), experts in how stress and trauma lead to substance use (Stewart, Noor, Dermody), researchers who work actively with GBM communities to co-develop community-led interventions (Hart, Souleymanov, Bertrand, Flores-Aranda, Grace, Card), and community leaders who work in GBM mental health, substance use, and sexual health (Elder McLeod, Maxwell, Griffiths, see multiple letters of support). Our team also includes researchers at the Canadian Research Initiative in Substance Misuse (CRISM; Bertrand, Goyette, Flores-Aranda; Stewart), a

national network of researchers, service providers, policymakers and people with lived experience. (See Appendix H for roles of each team member). The NPI will dedicate 12 hr/wk to this project, other PIs will dedicate 10 hr/wk, and all co-Is and collaborators will dedicate 1-2 hr/wk.

6.0 Ethical Issues

STBBI test results and post-test counselling will be available to participants. They will also receive a list of STBBI and substance use prevention and treatment resources available in their city. Participants will be informed that STBBI-positive test results will be reported to local public health agencies, per reporting requirements. Connections to appropriate care and support, including Elder, community, and spiritual supports for Indigenous communities will be provided by study staff. Participants will receive $50 at each visit. Registered psychologists or mental health counsellors working with site medical staff are available at each study site for participants struggling with substance use or other mental or medical health problems. Our team members with lived experience will also help identify ethical issues as they arise, and to provide lived experience as to how to address these ethical issues. Since our sample includes participants ≥16 years of age, obtaining informed consent for this group will adhere to ethical guidelines and guidance from local research ethics boards.

7.0 Knowledge Translation and Exchange (KTE) Plan

Our KTE plan will actively involve people with lived CM use experience as co-KUs, on our city-based CECs, and other public health and mental health stakeholders at each site. Each year, starting when baseline data collection is completed in Year 2, we will convene national webinars and city-specific meetings to share findings with our public health and mental health stakeholders in government and from the GBM community. These will also serve as a means for stakeholder feedback on emerging substance use and STBBIs needs, allowing our design to be nimble (e.g., novel CM or emerging STBBI). Working with our Indigenous partners, we will also convene sharing circles using ceremony specific to the territory of each site. We will meet with our colleagues in provincial public health agencies and Ministries of Health to present our data and to integrate our findings into health policy including stimulant use disorder policies,[33] and with our community partners to develop new CM treatment and harm reduction programs including STBBI prevention. We will leverage CRISM's expertise in translating research it into evidence-based interventions for substance misuse to improve and create health system changes. Our active team will present at least 4 papers a year starting in Year 3 when Phase 1 is complete, and 2 per year presentations at scientific (e.g., STBBI and/or mental health conferences) and community conferences and meetings (see Appendix G for list of future papers).

8.0 Significance of the Proposed Research

SASSY follows community calls for the inclusion of GBM with lived experience and Indigenous GBM as experts in studies of substance use.[119] The multisite, sequential mixed-methods approach extends previous studies in Canada by linking CM use with STBBIs. Phase 1 will provide important information on modifiable mechanism and mental health correlates of different classes of CM use. These data are needed to develop evidence-based integrated services addressing increasing CM use and bacterial STBBIs. Our syndemic and minority stress approach will also allow for syndemic problems to be treated simultaneously and potentially with greater effectiveness for prevention efforts.[120] Phase 2 will identify the lived experiences of different classes of CM users, which will inform graded or phased treatment approaches. In Phase 3, we will gather both GBM and healthcare provider expert opinions to identify areas of consensus regarding novel interventions tailored to different classes of CM use. In summary, our study integrates theory, recent international and Canadian research findings, and recommendations from Canadian federal agencies to effectively move us from the realm of observational research and recommendations to future CM intervention research and implementation in a period of increasing CM and STBBIs in Canada.

