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CAHR 2026

35th Annual Canadain Conference on HIV/AIDS Research

CONGRÈS DE
L'ACRV 2026

Le 35e Congrès annuel canadien de recherche sur le VIH/sida

Under open skies: Rising to meet unprecendented challenges in the HIV response

Tous unis pour relever des défis sans précédent dans la lutte contre le VIH

CAHR L'ACRV 2026

ABSTRACTS
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Abstract #37

Genetic regulation of genital A2ML1 impacts HIV susceptibility through microbiome-inflammatory interactions

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Background: Women with elevated vaginal mucosal inflammation are at an increased risk of acquiring HIV. While host genetic variation influences protein levels in circulation, its effects on the cervicovaginal proteome and HIV susceptibility have not been previously characterized.

Methods: We conducted the first cervicovaginal protein quantitative trait loci (pQTL) study to assess genetic regulation of protein expression using samples from 589 South African women enrolled in the CAPRISA004 tenofovir gel trial. Proteomic data of cervicovaginal lavage samples, genome-wide genotyping data, vaginal microbiome profiles, and epidemiological data were previously generated from trial participants.

Results: The rs143864957 (AG/-) deletion allele was associated with reduced genital A2ML1 levels (β = -0.53; 95% confidence interval (CI): -0.71- -0.35; p = 1.5x10-8) and 2.1 times higher odds of HIV acquisition (95% CI: 1.1-4.4; p = 0.036). This genetic effect on A2ML1 displayed heterogeneity across vaginal microbiome community state types (CSTs) (Q = 8.1; p = 0.043; I^2 = 61%), with greater A2ML1 reduction observed in inflammatory CSTs with higher bacterial loads. Higher A2ML1 levels were associated with reduced genital inflammation across all participants (incident rate ratio (IRR) = 0.79; 95% CI: 0.72-0.90; p = 7.1x10-7). However, this A2ML1-inflammation relationship interacted with bacterial abundance, A2ML1's anti-inflammatory efficiency decreased above a bacterial load threshold of 110.1 units (95% CI: 96.9-120.0). This threshold corresponded closely with transitions in vaginal CST structure.

Conclusion: We demonstrate that vaginal microbiome composition amplifies host genetic effects on mucosal immunity. The impact of rs143864957 on A2ML1, an antiprotease previously linked to HIV susceptibility, is potentiated in inflammatory, high-bacterial-load mucosal environments where reduced A2ML1 fails to control inflammation, compromising mucosal barrier integrity. This gene-microbiome interaction contributes to understanding individual variation in HIV acquisition risk at the genital mucosa.

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: Sex Hormones, Mucosal Immunity, and HIV Risk / Thème : Hormones sexuelles, immunité des muqueuses et risque de contracter le VIH

Abstract #310

Hormonal Contraceptive Exposures Impart Unique Signatures of Vaginal Lipidome Influencing Susceptibility to HIV Infection in Sex Workers

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Introduction
Lipid metabolites form the structural foundation of the cervicovaginal epithelium, regulate immune response, and fuel host cells and the microbial community. To date, the impact of hormonal contraceptives (HC) on vaginal lipidome has not been studied. Previously, injectable HC, depot medroxyprogesterone acetate (DMPA), was shown to be associated with increased microbial diversity and inflammation, potentially increasing susceptibility to HIV-1. Here, we investigated the effect of injectable and oral HCs on vaginal lipid metabolism in healthy Kenyan sex workers.

Methods
Forty-five sex workers were recruited out of a total of 370 screened from the Sex Workers Outreach Programme (SWOP) Program in Nairobi, Kenya, based on the inclusion criteria for this study. Cervicovaginal lavage (CVL) samples were collected from sex workers who were using DMPA, oral contraceptive (OCP), or no hormone (NH). High throughput liquid chromatography coupled with mass spectrometry (LC-MS)-based lipidomics and bioinformatics approaches were used to analyze vaginal lipid species.

Results
Using untargeted lipidomics we found that DMPA significantly downregulated major lipid classes such as phospholipids, lysophospholipids, sphingolipids (ceramide, sphingomyelin, & glycosphingolipids), and fatty acids ($p<0.001$, FDR<0.05). CVL from DMPA group also showed significant elevation in triglycerides (TG) and steroid lipids when compared with OCP or NH groups. In contrast, OCP consistently lowered vaginal triglycerides and increased the fatty acid and diacylglycerol substrates compared to NH group. Interestingly, such DMPA associated signatures of vaginal lipidomic alterations were greatly contributed from microbes, revealing the microbiome-lipidome interplay.

Conclusion
DMPA significantly downregulated structural and signaling lipids and upregulated storage lipids in the vaginal microenvironment. Such dysregulation in lipid metabolism leading to low ceramide, sphingomyelin, phospholipids, and elevated TG has been implicated in bacterial imbalances, poor epithelial membrane integrity, and inflammation. These findings underscore the need to address cervicovaginal lipidomic dysregulation associated with HCs while designing interventions to improve women's reproductive health.

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Abstract #269

Depot Medroxyprogesterone Acetate Use and Menstrual Phase Are Associated with Differential CD4+ T Cell Activation and CCR5 Expression in Kenyan Female Sex Workers

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Background: The targets of HIV infection are CD4+ T helper (Th) cells, which exist in distinct subsets, including Th1, Th2, Th17, and Th1/Th17, each with unique functions. These Th subsets vary in their susceptibility to HIV. Depot medroxyprogesterone acetate (DMPA), an injectable contraceptive, has been associated with increased HIV acquisition, though underlying mechanisms remain unclear. This study examines how DMPA and the menstrual cycle affect Th subsets and their potential effects on HIV susceptibility.

Methods: Peripheral blood was collected from female sex workers (FSW) in Nairobi, Kenya. The case group comprised DMPA users (n=52), while controls were non-hormonal contraceptive users sampled during the follicular (n=43) or luteal (n=25) phases of the menstrual cycle, with some participants contributed sample from both phases. Cells were identified by flow cytometry using chemokine receptor profiles: Th1 ($CCR6^{-}CXCR3^{+}$), Th2 ($CCR6^{-}CXCR3^{-}CCR4^{+}$), Th17 ($CXCR3^{-}CCR6^{+}CD161^{+}$), and Th1/17 ($CCR6^{+}CXCR3^{+}$), along with activation markers (CD38, HLA-DR, CD69). Cytokine production was also assessed following PMA/ionomycin stimulation.

Results: CD4+ T cell activation was significantly higher in the follicular compared to the luteal phase, indicated by increased % of $CD4^{+}HLA\text{-}DR^{+}CD38^{-}$ (p=0.014) cells and mean fluorescent intensity (MFI) CD4+ CD38+ cells (p=0.041). Activated Th1 ($\%HLA\text{-}DR^{-}CD38^{+}$, p=0.036), Th2 ($\%HLA\text{-}DR^{+}CD38^{-}$, p=0.002), and Th17 (HLA-DR+ MFI, p=0.048) subsets were significantly higher in the follicular phase. Similarly, CD4+ T cells during the follicular phase showed higher levels of IFN-γ (p=0.097) and IL-4 (p=0.006) following stimulation compared to the luteal phase ($p<0.05$). Interestingly, CCR5 MFI was elevated on $CD4^{+}HLA\text{-}DR^{+}CD38^{-}$ (p=0.033) cells and $Th2^{+}HLA\text{-}DR^{+}CD38^{-}$ (p=0.004) cells among DMPA users compared to follicular and on $Th1/Th17^{+}$HLA-DR-CD38+ cells (p=0.07) relative to luteal.

Conclusion: Differential Th cell activation was detected across menstrual cycle phases, with the follicular phase exhibiting higher levels of HIV target cells. DMPA users also showed higher CCR5 levels on activated T cells, which may contribute to increased HIV risk.

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Abstract #239

Chlamydia and gonorrhea infection prevalence, incidence, and molecular characteristics among female sex workers in Nairobi, Kenya

Clarissa Klenke[1,2], Vanessa Schulz[2], Paige Adams[2], Irene Martin[2], Kibii Belindah[1,4], Fred Owino[1,4], Erastus Irungu[4], Monica Okumu[4], Mary Kungu[4], Rhoda Kabuti[4], Joshua Kimani[1,3,4], Lyle McKinnon[1,3], Aida Sivro[1,2,5]
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Introduction: In Kenya, sexually transmitted infection (STI) management is symptom-based. Consequently, the prevalence of chlamydia and gonorrhea is unclear, and circulating strain genetic diversity and the presence of antimicrobial resistance (AMR) are not characterized.

Methods: This project will characterize chlamydia and gonorrhea prevalence, incidence and molecular characteristics among female sex workers in Kenya. Participants were recruited in Nairobi, with samples collected bi-monthly over 12 months and a subset (n=380) were selected for STI testing. Urine was tested by rRNA amplification using a commercial assay. Chlamydia-positive samples were genotyped by Sanger sequencing of the ompA gene and gonorrhea-positive samples were typed by Neisseria gonorrhoeae Multi-Antigen Sequence Typing (NG-MAST), targeting porB and tbpB genes, and tested by RT-PCR to predict AMR.

Results: STI testing was performed on screening, enrollment, month-4, -8 and -12 visit samples. Chlamydia prevalence was 9.9%(95%CI 8.5-11.5), peaking during month-4[10.9%(95%CI 8.1-14.4)], and gonorrhea prevalence was 2.8%(95%CI 2.1-3.7), peaking during enrollment[3.7%(95%CI 2.2-6.1)]. Annual incidence was 61.1(95%CI 36.4-85.9) chlamydia infections per 1000 person-years and 19.4(95%CI 5.2-33.7) gonorrhea infections per 1000 person-years. Notably, incidence rates peaked between enrollment and month-4, corresponding with condom shortages. Chlamydia typing revealed types F[34.0% (95%CI 26.5-41.5)] and E[21.6% (95%CI 15.1-28.1)] as the most prevalent. No LGV-types were detected despite claims it is endemic across Africa. Gonorrhea characterization found 81.8%(95%CI 68.9-95.0) of infections had novel PubMLST types, while RT-PCR predicted 97.4%(95%CI 92.3-100.0) of infections were ciprofloxacin resistant, 5.6%(95%CI 0.0-13.0) were azithromycin resistant and 8.1%(95%CI 0.0-16.9) had decreased susceptibility to cephalosporins.

Conclusion: Chlamydia and gonorrhea prevalence in this population exceeds WHO estimates for women in the African region. The observed STI incidence increase during the condom shortage underscores the consequences of STI prevention funding cuts. Diverse assortment of chlamydia and gonorrhea types is evident. Further identification of types and AMR will impact Kenyan STI prevention and treatment policies, contributing to global STI control.

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: Sex Hormones, Mucosal Immunity, and HIV Risk / Thème : Hormones sexuelles, immunité des muqueuses et risque de contracter le VIH

Abstract #316

The effects of menopause on HIV-associated systemic and cervical mucosal immunity

Cara Follows[1], Monika. M Kowatsch[2,3,4,5], Kenneth Omollo[7,8], Natasha Hollett[1], Joyce Adhiambo[6], Joshua Kimani[1,7,8], Keith. R Fowke[1,7,8], Julie Lajoie[1,7,8] ,[1]Department of Medical Microbiology and Infectious Diseases, University Of Manitoba, Winnipeg,, Canada, [2]Department of Medicine, University of British Columbia, Vancouver,, Canada , [3]Women's Health Research Institute, Vancouver, , Canada, [4]Women's Hospital and Health Centre, Vancouver,, Canada, [5]CIHR Pan-Canadian Network for HIV and STBBI Clinical Trials Research, Montreal, , Canada, [6]Sex Worker Outreach Program, Nairobi, Kenya, [7]Partners in Health for Development of Africa, Nairobi, Kenya, [8]Department of Microbiology and Immunology, University of Nairobi, Nairobi, Kenya

Background: Female sex workers (FSWs) experience an elevated risk of acquiring HIV. As women age, they transition into menopause. Sex work and menopause are both associated with increased inflammation. Yet how menopausal status modifies the immune response remains poorly understood.

Methods: Peripheral blood mononuclear cells and cervical mucosal cells were collected from 37 FSWs from the Sex Worker Outreach Program (SWOP) in Nairobi, Kenya. Blood and mucosal cytokine and T cell profiles were analyzed. A general-linear model controlling for duration of sex work was used to determine differences between women living with (WLWH) and without HIV and by menopausal status.

Results: In FSWs not living with HIV, menopause increased systemic and mucosal inflammation, including higher plasma levels of IL-6 (p=0.044), TNF-α (p=0.01), MCP-1 (p=0.012), and IL-1RA (p=0.010) and increased cervicovaginal TNF-α (p=0.017) and IL-1β (p=0.017) compared to premenopausal women. At the cellular level, they displayed a lower proportion of regulatory T cells (p=0.026) and higher levels of activated proinflammatory Th17 CCR5+ cells (p=0.011) in the blood, and a higher mucosal proportion of HIV target cells, CD4+CD69+CCR5+ (p<0.001), compared to premenopausal FSWs. Premenopausal FSWs LWHIV had higher blood levels of activated T cells (CD4+CD69+, p=0.042) compared to postmenopausal FSWs LWHIV. In premenopausal FSWs LWHIV, we observed higher IFN-γ (p=0.026) and IL-8 (p=0.004) in the blood and mucosal IFN-γ (p=0.001), IL-15 (p=0.026), IL-17A (p=0.032), and TNF-α (p=0.001), while postmenopausal FSWs LWHIV exhibited elevated plasma IL-28A (p=0.007).

Conclusion: We observed that menopause affects the inflammatory profile in FSWs regardless of HIV status. However, in FSWs not living with HIV, the changes in T cell activation are more profound, which could affect susceptibility to HIV infection. More studies are needed to fully understand how menopause affects women and to provide better policies for aging women and HIV risk.

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Theme: Sex Hormones, Mucosal Immunity, and HIV Risk / Thème : Hormones sexuelles, immunité des muqueuses et risque de contracter le VIH

Abstract #260

HIV-1 Infection Associates with Markers of Neuropathology in the HuBLT Mice, with Concurrent Impairment in Motor Coordination and Altered Exploratory Behavior

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Introduction: People living with HIV (PLWH) are exposed to higher incidence and risk of comorbidities compared to the general population, including neurocognitive dysfunction. Notably, approximately 50% of anti-retroviral-treated individuals have been reported to experience HIV-associated neurocognitive disorders (HAND), with a cumulative burden on health services and overall decrease in quality of life. This suggests the need for sustained refinement of existing models and/or the development of newer models to better our understanding of HAND.

Methods: We used the humanized bone marrow liver thymus (huBLT) mouse model, with NSG and NSG-SGM3 mice, to investigate the subclinical and clinical features of HAND. HuBLT mice, which reconstitute with a human immune system at biologically relevant compartments, were infected intraperitoneally with HIV-1. Cellular and viral neuroinvasion were measured by flow cytometry, immunohistochemistry and immunofluorescence. Markers of inflammation, blood-brain barrier permeability, and neuronal injury were assessed through qPCR, immunohistochemistry and immunofluorescence, while overt neurological changes were evaluated through behavioral testing.

Results: Monocyte-macrophages colocalized with HIV-1 p24 during human immune cell and virus neuroinvasion in huBLT mice. Infected mice displayed distinct profiles of interferon-responsive genes and significantly decreased expression of occludin and claudin-5 in the brain, marking blood-brain barrier permeability. Similarly, infected mice had significantly poorer performance in the accelerating rotarod test, indicating impaired motor coordination and balance, characteristic symptoms of HAND. Infection also associated with hyperactive behaviors in the open field test, reminiscent of mania-like behaviors observed in some PLWH. Finally, preliminary immunofluorescence indicated pathologic features of RNA metabolism and reduced neuronal cell health during infection.

Conclusions: While mouse models have previously been used to evaluate HAND, none have characterized the clinical manifestations in huBLT mice yet. Our results demonstrate the huBLT mouse model as a suitable tool for the characterization of HIV-1-related motor and mood manifestations in the context of neuroinflammation and neuronal injury.

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: HIV Latency and Viral Reservoirs / Thème : Latence du VIH et réservoirs viraux

Abstract #230

The Impact of HIV polymorphism on the Intact Proviral DNA Assay (IPDA)

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Introduction: The intact proviral DNA assay (IPDA), widely used for HIV reservoir quantification, is a key tool in cure research. This droplet digital PCR assay simultaneously targets two HIV regions, psi and the rev response element in env, allowing intact proviruses to be discriminated from defective ones. Due to naturally-occurring HIV polymorphism however, signal failure in one or both targets occurs in up to 30% of samples, necessitating custom primer/probe design and greatly increasing the assay's resource burden. We systematically investigated IPDA tolerance of HIV polymorphism with the goal of improving the assay.

Methods: We applied the IPDA to 140 individuals with HIV receiving ART. We sequenced the IPDA target regions from plasma where available or from on-ART proviral DNA using Sanger (92%), Illumina MiSeq (6%), or both (2%). IPDA signal amplitudes were interpreted alongside the autologous sequences, allowing us to determine the effects of individual HIV polymorphisms on assay performance.

Results: Full signal failure occurred in 27 (19%) samples. Partial failure, where the IPDA detected only a subset of all within-host HIV species, occurred in an additional 20 (14%). Polymorphisms that caused failure were a deletion of the A at base 19 of the forward psi primer (observed in 8% samples), and G→A mutations at bases 7 and/or 13 of the env probe (observed in 3.8% and 10.5% of samples respectively). In general, probe mismatches reduced signal amplitude in a position-dependent manner, while primer mismatches were broadly tolerated. Mismatches at base 2 of the env probe, observed in 11.5% of samples, reduced amplitude most severely though gating was still possible in some cases.

Conclusions: These results can help us refine current IPDA primers/probes and design alternative ("rescue") oligos. Partial assay failures due to within-host polymorphism remain a challenge with the IPDA, because these are impossible to detect without sequencing.

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: HIV Latency and Viral Reservoirs / Thème : Latence du VIH et réservoirs viraux

Abstract #255

Mind the Signal: Successes and challenges in adapting the Intact Proviral DNA Assay for the HIV-1 subtypes circulating in Uganda.

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Background. The primary barrier to an HIV cure is the latent viral reservoir (LVR), a product of HIV's integration into the DNA of long-lived immune cells, predominantly resting CD4+ T cells. The Intact Proviral DNA Assay was designed based on HIV subtype B (IPDA-B) as a scalable method for LVR quantification. We adapted the IPDA-B for the sequence diversity among 23 people with HIV (PWH) subtypes A1, D, and recombinants in Uganda (IPDA-A1D). Here, we evaluated this assay's performance across a broader Ugandan cohort and made additional design modifications to address assay failures.

Methods. The IPDA-A1D was performed on banked PBMC samples from n=64 PWH in Rakai, Uganda. CD4+ T cells were negatively selected, genomic DNA isolated, and duplex droplet digital PCR was performed. Nucleotide diversity in IPDA-A1D primer/probe regions was evaluated using HIV proviral sequence data. Published IPDA-A1D primers/probes were refined and applied to samples for which amplification failed in one or both regions.

Results. The IPDA-A1D successfully quantified the LVR in 68.8% of participants, with an additional 7.8% having indeterminate results. The failure rate was 23.4%, with 41.2% of failures occurring in the psi region, 52.9% in the env region, and 5.9% in both regions. Subsequent primer and probe modifications rescued 91.7% of failures, raising the success rate to 85.9%. In general, fluorescence amplitude decreased with higher numbers of degenerate bases within the probe or with more probe variants included in a reaction, particularly in env, where this strategy rescued failures but decreased signal amplitude, making gating difficult.

Significance. Adapting the IPDA for global populations with diverse HIV subtypes requires a delicate balance between sequence diversity and fluorescence intensity. As HIV subtypes differ in viral pathogenesis, genetics, and reservoir sizes, subtype-specific assays for accurate LVR quantification are needed to evaluate reservoir outcomes in African populations.

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: HIV Latency and Viral Reservoirs / Thème : Latence du VIH et réservoirs viraux

Abstract #377

Long-term Integrase Inhibitor Therapy Reshapes HIV-1 Integration Site Targeting

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HIV-1 integration into the host genome is a critical step in infection that influences viral gene expression, latency, and long-term persistence during antiretroviral therapy. Although integrase inhibitors are highly effective at suppressing viral replication, how prolonged exposure to these drugs influences HIV-1 integration targeting over time remains poorly defined. Here, we combined longitudinal integration-site profiling with integrase genetic analysis, genome-wide proviral sequencing, and analysis of recombinant viruses carrying fixed integrase variants to examine the effects of sustained dolutegravir (DTG) and raltegravir (RAL) exposure on HIV-1 integration targeting using NL4-3 viruses carrying subtype A-, B-, or D-derived integrase sequences. By comparing integration patterns over time to matched no-drug controls, we found that both DTG and RAL drive progressive, structured remodeling of integration-site profiles that exceeds long-term culture-associated drift. These changes reflected coordinated reweighting across overlapping gene-associated, regulatory, and structural chromatin environments rather than enrichment of individual genomic features. While all integrase variants exhibited drug-associated remodeling, the magnitude and kinetics of these changes differed by variant and drug, with RAL producing more rapid and heterogeneous effects than DTG. Notably, altered integration targeting was detectable in viruses carrying fixed integrase resistance mutations, indicating that integration-site remodeling can arise directly from integrase sequence variation and is not strictly coupled to classical resistance pathways or broader genome-wide proviral evolution. Together, these findings demonstrate that integrase inhibitor pressure reshapes HIV-1 integration targeting in an integrase variant–dependent manner, with potential implications for viral reservoir composition and long-term persistence during therapy.

