Application: Co-designing a Deprescribing Intervention in Older Adults with HIV

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CTN+ Seed Funding Competition

Summary

ID: 0000000017
Status: In Review
Last submitted: Mar 19 2026 09:35 AM (PDT)

Seed Funding Full Submission Form

Completed - Mar 19 2026

Seed Funding Full Submission Form

ctn+ CIHR Pan-Canadian Network for HIV and STBBI Clinical Trials Research | Réseau pancanadien pour des essais cliniques sur le VIH et autres ITSS

Please read the CTN+ Seed Competition Guidance document prior to completing your submission.

Please use the form below to submit your project as a CTN+ Seed Funding study to receive support from your CTN+ Regional Team. 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

Alice Zhabokritsky

Email Address

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Institutional Affiliation

University Health Network

Is the Principal Applicant a CTN+ Researcher?

Please note that only applications from CTN+ Researchers and CTN+ Postdoctoral Fellows are eligible to receive Seed Funding.

Principal Applicant is a CTN+ Researcher

Submitter

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

First and Last Name

(No response)

Email Address

(No response)

Study Overview

Study Title

Co-designing a Deprescribing Program to Manage Polypharmacy and Potentially Inappropriate Medications in Older Adults Living with HIV

Name of Study Lead

Alice Zhabokritsky

Please list all study team members.

Format: First and last name, Affiliation, Role within the study

Luxey Sirisegaram, UHN, co-PI
Alice Tseng, UHN, co-PI
Kristina Kokorelias, Sinai Health, co-applicant
Sharon Walmsley, UHN, co-applicant
Kate Murzin, Realize, co-applicants

Which CTN+ Region is this study most closely aligned with?

Ontario

Which CTN+ Think Tank is this study most closely aligned with?

Treatment & Management

Type of Study

Select all that apply

Responses Selected:

Other: Intervention Co-design

Study Details

Research Question

Please summarize in one sentence.

Can a trauma and equity informed deprescribing intervention for older adults living with HIV be co-designed in a way that is feasible, acceptable, and scalable for outpatient HIV care settings?

Lay Language Description

(250 words maximum)

Remarkably, HIV is no longer considered a life-limiting condition among those who can access effective treatment. However, additional years of life are not necessarily spent in good health as many older adults with HIV experience higher rates and earlier onset of aging-related conditions. This contributes to prescription of multiple non-HIV medications, referred to as polypharmacy.

Taking too many medications can increase the risk of falls and frailty, worsen thinking and sleep, contributing to an overall decline in well being and quality of life. Despite increasing awareness of these risks, there is limited guidance on how to manage polypharmacy in older adults living with HIV.

Deprescribing, the careful and planned reduction or stopping of unnecessary or harmful medications, is a promising approach to managing polypharmacy, but it has not been adapted for people aging with HIV. Deprescribing in this population requires HIV specific knowledge, careful consideration of drug interactions, and attention to the clinical, psychosocial, and historical factors that influence medication use in older adults with HIV.

This study will bring together older adults living with HIV and healthcare providers to co develop a deprescribing approach grounded in lived experience and real world HIV care. The goal is to co-create an intervention that is feasible to deliver, acceptable to patients and providers, and adaptable across different healthcare settings in Canada, including rural and low-resource areas. By producing a practical, ready to use deprescribing approach, this work aims to support safer medication use, improve quality of life, promote healthy aging, and inform a future national, multi site deprescribing study.

Number of Study Participants

(Total N, and N per Arm if applicable)

15-20

Please list the participating sites.

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

	Site Name	Participating Research Team
Site 1	UHN	Alice Zhabokritsky, Luxey Sirisegaram, Alice Tseng, Kristina Kokorelias, Sharon Walmsley, Kate Murzin
Site 2		
Site 3		
Site 4		
Site 5		
Site 6		
Site 7		
Site 8		
Site 9		

Please provide the rationale for the need for seed funding for this study, the feasibility of completing the study in one year, and how this study will support/inform future planning of a larger study, interventions or grant application.