The present study builds on the methods and success of *Engage*, a longitudinal cohort study examining how biomedical HIV prevention has changed sexual health among 2,449 GBM across 3 cities. Our team has been highly productive, with 37+ peer-reviewed articles in the past 3 years from *Engage* alone.[64,71,114,115,117] We have used *Engage* for many purposes, including identifying 1) the high prevalence of bacterial STBBI among urban Canadian GBM 2) city differences in STBBI and other sexual health outcomes, 3) correlates of biomedical prevention,[71,114,115] 4) intervening variables in the relation between crystal methamphetamine use (CM) and bacterial STBBIs,[6] and 5) the use of HIV Pre-Exposure Prophylaxis [PrEP] and bacterial STBBI among GBM.[114] *Engage* has also served as a base for other studies, such as the study headed by Hart on GBM risk factors for donating blood infected with HIV,[64,118] and the *Engage*-HPV study, headed by co-PI Burchell, on HPV vaccination attitudes and behaviours among GBM.[117,121] Our study on GBM's risk factors for donating blood infected with HIV has been used by Canadian Blood Services to change their blood donation policy from a population-based policy excluding almost all gay and bisexual men to a more inclusive and gender-neutral policy, and the U.S. Food and Drug Administration has requested to see our recent published paper on this topic as they consider changes to their GBM blood donation policy.

Most members of our study team have worked together on the nearly completed *Engage* cohort study of sexual health among GBM. The team just recently received funding to conduct a cross-sectional study called *Engage 2.0* in Montreal, Toronto, and Vancouver. The *Engage 2.0* cross-sectional study will examine how STBBI biomedical prevention (e.g., doxycycline-based STBBI post-exposure prophylaxis) is associated with STBBI among GBM. We will leverage our Team's experience with the *Engage* cohort study and *Engage 2.0* to conduct a novel sequential mixed-methods study in Montreal, Toronto, Vancouver, and Winnipeg. We recently received CIHR funds for *Engage 2.0,* which will serve as the quantitative baseline for the present proposal, providing the **Phase 1** baseline questionnaire and biomedical data. *Engage 2.0* also supports a study coordinator in Montreal, Toronto, and Vancouver and baseline funding for a study nurse, thereby covering $622,200 of the present proposal's financial needs. We will also benefit from the existing infrastructure for the recruitment of and for the biomedical sample collection from 720 GBM in Montreal, Toronto, and Vancouver, which are the common cities between *Engage 2.0* and the current study. **Our proposal will extend beyond *Engage 2.0* in five critical ways.** We will: **1)** collect 2 years of follow-up data for **Phase 1**, including a) mental health and substance use diagnostic interview data not funded in *Engage 2.0*, b) motivations for sex and CM, and other substance use to identify the modifiable mechanisms underlying the CM use and bacterial STBBI epidemics among different classes of CM users. 3) collect qualitative interviews with diverse classes of CM users in **Phase 2,** and 4) collect data on the most effective interventions using health expert panelists in **Phase 3.** We will also 5) collect data in Winnipeg, a site with increasing Indigenous STBBI prevalence that is not a part of *Engage 2.0.*

Along with the co-leading *Engage*, Dr. Hart is also active as a clinical researcher who develops and tests interventions for GBM that integrate mental health counselling and psychotherapy with STBBI prevention using clinical trial methods. Dr. Hart is a registered psychologist in Ontario and will be registered in Manitoba by April 1, 2024. Dr. Hart completed the Gay Poz Sex (GPS) peer-facilitated sexual health promotion randomized controlled trial (RCT).[122] GPS was efficacious in reducing loneliness and STBBI sexual risk behaviours among sexually active GBM living with HIV. Dr. Hart is also conducting a current CIHR-funded RCT called Sexual Confidence. This RCT tests the efficacy of a cognitive-behavioural therapy integrating treatment for social anxiety disorder, CM use management, and STBBI prevention for HIV-negative GBM. Each of these interventions was developed based on

data from Dr. Hart's previous studies. None of these interventions focus on stimulant use prevention or treatment, nor do they have any funding overlap with the current proposal.

Dr. Hart also currently holds two SSHRC grants for an intervention trial and a longitudinal online-survey study investigating loneliness and its impact on GBQM sexual health. None of them have any funding overlap with the current proposal.

Dr. Hart and the study team, comprised of multiple experts in stimulant and other CM use among GBM (e.g., Flores-Aranda, Bertrand, Souleymanov, Card, Salway, Dermody, Wardell, & Stewart), are therefore highly capable of translating the findings from the present study into stimulant use harm prevention and treatment intervention studies.