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: HIV Latency and Viral Reservoirs / Thème : Latence du VIH et réservoirs viraux

Abstract #107

Role of innate immune sensing in the selection of genetically intact HIV genomes during antiretroviral therapy

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Introduction
In people with HIV (PWH) on antiretroviral therapy (ART), HIV persists in long-lived CD4+ T-cells, constituting the main obstacle to a cure. We recently reported that a large fraction (61%) of inducible, translation competent HIV genomes in PWH on ART present genetic defects in the highly structured Ψ RNA packaging signal. Because structured viral RNA can be sensed by the innate immune sensors RIG-I and MDA5, leading to cell death, we hypothesized that innate immune pressure drives the selection of defective proviruses during ART.

Methodology
To determine if cells carrying genetically intact Ψ-element are selectively killed upon reactivation, CD4+ T-cells from 3 PWH on ART were stimulated with PMA/ionomycin for 24h with or without the apoptosis inhibitor Q-VD-Oph. The genetic integrity of the Ψ-element was assessed by sequencing HIV genomes in sorted p24+ cells. Using site-directed mutagenesis or cloning of proviral sequences from PWH, we generated infectious molecular clones carrying partial or complete deletion of the Ψ-region. After transfection, the activation of RIG-I and MDA5 pathways was assessed by measuring IFN-β and IFIT-1 by RT-qPCR.

Results
Primary CD4+ T-cells constitutively expressed RIG-I and MDA5, with increased expression following TCR stimulation and IFN-α treatment (3- and up to 60-fold, respectively). Analysis of 32 proviral sequences from single sorted p24+ cells showed no enrichment of intact genomes upon Q-VD-Oph treatment, challenging our original hypothesis. In contrast, transfection of infectious molecular clones carrying genetically intact Ψ-element induced higher IFN-β and IFIT-1 expression than Ψ-defective clones, suggesting that a specific motif engages RIG-I and MDA5.

Conclusion
Our results suggest a mechanism by which innate immune sensors actively contribute to the negative selection of genetically intact HIV genomes during ART. Whether the induction of RIG-I and MDA5 can be leveraged to accelerate the depletion of intact HIV genomes remains to be determined.

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: HIV Latency and Viral Reservoirs / Thème : Latence du VIH et réservoirs viraux

Abstract #82

Determining the Impact of Non-Subtype B Nef-Mediated SERINC5 Downregulation on Latent Reservoir Dynamics in People Living with HIV-1 on ART

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Human Immunodeficiency Virus Type 1 (HIV-1) persists in people living with HIV-1 (PLWH) on antiretroviral treatment (ART) due to a latently infected immune cell population termed the latent reservoir. Most latent reservoir research focuses on subtype B HIV-1, with limited studies on the non-subtype B strains prevalent in lower-income countries. We previously characterized the Major Histocompatibility Complex Class I (MHC-I) and CD4 downregulation ability of non-Subtype B Nef proteins from ART-suppressed PLWH in Uganda and found a correlation between the decay rate of the latent reservoir and Nef-mediated MHC-I downregulation, but not CD4 downregulation. However, it remains unknown if other Nef functions can affect latent reservoir dynamics in PLWH. Of interest is SERINC5, a host restriction factor that reduces progeny virion infectivity and is also antagonized by Nef.

Given SERINC5s role in viral infectivity, we hypothesized that the ability of non-Subtype B Nefs from PLWH in Uganda to downregulate SERINC5 would not correlate with latent reservoir decay rate, as de novo infections are not believed to occur in ART-suppressed individuals. We evaluated 49 primary Nef isolates using an infection-based assay and quantified SERINC5 downregulation by flow cytometry, revealing functional variability between isolates and individuals. As expected, this activity did not correlate with the rate of decay of the latent reservoir. However, we identified a significant inverse correlation between Nef-mediated MHC-I and SERINC5 downregulation ($p=0.001$). These findings will be further explored in an infectious viral yield assay and targeted mutagenesis.

Overall, we aim to characterize non-subtype B Nef's ability to downregulate SERINC5 and its implications on the latent reservoir in those living with HIV-1.

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Theme: HIV Latency and Viral Reservoirs / Thème : Latence du VIH et réservoirs viraux

Abstract #229

Type I Interferon Reprograms Intestinal Epithelial Cells for Sustained HIV-1 Latency in CD4+ Tcells of Treated People with HIV

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Background: The intestinal environment sustains a state of HIV latency via yet unclear mechanisms. We demonstrated that Th17 cytokines differentially act on intestinal epithelial cells (IEC) to promote viral reservoir (VR) latency (IL-22) or reactivation (IL-17A) in CD4+ T-cells of people with HIV (PWH) on antiretroviral therapy (ART). The VR modulation by IL-22/IL-17A coincided with the up/down-regulation of IL-32, a cytokine with pro-inflammatory/antiviral features overexpressed in ART-treated PWH. Since IL-32 is an interferon (IFN) stimulated gene, we investigated IFN-β1a ability to modulate the IEC:T crosstalk via IL-32-dependent mechanisms.

Methods: CRISPR-Cas9 was used to inactivate IL32 in HT-29 IEC. IL-32 mRNA/protein expression was quantified by real-time RT-PCR/ELISA. CD4+ T-cells were isolated by magnetic beads negative selection. IEC were exposed to IFN-β1a and/or TNF prior being co-cultured with CD3/CD28-activated CD4+ T-cells of male ART-treated PWH (n=6) for 12 days. Intracellular/soluble HIV-p24 were quantified by flow cytometry/ELISA. Integrated HIV-DNA was quantified by PCR. Friedman and Dunn's post-test were applied. The Illumina RNA-Sequencing identified differentially-expressed genes (DEG) based on adjusted p-values and fold changes, and pathways based on Gene Set Variation Analysis (GSEA).

Results: Control but not IL32 knockout IEC upregulated IL-32 mRNA/protein upon IFN+TNF exposure. Regardless of IL-32 expression, HIV outgrowth was significantly reduced when CD4+ T-cells of ART-treated PWH where co-cultured with IFN+TNF-stimulated IEC. The decreased HIV outgrowth was associated with a slight reduced HIV-DNA integration levels, without changes in T-cell viability/proliferation. Transcriptional profiling in IFN+TNF-exposed IEC identified potential mediators shaping the IEC:T crosstalk, including IFN lambda 2 (IFNL2), CD274/PD-L1, CD83, CD223/LAG3, and LGALS9/Galectin9.

Conclusions: We demonstrated that IFN-β1a transcriptionally reprograms TNF-activated IEC for sustaining HIV latency in CD4+ T-cells of ART-treated PWH via mechanisms independent of IL-32, but likely involving IFNL2, PD-L1, and other immune checkpoints. Thus, the IEC:T crosstalk may be pharmacologically and/or immunologically targeted in novel HIV cure interventions.

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Theme: HIV Latency and Viral Reservoirs / Thème : Latence du VIH et réservoirs viraux

Abstract #84

Most HIV Transcripts Produced Spontaneously In HIV Reservoir Cells Do Not Encode Viral Proteins

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Introduction
The major obstacle to HIV eradication is the persistence of viral genomes in long-lived CD4+ T cells. Emerging data indicate that most proviruses remain transcriptionally active in people with HIV (PWH) on ART. However, the nature of the HIV transcripts produced and whether they can encode viral proteins remain unclear. We developed a novel approach to analyse the viral transcriptome of untouched HIV reservoir cells and following stimulation with several well-characterized latency-reversing agents (LRAs).

Methods
Cellular RNAs were extracted from CD4+ T cells obtained from four ART-treated PWH. Cells were either unstimulated or stimulated for 18 hours with PMA/ionomycin, romidepsin, interleukin-15 or anti-CD3/CD28. In vitro HIV-infected cells were used as positive controls. Viral RNAs were reverse-transcribed, labeled with unique molecular identifiers, amplified, and sequenced using the Oxford Nanopore Technology pipeline.

Results
Consensus RNA profiles derived from in vitro-infected cells were consistent with previously published data, thereby validating our experimental approach. Unstimulated CD4+ T cells from PWH on ART contained exclusively non-coding RNAs, consistent with residual transcription from defective proviruses. In contrast, stimulation with LRAs induced the production of coding transcripts in variable proportions (20% to 93% of all viral RNAs, with increasing proportions from romidepsin, IL-15, CD3/CD28 and PMA/ionomycin). Most canonical donor and acceptor splicing sites were used by coding transcripts, with the exception of D1. Instead, 12 alternate D1 sites were newly identified. Among those, a recurrent alternative D1 site located upstream of the canonical splice donor site (position 583) was used by a mean of 65% of all coding viral transcripts across all compounds and participants.

Conclusion
Our results indicate that most HIV transcripts spontaneously produced in PWH on ART cannot be translated into functional proteins. Upon stimulation, we uncovered a previously underestimated diversity of atypical viral RNA splicing, revealing the heterogeneity of the viral reservoir.

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: HIV Immunology and Vaccines / Thème : Immunologie du VIH et vaccins

Abstract #301

Screening Viral Host Dependency Factors and Human Loss of Function Polymorphisms Identifies AP1G2 as a Potential Broad-acting Host-directed Antiviral Candidate for HIV and SARS-CoV-2

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Multiple genome-wide knockout/knockdown studies of viral infection have identified sets of host dependency factors (HDFs) that are essential for viral replication. Although these factors may be candidates for developing novel antivirals, defining candidates that do not lead to drug toxicity is challenging. One opportunity to identify targets is to leverage available human genome resources to determine which HDFs harbour homozygous loss-of-function polymorphisms in healthy people. To that end, we sought to combine data from 27 genome-wide host dependency factor screens that covered HIV, Hepatitis C, Hepatitis D, SARS-CoV-2, SARS-CoV, Ebola, Influenza A, Zika, Dengue and West Nile virus, with the genome aggregation database (gnomAD) including >125,000 human exome and >15,000 whole-genome sequences. We identified 2,907 unique HDFs combined across all viruses, including 353 which were essential for ≥2 viruses and 2 which were essential for 5 viruses. Of the combined list, 137 targets were deemed non-essential by the observed/expected constraint (O/E) score and the presence of homozygous loss-of-function variants found within the gnomAD control population. We identified AP1G2 (adaptor related protein complex 1 subunit gamma 2), a gene involved in clathrin-mediated transport within the trans-Golgi network as a promising HDF target for HIV and SARS-CoV-2. AP1G2 has an O/E score of 0.96, placing it in the highly non-essential range (where 1.0 represents highly non-essential and 0 indicates essential). Currently CRISPR gene-editing in cell-lines is ongoing to confirm the HIV host dependency of AP1G2. Surprisingly, AP1G2 knockout resulted in up to a 43-fold increase in HIV infection. Validation experiments are underway to investigate the underlying mechanism, including potential effects on CD4 or MHC-I trafficking. These findings may redefine AP1G2's role in HIV replication and inform host-targeted therapeutic strategies.

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Theme: HIV Immunology and Vaccines / Thème : Immunologie du VIH et vaccins

Abstract #200

Inducing Immune Quiescence using oral Acetylsalicylic Acid among Female Sex Workers: a randomized, open label, controlled clinical trial in Kenya

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Background: Current HIV prevention approaches - condoms, pre-exposure prophylaxis (PrEP), and antiviral microbicides - primarily target viral exposure or replication and do not address host determinants of susceptibility, such as inflammation, which increases the density and activation of $CD4^+$ HIV target cells at the female genital tract (FGT). This study evaluated whether acetylsalicylic acid (ASA or aspirin) could induce a state of lower level of T cell immune activation (called immune quiescence) at the FGT of female sex workers (FSWs) from Nairobi, Kenya as a novel HIV prevention approach.

Methods: The Inducing Immune Quiescence (IIQ) study was a CIHR-funded randomized, open-label study assessing the ASA dose that optimally reduces $CD4^+$ HIV target cells. FSWs were randomized to receive 81mg ASA, 325mg ASA, or no drug, daily for five months. Peripheral blood and endocervical cytobrush samples were collected at baseline and monthly visits. Flow cytometry was done to immunophenotype CD4+ T cells at baseline, month 2, and month 5.

Results: 312 FSWs were enrolled (104 per arm); 199 (62.8%) completed follow-up. No serious adverse events occurred. Common adverse events were heartburn (46%), headache (14.9%), dizziness/nausea/vomiting (7.3%), and loss of appetite (1.3%). The incidence of sexually transmitted infections was similar between study arms during follow-up. At month 5, there were no significant differences across arms in endocervical $CD4^+$ cells expressing CD69 or CCR5, nor in $\alpha4\beta7^+$, Th17, or $Th17^+CCR5^+$ subsets. In blood, both ASA doses were associated with post-treatment increases in $CD4^+CCR5^+$ ($p=0.002$), Th17 ($p=0.001$), and $Th17^+CCR5^+$ cells ($p=0.007$).

Conclusion: Oral ASA did not significantly alter genital HIV target cell proportions. The post-treatment systemic increase in target cells suggests that ASA may suppress immune activation during active use with quicker systemic than mucosal rebound. Further analyses will clarify ASA's potential role as an adjunct HIV prevention strategy during bacterial vaginosis or STIs.

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Theme: HIV Immunology and Vaccines / Thème : Immunologie du VIH et vaccins

Abstract #373

Computational modelling of cross-reactive HIV Gag-specific T cell receptors restricted by HLA-B57 and HLA-E

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Many HIV controllers, who naturally suppress viral replication without therapy, display HLA-B57-restricted CD8 T cells against Gag KF11 (KAFSPEVIPMF). We identified two T cell receptors (TCRs), Gp3x1 and Gp3x2, that recognize KF11 presented on both HLA-B57 and HLA-E. These TCRs differ by 7 amino acids in their CDR3ß, but Gp3x2 demonstrates higher sensitivity and cross-reactivity. We performed functional assays and structural modelling to investigate the basis for this difference.

TCR genes (and mutants) were synthesized, cloned and expressed in Jurkat-CD8 cells to assess their function using an NFAT luciferase reporter assay. Structures of TCR-peptide/HLA (pHLA) complexes were predicted and analyzed using TCRdock, an AlphaFold-based computational tool refined using validated TCR-pHLA data. Structure analyses, including contact mapping, distance measurements, and hydrogen-bonding, identified contact points that may contribute to TCR sensitivity.

TCR reporter assays confirmed KF11 recognition on HLA-B57 and HLA-E, with Gp3x2 exhibiting higher sensitivity for both targets. Gp3x1 sensitivity was enhanced by Gly substitutions replacing CDR3ß residue 6 (Pro) or 7 (Asp), suggesting these amino acids inhibited TCR function. Structure models predicted that both TCRs engage KF11 residues 7-10 (VIPM). Consistent with its enhanced sensitivity, six contacts were predicted between Gp3x2 and KF11, compared with 3 between Gp3x1 and KF11. This difference was largely due to Gp3x2 CDR3ß residue 6 (Asn), which formed two hydrogen bonds with KF11 residue 8 (Ile).

By combining functional assessments with structural modelling, we can identify features that modulate TCR sensitivity and HLA recognition. For Gp3x1 and Gp3x2 TCRs, we identified CDR3β positions 6 and 7 as determinants of pHLA binding, with close proximity and hydrogen-bonding driving affinity. Ongoing studies may identify new features that modulate TCR cross-recognition of molecules. Determining the molecular basis of protective immune responses, particularly in the context of non-classical HLA-E, could inform vaccine and therapeutics development.

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: HIV Immunology and Vaccines / Thème : Immunologie du VIH et vaccins

Abstract #274

Investigating human iNKT cell function, exhaustion and in vitro anti-LAG-3 and anti-PD-1 immune checkpoint inhibition in HIV infection

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Invariant Natural Killer T (iNKT) cells are dynamic lymphocytes critical in anti-HIV immunity. Immune dysfunction persists in people living with HIV (PLWH) despite ART initiation and viral suppression but is different in immunological responders (IR) versus non-responders (INR), defined as CD4/CD8 of ≥ 1 or <1, respectively. Development of immune checkpoint inhibitors (ICIs) targeting immune checkpoints (ICs) PD-1 and LAG-3 warrants research elucidating IC-related dysfunction of iNKT cells in PLWH, and in vitro assessment of LAG-3 and PD-1 ICIs on iNKT cell function. The overall hypothesis is that ICs LAG-3 and PD-1 regulate iNKT cell activation in healthy conditions and are associated with iNKT cell dysfunction in chronic HIV infection, and by blocking LAG-3 and/or PD-1 with ICIs in vitro, iNKT cell function will be enhanced. Studies utilizing peripheral blood mononuclear cells (PBMCs) from healthy donors led to the development a novel in vitro CD1d-tetramer iNKT stimulation which was as effective as the α-GalCer gold-standard iNKT stimulant, as well as determined iNKT cell PD-1 and LAG-3 expression peaked after 2-4 days of activation and was inversely related to cell function. Utilizing PBMCs from PLWH (n=38), there was a unique ex vivo CD4+ iNKT cell phenotype in the INR subgroup and a dysfunctional state of CD4- CD8- double-negative (DN) iNKT cells upon stimulation in the INR subgroup. There was significantly enhanced proliferation and activation of iNKT cells in response to the in vitro dual LAG-3+PD-1 ICIs. Overall, this study provides evidence of targeting immune checkpoints LAG-3 and PD-1 in enhancing in vitro iNKT cell function in the context of HIV-1 infection. Future directions include understanding the effects of harnessing iNKT cell function in PLWH as a feasible immunotherapeutic option and its potential as a focus of future clinical investigation.

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Theme: HIV Immunology and Vaccines / Thème : Immunologie du VIH et vaccins

Abstract #383

A Glycan-Bearing eOD-GT8 Immunogen Favors Antibody Recognition of Native-Like HIV-1 Envelope Glycoprotein in Human-Antibody Transgenic Mice

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Immunization strategies capable of eliciting VRC01-class broadly neutralizing antibodies (bnAbs), which target the conserved CD4-binding site (CD4bs) on the HIV-1 envelope glycoprotein (Env), are a key goal in HIV-1 vaccine development. VRC01-class germline precursors are sterically hindered from binding most HIV-1 Envs by a conserved glycan at Asn276 near the CD4bs periphery. To circumvent this barrier, the VRC01 germline-targeting immunogen eOD-GT8 is engineered without the Asn276 glycan. Since affinity-matured VRC01-class bnAbs accommodate this glycan, its reintroduction in booster immunogens is considered necessary to support proper maturation pathways. However, the effect of sequential immunization with glycan-modified variants on downstream antibody responses remains unclear.

Here, we present initial findings from antibody responses elicited by eOD-GT8 and glycan-modified variants in human-antibody transgenic TRIANNI mice. Mice immunized twice with the eOD-GT8 60mer produced sera that neutralized an HIV-1 strain lacking the Asn276 glycan (~30% at 1:20 dilution) but failed to neutralize the same virus modified to include the Asn276 glycan. In contrast, mice boosted with an Asn276 glycan-bearing eOD-GT8 variant produced sera that modestly neutralized HIV-1 strains regardless of glycan status (30–40% at a 1:20 dilution), suggesting improved neutralization breadth. These findings suggest that exposure to a glycan-modified eOD-GT8 immunogen may shift serum antibody responses toward more native-like HIV-1 Env recognition.

To further investigate these responses, antibodies were cloned from singly sorted eODGT8pos/eODGT8KOneg memory B cells. ELISA analyses so far show that approximately one-third of the cloned antibodies bind eOD-GT8–lumazine synthase. VH gene usage does not distinguish binders from non-binders, as both predominantly use VH3-23. However, binding antibodies exhibited restricted VH3/VK3 pairing and 15 to 16-residue HCDR3s, whereas non-binders were more diverse in both pairing and HCDR3 length. Ongoing characterization aims to define features of productive antigen engagement to inform alternate immunogen design strategies that may support antibody precursor maturation toward desirable bnAbs.

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Theme: HIV Immunology and Vaccines / Thème : Immunologie du VIH et vaccins

Abstract #83

Extracellular Acyl-CoA-Binding Protein binds to lipids, abating T-cell function in people with HIV

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T-cell function remains impaired in people with HIV (PWH), even following extended antiretroviral therapy (ART), partially due to metabolic dysfunction and inability to induce autophagy. We have found elevated levels of the autophagy inhibitor acyl coA binding protein (ACBP) in the plasma of ART-treated PWH as compared to controls. Herein, we assessed the influence of extracellular ACBP on T-cell function in PWH on ART.

Methods
Plasma ACBP were quantified by ELISA in 50 PWH on effective ART (mean duration of 14.7 years) and 30 controls with similar age. In vitro, recombinant ACBP (recACBP) was added at increasing concentrations up to 10 µg/mL on PBMCs from PWH on ART and controls. Lipid uptake and T-cell responses were assessed by flow cytometry. A synthetic acyl-coA was added to cell culture at up to 10 µg/mL.

Results
Plasma ACBP levels were higher in PWH on ART compared to controls (median 127.5 vs 78.1 ng/mL, p=0.03), independently of age and sex.

To mimic the effect of extracellular ACBP, we added recACBP to PBMCs from ART-treated PWH or controls before stimulating them. RecACBP prevented CD4 and CD8 T-cell cytokine production and secretion as well as cell proliferation in response to phorbol-myristate acetate, anti-CD3 antibodies or HIV peptides.
RecACBP addition decreased expression of autophagy markers Beclin1, p62 and ULK1 in anti-CD3 stimulated CD4 and CD8 T-cells. Treatment with autophagy inducers spermidine or dimethyl-oxoglutarate did not rescue T-cell responses.

RecACBP treatment increased the lipid uptake as observed with BODIPY lipid probes. Addition of acyl-CoA lipids only did not influence T-cell responses. However, recACBP and acyl-CoA addition totally blocked T-cell responses and induced cell death.