(750 words maximum)

Polypharmacy is increasingly recognized as a major and modifiable contributor to adverse health outcomes among older adults living with HIV. Despite growing evidence of heightened vulnerability to medication related harms in this population, including falls, frailty, cognitive impairment, and reduced quality of life, there is limited guidance on how to systematically and safely reduce unnecessary or harmful medications in real-world HIV care settings. Although deprescribing interventions have been developed and implemented in geriatric and general medicine populations, these approaches do not adequately account for HIV-specific clinical considerations. These include antiretroviral drug-drug interactions, long standing reliance on medications for chronic pain or mental health conditions, and the historical and psychosocial contexts that shape medication use among people aging with HIV including history of trauma and HIV-related stigma. As a result, deprescribing remains underutilized and difficult to implement in routine HIV care, with more than half of older adults living with HIV in Canada experiencing polypharmacy.

Seed funding from CTN+ is essential to address this critical gap by supporting the co-development of a context specific deprescribing intervention that is feasible, acceptable, and ready for pilot-testing. Preliminary work conducted by members of our study team demonstrated that while deprescribing is viewed as highly relevant by both patients and clinicians, existing approaches are not feasible within current HIV clinic workflows. Long process times, uncertainty among providers, and reliance on specialized expertise raised important concerns regarding sustainability and scalability. These findings underscore the need for a deliberate, stakeholder-driven co-design process to identify what deprescribing should look like in HIV care, who should deliver it, how long it should take, and what safety supports are required. Seed funding is uniquely suited to support this early phase, high impact work by enabling engagement of community members and clinicians as equal partners and by producing tangible outputs that support future interventional trials.

The proposed study is highly feasible to complete within one year. It focuses on a clearly defined scope corresponding to the first phase of the larger program of research: intervention co-development. The methods (qualitative interviews and experience based co-design workshops) are well established, do not require extensive infrastructure, and can be conducted virtually, minimizing logistical barriers and costs. Recruitment will leverage existing clinical programs, national community partnerships, and CTN+ networks, all of which have demonstrated capacity to engage older adults living with HIV and multidisciplinary providers efficiently. The study team has extensive experience conducting qualitative research and co-design projects within similar timelines. Clear milestones, including completion of interviews, synthesis of findings, and delivery of structured co-design workshops, have been defined to ensure timely progress and completion within the funding period.

Critically, this seed funded study will directly inform and enable future larger scale research. The primary output will be a fully specified deprescribing intervention package, including referral criteria, core intervention components, role delineation, workflow integration, safety monitoring procedures, and feasibility targets (e.g., acceptable process time). These outputs are required to design and conduct a rigorous single-site pilot study evaluating feasibility, acceptability, and safety of the intervention. By addressing feasibility and acceptability at the design stage, this project reduces the risk of failure in later phase trials and strengthens the competitiveness of future grant applications, including the CIHR Project Grant and CTN+ Portfolio Study competitions.

Subsequently, the co-designed intervention and pilot study will generate critical practice and process learnings needed to plan a multi-site implementation trial using a Hub-and-Spoke delivery model. This approach centralizes expertise to a “hub” and supports delivery

of the intervention through “spokes” across diverse HIV care settings in Canada, including remote and under resourced settings. This model will form the basis for our application for developing an adaptive platform CTN+ Flagship Trial aimed at supporting healthy aging in older adults with HIV. This aligns closely with CTN+ priorities related to implementation science, community engagement, and equitable access to high quality care.

In summary, CTN+ seed funding will catalyze a necessary and timely intervention development process that cannot be supported through existing clinical resources alone. By embedding people living with HIV and knowledge users throughout the research process, the study ensures that future interventions are grounded in lived experience, aligned with real-world constraints, and positioned for meaningful uptake. The proposed work is achievable within one year, fills a critical evidence and implementation gap, and provides the essential foundation for a larger program of research aimed at improving medication safety and supporting healthy aging among people living with HIV in Canada.