COVID-19 had a significant impact on data collection for *Engage* and Sexual Confidence. Both studies had to transition to an online format, which not only caused delays due to changes in our protocol and the need for REB approvals but also created challenges in the recruitment and retention of participants. The lab was also closed for 4 months in 2021, which stopped data collection. When the University opened again, extra protocols needed to be implemented to sanitize and air out data collection rooms, which also slowed down data collection. Despite these significant challenges, Dr. Hart was able to publish 52 articles in 2021-2023.

Our other team members have significant experience that supports Dr. Hart's research experience, and that will facilitate the success of the present proposal. Our Montreal co-PIs, Flores-Aranda, an early career investigator and Bertrand, a mid-career investigator, and other Montreal team members have conducted studies with GBM who use CM, including qualitative studies involving people with lived experience throughout the research process (as found in the present proposal) [123]. Flores-Aranda and Bertrand also developed with leaders of the GBM community an online intervention for GBM who use CM in a sexual context.[124] Dr. Souleymanov (co-PI) is an early career investigator with expertise in harm reduction and marginalization of people who use substances, racism, sexual objectification and CM use among GBM of colour and Indigenous GBM and 2-Spirit people, and community-based approaches for people who use CM. Souleymanov also examines the intersection of sex under the influence of drugs, called Party-n-Play and STBBI prevention among GBM, as well as GBM's motivations for using CM. Dr. Burchell (co-PI) has published several papers with Dr. Hart and has documented high rates of STBBIs among GBM.[117,121] In response, she is leading studies investigating the potential for interventions including new STI testing strategies such as routinizing syphilis testing among men living with HIV.[125] The present proposal follows methods from Burchell's e-Delphi study to build consensus with regard to interventions with the greatest potential for improving local STBBI testing services for GBM in Toronto.[103] This study found that even for what appears to be a single STBBI intervention (i.e., testing), there can be varied opinions on the best approaches for implementation, such that there is no "one size fits all" approach.

Thus, our current proposal incorporates our team's significant content expertise, productivity, GBM stakeholder engagement, and methodologic expertise in longitudinal and mixed methods research with large samples of GBM. Given our team's experience and expertise in CM, other substance use, STBBI, treatment development, and clinical trial research, the current 3-phase study is highly feasible and is likely to lead to significant improvement in our knowledge of how to prevent and treat CM use-related harms including STBBI prevention among GBM.

The authors do not discuss prevalence and incidence data which are still relatively low.
We now clarify the high prevalence and incidence data of bacterial STBBIs among GBQM. "GBM accounted for 71% of male syphilis cases in Canada in 2020 (3). Gonorrhea case rates have doubled among U.S. GBM between 2010 and 2015, and there has been a 242% increase in diagnoses among Canadian men in the general population from 2009-2018 (1,4), with increasing rates of multidrug-resistant gonorrhea. In data from our study team, 11.4% of urban Canadian GBM had a recent diagnosed bacterial STBBI (syphilis, gonorrhea, or chlamydia) (please see Appendix for references).

It is not completely clear why they select specific assessments based on three theories.
We now clarify that these three theories were chosen as they have previously been used to create psychosocial interventions.

The applicants argue themselves against the self-report as a measure, but then rely on MINI and ASSIST which are standardized assessments, but self-report in principle. The MINI does only provide diagnostic assessment of alcohol use and one other substance.
This revised proposal now uses the Structured Clinical Interview for DSM 5.0 (SCID 5), which allows for the diagnosis of multiple substances. We are using diagnostic interviews as that is the standard method for psychiatric diagnosis.

The already existing infrastructure for the Engage study is also an advantage, although it is not mentioned why Vancouver was dropped as a site and Winnipeg included instead.
We now have Vancouver for the baseline data. We note that due to logistic reasons, the Vancouver site cannot hire a nurse for the 2-year follow-up study, and that Winnipeg has been included to increase Indigenous and prairies representation.

The team mentions several problems linked to stimulant use – psychosis should be mentioned.
We have added psychosis as a problem and will assess for this in the SCID.

The size of the team is also a weakness - it is difficult to determine how each person will contribute and their role – a diagram of some sort is needed.
We have added a diagram and a table outlining each team member's role in this 3 phase (quantitative, qualitative, and Delphi study multicity study. (See Appendix H for the roles of each team member).