Conclusion
Extracellular ACBP increase T-cell lipid uptake, leading to metabolic irresponsiveness and T-cell death, warranting the development of ACBP inhibitors to enhance anti-HIV T-cell responses in PWH, towards an HIV cure.

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: HIV Immunology and Vaccines / Thème : Immunologie du VIH et vaccins

Abstract #56

Interferon-α14 Potentiates NK Cell-Mediated Viral Control and Reverses Immune Exhaustion in HIV-1 Infected Humanized Mice

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Natural Killer (NK) cells and interferon-alpha (IFN-α) are important innate immune defences against HIV-1 infection. NK-cell-based immunotherapies represent a potential frontier for HIV-1 eradication. However, a hallmark of HIV-1 pathogenesis is profound immune impairment, which can impact NK cell function. Humans produce 12 IFN-α subtypes that display distinct potencies against different viral infections. We have found that the IFN-α14 subtype is more effective than the clinically approved IFN-α2 subtype at suppressing HIV-1 infection. Additionally, preliminary data suggest that the potency of the IFN-α14 subtype may involve enhancement of NK cell function. In this investigation, we augmented NK cell development in the C57BL/6 Rag-/-yc-/-CD47-/- triple knockout - bone marrow, liver, and thymus (TKO-BLT) humanized mouse model via adeno-associated virus (AAV)-mediated interleukin-15 (IL-15) delivery. Using this TKO-BLT15 mouse model, we evaluated the efficacy of the IFN-α14 subtype to enhance NK cell function relative to clinically approved IFN-α2. Daily administration of IFN-α14 for 10 days post-infection significantly suppressed HIV-1 viremia and invigorated NK cell effector functions, as evidenced by marked upregulation of the proliferation marker Ki-67 and the degranulation marker CD107a. Furthermore, IFN-α14 treatment significantly increased expression of the cytotoxic ligand TRAIL and normalized levels of the exhaustion marker TIGIT to uninfected levels. Ex vivo assays against isogeneic HIV-1-infected CD4+ T cells confirmed that NK cells from IFN-α14-treated animals exhibited increased direct cytotoxicity and modest enhancement of antibody-dependent cellular cytotoxicity (ADCC) compared to NK cells from IFN-α2-treated mice. Overall, the data suggest that IFN-α14 has beneficial effects on NK-cells during acute HIV-1 infection, warranting further investigation into its use as an immunotherapeutic for the elimination of HIV-1 reservoirs.

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: HIV Immunology and Vaccines / Thème : Immunologie du VIH et vaccins

Abstract #221

A longitudinal assessment of the impact of liver fibrosis and Hepatitis C virus (HCV) sustained virologic response (SVR) on plasma markers of immunometabolism in HIV/HCV coinfection

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Background: In people with HIV (PWH), liver dysfunction and chronic inflammation may persist despite HCV sustained virologic response (SVR) due to liver tissue damage. Chronic inflammation and gut mucosal damage in PWH, alongside enhanced tryptophan (Trp) catabolism to kynurenine (Kyn) via indoleamine 2,3-dioxygenase (IDO) induced by IFN-γ and TNF-α signaling, are associated with worse clinical outcomes. We evaluated the impact of liver fibrosis and SVR on systemic inflammation, Kyn pathway, and gut mucosal damage in HIV/HCV coinfection.

Methods: Plasma samples from ART-treated HIV/HCV-coinfected participants (pre- versus 6-12 months post-SVR) with (n=21) or without liver fibrosis (n=51) were obtained from the Canadian Coinfection Cohort, along with n=20 HIV-uninfected controls from the Canadian HIV Aging Cohort. Inflammatory cytokines and gut mucosal damage markers were quantified by Luminex or ELISA. Trp catabolites were measured by LC-MS/MS.

Results: Compared to uninfected participants, HCV-coinfected PWH exhibited higher plasma levels of IP-10, MIG, TNF-α, and sTNFRII, while elevated IFN-γ and IL-6 were observed exclusively in fibrotic individuals. Coinfection was associated with upregulation of the Kyn pathway, including increased levels of Kyn, 3-hydroxykynurenine (3-H-Kyn), quinolinic acid (QA), picolinic acid (PA), increased IDO and Kynurenine-3-monooxygenase activities and reduced kynurenine aminotransferase activity. Fibrotic participants displayed higher IL-6, TNF-α, sTNFRII, and downstream Kyn metabolites 3-HAA, QA, PA. Following SVR, inflammatory markers decreased in both groups but normalized only in non-fibrotic participants. SVR normalized terminal Kyn metabolites (3-HAA, QA, PA) but not upstream dysregulation. Markers of gut mucosal damage (REG-3α, sCD14) remained elevated irrespective of SVR or fibrosis status.

Conclusion: HCV/HIV coinfection is associated with increased proinflammatory IFN-γ and TNF-α signaling, normalized after SVR only in non-fibrotic individuals. The Kyn pathway was also upregulated in HIV/HCV coinfection, while SVR resulted in only partial normalization of terminal metabolites. Altogether, liver fibrosis is associated with persistent immuno-metabolic dysregulation in PWH, even after SVR.

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: Host Interfaces in HIV Infection and Treatment / Thème : Interfaces de l'hôte dans l'infection et le traitement du VIH

Abstract #163

Characterizing the human proteome on HIV-1 virions to better understand virus-host interactions

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The incorporation of cellular proteins into viral particles is well-documented for numerous enveloped viruses, including the human immunodeficiency virus type 1 (HIV-1). This phenomenon represents a unique host-pathogen interplay whereby HIV-1 can exploit the functions of non-virally encoded proteins to interact with the susceptible host. Given that HIV-1 can infect multiple cell-types, we hypothesized that progeny virions incorporate a protein repertoire reflective of the producer cells from which they emerged. These virion-incorporated proteins in turn can facilitate interactions between HIV-1 and immune cells, with implications for pathogenesis.

Herein, we produced HIV-1(BaL) viral stocks in donor-matched peripheral-blood mononuclear cells (PBMCs) and monocyte-derived macrophages (MDMs), along with donor-matched microglia and bone-marrow derived macrophages (BMDMs). Virus-containing supernatants were then analyzed by mass spectrometry to identify the broad repertoire of virion-incorporated proteins, with curated lists of top protein hits extensively validated with orthogonal assays, like flow virometry and immunoprecipitation assays. With donor variation controlled, we observed differential virion-incorporation of numerous human proteins in the PBMC/MDM and Microglia/BMDM datasets, reinforced by hierarchical clustering. Enrichment analyses also revealed differential protein functionalities, allowing for unique cell-virus interactions driven by the repertoire of incorporated proteins. StringDB was used to model physical protein interactions between various leukocytes, revealing predicted cell-type interactions enabled by the virion-incorporated proteins identified in this study. Finally, select targets were validated on plasma-derived HIV-1 particles from people living with HIV (PLWH) to determine in vivo relevance of the identified protein fingerprints.

Collectively, these results reinforce our hypothesis that virions emerge from infected cells with a unique protein fingerprint, allowing for interactions with various immune cells. Ongoing work aims to validate these interactions to identify their contributions to viral pathogenesis and potential as new therapeutic targets

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: Host Interfaces in HIV Infection and Treatment / Thème : Interfaces de l'hôte dans l'infection et le traitement du VIH

Abstract #152

Characterizing Endolysosomal Trafficking of SERINC5 During Downregulation by HIV-1 Nef

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The HIV-1 accessory protein Nef is expressed early during infection and contributes to evasion of the host immune response. Nef modulates cellular trafficking pathways to downregulate various cell surface immune effectors, including the HIV-1 entry receptor CD4. Another protein downregulated by Nef is Serine incorporator 5 (SERINC5), a multi-pass transmembrane protein restriction factor that incorporates into progeny virions during egress and reduces infectivity by inhibiting fusion with target cells. Nef counteracts SERINC5 by recruiting cellular adaptor protein 2 (AP-2) to internalize SERINC5 via clathrin-mediated endocytosis. An endocytic dileucine sorting motif ([D/E]xxxL[L/I]$_{165}$) in the Nef C-terminal region establishes associations with adaptor proteins (APs) necessary for antagonism of SERINC5 and CD4, suggesting both proteins are downregulated through equivalent trafficking pathways.

We have identified a Nef DN$_{164}$ND polymorphism within the dileucine motif that decreases SERINC5 downregulation, while having minimal effects on CD4 downregulation, rendering antagonism of SERINC5 and CD4 functionally uncoupled. We next hypothesized that the DN$_{164}$ND polymorphism alters interactions between Nef and APs during endolysosomal trafficking to uncouple the two downregulatory pathways. We used the protein-protein interaction reporter assay, bimolecular fluorescence complementation (BiFC), with confocal microscopy to detect Nef and SERINC5 interactions within the endocytic pathway of transfected cells. Our analysis revealed a pronounced decrease in Rab7-positive late endosome localized BiFC associated with the Nef DN$_{164}$ND polymorphism, while no significant differences were observed in Rab5-positive early endosomes and the trans-Golgi network, suggesting that the DN$_{164}$ND polymorphism is causing increased recycling of SERINC5 to the plasma membrane or compromising entry into the degradative pathway. We aim to elucidate the pathway of Nef-mediated SERINC5 downregulation by further characterizing the subcellular compartments and APs involved in the functional uncoupling. This investigation may inform the development of novel therapeutics that inhibit Nef and improve health outcomes in people living with HIV-1.

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: Host Interfaces in HIV Infection and Treatment / Thème : Interfaces de l'hôte dans l'infection et le traitement du VIH

Abstract #89

Characterization of inhibitors targeting the interaction between Nef and Src family kinases

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The HIV-1 accessory protein Nef contributes to HIV-mediated immune evasion by downregulating major histocompatibility complex class I (MHC-I). Nef-mediated MHC-I downregulation results from interaction between Nef and Src family kinases (SFKs) and prevents recognition of HIV-infected cells by cytotoxic T lymphocytes (CTLs). Inhibiting the Nef:SFK interaction has been shown to prevent MHC-I downregulation. Using an in silico docking screen, previous work in our lab identified a dipeptide inhibitor (H3-1) of the Nef:SFK interaction. However, H3-1 was determined to be unstable as it was undetectable via mass spectrometry in mouse plasma 60 minutes post-intraperitoneal injection. Thus, analogues of H3-1 were designed by replacing the C-terminal carboxyl group with various functional groups to decrease susceptibility to proteolysis. The stability of these analogues was analyzed similarly via mass spectrometry and was increased compared to that of H3-1. Results of a NanoBiT assay based on luciferase readout of protein-protein interactions suggests that two of the analogues are potent inhibitors of the interaction between Nef and hematopoietic cell kinase (Hck), a specific SFK. Characterization of the analogues via mass spectrometry suggests that at least three are more stable than H3-1, as they were detectable in mouse plasma for at least one hour. Preliminary characterization done by treating HIV-infected primary CD4+ T cells with the H3-1 analogues and analyzing surface MHC-I via flow cytometry determined that H3-1 and its analogues restore MHC-I on the surface of infected cells. Analyzing surface MHC-I levels on splenocytes of transgenic mice expressing HIV-1 Nef in immune cells also suggested the inhibitors are able to increase antigen presentation. We will also assess whether increased CTL activation results from changes in MHC-I levels using humanized C3H mice. Characterization of these inhibitors will determine their utility as part of an immune-directed HIV therapeutic strategy.

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: Host Interfaces in HIV Infection and Treatment / Thème : Interfaces de l'hôte dans l'infection et le traitement du VIH

Abstract #85

Impact of HIV Integrase Strand Transfer Inhibitors on Placental Solute Carrier (SLC) and ATP-Binding Cassette (ABC) Transporters: Potential Implications for Fetal Drug and Nutrient Disposition

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Background: Combination antiretroviral therapy (ART) remains a cornerstone of HIV treatment, with over one million pregnant people receiving ART, reducing perinatal transmission. Children who are HIV-exposed but uninfected (CHEU) have higher rates of adverse birth outcomes, after in utero exposure to integrase strand transfer inhibitors (INSTIs). The 2018 Botswana Tsepamo study reported increased incidence of neural tube defects (NTDs) with dolutegravir exposure, and folate deficiency is linked to NTDs. The mechanisms behind these risks and long-term ART effects remain not fully understood. Placental transporters and enzymes regulate antiretroviral drug (ARV) disposition and fetal delivery. We investigated whether ART-mediated dysregulation of these pathways affects fetal development.

Methodology: HTR8/SVneo and BeWo human placental cell lines, representing first and third trimesters, were treated with clinically relevant concentrations of INSTIs, dolutegravir, bictegravir, cabotegravir, or DMSO control. mRNA, protein expression, and function of key placental nutrient and drug transporters, including FR-alpha (FRα), RFC (SLC19A1), PCFT (SLC46A1), P-gp (ABCB1), BCRP (ABCG2), and MRPs 1- 5 (ABCC1-5), along with metabolic enzymes, UGT1A1, CYP3A4 were assessed by qPCR, immunoblotting, and radiolabeled uptake assays. Complementary in vivo studies in pregnant mice evaluated placental and fetal nutrient/drug transporter and metabolic enzymes expression following oral INSTIs treatment.

Results: Dolutegravir reduced FRα and PCFT mRNA and protein expression as well as function by 50% and increased BCRP (25%), MRP1 (50%), and MRP3 (30%) in HTR8 cells. Bictegravir decreased FRα, RFC, and PCFT by 20% and downregulated CYP3A4 by 60% in BeWo cells. Cabotegravir produced modest effects on FRα and RFC but increased P-gp by 50% in HTR8 cells.

Conclusion: These findings suggest that INSTI exposure may dysregulate key SLC, ABC placental transporters and metabolic enzymes, potentially altering transplacental transfer of ARVs and essential nutrients. This could affect fetal drug exposure and contribute to adverse developmental outcomes. (Supported by OHTN and CIHR).

Basic Sciences Oral Abstract Session / Sciences fondamentales présentation orale d'abrégés

Theme: Host Interfaces in HIV Infection and Treatment / Thème : Interfaces de l'hôte dans l'infection et le traitement du VIH

Abstract #15

Evaluating PPARγ and its potential as a therapeutic target in HIV-associated Neurocognitive Impairment

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Background: HIV-associated neurocognitive impairment (NCI) affects nearly half of people living with HIV and is primarily characterized by chronic neuroinflammation. Peroxisome proliferator-activated receptor gamma (PPARγ), which exhibits anti-inflammatory and neuroprotective effects, represents a potential therapeutic target for HIV-related neurological complications. We investigated whether activation of PPARγ with INT131, a selective partial agonist, could mitigate HIV-induced neuroinflammation and cognitive deficits in an EcoHIV mouse model. In parallel, postmortem human brain tissues were analyzed to assess neuroinflammatory responses.

Methods: Male and female C57BL/6 mice were assigned to four groups: Saline, Saline+INT131, EcoHIV (4×10^6 pg/mL p24 IP), and EcoHIV+INT131. Two weeks later, osmotic pumps delivered INT131 (20 mg/kg/day) or saline for 28 days. Behavioral assessments evaluated locomotion, learning, memory, and anxiety. Brain and spleen tissues were analyzed by qPCR, immunohistochemistry, and western blot for viral genes/proteins, inflammatory and oxidative stress markers, BBB tight junction proteins, and PPARγ/NF-κB signaling. Postmortem brain tissues from HIV– controls, HIV+ without NCI, and HIV+ with NCI obtained from the National NeuroAids Tissue Consortium were examined for PPARγ, NF-κB, IL-6, IBA-1, GFAP, and CASP-3.

Results: INT131 reduced EcoHIV Vif, Tat, and p24, decreased inflammatory (Tnf-α, Il-1β, C3, Ccl2, Ifn-γ) and oxidative stress markers (Nos2, Hmox) in brain and spleen of both sexes, restored PPARγ, and normalized BBB protein expression (Cldn5, Ocln, Tjp1). In behavioral studies, it reversed locomotor, memory, and anxiety deficits in the EcoHIV group. In post-mortem human brain tissues from HIV+ individuals with NCI, we observed an increased NF-κB activation, IL-6 upregulation, microgliosis (Iba-1), astrocytosis, and increased caspase-3, with reduced PPARγ versus HIV– and HIV+ without NCI, providing translational insight for PPARγ-targeted interventions.

Conclusion: These findings identify PPARγ as a relevant target for HIV-associated neuroinflammation, BBB dysfunction, and cognitive impairments supporting further investigation in PPARγ-targeted therapies for HIV-associated NCI. (Supported by the Canadian Institutes of Health Research.)

Basic Sciences - Poster Abstract / Sciences fondementales - Abrégés affiches

Abstract #210

Transcriptomic Profile of splenic CD4⁺ T Cells reveals altered profile in ART-Treated SIV-infected rhesus macaques

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Effector memory (EM) and T follicular helper (TFH) CD4⁺ T cells represent key CD4⁺ T cell subsets, which are preferentially infected in visceral tissues despite early ART. Yet, their transcriptional profiles within the spleen remain incompletely characterized. Building on previous work from in SIV-infected rhesus macaques, we combined bulk and single-cell RNA sequencing to characterize splenic EM, and TFH in comparison to naïve CD4+ T cells. We compared their profile in healthy, SIV-infected, and SIV-infected under antiretroviral therapy (ART).

Bulk RNA sequencing was first used to define subset specific transcriptional signatures by comparing TFH and EM populations to naïve CD4⁺ T cells. These analyses identified core lineage-associated programs distinguishing EM and TFH CD4+ T cells. This approach also revealed that despite treatment, transcriptional profiles remain altered showing major reprograming related to immune activation, cytokine signaling and cellular metabolism. Single-cell transcriptomic profiling subsequently refined these profiles by revealing heterogeneity within the EM and TFH compartments, leading to the identification of at least three distinct subsets. In addition, RNA velocity analyses were performed to infer potential cellular trajectories and dynamic transcriptional changes, providing insights into putative state transitions within EM and TFH populations.

Together, this integrated bulk and single-cell transcriptomic framework provides a refined view of EM and TFH CD4⁺ T cell heterogeneity in the spleen across healthy, SIV infected, and ART treated SIV-infected RMs. Our findings establish a robust reference for CD4+ T cell subset-specific in the context of SIV infection.

Basic Sciences - Poster Abstract / Sciences fondementales - Abrégés affiches

Abstract #22

Nucleoside Reverse Transcriptase Inhibitors Mitigate Tunicamycin-Induced ER Stress and Inflammation in Human Brain Microvascular Endothelial Cells

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Background: Despite effective viral suppression with antiretroviral therapy (ART), persistent central nervous system (CNS) inflammation remains a major concern in people living with HIV (PLWH). Induced inflammatory signalling at the blood–brain barrier (BBB) is known to compromise barrier integrity, promote immune cell infiltration, and contribute to cognitive dysfunction. Tenofovir alafenamide (TAF) or tenofovir disoproxil fumarate (TDF), with emtricitabine (FTC), are common NRTI backbones in first-line HIV regimens. Emerging evidence suggests that NRTIs exert anti-inflammatory effects independent of antiviral activity, supporting investigation into whether NRTIs attenuate inflammatory responses at the BBB.

Methods: Immortalized human brain endothelial cells (hCMEC/D3), an in vitro BBB model, were pre-treated for 6 hours with NRTI backbone combinations (TAF or TDF±FTC) at therapeutic and supratherapeutic concentrations (TAF: 600–2400; TDF: 200–1800 ng/mL), followed by 18 hours of co-treatment with the ER stress inducer Tunicamycin (Tuni, 1.5 µg/mL). Gene expression of inflammatory cytokines (IL6, IL23A), chemokines (CXCL2, CXCL8) and ER stress markers (HSPA5, DDIT3, ATF4, PPP1R15A) was quantified using qPCR.

Results: Tunicamycin significantly upregulated inflammatory and ER stress markers compared to vehicle controls, an effect attenuated by both NRTI backbones. In Tuni-treated cells, TAF+FTC treatment demonstrated dose-dependent reduction of key pro-inflammatory cytokine/chemokine gene expression, including IL6 (18-38%), CXCL2 (2-14%), CXCL8 (31-43%), and IL23A (18-41%) as well as ER-stress markers, including HSPA5 (14-28%), DDIT3 (18-24%). Similarly, TDF (200 ng/mL) +FTC suppressed gene expression of both inflammation (IL6, 20%; CXCL2, 21%; CXCL8, 25%; IL23A, 18%) and ER-stress (HSPA5, 21%; DDIT3, 16%) markers.

Conclusion: Our findings suggest that TAF or TDF+FTC-based backbones partially mitigate inflammatory and ER stress signalling in vitro. While these data suggest a potential role for NRTI regimens in modulating CNS inflammation, further work in relevant in vivo models is needed and will be the focus of future studies.

Basic Sciences - Poster Abstract / Sciences fondementales - Abrégés affiches

Abstract# 34

Targeting the transcription factor NRF2 is a new enticing way in rescuing proper memory CD4 T-cell resistance to apoptosis in people living with HIV-1

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HIV-1 infection continues to be considered as a global health problem, immunologically characterized in patients by the progressive loss of virus-specific memory CD4 T-cells (MEM) despite suppressive antiretroviral therapy (ART). Indeed, previous experiments have shown that MEM from patients under ART display higher sensitivity both to Fas- and reactive oxygen species (ROS)-mediated apoptosis, when compared to naturally protected elite controllers (EC) and HIV-uninfected control donors (HIV-). Although these immunological defects are well documented, it is not the case for the underlying molecular events responsible for them, and it is unclear if we can restore better resistance to death in MEM during chronic HIV-1 infection.
In this context, the recent works in my laboratory confirm that MEM from patients under ART display lower NRF2 activity than those of EC and HIV- donors, resulting in low BCL2 expression and defective mitochondrial integrity along with impaired anti-ROS program. Interestingly, our data also vouch for our ability to restore proper BCL2 expression and mitochondrial status, leading to higher MEM resistance to Fas-, H2O2- and NO-mediated apoptosis in the range of what is found with EC and HIV- donors. This can be achieved by using specific NRF2 drug inducers such as Ki696, 4-octyl itaconate or dihydro-CDDO-trifluoroethyl amide. In summary, by using several experimental approaches such as quantitative PCR, Imaging and multi-parameter flow cytometry along with confocal microscopy, we show that artificially targeting NRF2 activity in Mem from patients under ART restore proper cell resistance to death, revealing a new enticing therapeutic venue for better virus-specific CD4 immunity.