Additional Study Details

Please provide additional details about the following aspects:
(2,000 words maximum)

1. Primary objective
2. Secondary objective(s)
3. Study population (including inclusion/exclusions criteria if applicable)
4. Exposure or intervention (if applicable)
5. Primary outcome/measures
6. Secondary outcomes/measures
7. Analysis plan (including sample size justification, with power calculation if appropriate)
8. Detailed recruitment plan
9. Expected results/implications and plan for using results

1. Primary Objective
To co-develop, in partnership with older adults living with HIV and multidisciplinary clinical stakeholders, a context adapted deprescribing intervention suitable for outpatient HIV care.

2. Secondary Objectives
(i) To define feasibility and acceptability parameters for the deprescribing intervention, including acceptable process time per encounter and clear referral pathways and role delineation.
(ii) To co-develop a safety monitoring and adverse event management protocol appropriate for deprescribing in older adults living with HIV.
(iii) To produce an implementation blueprint, including workflows, intervention materials, and minimum training requirements, aligned with a future Hub-and-Spoke delivery model.

3. Study population
We will recruit 10 older adults living with HIV (age ≥ 50 years) across Canada along with 5-10 multidisciplinary clinical experts (≥1 individuals from Clinical Pharmacy, Primary Care, HIV Care, Geriatrics and Psychiatry) for a total sample size of 15-20, the 'co-design team'. We will purposively seek representation in older adults in the following areas to ensure a diversity of perspectives: (a) Gender identity; (b) Racial diversity; (c) Geographic representation (e.g., urban vs rural/remote regions). Our research team has successfully recruited older adults living with HIV across these groups. For clinicians, in addition to ensuring representation from each of the identified specialties, we will seek diversity in: (a) Gender identity; (b) Practice setting (e.g., academic vs community) (c) Geographic representation (e.g., urban vs rural/remote regions); (d) Years of experience (e.g., early-career, mid-career, senior professionals).

4. Exposure or intervention (if applicable)
N/A - this study will co-develop a deprescribing intervention, however, testing of the intervention is outside the scope of the current project aims.

5. Primary Outcome/Measures
A fully specified deprescribing intervention package, developed by consensus of the co-design team, including:
• Core intervention workflow

• Referral pathways and role delineation
• Safety monitoring and adverse event management protocol
• Defined target process time per deprescribing encounter
• Minimum training requirements and supporting materials

6. Secondary Outcomes/Measures
(i) Defined feasibility criteria, including:
• What constitutes an acceptable and feasible duration for a deprescribing encounter
• Acceptable timelines from referral to intervention delivery
(ii) Acceptability informed delivery model, including:
• Identification of the most acceptable provider(s) to deliver the intervention
• Specification of how the intervention integrates into existing outpatient HIV care models
(iii) Scalability and equity considerations, including:
• Identification of required adaptations to support delivery across diverse settings (e.g., high- and low-resource sites, urban and rural contexts)
• Identification of equity and accessibility adaptations needed for diverse populations of older adults living with HIV (e.g., gender, race, geography, functional limitations)

7. Analysis plan
This study will use an Experience Based Co-Design (EBCD) approach to co-develop the context adapted deprescribing intervention. EBCD is a participatory methodology that integrates lived experience and clinical perspectives to improve healthcare services through structured qualitative inquiry and collaborative design. The study will be conducted in two sequential phases over one year.

Phase 1: Qualitative interviews:
Individual semi-structured interviews will be conducted virtually with all consenting members of the co-design team, including older adults living with HIV and multidisciplinary healthcare providers. Interviews will explore experiences of polypharmacy, perceptions of deprescribing, patient journeys and clinical workflows, individual and system level barriers (e.g., safety concerns, time constraints), and unmet needs in existing care models. Participants will complete a brief self administered sociodemographic questionnaire via REDCap to contextualize findings and ensure representation across key equity dimensions. Interviews will be audio recorded and transcribed verbatim using NVivo software. Interview transcripts will be analyzed using conventional content analysis, an inductive approach in which codes and themes are derived directly from the data. Two researchers will independently code transcripts, develop and refine a shared codebook through iterative discussion, and identify themes using an intersectional lens, examining similarities and differences across participant roles and identities. Results will inform content and structure of co-design workshops.