It is not clear, at this point, what new knowledge will be generated… (especially since Engage has some data on STBBIs/stimulant use already).
In the year since we last applied, we analyzed all available Engage data relevant to the current proposal. We conducted an LCA and followed participants over 2 years of data collection (our last available *Engage* timepoint), and found 4 classes: 1) Minimal CM risk/high STBBIs, 2) Medium CM risk/low STBBIs, 3) High CM risk/low STBBIs, and 4) High CM risk/high STBBIs. These classes also differed in demographic variables and in questionnaires on psychological distress. Although we know that the classes differ in distress and STBBIs, we do not know about modifiable mechanisms that could be used to develop and adapt interventions. We now clarify that our new data collection will allow us to look at the motivational and other psychosocial mechanisms by which CM is associated with STBBIs (not available in *Engage,* unfortunately) so we can develop new interventions for each class of CM use. We also clarify that *Engage* is nearly completed, and that our new *Engage 2.0* study is a cross-sectional study that will serve as the quant baseline for the current proposal.

I am mostly concerned with the need for such an intrusive data collection (anal swab, blood work+ mention that this will be shared with public health) - seems like this could be a deterrent for participants, which would result in a biased convenience sample. Another comment was about *potential attrition rates and the mitigation strategies.*
We clarify in the current proposal that we are in fact collecting data using respondent driven sampling, an approach that allows us to correct for sampling biases. Regarding our STBBI data collection, we have been performing a full panel for STBBI testing in *Engage.* This panel is consistent with guidelines for STBBI care for GBQM, and many of our participants use the study as a more convenient alternative to busy STBBI clinics. Regarding attrition, now that *Engage* is nearly completed, we can state the attrition rates, which are only 13.1% per year (13.3% for GBQM who use CM. We have also increased our sample size from N=1200 to N=1640 for all 5 visits in Phase 1. With attrition, we will retain N=1238 in the total sample at the end of the 2-year period, which is more than sufficiently powered to test the study hypotheses. We will also use active community engagement strategies including newsletters and GBQM community events.

Not clear why longitudinal data is needed either (the main research questions are linked to behaviors and risk– why should these change over time?).
We now note the need to examine trajectories of CM-related harms and STBBIs over time, and how participants may shift their CM use over time, which would allow us to examine stability of CM use classes over the 2-year period.

The analyses are justified but could be described in more details (what/why 15 covariates?)
We have added information in our data analyses about how we have sufficient power to test relationships between CM and STBBI with up to 15 possible covariates (e.g., age, race, city).

KT activities are mentioned but the KT plan is not clearly spelled out.
We have now added information to our KTE plan, including integrating our findings with STBBI and substance use policy with our colleagues in public health and Ministries of Health, and to develop new programs with our community partners, many of whom are collaborators in the current application.

In the current form of the application, it is difficult to determine who will really play an active role in the project. This makes it difficult to evaluate the quality of the team.
We now clarify the roles of the investigators in Appendix H, which outlines the role of each investigator, a diagram outlining the different committees for the grant, and the publications that will be headed up by different members of our large and productive team.

There are some issues that need to be clarified regarding the cluster analyses defined in Objective 2. 1) Why target stimulant use exclusively? 2) Are we talking about frequency of use? what about quantities? are they measured in the project?
In this version of the proposal, we have limited the scope of the project to CM use, which is a reliable risk factor for poor mental health and STBBI outcomes. 2) We are employing a latent class trajectory model to examine changes in crystal meth use patterns over time using the ASSIST, which measures frequency of use, quantity of use, distress, and interference caused by usage. Modeling these variables into latent classes allows us to move beyond the binary conceptualization of CM use (yes/no), will allow us to examine how different patterns of CM use are associated with different mental health and STBBI outcomes.

Review Type / Type d'évaluation:	Reviewer 1 / Évaluateur 1
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Adjudication Criteria/Critères de sélection

Initial Score/Cote Initiale: 3.8

Top/Bottom Selection/Groupe supérieur/inférieur

◯ **Top/Groupe supérieur**
◉ **Bottom/Groupe inférieur**

Review Type / Type d'évaluation:	Reviewer 1 / Évaluateur 1
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Summary of Application/Résumé de la demande:

The study is based on a multisite research network with a large group of diverse applicants including knowledge users

The proposal outlines a “repeat” of the Engage study a cohort study in 3 cities focused on sexual health in participants which self-identify as gay, bisexual and men having sex with men. While the Engage study was focused on virally sexually transmitted diseases, they now want to focus on bacterially transmitted diseases in the same group of participants.