Basic Sciences - Poster Abstract / Sciences fondementales - Abrégés affiches

Abstract #40

Development of Assays for Characterizing HPV-Specific Immune Responses Linked to Viral Control in Kenyan Female Sex Workers living with HIV

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Background: Cervical cancer rates are 2–6 times higher among people living with HIV (PLWH) than in HIV uninfected individuals, due to reduced control of high-risk Human Papilloma Virus (HPV). While most HPV infections clear spontaneously, the immune mechanisms driving this control remain unclear. Studying HPV-specific T-cell responses in Kenyan female sex workers (FSWs) may inform therapeutic HPV vaccine development and strengthen cervical cancer prevention strategies, particularly for PLWH.

Methods: A longitudinal cohort of 702 FSWs (18% PLWH) from the Sex Worker Outreach Program (SWOP) HPV cohort in Nairobi, Kenya, was followed bi-monthly for 12 months. HPV-specific cellular immunity will be assessed by flow cytometry, measuring T-cell activation (CD69) and function (IFN-γ) after stimulation of PBMCs with overlapping 15-mer peptide pools (HPV16/18 E6 and E7) at varying concentrations. To establish this assay using control samples, the in-house HPV16 E6 peptide pool was compared with a commercial pool (Miltenyi, 130-095-997). HPV-specific humoral immunity was evaluated using a multiplex bead array against L1 antigens of HPV types 6/11/16 and 18 among FSWs from the SWOP HPV cohort and healthy controls from Winnipeg, Canada.

Results: Optimization of the flow cytometry panel enabled detection of HPV-specific $CD4^+$ and $CD8^+$ T-cell activation and function, with antigen-induced CD69 and IFN-γ responses observed across peptide concentrations. The in-house HPV16 E6 peptides pool showed comparable stimulation to a commercial HPV16 E6 peptide pool. Multiplex bead array analysis detected HPV6/11/16/18 L1-specific IgG responses and distinguished antibody levels among SWOP HPV participants and healthy controls.

Conclusion: In this optimization study, the pooled HPV peptides elicited measurable HPV 16/18E6/E7-specific CD4 and CD8 T-cell activation and functional responses. The multiplex bead array detected HPV 6/11/16 and 18 L1-specific antibodies among participants. These assays provide a platform for comparing humoral and cellular correlates of HPV control versus persistence among FSW living with HIV.

Basic Sciences - Poster Abstract / Sciences fondementales - Abrégés affiches

Abstract# 47

CD27+CD21-CD95+ B cell expansion in visceral lymphoid tissues demonstrates a B-1 skewed profile in ART-treated SIV-infected rhesus macaques

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T follicular helper cells, which are essential for B cells, represent HIV-1 reservoirs in human visceral lymphoid organs. However, the consequence of viral persistence on B cell differentiation is largely so far unknown as sampling spleen and mesenteric lymph nodes in humans is impractical.

Therefore, we addressed this question in rhesus macaques (RMs) infected with simian immunodeficiency virus (SIV).

We demonstrated by flow cytometry an altered B cell differentiation in visceral lymphoid organs of ART-treated SIV-infected RMs with an expansion of activated memory CD21-CD27+ B cells expressing CD95 and PD-1. Transcriptomic analysis showed that splenic CD21-CD27+CD95+ cells exhibit a B-1-like cell signature characterized by an IGHM profile and the expression of transcriptional factor genes such as TOX, TOX2, SOX5 and TBX21. The coculture of sorted CD21-CD27+CD95+ B cells with CD4+ T cells demonstrates their lower capacity to support T cell proliferation as compared to naïve B cells.

Altogether, our results highlight the immune consequences of viral persistence in visceral lymphoid organs of SIV-infected RMs.

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Abstract #60

Ancestral Reconstruction Supports that Loss of Nef-mediated T Cell Modulation Coincided with the Emergence of Pathogenic Lentiviruses

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Human immunodeficiency virus type 1 (HIV-1) originated following cross-species transmission of simian immunodeficiency virus (SIV) infecting chimpanzees (SIVcpz). While SIV infection of its natural primate hosts is typically non-pathogenic, SIVcpz/HIV-1 is highly pathogenic. SIV/HIV pathogenesis is influenced by the viral accessory protein Nef, which manipulates several immune factors to facilitate disease progression. Specifically, Nef can modulate T cell activation by downregulating the T cell receptor subunit CD3ζ and the co-stimulatory receptor CD28. Several studies have demonstrated that while Nef downregulates CD28 from the T cell surface, this ability is not completely conserved throughout the SIV/HIV phylogeny. In comparison, Nef-mediated CD3 downregulation is highly conserved in SIV derived from lower-order primates yet completely absent from SIVcpz/HIV-1. Here, we used Nef proteins previously generated via an ancestral reconstruction pipeline, corresponding to common ancestors in the SIV/HIV phylogeny leading to HIV-1 group M, and evaluated their ability to downregulate CD3ζ and CD28 in both expression and infection systems. We observed that only the ancestral Nef of all primate lentiviruses efficiently downregulated both CD3ζ and CD28, while ancestors along the SIVcpz/HIV-1 lineage failed to downregulate CD3ζ and minimally recovered the ability to downregulate CD28 over time. Further, we showed that the loss of CD3ζ and CD28 downregulation was associated with increased expression of cell surface T cell activation markers and inflammatory cytokines, consistent with a pathogenic infection. Altogether, this study illustrates the evolutionary dynamics of Nef modulation of T cell activation and its impact on pathogenesis in the SIV/HIV lineage.

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Abstract #62

Presence of an ATF Motif in the long terminal repeat (LTR) of HIV-1

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The LTR region of HIV strains contains recognition sites for transcription factors such as Nuclear Factor kappa-light-chain-enhancer of activated B cells (NF-κB), Specificity Protein 1 (Sp1) and cAMP Response Element (CRE). Activating Transcription Factors (ATF) are members of the basic leucine zipper (bZIP) protein family. The Protein Kinase R (PKR), which activates the integrated stress response (ISR) by phosphorylating eIF2α (1), promotes translation of ATF4, capable to bind the CRE site, thereby linking viral sensing to host stress pathways (2). ATF5, which is homolog to ATF4, regulates mitochondrial stress and apoptosis, that remains poorly understood during lentiviral infections.

Thus, our objective is to characterize the role of ATF5 during HIV/SIV infection.

Primary human monocytes were infected with HIVBaL to assess the expression of ATF family members by qPCR. We also analyzed the 5'LTR sequences of several HIV and SIV strains to identify conserved ATF motifs and potential stress-responsive elements. To assess transcriptional activity of ATF4 and ATF5, plasmids were developed to study LTR transcriptional activity including different fluorescent proteins.

We found that an early and transient expression of the ATF5 gene expression in monocytes infected with HIVBaL. Our results show the presence of an Amino Acid Response Element (AARE) site capable to bind ATF4 and ATF5, specifically in HIV-1 subtype B. These results provide a basis to explore the potential role of ATF5 , particularly in the context of HIV subtype B.
1) Pyburn J, J Virus Erad, 2025; 2) Corne A, Biology, 2024.

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Abstract #69

Targeting T cell death to improve vaccine immune responses detection in the context of HIV/SIV infections

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Chronic HIV infection and its simian counterpart (SIV) reshape immune homeostasis, compromising the development and durability of vaccine immune responses. One hallmark of this dysfunction is the extensive apoptosis of CD4 T lymphocytes, which are essential in coordinating adaptive immunity. Indeed, CD4 T cells are essential for B cell differentiation and maturation and for CD8 T cells in which a defect in CD4 T cells leads to their exhaustion. During HIV/SIV infection, CD4 T cells are described as being more prone to activation-induced cell death (AICD).

Our objective was to optimize the monitoring of vaccine T cell responses in people living with HIV (PLWH) and in rhesus macaques infected with SIV. The methodology was based on the activation-induced marker (AIM) assay using flow cytometry. Thus, the upregulation of CD69, CD137/4-1BB and CD154/CD40L enabled the detection of antigen-specific T cells. Given the potential impact of AICD on specific immune response during HIV/SIV infections, a cocktail of inhibitors was used to prevent antigen-induced cell death during stimulation. Antigen-specific responses were consistently quantified relative to unstimulated controls.

We demonstrated that the cocktail of inhibitors prevents specifically the death of activated CD4 T cells (AICD) without affecting the death of exhausted T cells (PD1 high) in PLWH. Although individual responses varied, the cocktail enhanced the detection of antigen-specific T cells in the effector memory (EM) T cell subsets involved in vaccine immune responses. Thus, we demonstrated that two types of T cells are more prone to die either spontaneously or after AICD. These subsets are responding in a different way in which blocking AICD enhances AIM detection in EM.

Further optimizations are ongoing to improve the detection of antigen-specific responses in the non-human primate model, which will contribute to a better understanding of vaccine immune response orchestration in the lymphoid organs.

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Abstract #73

Molecular Characterization of Gut HIV Reservoirs in Living Donors: A Proof-of-Concept Study

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*Equal contribution

Background

Understanding gut HIV reservoirs is critical to cure research, but sampling sufficient material for study is challenging in living donors. In a proof-of-concept study we applied the Intact Proviral DNA Assay (IPDA) and near full-length single-genome proviral sequencing to gut biopsy samples from 8 people living with HIV receiving suppressive ART.

Methods

For all participants, up to 60 biopsy samples were randomly collected during colonoscopy; for two participants up to 20 biopsies were also taken from the duodenum by upper endoscopy. Blood was collected by venipuncture. Tissue cell suspensions were generated by enzymatic digestion, and CD4+ T-cells were negatively selected from all samples using a kit designed for blood (STEMCELL technologies). Cellular purity was evaluated flow cytometrically post-hoc. Intact and defective proviruses were quantified by IPDA. For one participant, blood and gut proviruses were collected by near-full-length single-genome-sequencing.

Results

CD4+ T-cell purity was far higher in blood (~75%) than gut (~4%), where most recovered cells were epithelial. The IPDA failed in 3/8 participants due to HIV polymorphism. Though most proviruses detected by IPDA were defective, we observed intact proviruses in 4/5 colon samples (mean 36 copies/million cells; 23% of all proviruses) and 2/5 jejunum samples (mean 16 copies/million cells; 9% overall). Of note, intact proviruses comprised a slightly larger percentage of overall proviruses in colon than blood (mean 10% of all proviruses). All 18 proviruses isolated from gut by near-full-length sequencing were defective, mostly due to large deletions. No evidence of proviral genetic compartmentalization in blood and gut was observed.

Conclusions

Limited CD4+ T-cell recovery and HIV polymorphism-driven IPDA failures represent challenges when working with small tissue samples. Nevertheless, the observation of limited numbers yet relatively high percentages of intact proviruses in colon confirms the feasibility of these approaches and confirms gut as a major HIV reservoir.

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Abstract #74

Inflammatory Consequences of Persistent Low-Level Viremia During HIV Therapy: Insights from a Longitudinal Cohort

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Background

Persistent low-level HIV viremia (PLLV) during antiretroviral therapy (ART) can result from ART-related issues or drug resistance, which are clinically actionable, or viral release from clonally expanded proviruses, which is not clinically actionable. The latter is known as non-suppressible viremia (NSV). The impact of PLLV/NSV on systemic inflammation, a key driver of HIV comorbidities, remains unclear. We compared inflammatory markers during PLLV/NSV and periods of viral suppression (VS) to address this gap.

Methods

We studied 53 people living with HIV (PLWH) who experienced ≥1 episode of PLLV/NSV during ART, defined as ≥2 consecutive plasma viral loads (pVL) of 50–1,000 copies/mL at least one month apart following sustained suppression. Plasma levels of five pro-inflammatory cytokines (IFN-γ, TNF-α, IL-10, IL-6, and IL-8) were measured longitudinally: during pre-ART viremia (pVL >1,000 copies/mL); VS (pVL <50 copies/mL), and PLLV/NSV. HIV-negative controls (n=29; 76% male, median age 50 years) were included. Cytokine differences were evaluated using Friedman (paired) and Kruskal–Wallis (between-group) tests.

Results

The 53 PLWH were predominantly (77%) male, a median 56 years of age (Q1,Q3: 24,80), and 45% were receiving integrase-inhibitor-based ART at the time of PLLV/NSV. IFN-γ, TNF-α, and IL-10 levels were significantly higher during pre-ART viremia than during VS (all $p<0.01$), but did not differ between VS and PLLV/NSV. IL-6 and IL-8 levels did not vary across longitudinal time points. Compared with HIV-negative controls, all five cytokines were elevated in PLWH, even during VS on ART (all $p<0.0001$).

Conclusions

Consistent with previous reports, PLWH exhibited elevated pro-inflammatory cytokine levels compared to people without HIV, indicating that residual inflammation persists even during suppressive ART. Nevertheless, during PLLV/NSV, plasma cytokine levels did not differ significantly from those measured during VS, indicating that PLLV/NSV does not cause excess inflammation beyond that seen during periods of VS on ART.

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Abstract #90

Quantification of the HIV Reservoir Before and After Antiretroviral Therapy Initiation in Female Sex Workers from Nairobi, Kenya

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Background: The human immunodeficiency virus (HIV) reservoir persists even after antiretroviral therapy (ART) is initiated, which can contribute to chronic inflammation observed in people living with HIV (PLHIV). Monitoring the size of the HIV reservoir is of importance as reservoir eradication strategies become used as therapies in clinical settings. Typically, reservoir quantification studies focus on males. Over half of people living with HIV globally are females and there are known sex differences in HIV infection and disease progression, but there are still many knowledge gaps when it comes to the HIV reservoir in females. This study focuses on quantifying the HIV reservoir in female sex workers from Nairobi, Kenya prior to and post-ART initiation.

Methods: Using a nested quantitative polymerase chain reaction (qPCR) assay, the frequency of peripheral blood mononuclear cells (PBMC) containing total and integrated HIV DNA was determined. Standard curves of 3 to 300,000 copies of either HIV DNA or CD3 DNA were created using ACH-2 cells, which contain a single copy of integrated HIV DNA. Genomic DNA was isolated from PBMC at a concentration of 10^6 cells/ml. In a pre-amplification polymerase chain reaction (PCR) assay, CD3 DNA and HIV DNA were co-amplified. The product was then added to two qPCR assays, one to quantify CD3 DNA and one to quantify HIV DNA. The standard curves were run alongside all samples.

Results: This assay has been optimized, with all standard curves having reaction efficiencies between 80 to 107%. All HIV positive samples tested for optimization fall onto the standard curves, indicating that the assay is suitable for quantifying the HIV reservoir in PBMC.

Conclusions: This assay can quantify the HIV reservoir in PBMC and will be applied to samples for this study. Testing and analysis of samples are ongoing. Preliminary results will be presented.

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Abstract #102

Inter-individual variability in the preservation of historical HIV drug resistance across intact and defective proviruses

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Background: HIV drug resistance genotyping cannot be performed when viral loads are undetectable. Proviral DNA genotyping offers an alternative, but may not fully capture historic drug resistance and cannot assess whether resistance mutations are present on intact proviruses capable of reseeding viremia. We analyzed on-ART proviral landscapes in seven individuals with complex HIV drug resistance histories, and asked: 1) to what extent is historic drug resistance preserved on intact versus defective proviruses? and 2) to what extent does bulk proviral genotyping reflect within-host drug resistance history?

Methods: One-time proviral genotyping of protease/reverse transcriptase and integrase by bulk PCR/Sanger sequencing was performed, along with in-depth proviral landscape characterization by near-full-length-single-genome sequencing (Illumina). Proviral genotypes were compared to those historically obtained through clinical drug resistance testing (Stanford HIVdb interpretation).

Results: Seven participants, who had received ART for a median 21 (IQR:10-24) years, had historic resistance to a median 2 (IQR:1-2) drug classes. After collapsing the 2,649 single-genome proviruses collected to distinct sequences containing pol, 56 intact and 1,442 defective proviruses were analyzed. Proviral drug resistance mutation distribution was highly heterogeneous. In 5/6 participants for whom we isolated intact proviruses, drug resistance mutations were unequally distributed on intact and defective proviruses, though differentially (i.e., sometimes intact genomes preserved more, sometimes vice-versa). Bulk proviral genotyping largely captured historic drug resistance in only 3/7 participants. Hypermutated proviruses harboring APOBEC-driven mutations at key resistance sites were observed, but at prevalences too low to be captured by bulk genotyping. Despite complex drug resistance histories, 4/7 participants retained substantial numbers of fully drug-susceptible proviruses.

Conclusion: A single bulk proviral genotype performed during long-term ART incompletely captures historic drug resistance in most individuals. The observation that intact proviruses don't reliably preserve all historic drug resistance mutations helps explain rare cases where resistant HIV doesn't re-emerge when regimens are recycled.

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Abstract #106

Multi-ancestry GWAS identifies variants in a zinc finger gene cluster as novel regulators of HIV control.

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HIV-1 remains a global health challenge, emphasizing the need to identify host genetic determinants that influence pathogenesis. We leveraged genotype and viral load data from 10,723 individuals of diverse genetic ancestries living with HIV-1 to perform a genome-wide association study (GWAS) of HIV-1 set-point viral load (spVL). We implicate the potential role of zinc finger proteins in pathogenesis through identification of a novel signal in the ZNF586 gene on chromosome 19, which is predicted to transcriptionally regulate RNA polymerase II. The top variant, (rs35962362-G) is intronic to the ZNF586 gene, and is associated with a 0.1 log increase in spVL per minor allele. Our subsequent transcriptome-wide association study (TWAS) along with expression quantitative trait loci (eQTL) data suggest that increased ZNF586 expression is associated with increased spVL in whole blood. Our findings implicate ZNF586 as a novel host factor for HIV-1 control and highlight the role of zinc finger proteins as potential contributors to viral persistence. This study represents the largest and most diverse GWAS of HIV spVL to date, integrating advanced statistical tools and data from multiple ancestries. This study also accounts for weaknesses in previous GWAS that have lacked power for discovery due to small sample size and lack of genetic diversity. By identifying genetic loci associated with spVL, the findings provide a foundation for understanding the genetic basis of HIV control and disease progression.

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Abstract #128

Modelling and Testing Anti-HIV-1 Immune Responses to Mutant-Env VSV-Vector Vaccines

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The critical role of the envelope (Env) protein of Human Immunodeficiency Virus-1 (HIV-1) in viral attachment and entry makes it a key target for vaccination. The low level of Env expression on the viral surface, as well as on infected cells, makes recognition by the host immune system difficult. Further, the heavily glycosylated nature of Env impairs induction of broadly neutralizing antibody (BnAb) responses by “shielding” interactions with cognate B cells. However, recent work has identified mutations in the Env protein which block N-linked surface glycosylation near conserved epitopes such as the CD4 binding site (CD4bs), promoting enhanced B cell interactions. Additionally, the Arts lab has discovered a unique N425K mutation which when present dramatically increases affinity for CD4. This study will use an Env-recombinant VSV vector based on the approved Zaire Ebolavirus vaccine. We have previously found that this vector provides modest immune protection in vaccinated mice and macaques. However, studies thus far have been limited to Env from only a single transmitted/founder (T/F) strain: A74, and there warrants inclusion of other subtype T/F viruses as well. Through optimization with the aforementioned mutations and T/F Env sequences, we hypothesize our VSV-HIV vector may preferentially select and expand B cells with anti-CD4bs activity. From this, we predict they will effectively neutralize most strains of wildtype HIV-1 and protect against novel infection. To address this, a two-fold method will be used: (1) a state-of-the-art human tonsil organoid model designed to test prime and boost immune responses to vaccines, and (2) human/murine CD4 transgenic mice. This project will identify which combination of mutations and which T/F Env is the “best” to elicit effective anti-HIV immunity and will justify future studies in primates to further develop the VSV-HIV vector and its potential use in a vaccine.

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Abstract #135

HIV infection of human glial cells causes astrocyte pyroptosis: activation of gasdermin B in NeuroHIV

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Despite antiretroviral therapy, HIV-1 persists in the brain and leading to ongoing neuroinflammation and neurological disease in persons with HIV (PWH). While viral proteins trigger neuronal injury, the specific molecular pathways governing inflammatory cell death in the central nervous system remain incompletely understood. This study investigates the role of Gasdermin B (GSDMB), a mediator of pyroptosis, in the pathogenesis of HIV-associated neurological disease.

Our findings reveal that GSDMB transcripts and proteins, specifically the cleaved GSDMB fragment, are highly upregulated in the brains of PWH with neurological disease. Immunofluorescence analysis localized this increased expression primarily to astrocytes, and to a lesser extent, microglia, within regions of active neuroinflammation. In vitro experiments using HIV-infected human astrocytes demonstrated proteolytic cleavage of GSDMB, resulting in the release of lactate dehydrogenase (LDH), a hallmark of plasma membrane rupture (PMR). Further mechanistic assays identified that the N-GSDMB domain containing exon-6 is the primary driver of PMR and concomitant mitochondrial damage, evidenced by the loss of membrane potential. Interestingly, HIV-infected microglia exhibited minimal GSDMB expression and did not undergo PMR or LDH release, despite active viral replication.