Phase 2: Co-design workshops:
Two, 3-hour co-design workshops will be held virtually with the full co-design team, co-facilitated by the Principal Applicant, an older adult living with HIV trained in co-design facilitation, and a study team member with expertise in participatory methods. Workshops will build iteratively, focusing on problem framing, journey mapping, and development of the deprescribing intervention. Participants will be explicitly tasked with defining feasibility and acceptability parameters, role delineation, specifying integration into existing care models, and establishing safety and referral protocols. Workshops will be audio recorded and transcribed verbatim using NVivo software, and design artifacts and reflexive field notes will be collected. Data from interviews and workshops will be synthesized to develop a unified deprescribing intervention prototype and implementation blueprint. Following the second workshop, the draft prototype and blueprint

will be shared with participants for validation.

Sample size of 15–20 participants is adequate for concept saturation in focused EBCD projects, mirrors prior feasibility work and is consistent with participatory design guidance.

8. Detailed recruitment plan
Recruitment will leverage existing collaborations with community organizations (e.g., Realize), research networks (e.g., CTN+) and healthcare networks through targeted outreach, social media and word-of-mouth referrals (snowball sampling). We will use purposive sampling to achieve sex parity and ensure diverse representation among older adults living with HIV and clinical experts as outlined above. We will utilize appropriate compensation, flexible scheduling, accessible materials, trauma-informed engagement practices, and clear communication channels to ensure participants can meaningfully engage in the study.

9. Expected results/implications and plan for using results
This study is expected to produce a ready-to-pilot, co-designed deprescribing intervention package with clearly defined feasibility, acceptability, and safety parameters. Key outputs will include operationalized workflows, role delineation, safety monitoring procedures, target process times, and minimum training requirements, all developed by consensus of older adults living with HIV and clinical stakeholders.

The results will directly inform the design of a single-site pilot study to evaluate the feasibility, acceptability, and safety of the deprescribing intervention in routine outpatient HIV care. In turn, findings from the pilot will support planning for a multi site CTN+ implementation study, including refinement of delivery models and preparation for scale up using a Hub-and-Spoke approach.

This work advances the Ontario Regional Priority of "maximizing mental health, well being, and healthy aging among people living with HIV", as effective deprescribing has the potential to reduce cognitive and sleep impairment, falls, frailty, and treatment burden in older adults aging with HIV. By addressing medication related harms that meaningfully affect daily functioning and quality of life, the study targets a highly actionable driver of health outcomes in this population.

The project also aligns closely with the CTN+ Treatment & Management Think Tank mandate to "improve management of HIV related comorbidities and enhance wellness among people living and aging with HIV". More broadly, it addresses CTN+ Scientific Priorities by advancing "intervention strategies to improve health outcomes for persons living and aging with HIV" and by generating early phase evidence and implementation insights necessary to "enable scale up of successful models of care across diverse healthcare settings".

The intent of the Seed Funding Competition is to provide the sole source of funds for the study. However, resources provided by your supervisor (if applicable) or institution may be used. If you are receiving this type of support, please provide a list of resources you are receiving here.

(200 words maximum)

N/A

Budget

The maximum amount that can be requested depends on how many Seed Funding projects have been selected for your Region in this application cycle, but will generally be no higher than $25,000 CAD (for Regions with two Seed Funding submissions) or $50,000 CAD (for Regions with a single Seed Funding submission), with the exception of the Ontario Region, which may award three Seed Funding projects at $20,000 each. Please confer with your Regional Team if you are unsure.

Funds: The study budget must include an itemized line for all requested funds (for example: for supplies, include quantity and unit cost; for participant reimbursement, include the number of visits and dollar value of reimbursement per visit; for staff time, include the hourly rate and number of hours that will be worked; for supplies and travel, include estimated costs).

Total budget for this project will be $20,000 CAD.

Participant reimbursement: 10 older adults living with HIV will be compensated $50/hr to complete: (i) 1-hour interview, (ii) 2 x 3-hour work-shops, (iii) 1-hour review/approval of final intervention = 10 participants x 8 hours x $50/hr = $4,000.