Review Type / Type d'évaluation:	Reviewer 1 / Évaluateur 1
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Strengths and Weaknesses/Forces et faiblesses:

The author report that in 2018 79% of the syphilis cases were accounted for by males, who self-identify as gay, bisexual and other men who have sex with men.

A recent report by the government of Canada actually reads:

“Although the proportion of cases who self-identify as gay, bisexual and other men who have sex with men decreased from 54% to 38% between 2018 and 2020, they still represent a high proportion of cases (according to data from eight P/Ts)”

The authors do not discuss prevalence and incidence data which are still relatively low.

Aside from stimulant use they want to test three psychosocial models (syndemic theory, minority stress theory, and the information - motivation - behavioural stress model. It is nor complete clear why the select specific assessments based on three theories (or models). Aside from the assertion that they are empirically supported there is no information on the reason for these assessments.

Advantages are the team being assembled and having experience, the question is the novelty of the current study, as the authors seem to repeat the same study with limited novel approaches.

It seems that the cluster analysis will be based on the standardized interviews and self-assessment. The applicants argue themselves against the self-report as a measure, but then rely on MINI and ASSIST which are standardized assessments, but self-report in principle. The MINI does only provide diagnostic assessment of alcohol use and one other substance.

The authors have a strong KT plan based on the previous Engage study.

Review Type / Type d'évaluation:	Reviewer 1 / Évaluateur 1
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Budget Recommendation/Recommandation budgétaire:

The authors request 1,775,000 CD for 3 year study to assess 1200 individuals over five visits, which seems very reasonable.

Review Type / Type d'évaluation:	Reviewer 1 / Évaluateur 1
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Please indicate your appraisal of the integration of sex as a biological variable as a strength, weakness, or not applicable to the proposal./Prière de sélectionner une option pour donner votre évaluation de l'intégration du sexe comme variable biologique en tant que point fort ou point faible de la proposition, ou en tant qu'élément non applicable à la proposition.

- (●) **Strength/Point fort**
- ( ) **Weakness/Point faible**
- ( ) **Not applicable/Non applicable**

Please indicate your appraisal of the integration of gender as a socio-cultural determinant of health as a strength, weakness, or not applicable to the proposal./Prière de sélectionner une option pour donner votre évaluation de l'intégration du genre comme déterminant socioculturel de la santé en tant que point fort ou point faible de la proposition, ou en tant qu'élément non applicable à la proposition.

- (●) **Strength/Point fort**
- ( ) **Weakness/Point faible**
- ( ) **Not applicable/Non applicable**

Review Type / Type d'évaluation:	Reviewer 1 / Évaluateur 1
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Sex and/or Gender Considerations/Notions de sexe et/ou de genre:

The applicates are not completely clear if they assess gender, even if they do plan to characterize gender focused variables.

Review Type / Type d'évaluation:	Reviewer 2 / Évaluateur 2
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Adjudication Criteria/Critères de sélection

Initial Score/Cote Initiale: 3.7

Top/Bottom Selection/Groupe supérieur/inférieur

◯ **Top/Groupe supérieur**
◉ **Bottom/Groupe inférieur**

Review Type / Type d'évaluation:	Reviewer 2 / Évaluateur 2
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Summary of Application/Résumé de la demande:

The current proposal aims at increasing our understanding of the interface between stimulant misuse in the GBM community and STBBIs. The proposal includes 3 phases, using a mix-method design across three sites (Mtl, Winnipeg and Toronto).

The first phase is a quantitative data collection (biospecimens and survey) to obtain information on substance and sexual behaviours.

The second phase will involve qualitative interviews for each subgroup (identified from phase 1).

And the third phase will involve a delphi study to identify priority prevention or treatment interventions according to the subgroups and issues collected at phase 2.

For phase 1: 1200 participants are anticipated, using Respondent-driven sampling. For phase 2, following Latent-class analysis, more or less 20 participants per identified subgroup; and for phase 3: 30 per panel (2 panels: one community, one health care providers).