HIV-1 infection induced chemokine release from both astrocytes and microglia compared to mock-infected cells, while Type III interferons and pro-inflammatory cytokines were released by infected astrocytes and microglia, respectively, with concomitant neurotoxicity caused by microglia-derived conditioned media. Proteomic analyses of HIV-infected astrocytes revealed downregulation of cell adhesion and extracellular matrix proteins. These findings were further validated in SIV-infected nonhuman primates, where GSDMB and cleaved GSDMB immunoreactivity were prominent in animals with encephalitis.

In conclusion, GSDMB serves as a cell-specific mediator of pyroptosis in HIV-infected astrocytes. The differential expression of GSDMB across neural cell types modulates their response to infection, identifying GSDMB-mediated astrocyte death as a critical contributor to the neuroinflammatory environment underlying HIV-associated neurological disease.

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Abstract #154

The Baseline Vaginal Immune Milieu is an Important Determinant of the Inflammatory Response Induced by Penile-Vaginal Sex

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Elevated cervicovaginal cytokines/chemokines and epithelial disruption are associated with HIV risk. The Toronto Sex, Couples, and Science (SECS) Study demonstrated that penile-vaginal sex induces cervicovaginal inflammation and epithelial disruption, but there was considerable interindividual heterogeneity in the degree of post-sex inflammation among participants, and the concentrations of vaginal proinflammatory cytokines present before sex were highly variable. In this study, we quantified HIV associated immune factors in cervicovaginal secretions of HIV-uninfected women before and 1hr after penile-vaginal sex. We demonstrate that penile-vaginal sex induced the greatest degree of immune change among women with the lowest levels of HIV-associated markers at baseline, although this effect was only observed for proinflammatory cytokines (IL-1α, IL-6, IL-8, IL-17) and epithelial markers (sEcad, MMP-9), but not chemokines (MIP-1β, MIP-3α, MIG). Cervicovaginal IgA and IgG increased after sex, and baseline IgA was associated with inflammation and epithelial disruption. Using a multi-cytokine score to define vaginal inflammation, we also show that women with baseline inflammation usually exhibited persistent inflammation after sex, and unsupervised hierarchical clustering demonstrated that post-sex inflammation was more common in a participant group with higher baseline concentrations of inflammatory cytokines. We conclude that inflammation in the female genital tract after penile-vaginal sex, during the window when most HIV transmission occurs, is dependent on the baseline vaginal immune milieu, and that several phenotypes of sex-induced inflammation may exist, with potentially important implications for our understanding of HIV susceptibility.

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Abstract #162

NK Cell Receptor Phenotypes Associated with Long-Term HIV Control

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Background: Long-term non-progressors (LTNPs), representing approximately 1% of people with HIV (PWH), maintain undetectable viral loads without antiretroviral therapy (ART). Previous studies associate specific HLA alleles and immune receptor profiles with durable HIV control in LTNPs. Natural killer (NK) cells are early responders to HIV infection and regulate antiviral immunity through the balance of activating and inhibitory receptor signaling. Our objective is identifying NK cell populations associated with spontaneous HIV control.

Methods: Peripheral blood mononuclear cells (PBMCs) were obtained from LTNPs (viral load <50 copies/mL without ART; n = 12) through the Canadian Cohort of HIV Infected Slow Progressors, HIV viremic individuals (n = 16), ART-treated individuals (n = 22), and HIV-negative controls (n = 15). Cells were analyzed by 13-color flow cytometry. NK cells were defined as $CD3^{-}CD14^{-}CD19^{-}$CD56dim/bright $CD16^{-}$/dim/$^{+}$ lymphocytes and assessed for expression of SLAM family activating receptors (SLAMF4, SLAMF6, SLAMF7) and inhibitory receptors (LAIR-1, TIGIT, PD-L1, CECAM).

Results: Median age was 50 (44-56), 29 (26-37), 50 (42-57), 51 (48-57) for LTNP, HIV-viremic individuals, ART-treated PWH and HIV-negative controls, respectively. Median (range) viral load for HIV viremic individuals was 59358 (831-10000000) copies/ml. Viremic PWH exhibited a significant reduction in a CD56dim NK cell subset lacking LAIR-1, TIGIT, and SLAMF4 compared with HIV-negative controls ($p = 0.0133$), ART-treated individuals ($p = 0.0087$), and LTNPs ($p = 0.0285$). This checkpoint-low NK cell subset was preserved in LTNPs and ART-treated individuals and did not differ from HIV-negative controls. LTNPs displayed increased inter-individual variability, with a subset showing elevated frequencies of this population.

Conclusions: Active HIV viremia is associated with loss of a checkpoint-low CD56dim NK cell subset, while preservation of this population characterizes LTNPs and ART-treated individuals. Maintenance of non-exhausted NK cell compartments may contribute to durable viral control and represents a potential target for HIV cure-directed immunotherapies.

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Abstract #165

Comparative analysis of CCR5 and GPR15 expressions in SIV-infected macaques

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The Human Immunodeficiency Virus (HIV) infects CD4⁺ T lymphocytes primarily through the chemokine receptor namely CCR5 or CXCR4, whereas the Simian Immunodeficiency Virus (SIV) does not use CXCR4 for cell entry. The G protein–coupled receptor GPR15 has been shown to facilitate in SIV infection in certain cell lines; however, its role as a coreceptor in vivo remains to unclear. In this study, we sought to characterize the coreceptor expression on CD4⁺ T cells and to evaluate the contribution of these coreceptors to SIV infection. Blood and lymphoid samples were collected from macaques infected with the SIVmac251 strain either treated or not with antiretroviral therapy. Phenotypic characterization of CD4⁺ T-cell subsets expressing these coreceptors was performed using multiparametric flow cytometry. In addition, CD4⁺ T cells were sorted based on coreceptor expression, and viral DNA was quantified by quantitative real-time PCR (qRT-PCR).
We found that distinct CD4⁺ T cell subsets express CCR5 and GPR15. Effector memory CD4⁺ T cells preferentially expressed CCR5, whereas central memory CD4⁺ T cells exhibited higher levels of GPR15 expression. During the acute phase of SIV infection, a transient depletion of CCR5- and GPR15-expressing CD4⁺ T cells was observed in macaques. Cell sorting experiments revealed the presence of HIV DNA within CCR5- and GPR15-expressing CD4⁺ T-cells indicating their susceptibility to infection.
Altogether, our findings highlight the contribution of GPR15 as a functional coreceptor for SIV infection in macaques. These results improve our understanding of alternative coreceptor usage that may play a role in viral dissemination in macaques.

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Abstract #189

No Difference in Blood Mitochondrial DNA content between Women Living with HIV in the 2021-2025 ART era, and Women Living without HIV from British Columbia.

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Introduction:
Women living with HIV have shorter life and health spans compared to men with and women without HIV. Previous studies show that women living with HIV have lower mitochondrial DNA (mtDNA) content than women without HIV. MtDNA content can be altered by ART, particularly earlier NRTIs such as AZT and d-drugs. However, less is known about the effects on mtDNA content from current NRTIs or INSTIs. Here, we investigate a contemporary cohort of women living with and without HIV.

Methods:
Participants in this cross-sectional study are from the BCC3 cohort, a holistic community-based study of healthy aging in women living with and without HIV in British Columbia. Blood mtDNA content was measured using monochrome multiplex qPCR and reported as mtDNA/nDNA ratio. Comparisons between groups were done using Chi-squared or Mann-Whitney tests.

Results:
For this preliminary analysis, we measured mtDNA content in 102 women living with (90% undetectable) and 163 without HIV. Both groups were similar with respect to age, ethnicity, body mass index, smoking, and opioid use (See Table1). MtDNA content did not differ between women with 156 [131-180] vs. without HIV 148 [124-171], p=0.11.

Conclusion:
These preliminary results suggest that mtDNA content for women living with HIV is not significantly different to women without HIV. An important consideration is that our participants are socio-demographically similar and in the 2020's ART era where medications may be more mitochondria-friendly. Following assay completion for all participants, multivariable analysis will investigate factors associated with mtDNA, adjusting for potential confounders.

Supporting Document

TABLE 1. SUMMARY PARTICIPANT CHARACTERISTICS

	Participant Type		
	Women living with HIV	**Women living without HIV**	**p-value**
	N= 102	N= 163	
Age (years)	47 [38-57]	45 [33-58]	0.55*
BMI	27 [22-32]	27 [22-31]	0.82*
Ethnicity			
White	45 (44%)	54 (33%)	
Indigenous	30 (29%)	62 (38%)	0.41#
ACB	12 (12%)	24 (15%)	
Other	14 (14%)	21 (13%)	
Missing	1 (1%)	2 (1%)	
Smoking			
Past	42 (41%)	61 (37%)	
Current	23 (23%)	35 (21%)	0.73^
Never	37 (36%)	67 (41%)	
Opioid Use			
Past	8 (8%)	10 (6%)	
Current	29 (28%)	48 (29%)	0.72^
Never	57 (56%)	97 (60%)	
Missing	8 (8%)	8 (5%)	

Data presented as n (%) or median [IQR]
*Mann-Whitney test
#Fischer's exact test
^Chi-Squared test

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Abstract #190

Feasibility of adapting IGRA-based TB screening to dried blood spots for implementation in remote and resource limited settings

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Background
Tuberculosis (TB) screening is recommended for people living with HIV and other immunocompromising conditions, as well as during outbreak investigations. Diagnosis of latent TB infection (LTBI) remains challenging because affected individuals are asymptomatic. Interferon gamma release assays (IGRAs) are recommended for LTBI diagnosis, but they require prompt incubation of fresh blood with TB antigens, limiting their use in remote settings where timely sample transport is challenging. This proof-of-concept study evaluated the feasibility of stabilizing IGRA-stimulated blood on dried blood spot (DBS) cards for delayed shipment and analysis.

Methods
This study leveraged archived samples from a prior study in which QuantiFERON-TB IGRA tests were performed on blood collected from study participants with active TB (ATB, n=19), LTBI (n=21) or healthy controls (n=9). Frozen IGRA plasmas were thawed, mixed 1:1 with plasma-depleted whole blood from a healthy donor, and spotted onto Whatman 903 protein saver cards. Cards were dried for two hours and stored at 4°C with desiccant for up to two weeks. DBS punches were eluted overnight, and interferon gamma (IFNγ) levels were quantified using the QuantiFERON IFNγ ELISA. Plasma and DBS eluate TB-reactivity was scored then DBS results were compared to matched plasmas samples to assess assay performance.

Results
All 40 ATB/LTBI plasma samples were TB-reactive, and all 9 control samples were non-reactive. IFNγ was detectable in DBS eluates but at significantly lower concentrations than in plasma ($p<0.0001$). Using standard cutoffs, DBS sensitivity was 56.4% and specificity was 100%. A plasma-to-DBS IFNγ correction factor (mean ratio 6.32) was derived and applied, improving sensitivity to 97.5% while maintaining 100% specificity.

Conclusions and Impact
DBS-based stabilization of IGRA-stimulated blood is feasible and enables delayed sample transport without cold-chain requirements. This approach could substantially expand access to TB screening in remote and resource-limited settings.

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Abstract #195

High Yield Sorting of HIV-1 Particles to Study Virus Sub-Populations

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Human proteins incorporated into the HIV envelope can profoundly influence viral homing, attachment, and infectivity. Moreover, our lab has shown that this repertoire of surface proteins on viral particles is incredibly diverse, and that unique host protein profiles on viral particles could impact viral transmission and homing in vivo. However, it is extremely challenging to use conventional lab techniques to isolate phenotypically distinct virus subpopulations that remain functional for downstream experimental analyses. Therefore, the lack of high-throughput methodology capable of sorting viable HIV particles remains a critical barrier to understanding the impact of HIV subsets on transmission and disease.

Herein, we demonstrate high yield sorting of virus particles built on the principles of Flow Virometry (FV) our lab has developed. To evaluate the reliability and reproducibility of this novel strategy, we employed a biological reference particle to standardize measurements acquired by a range of commercially available flow cytometry analyzers from multiple manufacturers and compared data to a recently developed small particle sorter (Beckman Coulter, CytoFLEX-SRT). We optimized pre- and post- sort parameters to successfully purify HIV pseudoparticles and intact infectious virions. Importantly, we demonstrated that sorted particles remained viable for downstream analyses of viral proteins, viral genomes, and infectivity assays.

To our knowledge, this is the first study to achieve high-yield purification of functional HIV particles via standardized cytometry-based sorting methods. These novel virus sorting techniques will provide enhanced tools to study virus heterogeneity and the unique phenotypes of specific virus subpopulations. Future work will apply this tool to study virus subpopulations circulating in infected patients, discerning their contributions to disease progression and viral spread.

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Abstract #206

Impact of a Period of Sexual Abstinence on HIV Susceptibility Among Female Sex Workers

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Introduction: Female sex workers (FSWs) face a disproportionately high HIV risk, particularly in Sub-Saharan Africa, where HIV prevalence remains the highest. Alarmingly, some studies suggest that depot medroxyprogesterone acetate (DMPA), a widely used hormonal contraceptive in this region, may increase HIV acquisition risk. Our group has previously demonstrated that DMPA users have thinner cervical epithelial barriers and higher proportions of HIV target cells in the female genital tract. Although unprotected sex causes short-term vaginal inflammation, immune activation declines with prolonged engagement in sex work. HIV-exposed seronegative (HESN) FSWs in Nairobi, Kenya, exhibit a unique, less activated T-cell immune phenotype, termed immune quiescence. Interruptions in sex work have been associated with increased inflammation and elevated risk for seroconversion upon return. Here, we aim to use immunophenotyping of peripheral blood mononuclear cells (PBMCs) to characterize systemic T cell activation and functional responses in FSWs before, during, and after a one-month period of sexual abstinence.

Methods: This study will compare newly enrolled HIV-negative FSWs using DMPA or no hormonal contraception with HESN FSWs to assess how sex work interruption and DMPA use influence systemic immune responses. Multicolour flow cytometry panels will be optimized to characterize T-cell subsets and functional immune responses in PBMCs. We will identify Th17, Treg, and MAIT cells, as well as markers of immune activation and exhaustion. Functional responses will be assessed by recall-antigen stimulation with cytomegalovirus, Epstein–Barr virus, influenza, and human papillomavirus peptide pools. Memory and naïve T-cell populations, as well as cytokine production, will be assessed.

Significance: This approach will allow for the comprehensive examination of the effects of sex work interruption and DMPA use on systemic T-cell populations and HIV susceptibility in FSWs. These findings will advance the understanding of mechanism influencing HIV susceptibility and risk among key populations.

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Abstract #212

DMPA use affects T cell exhaustion in FSW from Nairobi, Kenya

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Introduction: The most commonly used hormonal contraceptive by women in Africa is Depot medroxyprogesterone acetate (DMPA). Studies have shown its use may be associated with increased HIV acquisition. In 2024, of the ~1.3 million new HIV infections, 45% were in young women and girls, with 63% being from Sub-Saharan Africa. Therefore, we sought to get a better understanding of the impact of DMPA on the immune response among women using the product. An essential part of immune regulation is T cell exhaustion, however, this has not been assessed in women taking DMPA.

Method: A sub-study of the Longitudinal Assessment of Mucosal Immune Quiescence (LAM-IQ) study was conducted. Peripheral blood mononuclear cells (PBMC) were collected and cryopreserved from participants of the Sex Worker Outreach Program (SWOP) in Nairobi, Kenya who were either using DMPA or no hormonal contraception (HC). Those not using HC had samples taken during the follicular and luteal phases of their menstrual cycle. Flow cytometry was performed in Winnipeg, Canada to assess T cell phenotype; and exhaustion, activation and senescence were assessed in those T cell subsets.

Results: DMPA users had a higher blood proportion of LAG3 on multiple T cell subsets (CD4, CD8, MAIT, TH17, Tc17), and CD69 on Tc17 and T regulatory cells compared to women not taking HC. As well, the proportion of blood CCR5+iNKT cells, CCR5+MAIT cells and α4β7+CCR5+ CD4+ T cells was lower in women using DMPA compared to women not using HC.

Conclusions: This study shows that DMPA use is associated with a unique T cell phenotype with more exhausted T cells which may imply a reduced capacity to prevent the establishment of HIV infection. This could impact susceptibility to HIV for female sex workers. More studies are needed to understand the immunological impact of DMPA and their consequences on HIV risk.

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Abstract #226

Targeting gasdermin proteins as regulators of HIV replication in the brain

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Replication of human immunodeficiency virus (HIV) in the central nervous system (CNS) results in the release of proinflammatory factors and inflammasome induction. Activation of the inflammasome causes cleavage of gasdermin proteins, including gasdermin D (GSDMD) and gasdermin E (GSDME), which form transmembrane pores that facilitate cytokine release and pyroptotic cell death. Dimethyl fumarate (DMF) has potent anti-inflammatory effects and inhibits gasdermin oligomerization and pore formation. DMF may therefore be useful to combat the pathologic effects of HIV infection in the CNS. However, the role of gasdermin proteins on HIV infection in glial cells of the CNS and the effects of DMF on HIV replication in the CNS are currently unknown. We hypothesized that GSDMD and GSDME impair HIV replication, which will be enhanced by DMF treatment. We show that HIV replication and GSDMD expression are increased in the brain of individuals with neuroHIV, a subset of people with HIV that experience a greater burden of neuropsychiatric disorders. Infection of primary human microglia with HIV resulted in a profoundly altered cell proteome, including an increased abundance of inflammasome proteins, including caspase 1, GSDMD, and PYCARD. Despite apparent activation of the NLRP3 inflammasome, microglia do not undergo pyroptosis during HIV infection, which suggests an alternative role for gasdermins to control viral replication in microglia. Microglia treated with DMF had lower levels of HIV. However, in humanized mice infected with HIV, DMF treatment led to increased viral replication in the brain. Contrary to our hypothesis, DMF does not control HIV replication in vivo which may be due to the inhibitory effects of DMF on gasdermins. These findings enhance our understanding of how gasdermin proteins modulate HIV infection in the CNS and inform future therapeutic strategies.

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Abstract #227

Overcoming barriers to entry: Optimizing infection of primary human astrocytes with HIV

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Human immunodeficiency virus (HIV) infects cells of the central nervous system (CNS) establishing a viral reservoir that is difficult to treat and that may reseed peripheral immune cells when antiretroviral therapy is interrupted. Replication of HIV in the CNS occurs in microglia, where the virus can persist at low levels, and in astrocytes. Despite evidence for HIV infection in astrocytes in vivo, in vitro studies remain challenging due to the lack of necessary receptors for viral entry on astrocytes, except for CXCR4. It has been proposed that cell-to-cell contact between astrocytes and HIV-infected CD4+ T cells may facilitate transfer of the virus to astrocytes, but this remains to be determined using primary human cells and with non-permissive HIV isolates such as R5 strains. We hypothesized that infection of astrocytes depends on the tropism of the virus and the classical entry pathways could be circumvented through cell-to-cell contact with HIV-permissive cells, such as CD4+ T cells. Using immunofluorescence microscopy, we confirmed that HIV and SIV infect both microglia and astrocytes in vivo in humans and Rhesus macaques, respectively. In line with previous findings, we show robust infection of microglia with HIV BaL (an R5 isolate) that plateaus by day 8 post-infection. By contrast, astrocytes could not be infected with free HIV BaL. However, co-culturing astrocytes with HIV BaL-infected CD4+ T cells facilitated efficient viral transfer, with astrocyte infection levels correlating directly with the T cell-to-astrocyte ratio. Astrocytes could also be infected with HIV NL4-3 (an X4 isolate) and the viral particles produced from these cells could infect microglia. Therefore, the tropism of the virus can be overcome by cell-to-cell transfer from permissive cells that enter the CNS during infection. This aids our understanding of how HIV infects astrocytes and its contribution to the CNS viral reservoir, which will inform eradication strategies.

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Abstract #232

Plasma Endocannabinoidome (eCBome) in chronic HCV infection and following sustained virologic response (SVR) in people with HIV/HCV coinfection on antiretroviral therapy: results from the Canadian Coinfection Cohort (CTN 222)

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Background: The endocannabinoidome (eCBome) is a lipid-based signaling system which plays a key role in tissue homeostasis, metabolism and inflammation across various body systems, notably, in the liver. We recently reported an imbalance in plasma eCBome mediators in PWH characterized by an inverse relationship between anandamide and N-acyl-ethanolamines (NAEs) versus 2-AG and 2-monoacylglycerols (MAGs). In chronic liver diseases, the eCBome is reported to exert both pro- and anti-fibrogenic effects. However, the impact of HCV/HIV-coinfection and liver fibrosis on eCBome mediator levels remains understudied.

Methods: Plasma samples from ART-treated, HIV RNA suppressed HIV/HCV-coinfected participants including n=21 with, and n=51 without, liver fibrosis based on APRI score ≥1.5 and/or fibroscan median stiffness ≥7.2, were obtained longitudinally (pre- versus 6-12 months post-SVR) from the Canadian Coinfection Cohort. Levels of 23 eCBome mediators were measured by tandem mass spectrometry among two major families, the NAEs and MAGs, and the corresponding polyunsaturated fatty acid (PUFAs).