Community co-facilitator reimbursement: 1 older adult living with HIV will be compensated $75/hr to: (i) complete 5-hour training session on co-design, (ii) co-facilitate 2 x 3-hour workshops, (iii) attend 2 x 2-hour post-workshop debriefing sessions, (iv) provide additional review of results x 10 hours over the course of the study = 1 individual x 25 hours x $75/hr = $1,875.

Research coordinator salary: 1 CRC level II coordinator will be compensated at a rate of $50/hr to support the following study activities: (i) participant recruitment and consenting, (ii) completion of 15-20 individual 1-hour interviews and administration of demographic surveys, (iii) complete 5-hour training session on co-design, (iv) schedule and co-facilitate 2 x 3-hour workshops, (v) schedule and attend 2 x 2-hour post-workshop debriefing sessions, (vi) data entry and transcription using NVivo software, (vii) preparation of draft intervention package for participant review, for a total of 210 hours = 1 individual x 210 hours x $50/hr = $10,500.

Nvivo Software: NVivo Project Academic license with 50 hours of transcription time = $2,500.

Co-design training: "Understanding Co-design" training program by Beyond Sticky Notes for 3 study team members who will design and co-facilitate the co-design workshops (including an older adult living with HIV). Training involves a 5-hour live virtual session and accompanying material to support practice. Cost for a group of 3 = $1,125.

Regional or National Centre In-Kind Services Requests

Please check any in-kind services requested from your CTN+ Region or National Centre to support your study.

Responses Selected:

Data Management / Databases
Statistics & Methodology
Knowledge Mobilization

Please provide the study milestones.

This must include the estimated start date and the duration of the study, maximum allowed is one year.
(500 words maximum)

To ensure timely project completion within a 1 year timeframe, we will submit the proposal for REB approval in advance to the University Health Network, with an estimated approval and project start date of September 2026.

Milestone 1: Assembly of the co-design team: we will recruit participants on a rolling basis over a 6 month period (September 2026 - February 2027);

Milestone 2: Interviews: We will complete individual interviews with each member of the 15-20 person co-design team over a 6 month period (September 2026 - February 2027) with rolling analysis and data synthesis.

Milestone 3: Setup of co-design workshops: Using data from Milestone 2, we will generate a clear outline and objectives for two co-design workshops and schedule two 3-hour virtual sessions (6–8 weeks apart) over a 2 month period (March - April 2027).

Milestone 4: Completion of co-design workshops: We will co-facilitate two co-design workshops over a 2 month period (May - June 2027).

Milestone 5: Review and finalization of intervention package: We will collate results from the co-design workshops to generate a deprescribing intervention and implementation blueprint over a 1 month period (July 2027) and send it to the co-design team for final review and validation by (August 2027).

Please provide a list of barriers or potential risks that could impede the study and include mitigation strategies.

(500 words maximum)

While our maximum variation sampling aims to reduce bias, challenges remain in fully representing diverse subgroups due to differences in healthcare access, socioeconomic status, culture, and geography and may exclude those less engaged in healthcare and formal support systems. We will mitigate recruitment challenges by utilizing several recruitment strategies including use of social media, community organizations, research networks, healthcare and snowball sampling.

Efficacy of co-design workshops may be influenced by perceived or actual power differentials between participants, particularly for older adults living with HIV who have experienced stigma, discrimination, or negative healthcare encounters. To address this, all workshops will be co-facilitated by an older adult living with HIV and guided by an EBCD framework to centre the voices of older adults living with HIV. We will embed trauma-informed practices, use plain language, and provide verbal, written, and visual engagement opportunities to support equitable participation and psychological safety.

A further limitation stems from the inherent complexity of co-design, which intentionally engages participants with diverse roles, experiences, and priorities, potentially leading to divergent viewpoints and conflicting expectations. Participants may disagree on which intervention components are essential, feasible, or scalable within real-world healthcare environments, and creative ideas may exceed operational or resource constraints. To mitigate this, we will use clear decision rules, early communication of feasibility parameters, structured consensus methods (e.g., nominal group technique), and iterative diverge-converge cycles with rapid prototyping to balance innovation with implementability. Documentation of design decisions and both synchronous and asynchronous feedback mechanisms will strengthen transparency and maintain participant engagement across phases.

Please provide your publication plans.