Review Type / Type d'évaluation:	Reviewer 2 / Évaluateur 2
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Strengths and Weaknesses/Forces et faiblesses:

Strengths:

The team has conducted a previous study on STBBIs in the GBM community (mostly linked to HIV risky behaviours and condom use) and has demonstrated its ability to conduct large studies over multiple sites, such as this one wants to do, and has published the results. The Engage study was funded from 2019-2023 (over 2 million$). The study generated 22 articles and KT initiatives. This study aims at exploring the stimulant angle in more depth.

The already existing infrastructure for the Engage study is also an advantage, although it is not mentioned why Vancouver was dropped as a site and Winnipeg included instead.

The theme is important – we currently have a stimulant use problem across Canada and we know that the GBM community suffers the consequences.

The LCA, qualitative and Delphi methodologies are all sound methods.

The self-report measures are linked to their model, and are well justified.

Very big team (27!!), most with strong track records.

Weaknesses:

The team mentions several problems linked to stimulant use – psychosis should be mentioned as well.

The size of the team is also a weakness - it is difficult to determine how each person will contribute and their role - a diagram of some sort is needed.

It is not clear, at this point, what new knowledge will be generated. The team has conducted a systematic review strongly linking risky behaviours in GBM and stimulant use, others have done qualitative studies on the topic (in UK mostly), and the Engage study also has generated some information about this topic. Conducting a large study on GBM to study less than a third of participants seems a bit extreme (especially since Engage has some data on STBBIs/stimulant use already).

I am mostly concerned with the need for such an intrusive data collection (anal swab, blood work+ mention that this will be shared with public health) - seems like this could be a deterrent for participants, which would result in a biased convenience sample. Couldn't the team work with community clinics and approach only those who got a positive test result and ask if they use stimulants? Or recruit those who use stimulants only and ask if they have STBBI (if they don't know ask if they wish to get tested?)

It is not clear how those biospecimen results will be used either – other than collecting prevalence rates (not an objective of this proposal). Not clear why longitudinal data is needed either (the main research questions are linked to behaviors and risk

– why should these change over time?).

In terms of feasibility, given how hard it is to recruit and keep stimulant users in a study (the proposal mentions a 40% loss to follow-up), I would like to see a mitigation plan.

The analyses are justified but could be described in more details (what/why 15 covariates?)

KT activities are mentioned but the KT plan is not clearly spelled out.

Review Type / Type d'évaluation:	Reviewer 2 / Évaluateur 2
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Budget Recommendation/Recommandation budgétaire:

Participant payment or lottery??? Seems odd to propose this (not sure it is ethical).

Review Type / Type d'évaluation:	Reviewer 2 / Évaluateur 2
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Please indicate your appraisal of the integration of sex as a biological variable as a strength, weakness, or not applicable to the proposal./Prière de sélectionner une option pour donner votre évaluation de l'intégration du sexe comme variable biologique en tant que point fort ou point faible de la proposition, ou en tant qu'élément non applicable à la proposition.

- (●) **Strength/Point fort**
- ( ) **Weakness/Point faible**
- ( ) **Not applicable/Non applicable**

Please indicate your appraisal of the integration of gender as a socio-cultural determinant of health as a strength, weakness, or not applicable to the proposal./Prière de sélectionner une option pour donner votre évaluation de l'intégration du genre comme déterminant socioculturel de la santé en tant que point fort ou point faible de la proposition, ou en tant qu'élément non applicable à la proposition.

- (●) **Strength/Point fort**
- ( ) **Weakness/Point faible**
- ( ) **Not applicable/Non applicable**

Review Type / Type d'évaluation:	Reviewer 2 / Évaluateur 2
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Sex and/or Gender Considerations/Notions de sexe et/ou de genre:

The proposal is specifically tailored for a sex (men) but will also consider gender, as well as EDI aspects in their analyses and questions. They are also working closely with First nations.

Review Type / Type d'évaluation:	Reviewer 3 / Évaluateur 3
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Adjudication Criteria/Critères de sélection

Initial Score/Cote Initiale: 3.6

Top/Bottom Selection/Groupe supérieur/inférieur

◯ **Top/Groupe supérieur**
◉ **Bottom/Groupe inférieur**

Review Type / Type d'évaluation:	Reviewer 3 / Évaluateur 3
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Summary of Application/Résumé de la demande:

The prevalence of sexually transmitted infections is high among gay, bisexual, and other men who have sex with men (GBM). There is strong evidence that stimulant use increases the risk of being affected by bacterial sexually transmitted infections. Among GBM, stimulant use and STIs are components of what is referred to as a syndemic, which is defined as "multiple health conditions that cluster and worsen the health of a given population". Despite an observed increase in stimulant use and bacterial STIs among GBM, little work has been done to better understand the complex relationships between the components of this syndemic, and the mechanisms involved in the evolution of these components. The fundamental objectives of this grant application are to better understand the interactions between the components of this syndemic and to identify the most promising and appropriate interventions for this complex population. In a first phase, the team proposes to conduct a biopsychosocial study in 3 Canadian sites (Toronto, Montreal and Winnipeg) including both a survey and biomedical testing of bacterial STBBIs, as well as a longitudinal follow-up. Latent class analyses will be performed to identify profiles of stimulant use in GBM. In the second phase of the project, qualitative interviews will be conducted to better understand the subjective experiences of stimulant use and bacterial STBBIs among GBM selected according to their class membership identified in phase 1 of the project. In the final phase of the project, a Delphi study will be carried out with 2 groups of expert panels: on the one hand, GBM community members, and on the other hand, health providers. This Delphi study will aim to identify prevention methods and clinical interventions that can respond to the needs and concerns of the GBM belonging to the classes identified in phase 1. Taken together, these different phases could help identify risk factors for simulant use that could be targeted by interventions, as well as identify prevention and intervention approaches for this complex population.

Review Type / Type d'évaluation:	Reviewer 3 / Évaluateur 3
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Strengths and Weaknesses/Forces et faiblesses:

Strengths

- Considering that there is a meth crisis in some Canadian cities, that Canadian society is increasingly concerned about diversity and inclusion issues, and that STBBIs can have significant health impacts, this grant application targets a syndemic that touches on several public health priorities in the country

- The 3 phases of the grant application appear to be complementary and are logically and clearly interrelated. The choice of questionnaires to be administered in Phase 1 of the project is based on theoretical models of interest, such as syndemic theory

- In the recent past, the team successfully completed a longitudinal cohort study (Engage study) on HIV and sexual health of 2449 GBM recruited at 3 Canadian sites. This study has resulted in over 20 publications. This success not only highlights the team's expertise in the field, but also their ability to conduct the study proposed here

- To recruit the population of interest, the team intends to use respondent-driven sampling strategy. Although the approach has its won limits, it seems like an appropriate strategy for recruiting hard-to-reach populations

- The team applying for this grant is large, with members having diverse expertise in GBM, substance use, STBBIs, multi-site data acquisition, longitudinal and qualitative data processing, clinical and community interventions, and it also includes decision makers who can ensure knowledge transfer.

Limitations

Issues

- In the ongoing study (Engage), the loss to follow-up observed to date is 30-35%, and the expected loss to follow-up for the proposed cohort is 40%. These are significant loss to follow-up rates. One can obviously understand that the complex population of interest presents its own set of challenges. Still, it would still be necessary to ensure that the sub-cohort that will be followed is representative of the whole cohort. And if not, what will be the mitigation strategies?

- The team is composed of 27 investigators, presumably because the project will take place at 3 sites (Montreal, Toronto & Winnipeg) and because the project includes a Delphi study. However, in the current form of the application, it is difficult to determine who will really play an active role in the project. This makes it difficult to evaluate the quality of the team.

Review Type / Type d'évaluation:	Reviewer 3 / Évaluateur 3
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

- There are some issues that need to be clarified regarding the cluster analyses defined in Objective 2. 1) Why target stimulant use exclusively? 2) Are we talking about frequency of use? what about quantities? are they measured in the project? 3) Why not exploit the richness of the longitudinal data instead of using baseline data only? 4) Is the cluster analysis plan the most optimal and will it ensure that cluster analyses add real value?

- In the Background section, the team makes a compelling case for studying the complex relationships between meth use, GBM and sexually transmitted infections. However, when we look at the different components of the application, we see that this logic is not always followed. For example, in phase 3 of the project, a Delphi study will be conducted to identify the specific needs of profiles of people who are defined solely based on their stimulant use. If the identification of sub-groups is not optimal, how can we expect that the identification of clinical interventions will be appropriately tailored?

Minor issues

- Given that the MINI diagnostic interview will be administered to a minority of participants, how useful will it be?

- To estimate the required sample size, a power of 80% and a p-value of 0.05 were used. This seems a bit tight to carry out all the planned analyses.