Results: In fibrotic versus non-fibrotic participants, we observed lower plasma levels of the NAE, LEA, both pre- and post-SVR, while the MAG, 2-SDG, and PUFA, arachidonic acid (AA), were lower only pre-SVR. SVR resulted in decreased levels of the NAE, DPA-EA(n-6), in both fibrotic and non-fibrotic groups, while levels of AEA, PEA, DHEA, the MAGs, 2-SDG, and the PUFA, DPA(n-6), were decreased in non-fibrotic participants. In fibrotic participants, pre-SVR levels of several NAEs, including AEA, LEA, and PEA, were negatively associated with median liver stiffness and BMI, while the PUFAs AA and DPA(n-6) were negatively associated with HCV viral load and BMI.

Conclusions: Among plasma eCBome mediators, HIV/HCV coinfection is associated with fibrosis-dependent (LEA, 2-SDG, and AA) and SVR-dependent (AEA, DHEA, PEA, DPA-EA(n-6), 2-SDG, and DPA(n-6)) alterations. These changes link metabolic regulation with liver disease severity, suggesting a potential interplay between eCBome and fibrosis pathogenesis in PWH with HCV coinfection.

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Abstract #244

Differential Expression of Extracellular Vesicle Surface Markers May Be Associated with Intact HIV Reservoir Size

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Background: HIV is associated with the secretion of plasma extracellular vesicles (EVs), including those containing viral protein Nef and cellular pro-inflammatory metalloproteinase ADAM17. Since EVs incorporate cell membrane proteins during their formation, characterizing EV surface markers may give insight into their cellular origins and inform our knowledge of latent HIV reservoirs.

Methods: Plasma of people with HIV (PWH) with undetectable viral loads on antiretroviral therapy (ART; n=20) and HIV-negative controls (n=20) was clarified using a 0.22 µm filter and EVs were isolated using the Total Exosome Kit (ThermoFisher). 37 surface markers on EV were profiled by flow cytometry using the MACSPlex EV kit (Miltenyi). Expression results were compared between groups (Mann-Whitney U test). Associations between selected EV markers and HIV reservoir size in PWH, as measured by the Intact Proviral DNA Assay in blood CD4+ T-cells, were explored using linear regression.

Results: EVs from PWH displayed significantly higher expression of CD29 (integrin beta 1) and CD62P (P-selectin) compared to controls (both $p<0.0001$). Smaller differences between groups were observed for CD3, CD41b, CD49e, CD69, CD81, and HLA-DR/DP/DQ (assessed in parallel by the MACSPlex assay). In linear regression models controlling for participant age, sex or time on ART, CD29 expression on EVs was significantly associated with intact HIV reservoir size ($\beta=0.53$-0.64; all $p<0.02$), while CD62P expression was not. In similar models, neither CD29 nor CD62P expression on EVs was associated with total proviral load.

Conclusions: CD29 expression is increased on plasma EVs from PWH and may be associated with intact HIV reservoir size. CD29 is a component of heterodimeric integrin receptors, and these data are consistent with the observation that VLA-4 (CD29/CD49d) is expressed on CD4 T cells harbouring translationally competent HIV proviruses. Ongoing studies are investigating the presence of Nef and other factors in CD29+ EVs.

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Abstract #246

Unraveling Sex-specific Characteristics of Rectal HIV Transmission

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Background: Sex chromosomes function as genetic mediators of immune activity, and sex hormones influence transcription among multiple immune cell types. Sex-specific effects on mucosal immune responses may have important implications for HIV transmission.

Methods: Rectal mucosal tissue explants from healthy individuals assigned male at birth (AMAB; n = 24) and assigned female at birth (AFAB; n=25) were challenged ex vivo with HIV-1 BaL and p24 production was quantified longitudinally post-infection (Days 3-14). Additionally, cytokine concentrations were quantified for a subset of participants (AFAB, n = 22 and AMAB, n = 17; IL-6, CCL2, G-CSF, IFN-a2, IL-2, IFN-g, IL-7, IL-1RA, IL-8, TNF-a, IP-10, MIP-1a, and IL-10). Values were normalized to biopsy weight and median Area Under Curve (AUC) was analyzed for comparison between AFAB and AMAB individuals.

Results: HIV-1 viral replication was higher in rectal tissues from AFAB compared to AMAB individuals (median AUC 1083 vs 553; p = 0.05). While pro-inflammatory cytokine concentrations were consistently higher in AFAB compared to AMAB, there were no statistically significant differences in median AUC cytokine concentrations based on sex. Multiple cytokines positively correlated with HIV-1 replication in rectal tissues, including IL-6 (r = 0.57, q = 0.0001), IL-8 (r = 0.54, q = 0.001), TNF-a (r = 0.56, q = 0.0002), IFN-g (r = 0.54, q = 0.0004), IL-1RA (r = 0.47, q = 0.002), IFN-a2 (r = 0.45, q = 0.004), MIP-1a (r = 0.45, q = 0.004), IL-2 (r = 0.44, q = 0.005), and IP-10 (r = 0.43, q = 0.007).

Discussion: This preliminary analysis demonstrates enhanced susceptibility to rectal HIV-1 transmission among AFAB compared to AMAB individuals. Heightened pro-inflammatory cytokine response may be an important contributing factor, yet further analyses of the transcriptome and microbiome are needed to better understand the immune environment and the role of tissue hormonal milieu.

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Abstract #268

Depot Medroxyprogesterone Acetate Use Among Kenyan Female Sex Workers Is Associated with Increased Cortisol Sensitivity in Activated T Cells

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Introduction: Depot medroxyprogesterone acetate (DMPA), an injectable progestin contraceptive, binds non-specifically to the glucocorticoid receptor (GR) with higher affinity than natural progesterone. Cortisol has anti-inflammatory properties and binds to GR. Our team has shown that DMPA use leads to higher cortisol levels compared to women not using hormonal contraception. This chronic exposure to cortisol could contribute to immune suppression, which has been linked to increased HIV susceptibility. This study examines how DMPA affects the T cell response to cortisol.

Methods: Peripheral blood mononuclear cells (PBMCs) were collected from female sex workers in Nairobi, Kenya. PBMCs from DMPA users (n=21) and FSWs not using hormonal contraceptives sampled during both the follicular (n=20) and luteal (n=20) phases, were stimulated with phytohemagglutinin-L (PHA-L) and treated with a serial dilution of hydrocortisone (10^{-5} to 10^{-10} M) for 48 hours to detect CD4 and CD8 cytokine production (IFN-γ, TNF-α, IL-2) by flow cytometry. Cortisol sensitivity was defined as the percent reduction in cytokine production after stimulation with varying hydrocortisone concentrations, relative to PHA alone.

Results: Following PHA-L stimulation, DMPA users showed lower expression of IFN-γ in both CD4+ ($p=0.01$) and CD8+ cells ($p=0.013$) compared with the luteal group. This trend was detected in activated T cell subsets: CD4+CD38+ ($p=0.03$), CD4+HLA-DR+ ($p=0.02$), CD8+CD38+ ($p=0.01$), and CD8+HLA-DR+ ($p=0.02$) cells. Cortisol sensitivity curves showed a significant interaction between group and hydrocortisone dose, with TNF-α inhibition in activated T cells varying by group across concentrations. Qualitatively, DMPA users showed greater cortisol responsiveness, with steeper inhibition slopes, while luteal-phase controls showed lower responsiveness and shallower slopes, particularly at hydrocortisone concentrations between 10^{-7} and 10^{-5} M.

Conclusion: This study indicated that DMPA may increase T cell responsiveness to glucocorticoids, potentially rendering cells more susceptible to HIV infection.

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Abstract #273

The AhR-Regulated Transcriptional Repressor HIC1 is Overexpressed in CD4+ T-Cells during HIV-1 Infection and Promote Viral Latency and Tissue Residency

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Background: We previously identified Aryl Hydrocarbon Receptor (AhR) as a barrier to HIV-1 replication/outgrowth in CD4+ T-cells and revealed that the AhR pharmacological blockade modulated genes/pathways related to HIV-1 interactors and tissue migration/residency. Among differentially expressed genes, we demonstrated that Hypermethylated in Cancer 1 (HIC1), a repressor of Tat-mediated HIV-1 transcription and master regulator of tissue migration/residency, is a direct AhR target. Here, we investigated the capacity of AhR to act on HIV reservoirs and promote viral latency and tissue residency via HIC1-dependent mechanisms.

Methods: Memory CD4+ T-cells enriched from people with HIV-1 (PWH) receiving antiretroviral therapy (ART) and HIV-negative controls using magnetic beads were stimulated with CD3/CD28 antibodies and exposed to AhR agonist, FICZ and antagonist, CH223191. The expression of AhR and HIC1 was measured by real-time RT-PCR. HIC1 silencing was performed using the Dharmacon siRNA technology. HIV replication was monitored by HIV-p24 ELISA, flow cytometry intracellular HIV-p24 staining and HIV-DNA PCR upon in vitro infection with single-round VSV-G-pseudotyped HIV (HIVVSV-G) and viral outgrowth assay. Phenotypic analysis was performed by flow cytometry.

Results: AhR and HIC1 mRNA were overexpressed in CD3/CD28-activated CD4+ T cells of ART-treated PWH versus HIV-negative individuals, with FICZ and CH223191 upregulating and downregulating HIC1 mRNA expression, respectively. The CH223191-mediated AhR blockade upon HIVVSV-G integration increased intracellular HIV-p24 expression. HIC1 siRNA silencing increased HIVVSV-G replication in vitro and boosted viral outgrowth in CD4+ T-cells of ART-treated PWH, in the FICZ presence. The CH223191-mediated HIC1 downregulation led to a significant increase in markers associated with cell migration (CCR3, CCR6, CXCR5), while FICZ-mediated HIC1 upregulation increased gut-homing (ITGB7) and tissue residency (CXCR6) markers. Finally, CH223191 facilitated HIV outgrowth in CD4 + T-cells of ART-treated PWH.

Conclusions: Our findings point to AhR as transcriptional regulator of HIV latency and gut homing/residency of CD4+ T-cells in part via HIC1-dependent mechanisms.

Basic Sciences - Poster Abstract / Sciences fondementales - Abrégés affiches

Abstract #280

Implementation of GeneXpert rapid HIV-1 PCR testing for pregnant individuals presenting at delivery with unknown HIV status or risk factors for HIV acquisition since last testing

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Objectives:
Human immunodeficiency virus (HIV) polymerase chain reaction (PCR) testing in British Columbia (BC) was previously centralized at the public health laboratory, BC Centre for Disease Control (BCCDC). In cases of unknown birth-parent HIV status at delivery, infants are often started on prophylactic antiretrovirals (ARVs) awaiting test results. We aimed to implement rapid HIV PCR testing at BC Women's Hospital/Children's Hospital (BCWH/BCCH) to reduce test turn-around time (TAT) and unnecessary infant ARV exposure.

Methods:
GeneXpert Qualitative HIV-1 PCR testing was implemented at BCWH/BCCH in June 2025. Parallel HIV PCR testing at BCCDC was done on samples. Time to result from sample collection and sample receipt by lab were recorded. Use of ARVs for prevention of perinatal HIV transmission was monitored. Post-implementation data was compared to historical provincial data from 2018-2023.

Results:
Thirty rapid HIV PCR tests were run on 23 unique patients from June 1 to October 3, 2025. Mean TAT from time of collection was 5.0 hours and from receipt by laboratory was 3.5 hours. Four (13.3%) tests had TAT of >6 hours from receipt by lab due to being run the following morning. The mean TAT from laboratory receipt for 19 parallel samples tested at BCCDC was 57.1 hours (range 24.5 to 118.7 hours ($p < 0.0001$). Use of infant ARVs decreased from an average of 1.2 cases/month to 0.5 cases per month (Mann–Whitney U test: $p = 0.231$). Four infants during this period were started on ARVs for unknown HIV status while awaiting test results and received a mean of 1 day therapy, compared to a mean of 7.49 days therapy from 2018-2023 data.

Conclusions:
Implementation of rapid HIV PCR testing at BCWH/BCCH significantly decreased test TAT and reduced infant exposure to prophylactic ARVs in the setting of unknown birth parent HIV status at delivery.

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Abstract #281

Prolonged HIV DNAemia Caused by a Massively-expanded CD4+ T-cell Clone Harboring a Genetically Defective Provirus: a Case Report

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Introduction: Persistent detectable pVL during ART raises clinical concerns. We describe a case of prolonged (>6-year) detectable pVL attributable to a unique cause: the long-term presence − and subsequent RT-PCR-based amplification − of proviral DNA in plasma from a massively-expanded CD4+ T-cell clone harboring a defective provirus.

Methods: After ~10 years of pVL suppression, the participant experienced persistent detectable pVL (median 72; maximum 907 copies/mL) that was refractive to ART changes. Technical issues were ruled out. Antiretrovirals were consistently detected in plasma, and drug resistance genotypes performed three years apart returned genetically-identical, drug-susceptible protease/RT sequences, though integrase genotyping failed. We applied molecular and in vitro assays to plasma and cells collected before and during the detectable pVL, where plasma extracts were DNAse-treated to discriminate RNA from DNA.

Results: Following DNAse-treatment, we failed to amplify any HIV RNA despite testing >9mL plasma. In contrast, non-DNase-treated extracts readily amplified, though only from HIV's 5' half. Proviral quantification revealed an extraordinary >17,000 HIV copies/million CD4+ T-cells during the pVL-detectable period that was dominated by a single 3' defective population. This population was also abundant in plasma, yet represented <0.02% of blood proviruses pre-ART. Proviral sequencing from cells and plasma confirmed a massively-expanded clone with a deletion spanning HXB2 4891-9434, that exactly matched the clinical protease/RT genotypes (and explained why integrase genotyping had failed). The clone was integrated into exon 2 of NOTCH2NLC on chromosome 1. In vitro, the clone could produce trace amounts of p24, but no virions.

Conclusion: This case of persistently-detectable pVL featured no actual viremia, but rather prolonged proviral 'spillover' into plasma from a highly-expanded cell clone. Though the cause of clonal expansion remains unknown, the findings reassured participant and provider that ART was working as intended. Investigations of apparent nonsuppressible viremia should consider proviral DNAemia as a potential cause.

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Abstract #284

Archival Proviruses from Early HIV Infection can Fuel Viral Rebound and Nonsuppressible Viremia During ART: A Case Report

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Introduction: While studying nonsuppressible viremia (NSV) during ART, we identified a participant with a blood reservoir exclusively comprising sequences from early infection, which is unusual because reservoirs are typically dominated by HIV sequences that circulated immediately pre-ART. We investigated using phylogenetic analyses.

Methods: The participant acquired HIV in 1988 and received nonsuppressive mono- and dual-therapy between 1993-1996. By the time triple-ART was initiated in 1997, all plasma viruses were AZT-resistant. ART was interrupted in 2000 and again in 2004; each time HIV rebounded rapidly. After ART re-initiation, the participant experienced two ~3.5-year-long NSV episodes. Using single-genome approaches, we characterized plasma HIV diversity at 10 timepoints spanning 1996-2025 (including all rebound and NSV episodes) and blood proviral diversity in 2025 (during the second NSV episode).

Results: The participant's phylogeny featured two distinct clades. The first was entirely AZT-resistant and contained the genetically-diverse plasma sequences circulating prior to triple-ART and the much-less-diverse sequences observed during the first rebound. All sequences from the second clade were entirely drug-susceptible, indicating they pre-dated monotherapy. This clade contained the genetically-restricted subset of sequences observed during the second rebound event, the distinct clonal sequences that emerged in the first and second NSV episodes, and all but one of the blood proviruses sampled in 2025 (the sole AZT-resistant provirus was defective due to a large internal deletion). The blood proviruses were highly clonal, with one (harboring a 5' leader defect) matching the second NSV viremia sequence exactly.

Conclusion: Clonally-expanded proviruses with 5' leader defects can cause NSV. The observation that the first rebound exclusively featured AZT-resistant viruses, yet archived, drug-susceptible sequences fueled the subsequent rebound and NSV events confirms that: 1) reservoir seeding begins in early infection; 2) reservoir composition can change dramatically during ART and 3) proviruses seeded early in infection can cause viral rebound and NSV.

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Abstract #291

Longitudinal impact of COVID-19 vaccination on HIV reservoirs and markers of HIV persistence among People with HIV in Canada (CTN 328)

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Background: In a Canadian multi-centre prospective, observational cohort of people with HIV (PWH) receiving >2 COVID-19 vaccinations, we examined impact of COVID-19 vaccination on immunogenicity and durability. In this sub-study, we examined impact of repeated COVID-19 vaccination on HIV reservoir dynamics and inflammatory mediators relevant to immune activation, B cell function and intestinal integrity.

Methods: Data was collected between August 2021-April 2022. Participants had to have specimens available >2 time points to facilitate within-person change comparisons. Time points included V1-Screening/Baseline (before dose #1); V4 - 6 months after 2nd dose, and VB-1: 4 weeks after 3rd dose. Participants also had to remain naïve to natural COVID-19 infection at each time point. Total HIV DNA and cell-associated HIV RNA(LTR-gag) were quantified using real time PCR/qPCR. Plasma levels of A Proliferation-Inducing Ligand(APRIL), Soluble Tumor Necrosis Factor Receptor II(STNF sTNF-RII), and Regenerating islet-derived protein-α(REG3A) were assessed via ELISA to evaluate immune activation and microbial translocation.

Results: Fourteen participants (71% male) were included. Mean age was 53.4±15.1 years; half were >55 years of age. Average CD4 count was 608.4±251.3 cells/μL, and 35.7% had CD4 counts <500 cells/μL. The most common comorbidities were obesity(36%), hypertension(29%), and dyslipidemia(21%). All had suppressed viral load on ART. HIV DNA levels remained stable over time, and no consistent trend in HIV RNA transcriptional activity was observed post-vaccination. Soluble mediators did not significantly change between baseline and follow-up visits. Subgroup analysis suggested that individuals with CD4<500 cells/mm³ had mild increases in APRIL and REG3α, while those with fewer comorbidities showed more dynamic patterns of immune and inflammatory mediators.

Conclusion: Repeated COVID-19 vaccination did not significantly alter HIV reservoir size, transcriptional activity of HIV, or soluble marker levels in PLWH at the time points examined. Our results provide additional safety reassurance with regards to repeated vaccination in this population.

Basic Sciences - Poster Abstract / Sciences fondementales - Abrégés affiches

Abstract #295

Low-Barrier Plasma Separation to Support HIV Viral Load Testing at the Point-of-Care

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Background: Timely HIV viral load (VL) testing is central to effective HIV care, supporting viral suppression and reduced transmission. Decentralized HIV VL testing expands access for key populations by bringing services closer to where care is accessed. During the COVID-19 pandemic, over 200 community-based sites across Canada implemented the GeneXpert molecular platform, presenting an opportunity to leverage existing infrastructure for HIV VL monitoring. However, plasma separation remains a major barrier in these settings due to limited access to centrifugation equipment. This study evaluated low-barrier plasma separation approaches for community-based settings to reduce barriers and support equitable access to HIV VL testing.

Methods: Two low-barrier plasma separation methods were evaluated: passive separation and microcentrifugation using a compact, low-cost centrifuge, with standard centrifugation as the reference method. Separation efficiency was assessed by measuring residual blood components in healthy whole blood using hematology analysis and qPCR. Microcentrifugation was evaluated at time 0, while passive separation was assessed at multiple time points over 24 hours. Removal of white blood cells was a key outcome, given their potential to contain proviral HIV DNA and affect VL quantification. HIV-spiked whole blood was used to assess the impact of each method on HIV VL using the Xpert® HIV-1 VL XC assay.

Results: Microcentrifugation and 24-hour passive separation produced plasma comparable to standard centrifugation with equivalent HIV-1 VL XC assay performance, while earlier passive separation time points led to incomplete removal of white blood cells.

Conclusion: Low-barrier plasma separation provides a means for HIV VL testing in community-based settings. Passive separation reduces equipment needs but showed greater residual components at earlier time points. Additional investigations using HIV-positive clinical specimens are required to determine the potential impact on VL. Presently, compact microcentrifuges with brief spin times offer a practical alternative that balances assay performance with accessibility in resource-limited settings.

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Abstract #298

The Role of Innate Immunity in Clearance of High-risk Human Papillomavirus among Female Sex Workers in Nairobi, Kenya

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Introduction: Cervical cancer, which is caused by high-risk human papillomaviruses (hr-HPV), remains one of the leading causes of cancer-related mortality in women worldwide, with its impact being most severe in low-resource settings. While vaccination has significantly reduced the burden of cancers linked to HPV, uptake is still lower than needed to end cervical cancer. Therefore, understanding the immune mechanisms underlying the natural clearance of hr-HPV is critical for developing therapeutic interventions. Our study aims to investigate the role of innate immune cells, specifically natural killer (NK) cells, monocytes, and dendritic cells (DCs), in the natural clearance of hr-HPV among Female sex workers (FSWs) in Nairobi, Kenya.

Methods: We hypothesize that hr-HPV clearance is associated with increased NK activation and enhanced NK function, as well as increased activation of monocytes and DCs. Using a retrospective case-control study design, our study will analyze cryopreserved peripheral blood mononuclear cells (PBMCs) from the SWOP HPV cohort, comprising both HIV-positive and HIV-negative FSWs. Flow cytometry will assess activation, inhibition, and exhaustion markers in these innate immune cells at baseline (hr-HPV detection) and at clearance or 12-month follow-up (in the absence of clearance). A functional assay using target cell lines (K562 and 721.221) will be used to measure NK degranulation (CD107a) and cytokine production (IFN-γ, TNF-α).

Current progress: Optimization of flow cytometry panels is underway, including antibody titration and voltage optimization for the detection of markers of interest. Target cell lines are being cultured for the NK functional assay. Once optimized, participant samples will be analyzed to compare immune profiles between those who cleared hr-HPV and those with persistent infection.