(250 words maximum)

Findings from this study will be disseminated through a phased, community-centred knowledge mobilization approach, followed by academic publication.

First, results will be shared with community and stakeholder audiences through a plain-language community report and infographic, developed in collaboration with the CTN+ Knowledge Mobilization Hub. These materials will summarize key learnings from the co-design process and describe the resulting deprescribing intervention in an accessible format. Study findings will be presented to the CTN+ community, including the Treatment & Management Think Tank and the Ontario Regional Team, with a targeted presentation planned for the CTN+ Fall Meeting in 2027. An abstract will also be submitted to the Canadian Association for HIV Research (CAHR) conference.

Following community-facing dissemination, we will submit a manuscript to an open-access journal describing the co-design methodology, stakeholder engagement process, and the finalized deprescribing intervention. This publication will provide methodological and practical insights for clinicians, researchers, and health systems seeking to implement deprescribing in HIV care and related aging populations.

This staged dissemination approach ensures that knowledge is shared first with people living with HIV, clinicians, and CTN+ partners who contributed to and will ultimately use the intervention, while also supporting broader academic and implementation-science impact.

Please provide an overview of community engagement for the development of this project.

(250 words maximum)

The concept for this project emerged directly from prior community-engaged research and ongoing dialogue with people living with HIV and CTN+ community partners. Findings from the CHANGE HIV Study, a Canadian cohort of older adults living with HIV, identified polypharmacy as a key and modifiable predictor of adverse outcomes including frailty, falls, cognitive impairment, and reduced quality of life. These results were shared and discussed with the CHANGE HIV Community Advisory Board (CAB), who emphasized the importance of moving beyond risk factor identification toward the development of practical interventions to support healthy aging among people living with HIV.

Through CAB consultations, community members consistently prioritized the need for tailored, HIV-specific interventions that address modifiable drivers of frailty, falls, and low quality of life, with polypharmacy identified as a clear and actionable target. In parallel, the study team sought input from community representatives and researchers affiliated with the CTN+ Ontario Regional Team and the Treatment & Management Think Tank, who similarly highlighted interventions for supporting healthy aging in people living with HIV as a priority.

Based on this collective feedback, we elected to pursue a co-development approach that meaningfully engages older adults living with HIV, clinicians, and community partners as equal contributors. This approach reflects community guidance that interventions must be grounded in lived experience, responsive to real-world care contexts, and designed with a clear pathway to implementation. Community engagement will continue throughout the project, with people living with HIV embedded as partners in intervention design, interpretation of findings, and planning for future scale-up.

How does your study demonstrate a core commitment to Equity, Diversity, Inclusion, Accessibility, and Justice (EDIAJ)?

(250 words maximum)

This study demonstrates a core commitment to EDIAJ by intentionally embedding equity-oriented principles across project design, engagement, and intervention development. Older adults living with HIV are a diverse population shaped by intersecting identities, experiences of stigma, historical trauma and structural inequities, all of which influence medication use, access to care, and perceptions of deprescribing. These considerations are central to this project's conceptualization and methodology.

Equity and inclusion will be operationalized through purposeful recruitment of older adults living with HIV to ensure representation across sex, gender identity, race, and geographic location (urban and rural). Gender-Based Analysis Plus (GBA+) will be applied throughout data collection and analysis to examine how intersecting identities shape experiences of polypharmacy, perceptions of medication safety, communication needs, and acceptable deprescribing approaches. Differences identified across groups will directly inform intervention design rather than being treated as secondary findings.

Accessibility is prioritized through the use of virtual engagement, flexible scheduling, use of plain-language and accommodations such as live captioning, reducing participation barriers for individuals with mobility, sensory or geographic constraints. Community partners will be compensated in alignment with established guidelines, recognizing the value of lived expertise and promoting equitable participation.

Justice is addressed by adopting a co-development model that redistributes decision-making power to include people living with HIV as equal partners rather than end-users. By centering lived experience and explicitly designing for adaptability across diverse clinical and community settings, the study aims to avoid reinforcing existing inequities and instead produce a deprescribing intervention that is culturally safe, context-responsive, and scalable without widening access gaps.