- Even though the team has all the necessary members to ensure a credible KT plan, the section on the KT plan is under-developed

Review Type / Type d'évaluation:	Reviewer 3 / Évaluateur 3
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Budget Recommendation/Recommandation budgétaire:

A significant portion of the budget is allocated to research assistants and nursing time. No major concerns, but the budget seems a bit high, though. That said, it should be taken into consideration that the study is taking place at 3 sites and that the study population is complex.

Review Type / Type d'évaluation:	Reviewer 3 / Évaluateur 3
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Please indicate your appraisal of the integration of sex as a biological variable as a strength, weakness, or not applicable to the proposal./Prière de sélectionner une option pour donner votre évaluation de l'intégration du sexe comme variable biologique en tant que point fort ou point faible de la proposition, ou en tant qu'élément non applicable à la proposition.

- (●) **Strength/Point fort**
- ( ) **Weakness/Point faible**
- ( ) **Not applicable/Non applicable**

Please indicate your appraisal of the integration of gender as a socio-cultural determinant of health as a strength, weakness, or not applicable to the proposal./Prière de sélectionner une option pour donner votre évaluation de l'intégration du genre comme déterminant socioculturel de la santé en tant que point fort ou point faible de la proposition, ou en tant qu'élément non applicable à la proposition.

- (●) **Strength/Point fort**
- ( ) **Weakness/Point faible**
- ( ) **Not applicable/Non applicable**

Review Type / Type d'évaluation:	Reviewer 3 / Évaluateur 3
Name of Applicant / Nom du chercheur:	Hart, Trevor
Application No. / Numéro de demande:	487684
Agency / Agence:	CIHR/IRSC
Competition / Concours:	Project Grant/Subvention Projet
Committee / Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title / Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Sex and/or Gender Considerations/Notions de sexe et/ou de genre:

Considering the very nature of the project, this is a strength of this application.

Review Type/Type d'évaluation:	SO Notes /Notes de l'agent scientifique
Name of Applicant/Nom du chercheur:	Hart, Trevor Adam
Application No./Numéro de demande:	487684
Agency/Agence:	CIHR/IRSC
Competition/Concours:	2022-09-14 Project Grant/Subvention Projet
Committee/Comité:	Psychosocial, Sociocultural & Behavioural Determinants of Health/Déterminants psychosociaux, socioculturels et comportementaux de la santé
Title/Titre:	Stimulant Use, Mental Health, and STBBIs Among Gay, Bisexual, and other Men who Have Sex with Men (GBM): Identifying Treatment Targets to Disrupt the Syndemic

Assessment/Évaluation:

Based on the assessment of the assigned reviewers, your application was identified as eligible for streamlining. As there were no objections from any committee members, your application did not proceed with an extended discussion at the committee meeting and was streamlined. As a result, no Scientific Officer notes were generated. Your reviews are available on ResearchNet.

Streamlined applications are ineligible to receive funding through a Priority Announcement.

For general information on the streamlining process, please see the Peer Review Manual – Project (http://www.cihr-irsc.gc.ca/e/49564.html#4.3.1).

Note: The final rating of the application, provided in the Notice of Recommendation (NOR) and Notice of Decision (NOD), is the averaged rating from the assigned reviewers and may differ from the ratings provided by the assigned reviewers in their respective reviews.

L'évaluation des évaluateurs a permis d'établir que votre demande pouvait être écartée par rationalisation. Puisqu'aucune objection n'a été émise par les membres du comité, votre demande n'a pas fait l'objet d'une discussion approfondie à la réunion et a été écartée par rationalisation. L'agent scientifique n'a produit aucune note, mais vos évaluations sont accessibles dans RechercheNet.

Les demandes écartées par rationalisation ne peuvent être financées dans le cadre d'une annonce de priorité.

Pour obtenir des renseignements généraux sur le processus de rationalisation, consultez le Guide d' évaluation par les pairs – Projet (http://www.cihr-irsc.gc.ca/f/49564.html#4.3.1).

Remarque : La cote définitive de la demande, qui apparaît dans l'avis de recommandation et l'avis de décision, représente la moyenne des cotes accordées par les évaluateurs. Elle peut donc différer de celle donnée par les évaluateurs dans leur évaluation respective.

Appendix A
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