Conclusion: Identifying immune correlates of protection could ultimately reduce disparities in cervical cancer outcomes globally by improving our understanding of the immune mechanisms driving natural clearance in high-risk groups.

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Abstract #307

Development and Application of Intravirion Staining with Flow Virometry to Discern Extracellular Vesicles from Viral Particles

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Extracellular vesicles (EVs) are known for their ubiquitous presence in HIV-1 samples. Both EVs and HIV-1 particles are also known to exhibit similarities in size and surface protein compositions, making it challenging to discriminate them in lab assays. Distinguishing EVs from virus particles is important because cellular surface proteins present on both these particles are known to contribute to viral infection. However, an in-depth understanding of EV/virus specific contributions remains hindered due to limited tools available to distinguish them. Herein, we have expanded the applications of flow virometry (FV) to discern putative EVs and HIV-1 particles by developing dual staining approach for simultaneous targeting of surface antigens and internal virus capsid.

Infectious HIV-1 stocks were stained with PE-conjugated mAbs against a panel of shared surface proteins followed by intravirion/intravesicle staining for the HIV-1 capsid protein-Gagp24, and detection on the Beckman Coulter CytoFLEX (small particle cytometer). Staining of HIV-1 Gagp24, known to be minimally incorporated into EVs, was utilized as an EV/virus differentiating factor. Our data identified heterogeneity in antigen expression on putative EVs (Gagp24 negative) and viruses (Gagp24 positive), highlighting that a single surface antigen cannot serve as a reliable marker to differentiate EVs from viruses. Immunocapture assays targeting putative EVs and/or viruses were used to deplete different particles from virus stocks, and depletions were confirmed with this FV-based dual staining. Moreover, a loss of Gagp24 concentration and particle infectivity was observed largely in virus-depleted fractions, further supporting our discernment of putative EVs from viruses using this new dual staining approach.

This study provides an alternative approach to understand the breadth of particle heterogeneity in the EV and virus populations present within virus samples. These new approaches to discern EVs and viruses with FV assays can be used in future studies to characterize the contributions of EVs to HIV infection.

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Abstract #370

At the Interface of Integration: G-Quadruplex DNA and its role in HIV-1 Integration and Latency

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The major barrier to curing HIV-1 infection is the persistence of latent reservoirs formed following integration of viral DNA into the host genome. These transcriptionally silent proviruses evade immune detection yet retain the capacity to reactivate, leading to viral rebound and immune decline. Although integration is essential for viral persistence, the influence of local genomic context on HIV-1 integration site (IS) selection and latency establishment remains incompletely understood.
Recent work from the Barr Lab indicates that HIV-1 exploits host proteins and secondary DNA structures to preferentially target integration sites that favor latency. G-quadruplexes (G4s), four-stranded DNA structures formed in guanine-rich genomic regions, have emerged as key determinants of this process. G4s are prevalent throughout the genome and are bound by G4-binding proteins (G4BPs), which modulate transcription through steric hindrance of RNA polymerase II and recruitment of epigenetic regulators. We previously demonstrated that chemical stabilization of G4s during HIV-1 infection increases the proportion of latently infected cells.
Using mass spectrometry, we identified three host G4BPs—Nucleolin, Nucleophosmin-1, and hnRNPA1—that associate with integrase from HIV-1 subtypes A, B, and D during infection of U87.CD4+.CXCR4+ cells. Knockdown of these proteins significantly reduced integration near G4-enriched regions, indicating a role for G4BPs in directing integration site selection. To further characterize this effect, we generated ATAC-seq libraries from U87.CD4+.CXCR4+ cells and cross-referenced chromatin accessibility with subtype A, B and D integration sites. Preliminary data shows reduced G4BP expression was associated with a shift in integration toward more transcriptionally dormant genomic regions for subtypes A and D.
Together, these findings identify G4 DNA and G4BPs as novel host determinants of HIV-1 integration targeting and suggest a mechanistic link between integration site selection and the establishment of viral latency.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Co-morbidities and Immune Interactions / Thème : Comorbidités et interactions immunitaires

Abstract #253

Reported Experience of Psychological Distress During Isolation for Mpox Differs by Access to Structural Supports and Financial Hardship

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Background:
Public health isolation policies assist in reducing infection spread, but may result in unintended psychological effects, particularly when implemented without structural supports. We examined acute psychological distress among people diagnosed with mpox, and assessed differences by access to paid sick leave and experiences of financial hardship and stigma.

Methods:
We analyzed data from the Mpox Prospective Observational Cohort Study (MPOCS). Participants in Toronto and Vancouver diagnosed with mpox between 05/2022-07/2025 self-completed questionnaires during the acute phase of illness. This included the Kessler Psychological Distress Scale (Cronbach's alpha=.95) and items on access to paid sick leave, isolation duration, financial hardship, employment income loss, challenges paying rent/mortgage during isolation, and perceived mpox-related stigma. Psychological distress scores were compared using Mann-Whitney U tests.

Results:
Among 62 participants, 24 (39%) were living with HIV, 61 (98.4%) were cisgender men, and 60 (97%) gay/queer/bisexual. Median (IQR) isolation duration was 16.5 (7.25-22) days. Over half (57%) of participants reported no access to paid sick leave, 21 (34%) employment income loss during isolation, 15 (24%) financial hardship, and 16 (26%) challenges paying rent/mortgage. Median (IQR) psychological distress score was 22 (15.25-29) out of 45, and did not differ by HIV status (p=0.40). Psychological distress scores were higher among individuals without access to paid sick leave (27 vs 19, p=.01) and those reporting employment income loss (29 vs 19, p<.001), financial hardship (22 vs 20.5, p=.02), and rent/mortgage payment challenges (29 vs 20, p=.002). The 18 (29%) who reported experiencing mpox-related stigma, had higher distress scores than those who did not (28 vs 20, p=.01).

Conclusions:
Psychological distress was significantly higher in people with mpox lacking structural supports, experiencing financial hardship during isolation, and experiencing stigma. Future outbreak isolation policies should be implemented alongside social protections, including paid sick leave, to mitigate harms to equity-deserving communities.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Co-morbidities and Immune Interactions / Thème : Comorbidités et interactions immunitaires

Abstract #363

Hepatitis C (HCV) Viremia in HIV Treatment and HIV Pre-Exposure Prophylaxis (PrEP) Clients in British Columbia (BC), Canada: A Pilot Quality Improvement Initiative

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Introduction: In BC, HIV Treatment (HIV-Tx) and PrEP are centrally distributed, monitored and evaluated, with client, prescriber, and lab monitoring records securely stored in the BC-CfE Drug Treatment Program registry. BC-CfE therapeutic guidelines recommend screening for syndemic conditions including HCV. We piloted a quality improvement (QI) initiative for program clients with HCV viremia with the aim of facilitating follow-up testing and HCV treatment where indicated.

Methods: In February 2025, active HIV-Tx and PrEP clients where latest HCV RNA was detectable, were identified. Where no follow-up HCV RNA testing had been performed after a minimum of 6 months, a confidential client-specific communication was sent to the corresponding HIV-Tx or PrEP provider. The communication included (1) the client's latest HCV RNA record, (2) recommendation to repeat HCV RNA, and (3) links to resources (HCV treatment guidelines, BC HCV treatment access and coverage information, and a list of BC Hepatitis referral clinics if needed for evaluation and treatment).

Results: Of more than 8,000 HIV-Tx and >10,000 PrEP clients, 54 HIV-Tx clients and 1 PrEP client were identified for the prescriber communication, which was mailed in February 2025.

Of the 55 clients identified, 28 (51%) had repeat HCV RNA testing (39% undetectable, 61% detectable) within 6 months after the communication. Some prescribers reported barriers to client care (e.g., lost to follow-up, declined treatment, no show for consultation), or plans for client follow-up.

Conclusions: The centralized nature of the BC HIV-Tx and PrEP programs allows for systematic implementation of QI measures, for both HIV and syndemic conditions. This HCV communication is an example of a client- and provider-specific tool that can facilitate focused follow-up and appropriate care, which can be applied to other conditions. Reassuringly, a low number of BC HIV-Tx and PrEP program clients had recent or current HCV viremia.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Co-morbidities and Immune Interactions / Thème : Comorbidités et interactions immunitaires

Abstract #57

Frailty Trajectories among Older Adults Living with HIV in Canada: A Prospective Cohort Study

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Objectives: Frailty, a multi-system geriatric syndrome, is prevalent and poses threats to the health of older adults living with HIV. However, the way frailty evolves over time in this population remains underexplored. We aimed to investigate frailty trajectories and associated factors among a prospective cohort of older adults ≥65 years old living with HIV in Canada.

Methods: We analyzed three waves of longitudinal data collected approximately 18 months apart from the Correlates of Healthy Aging in Geriatric HIV (CHANGE HIV) study. Frailty was assessed using Fried's criteria and categorized as frail (scores ≥3) or non-frail (scores 0-2). We determined frailty trajectories among participants with complete frailty assessments across all three waves. We conducted logistic regression models to identify factors associated with favorable frailty trajectories (remaining non-frail or improving from frail to non-frail). We applied inverse probability weighting to account for potential selection bias due to missing frailty assessments over time.

Results: At baseline (n=192), the median age was 69 years (25th–75th percentiles: 67–72). Most participants were male (92%) and White (74%). Fifteen percent were classified as frail at baseline, 22% at wave 2 and 27% at wave 3. Five trajectories were observed, including remained non-frail (65%), improving (3%), worsening (15%), remained frail (9%), and fluctuating (8%). Older age was associated with lower odds of a favorable frailty trajectory (adjusted odds ratio (aOR)=0.14; 95%CI: 0.05-0.38). Conversely, HIV diagnosis at age ≥50 years (aOR=4.18; 95%CI: 1.28-13.65), reporting being physically active (RAPA; aOR=2.90; 95%CI: 1.22-6.93), and better physical function (SPPB; aOR=1.45; 95%CI: 1.09-1.93) were associated with higher odds of a favorable trajectory.

Conclusion: The diversity of frailty trajectories underscores the need for continued monitoring and personalized care strategies for older adults living with HIV. Interventions promoting physical activity and preserving function may help prevent or mitigate frailty in this growing population.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Co-morbidities and Immune Interactions / Thème : Comorbidités et interactions immunitaires

Abstract #95

Inflammatory markers suPAR and sCD163, but not HIV, are independently associated with PREVENT cardiovascular risk age in women living with and without HIV in British Columbia.

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Introduction: Women living with HIV are at higher risk of cardiovascular disease (CVD) than men, likely due to a combination of risk factors. Soluble urokinase plasminogen activator receptor (suPAR), a marker of immune activation, has been associated with adverse cardiac outcomes, whereas soluble (s)CD163, a marker of macrophage activation, has been associated with atherosclerosis. Cardiovascular risk estimators such as the recently developed PREVENT are useful tools in primary prevention of CVD, stratifying individual risk by combining risk factors into a single estimate.

Methods: We included all women enrolled in BCC3 (Dec 2020-July 2024), a community-engaged healthy aging study, eligible for the 10-year PREVENT Risk Calculation (aged 30-79), and with inflammatory marker data. We calculated PREVENT risk age, which estimates "heart age vs. chronological age,". suPAR and CD163 concentrations were assessed using MesoScale Discovery R-plex kits. Quantile regression was used to assess PREVENT risk age association with inflammatory markers, controlling for covariates/confounders.

Results: Among 354 BCC3 participants [58.1% living with HIV], higher PREVENT risk age was significantly associated with higher levels of suPAR (R2=0.421) and sCD163 (R2=0.380), both before and after adjusting for potential confounders, including chronological age itself.

Conclusions: Known heart health-associated inflammatory markers suPAR and CD163 are both associated with a higher PREVENT risk age, independent of HIV status, chronological age, smoking, and ethnicity. Further analysis will determine whether inflammatory markers not linked to heart health are also associated with PREVENT risk age and if they differ by HIV status.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Co-morbidities and Immune Interactions / Thème : Comorbidités et interactions immunitaires

Abstract #371

Measles Immunity among People Living with HIV Attending Three Tertiary Care Clinics in Canada

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Introduction: Missed doses, vaccine hesitancy, and waning immunity are driving a global rise in measles cases, including in Canada. People with HIV (PWH) are at higher risk of measles-related complications. Ensuring adequate herd immunity is essential to prevent severe measles-related morbidity and mortality.

Objectives: To estimate the seroprevalence of measles IgG among adult and pediatric PWH and identify risk factors associated with negative/equivocal results.

Methods: We conducted a retrospective chart review of PWH attending the McGill University Health Centre (MUHC) Chronic Viral Illnesses Service (CVIS) Clinic, The Ottawa Hospital (TOH) Immunodeficiency clinic, and the Centre hospitalier Sainte-Justine HIV clinic undergoing routine measles IgG screening using the Diasorin LIAISON measles IgG assay. Values > 16.5 IU/mL were considered positive and ≤ 16.5 IU/mL were deemed negative/equivocal. Mumps and rubella serostatus were also assessed. Univariate and multivariate logistic regressions analyses were used to identify risk factors for negative/equivocal measles serologies.

Results: A total of 270 patients were included (233 adults and 37 children/teenagers: 53.5% female, 46.5% male). Overall, 79 patients (29.3%) had negative or equivocal measles IgG results, of whom 10 (12.7%) were <18 years old and 58 (65.8%) were born outside of Canada. The median viral load was lower in the measles seropositive group than in the non-seropositive group (0 and 160 copies/mL respectively, p<0.0001). Younger age, negative or equivocal rubella and mumps results, unsuppressed viral load, and lower CD4 count were associated with higher odds of testing negative or equivocal measles IgG on univariate and multivariate logistic regression analysis.

Conclusion: Approximately 29.3% of PWH in our cohort lacked confirmed measles immunity. Younger age, unsuppressed viral load, lower CD4 count, and negative/equivocal rubella and mumps serostatus were associated with lower measles IgG seropositivity, suggesting a role for verification of measles serostatus in this population and additional vaccine doses when appropriate.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Co-morbidities and Immune Interactions / Thème : Comorbidités et interactions immunitaires

Abstract #300

Safety of Semaglutide on Depressive Symptoms Among People with HIV in Routine Clinical Care

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Introduction: Semaglutide is now widely prescribed for the treatment of diabetes and obesity. Concerns have emerged regarding its psychiatric safety, particularly its potential effects on depression and suicidality. People with HIV (PWH) have high rates of depression, yet evidence on the mental health safety of semaglutide among PWH remains limited.

Methods: We conducted a within person pre–post study of PWH initiating semaglutide at nine sites of the Centers for AIDS Research Network of Integrated Clinical Systems (CNICS), a multicentre U.S. cohort (2018–2024). Depressive symptoms were assessed using the Patient Health Questionnaire-9 (PHQ-9), collected approximately every six months at routine visits. Mean changes in depressive symptoms, as measured by PHQ-9 scores, before and after semaglutide initiation were estimated with linear mixed models adjusted for age, sex, race/ethnicity, and time. We examined changes in PHQ-9 scores overall and stratified by baseline depression severity (0–4: no/minimal, 5–9: mild, 10–14: moderate, ≥15: moderately-severe to severe), as well as by body mass index (BMI), diabetes status, and antidepressant use.

Results: Among 354 PWH (mean age 54; 77% male; 38% non-Hispanic White; 78% obesity; 60% diabetes), baseline PHQ-9 scores were 0–4 in 53%, 5–9 in 28%, 10–14 in 10%, and ≥15 in 9%. Semaglutide was not associated with overall changes in depressive symptoms (ΔPHQ-9 −0.1 [95% CI −0.7, 0.5]). Scores increased slightly in those with no/minimal baseline depression (+1.2 [95% CI 0.5, 1.8]), were stable in mild/moderate depression, and decreased in moderately-severe to severe depression (−4.7 [95% CI −7.3, −2.2]). No worsening was observed across BMI, diabetes, or antidepressant subgroups.

Conclusion: Semaglutide initiation was not associated with worsening depressive symptoms among PWH. While individual responses may vary, these findings add to evidence on semaglutide safety regarding mood in this population.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: HIV in women, in pregnancy and pediatrics / Thème : Le VIH chez les femmes, pendant la grossesse et pédiatrie

Abstract #279

Adequacy of antiretroviral treatment in pregnancy and vertical transmission rates in Canada: Data from the Canadian Perinatal HIV Surveillance Program

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Objectives: To describe demographics of mother-infant pairs (MIP), antiretroviral treatment (ART) during pregnancy, and vertical transmission (VT) rates in Canada in 2024, and to examine factors associated with ART coverage during pregnancy in 2014-2024

Methods: Data are collected annually from 22 Canadian pediatric and HIV centres of the Canadian Perinatal HIV Surveillance Program. Data collected include maternal characteristics, pregnancy ART and infant outcome.

Results: There were 258 infants born in 2024 (250/year in 2014-2023); 31.8% were from Ontario, 24.4% from Quebec, 15.5% from Saskatchewan, 12.8% from Alberta, 9.7% from Manitoba; 3.5% from BC and 2.3% from the Atlantic provinces. In 2024, 62.0% were Black, 22.9% were Indigenous, and 7.0% were White. Overall, 64.7% of pregnant women/people acquired HIV heterosexually, 10.5% through injection drug use, and 4.3% perinatally. The proportion of pregnant women/people receiving <4 weeks of ART in 2024 was 6.3% (16/255). This proportion was significantly higher in 2014-2024 in Manitoba, Saskatchewan, and Alberta compared with the remainder of Canada and in women acquired HIV through injection drug use compared to heterosexual sex (OR=2.04 (95%CI: 1.50, 2.78); p<0.001 and 3.91 (2.71, 5.65); <0.001), but only the latter difference remained significant after multivariable adjustment (aOR=1.85 (1.17, 2.92); p=0.01), and the same conclusion held after excluding COVID years (2020–2021). There was one case of vertical transmission (VT) in 2024 (VT rate = 0.4%, 1/258), and this infant's mother had no ART before delivery.

Conclusions: While Canada has reached the threshold of elimination of HIV transmission with <2 cases per 100,000 live births, suboptimal ART in pregnancy and VT events continue to occur in Canada at unacceptably high rates. Tailored interventions designed to engage pregnant women/people with HIV experiencing barriers to care are needed if further reductions in VT rates are to be achieved.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: HIV in women, in pregnancy and pediatrics / Thème : Le VIH chez les femmes, pendant la grossesse et pédiatrie

Abstract #272

Investigating the Effects of HIV Integrase Strand Transfer Inhibitors on the Expression of Fatty Acid Transporters in the Placenta

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Background:
Integrase strand transfer inhibitors (INSTIs) are the recommended antiretrovirals (ARVs) for people living with HIV, including pregnant women. In utero exposure to HIV/ARVs has been associated with higher risk for neurodevelopmental deficits in HIV-exposed but uninfected children. Placental fatty acid (FA) transport, which is vital for fetal brain development, relies on several transport proteins to ensure fetal FA demands are met. We explored the effects of INSTI exposure on placental expression of FA transporter genes in a mouse pregnancy model and in pregnant persons living with HIV taking INSTIs.

Methods:
Healthy C57BL/6 mice were treated with INSTI-based ART (bictegravir, cabotegravir, dolutegravir, raltegravir) with or without a nucleoside reverse transcriptase inhibitor backbone of TDF/FTC, or water as a control, at therapeutic concentrations via oral gavage from conception until gestational day 15.5. Placental gene expression was assessed by qPCR. Term placentas were collected from Canadian individuals with or without HIV for analysis of protein expression by western blot. Individuals with HIV were taking INSTI-based regimens.

Results:
In mice, treatment with INSTIs + TDF/FTC altered placental gene expression of several FA transport proteins (Fatps), FA binding proteins (Fabps), and lipases (Lpl, Lipg) when compared to controls. Significant reductions in expression of nuclear transcription factors Pparg and Rxra were observed across INSTI + TDF/FTC regimens. INSTIs alone induced more modest changes in gene expression. Preliminary analyses of protein expression in term placental samples demonstrated alterations in the expression of LPL, FATP4, and FABP4 in HIV seropositive individuals treated with INSTIs compared to healthy controls.

Conclusion:
Our findings demonstrate that INSTI-based regimens alter gene expression of mouse placental FA transporters in healthy mice. Protein expression of several transporters in human term placentas is altered in women living with HIV taking INSTIs. Further research is required to understand how INSTIs impact placental transfer of FAs.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: HIV in women, in pregnancy and pediatrics / Thème : Le VIH chez les femmes, pendant la grossesse et pédiatrie

Abstract #337

Placental villous structure and associations with angiogenic factors; comparisons between women living with HIV on ART, women without HIV on PrEP, and women without HIV

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Objectives: Antiretroviral (ARV) therapy (ART) has been associated with increased risk for adverse birth outcomes, though the mechanisms controlling these processes are not fully understood. Variations in placental structure can result in poor function, contributing to adverse birth outcomes. We examined placental villous structure in Ugandan women living with HIV on ARVs, women without HIV on PrEP (pre-exposure prophylaxis), and women without HIV, and explored associations with mid-gestational levels of key regulating angiogenic factors and steroid hormones.

Methods: All women with placenta tissue and plasma collected between gestational weeks 20-24 were included. Formalin fixed paraffin embedded placental core tissue was randomly sectioned and stained with Masson's Trichrome for imaging. Stereological tools were applied for quantitative analysis of villous structure (villous surface density, villous volume). Plasma, angiogenic, and hormone factors were quantified using Luminex and ELISA. Statistical assessments were performed, including ANOVA with post-hoc testing. Partial correlation networks for biomarkers and outcomes were estimated using an ensemble method, SpiderLearner.

Results: 113 Ugandan participants (44 HIV-negative, 36 HIV-negative/PrEP, 33 HIV-positive/dolutegravir (DTG) based-ART) were included. Birth weight and placental weight z-scores were similar between groups. Villous surface density and villous volume did not differ significantly between treatment groups. Vascular endothelial growth factor concentrations were significantly lower in HIV+/DTG-exposed placentas compared to HIV-negative and PrEP-exposed placentas, with all other factors being similar between groups. Using partial correlation network analysis, we observed different patterns in angiogenic and hormone networks and their relationships with villous volume and birth outcomes in each of the treatment groups.

Conclusion: These findings contribute to the larger body of research on ARV drug effects on placental morphology and development. The inclusion of PrEP in this research allows for the separation of ARV drug effects from HIV effects in the context of pregnancy.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: HIV in women, in pregnancy and pediatrics / Thème : Le VIH chez les femmes, pendant la grossesse et pédiatrie

Abstract #127

Sex Hormone Levels and Dyslipidemia among Premenopausal Women Living with and Without HIV in British Columbia

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Objective
Women living with HIV (WLWH) are 70% more likely to experience lifetime amenorrhea (no menstruation for >12 months) than HIV-negative women, placing them at higher risk for conditions linked to low sex hormone states, including dyslipidemia. While previous studies examined reproductive hormones and lipid indicators, data specific to WLWH remain limited. This study evaluated the relationship between dyslipidemia and reproductive hormone levels (estradiol and progesterone) among premenopausal women living with and without HIV.

Methods
We conducted a cross-sectional analysis of 273 nonpregnant premenopausal female participants (116 WLWH and 157 women without HIV, ≥16y old) enrolled in BCC3 between December 2020-2024. Participants were classified as having dyslipidemia if they self-identified as having high cholesterol, took lipid medication, or had dyslipidemia diagnosis based upon interpretation of lab values with current Canadian guidelines. Hormone levels were timed for women with regular menstrual cycles, and drawn randomly for those without, and were assessed by ELISA. Univariate analysis used Wilcoxon rank-sum and Chi-squared tests for continuous and categorical variables, respectively. Multivariable logistic regression included variables with $p<0.2$ univariably to estimate adjusted odds ratios (AOR).

Results
In univariable analysis, lower progesterone levels were associated with dyslipidemia ($p=0.04$) and HIV status ($p<0.01$), though were not significant after controlling for covariates. A multivariable progesterone–HIV interaction term revealed opposite effects: higher progesterone was linked to increased dyslipidemia risk in WLWH but decreased risk in HIV-negative women ($p=0.039$). Although estradiol levels did not differ by HIV status, lower levels were associated with increased dyslipidemia risk among all women (AOR: 0.06 (0.01-0.40), $p<0.001$) after controlling for covariates.

Conclusion
Lower sex hormone levels may elevate dyslipidemia risk in WLWH, warranting further mechanistic research and exploration of exogenous hormone therapy to improve lipid and cardiovascular outcomes in this population.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: HIV in women, in pregnancy and pediatrics / Thème : Le VIH chez les femmes, pendant la grossesse et pédiatrie

Abstract #313

Maternal HIV Infection is Associated with Altered Placental System L Amino Acid Transporter Expression That Correlates with Birthweight

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Background:
Women living with HIV face persistent risks of adverse birth outcomes despite effective antiretroviral therapy. Placental System L amino acid transport, mediated by LAT1 and LAT2, is essential for fetal growth, but the effects of maternal HIV infection on placental expression remain poorly understood. We sought to examine the impact of maternal HIV infection on placental LAT1 and LAT2 expression and explored associations with birthweight outcomes.

Methods:
Placental tissues were collected between 2010-2025 from participants aged ≥18 years enrolled in the Angiogenesis and Adverse Pregnancy Outcomes in Women with HIV (AAPH) cohort in Toronto, Canada. This analysis included placentas from 60 women living with HIV (HIV+ group) and 22 women without HIV (control group). LAT1 and LAT2 protein expression was measured by Western blot and quantified using Image Lab (v6.1). Transporter expression was compared by HIV-status using Mann-Whitney test. Associations between LAT expression, birthweight, and birthweight centile were assessed using Spearman correlation.

Results:
Placental LAT1 expression was significantly higher in the HIV+ group compared to control (median [95%CI]: 0.95 [0.83-1.16]), while LAT2 expression was significantly lower (0.32 [0.26-0.37]). The LAT1:LAT2 protein expression ratio was significantly higher in the HIV+ group (2.88 [2.48-3.66]). LAT1 expression was negatively correlated with birthweight ($r=-0.24$, $p<0.05$), whereas LAT2 showed a trend towards a positive correlation ($r=0.13$). Increased LAT1:LAT2 ratios were negatively correlated with birthweight ($r=-0.28$, $p<0.05$), with a similar trend observed for birthweight centile.

Discussion:
Maternal HIV infection is associated with a shift toward LAT1-dominant placental System L transporter expression. This profile may act as a bottleneck, limiting amino acid transfer to fetal circulation and contributing to reduced birthweight, highlighting placental nutrient transport as a potential mechanism linking HIV exposure to adverse birth outcomes. Future studies assessing amino acid transport as well as impact of antiretrovirals on System L are merited.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: HIV in women, in pregnancy and pediatrics / Thème : Le VIH chez les femmes, pendant la grossesse et pédiatrie

Abstract #119

Navigating Hepatitis C Virus (HCV) Treatment Decision-Making During Pregnancy – Preliminary Findings: A Qualitative Study

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Background:
With rising HCV prevalence among individuals of childbearing age, international guidelines recommend shared decision-making regarding treatment during pregnancy. Additionally, Canadian Obstetrical guidelines now recommend universal HCV screening in pregnancy, which will increase case-finding. While some clinicians have begun to offer HCV treatment in pregnancy, little is known about what influences treatment decisions among pregnant individuals.

Method:
Pregnant individuals with detectable HCV RNA were offered enrollment after discussing HCV treatment during pregnancy with their clinician. Participants ≥18 years were recruited from 7 sites in Ontario or British Columbia. Those already receiving HCV treatment or unable to consent were excluded. All, irrespective of whether they decided to be treated in pregnancy, were interviewed prior delivery. Interview guides were tailored to participants' experiences and perspectives on living with HCV prior to, and/or during prenatal care, competing life priorities, understanding of vertical transmission, and what factors influenced decisions. Thematic analysis, informed by interpretive description, was used to identify relevant patterns and meanings.

Result(s):
Six participants were interviewed during pregnancy; one did not choose treatment. Several themes were identified: initial shock and concern regarding their diagnosis, influence of family on decision-making, further exploration through online investigation, and motivations rooted in maternal identity and external judgment. Facilitators to treatment initiation and adherence during pregnancy included maternal responsibility and motivation to protect their infant, positive clinician relationships, and structured support environments. Barriers to treatment during pregnancy included stigma, inconsistent provider messaging, competing priorities, and psychosocial stressors. Interestingly, there was a feeling of "no correct choice" balancing prevention of transmission with perinatal medication exposure.

Conclusion(s):
This study highlights the influence of identity, provider relationships and messaging, perspectives from family members, and patient-facing online resources on HCV treatment in pregnancy decision-making. As such, family-centered models of care, should include consistent messaging in stigma-free environments.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: HIV in women, in pregnancy and pediatrics / Thème : Le VIH chez les femmes, pendant la grossesse et pédiatrie

Abstract #374

Effects of soluble gp120 and anti-cluster A antibodies in children with perinatal HIV on measures of immune function, HIV reservoir and inflammatory cytokines

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Background: HIV envelope glycoprotein plays a role in viral entry. Its soluble gp120 subunit (sgp120) has been associated with immune dysfunction and inflammation. sgp120 binds to uninfected bystander cells, which get eliminated by anti-cluster A antibodies (ACAA) through antibody-dependent cellular cytotoxicity. While observed in adults with undetectable viral loads, this has never been described in children with perinatal HIV (CLWH). We assessed relationships between sgp120 & ACAA and immunologic measures, HIV reservoir, and inflammatory cytokines in CLWH in the EPIC4 Cohort.

Methods: This cross-sectional sub-study used data and biosamples from CLWH with sustained viral suppression (SVS) on ART. Relationships between sgp120, ACAA and immunologic markers (CD4%, CD4:CD8 ratio), HIV reservoir size (PBMC proviral DNA quantification), and inflammatory cytokines (IL-1β, IL-6, IL-10, TNF-α) were assessed.

Results: 105 CLWH were included (49% females, median age 13.6y, ART initiation age 1.5y, ART duration 8.7y, SVS duration 6.2y, current CD4 count 750cells/μL, CD4% 37%, CD4:CD8 ratio 1.14). sgp120 was detectable in 15/105 (14%), and ACAA in 80/105 (76%). Detectable sgp120 was associated with lower CD4 count (660 vs 775cells/μL, p=0.042), CD4% (33 vs 38%, p=0.005) and CD4:CD8 ratio (0.85 vs 1.19, p<0.001); detectable ACAA was associated with lower CD4% (36 vs 40%, p=0.003), age (14.0 vs 8.4y, p=0.010), ART initiation age (2.7 vs 0.4y, p<0.001), and SVS duration (5.8 vs 7.5y, p=0.005). In regression analysis adjusted for age, sex, ART duration and CMV seropositivity, sgp120+ was associated with lower CD4:CD8 ratio, and ACAA+ with lower CD4%; sgp120/ACAA were not associated with cytokines. Proviral DNA was associated with higher IL-10 among sgp120+, lower IL-1β and TNF-α among sgp120- and lower IL-1β, IL-6, and TNF-α among ACAA+.

Conclusions: sgp120 and ACAA were inversely associated with immune function in children, and when present an association between proviral DNA and inflammatory cytokines was observed suggesting a mediating role.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: HIV in women, in pregnancy and pediatrics / Thème : Le VIH chez les femmes, pendant la grossesse et pédiatrie

Abstract #240

Behavioural difficulties in school-aged children who are HIV-exposed uninfected and associations with intellectual performance; findings from the KIND Study.

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Background: The Kids Imaging and Neurocognitive Development (KIND) study is an ongoing cohort recruiting school-aged children who are HIV-exposed uninfected (CHEU) and children who are HIV-unexposed uninfected (CHUU) in Toronto and Ottawa. We have previously reported intellectual difficulties in CHEU compared to CHUU KIND study participants, with greater deficits observed in boys HEU. Here we investigate behavioural difficulties in the same population and explore associations with intellectual performance.

Methods: The parent administered Strengths and Difficulties Questionnaire (SDQ) was used to collect data on behavioural difficulties. The SDQ total difficulties score, a combined score of 4 scales (emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems) was calculated. Scores were dichotomized into those scoring >17, indicating a substantial risk of clinically significant problems, and <17. The WISC-V was used to assess intellectual abilities. Fisher's exact was used to assess difference by HEU-status. Spearman correlation were used to assess associations between SDQ total difficulties scores and intellectual and language abilities stratified by HEU-status.

Results: Data from the parent administered SDQ were available for 99 CHEU (51 girls) and 43 CHUU (18 girls). Child median age at time of assessment was 8 years. Thirteen (13.1%) CHEU had a total difficulties score >17, scoring in the substantial risk of clinically significant problems range, compared to none of the CHUU (13.1% vs. 0%, p=0.01). Of the 13 CHEU scoring in the problem range, 11 were male. SDQ total difficulties scores correlated negatively with working memory (r= -0.37, p<0.001), processing speed (r= -0.27, p=0.009), and full-scale IQ (r= - 0.32, p=0.0014) in CHEU. No significant associations were observed in CHUU.

Conclusions: Behavioural difficulties were more prevalent in CHEU, particularly in boys. Behaviour difficulties were associated with poorer intellectual performance in CHEU. With increasing recruitment into the KIND cohort, future work will investigate associations with perinatal antiretroviral exposure.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Optimizing Prevention, Treatment, and Care Delivery / Thème : Optimiser la prévention, le traitement et la prestation des soins

Abstract #39

Exposure to ritonavir or cobicistat and association with fatal opioid overdose among people with HIV who use(d) drugs

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Background: In British Columbia (BC), people with HIV are disproportionately affected by the drug toxicity crisis. Ritonavir, a potent cytochrome 3A4 inhibitor, boosts other protease inhibitors and slows metabolism of several synthetic opioids, notably fentanyl, raising its blood levels. We hypothesized that, among people with HIV who use(d) drugs (PWUD), a) exposure to ritonavir increases the odds of fatal opioid overdose (FOO) versus non-exposure; and b) exposure to cobicistat, a structural analogue of ritonavir, has a similar impact.

Methods: We included all deaths between 01-Jan-2012 and 31-Dec-2024 among PWUD with HIV in the BC Centre for Excellence in HIV/AIDS's Drug Treatment Program (DTP). Individuals were considered PWUD if injection drug use was recorded on DTP clinical forms and/or a urine drug screen was ever performed. FOOs were identified via ICD-10 codes indicating opioid poisoning. Chi-squared, Fisher's exact, Wilcoxon's Rank Sum tests, and logistic regression were used to determine associations between a) exposure to ritonavir, and b) exposure to ritonavir and/or cobicistat at time of death and FOO compared to non-FOO deaths.

Results: Of 1,320 deaths among PWUD, 303 (23%) were FOOs. Ritonavir exposure at time of death occurred among 66 (22%) of FOO and 196 (20%) of non-FOO deaths (p=0.44); for cobicistat numbers were 33 (11%) and 86 (9.0%, p=0.24). Ritonavir exposure at time of death was not significantly associated with FOO (adjusted odds ratio [aOR] 1.19, 95% CI 0.85-1.66), adjusted for sex, age, homelessness, residence in Vancouver's Downtown Eastside, and era of ART initiation. Results were similar when considering exposure to cobicistat and/or ritonavir (aOR 1.21, 95% CI 0.90-1.63).

Conclusion: These preliminary results indicate no association between exposure to ritonavir or cobicistat and likelihood of a fatal opioid overdose death in a large cohort of PWUD with HIV. We hope to corroborate these findings through ongoing time-to-event analyses.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Optimizing Prevention, Treatment, and Care Delivery / Thème : Optimiser la prévention, le traitement et la prestation des soins

Abstract #12

Piloting the Administration of an Electronic Patient-Reported Outcome Measure of Adherence Barriers to Antiretrovirals (the I-Score) through a Patient Portal (CTNPT039 Study)

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Context: Adherence to antiretrovirals (ARV) is essential for people with HIV, but many face barriers. We developed the 7-item I(interference)-Score, a new electronic patient-reported outcome measure (ePROM) of ART adherence barriers to be used in HIV care. We explored its effectiveness in a Montreal clinic.

Methods: We conducted this 6-month one-arm implementation pilot study at the McGill University Health Centre, Montreal, among adults with HIV on ARV willing to use a smartphone to complete the I-Score. Patients visited their physician at Time 1(T1), 3 months(T2), and 6 months(T3). They completed the I-Score before medical visits. Patients completed a survey on socio-demographics (T1) and self-reported adherence, from 1('very poor') to 7('excellent); physicians completed a checklist on actions taken based on I-Score results; and viral loads (VL) were collected from medical records (T1 and T3). We provide descriptive statistics.

Results: 28 patients participated in a total of 78 visits. Average age was 48 years, 12/32(38%) were women, and 19/32(59%) were migrants. Mean self-reported adherence was stable, 5('very good') from T1 to T3, and so was the number of patients with an undetectable VL: 24/28(86%) at T1 and 24/27(89%) at T3. Most patients (26/28;93%) identified at least one adherence barrier, leading physicians to: provide 25/28 patients (89.3%) with education; order new tests for 12/28(43%) patients (e.g., liver function; tied mainly to Habits & Activities barriers, which include substance use); switch ARV for 3/28(11%) patients (Medication barriers); prescribe a new medication for 8/28(29%) patients (e.g., medication for attention deficit disorder; Thoughts & Feelings barriers); and refer 17/28(61%) patients to specialists (e.g., social worker; Social Situation barriers).

Conclusions: A vast range of issues were detected with a single tool, facilitating diverse clinical actions. The I-Score may improve patient-provider communication and guide physician efforts to support optimal adherence.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Optimizing Prevention, Treatment, and Care Delivery / Thème : Optimiser la prévention, le traitement et la prestation des soins

Abstract #217

PrEP Knowledge & Uptake Among Heterosexual-Identified Men Who Have Sex With Men Compared to Men of Diverse Sexual Identities

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Heterosexual-identified men who have sex with men (H-MSM) experience sexual identity and behavior discordance yet it is unknown how H-MSM compare to concordant heterosexual men as well as gay, bisexual, and queer (GBQ+) men regarding PrEP knowledge and uptake. We surveyed adult cisgender men in Canada, the United States, and the United Kingdom to gain greater insight on their PrEP knowledge and uptake.

Methods
Purposive sampling was utilized to recruit men via online and offline venues. Data collection consisted of an online questionnaire for adult cisgender men, available in English, French, and Spanish. Data were collected between November 28, 2024 and December 31, 2025.

Results
The survey sample consists of 297 GBQ+ men; 208 concordant heterosexual men; and 92 H-MSM. A one-way ANOVA showed significant differences between the three groups on PrEP knowledge and uptake. H-MSM had significantly less PrEP knowledge ($M = 3.48$, $SD = 3.87$) than GBQ+ MSM ($M = 6.35$, $SD = 4.05$), $p < .001$. Among H-MSM, 15.8% of participants reported using PrEP. The logistic regression model predicting PrEP uptake had a good fit to the data. The Hosmer and Lemeshow chi-square goodness-of-fit test showed $\chi2(8) = 4.017$, $p = .856$. The -2 Log likelihood of the model was 105.631. The model explained 56.9% of the variance in PrEP uptake (Nagelkerke R2). Overall, the model correctly predicted 88.0% of participants who use PrEP. Factors associated with greater PrEP uptake included motivation to use Grindr to find a date, motivation to use Grindr to find people to drink or use drugs with, sexual identity commitment, and PrEP knowledge.

Conclusions
This examination aims to improve understanding of H-MSM as a distinct population. This study provides key insights into avenues for HIV prevention with men whose sexuality and sexual behaviours may be outside of commonly accepted norms.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Optimizing Prevention, Treatment, and Care Delivery / Thème : Optimiser la prévention, le traitement et la prestation des soins

Abstract #158

Large Language Model-based Triage to Identify ART Adherence Barriers and Risks in Patient Messages

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Background:
Suboptimal antiretroviral therapy (ART) adherence remains a major challenge in HIV care. Mobile health tools such as the MARVIN chatbot can support self-management and generate large volumes of patient messages with untapped potential for adherence monitoring. We developed large language model (LLM)–based classifiers to identify adherence barriers and stratify risk from patient-generated text.

Methods:
Training datasets included MARVIN training corpora, MARVIN-user conversations, qualitative interviews from the I-Score development study (a 7-item PROM of ART adherence barriers), LLM-generated synthetic examples, and external validation data from Portail VIH/SIDA du Quebec and online HIV community forums. Following a participatory design approach, 3 people with HIV, 3 clinicians, 1 resident, and 1 engineer refined annotation guidelines across three workshops. Two sentence-level tasks were defined: I) barrier classification across seven I-Score domains (Thoughts/Feelings, Habits/Activities, Social Situation, Economic Situation, Medication, Care, and Health) plus None; and II) four-level adherence risk classification (High, Medium, Low, None). Two annotators labeled 10% of the data, achieving inter-annotator agreement (κ=0.83 for barriers; 0.71 for risks). The full corpus was then annotated. Small-scale LLMs (e.g., Flan-T5) were fine-tuned for multi-class classification and compared with prompt-tuned large-scale LLMs (GPT-4.1, Gemma-3, DeepSeek-R1, and LLaMA-3.2) on test and external validation datasets using mean Macro-F1.

Results:
The curated dataset included 15,480 annotated sentences. On external validation, Flan-T5-xl achieved the highest performance for barrier detection (Macro-F1 = 0.71, 95% CI 0.68-0.74), outperforming GPT-4.1 (0.62) and other large-scale LLMs (0.45-0.59; P<0.001). For risk stratification, Flan-T5-large performed best (Macro-F1 = 0.57, 95% CI 0.53-0.60), again exceeding GPT-4.1 (0.43) and other LLMs (0.28-0.47; P<0.001). Similar patterns were observed on held-out test data.

Conclusion:
LLM-based triage models can effectively identify ART adherence barriers and risk from patient messages, offering a scalable approach for individualized HIV care. Integration into MARVIN is underway, with real-world validation planned to assess clinical utility.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Optimizing Prevention, Treatment, and Care Delivery / Thème : Optimiser la prévention, le traitement et la prestation des soins

Abstract #256

Could long-acting injectable PrEP overcome PrEP stigma and increase PrEP coverage in gay, bisexual, and other men who have sex with men (GBM)?

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Long-acting injectables (LAI) are safe, effective forms of PrEP whose discreet administration may help overcome stigma associated with oral PrEP's visible pill-taking. Among sexually active GBM in the PrEP Implementation Project (PRIMP), we examined relationships between PrEP-related stigma, LAI-PrEP acceptability, and PrEP "reachability".

PRIMP recruited sexually-active adult GBM in Ontario and British Columbia to a cross-sectional survey in 2022. We restricted our analysis to HIV-negative participants with prior PrEP knowledge. Participants indicated their PrEP-use status (current/former/never) and acceptability of LAI-PrEP (yes/unsure/no). PrEP-related stigma was measured with the 12-item HIV PrEP Stigma Scale (HPSS; Cronbach's α=0.81). We tested the association between stigma and acceptability stratified by PrEP-use status using multinomial logistic regression (yes vs no, unsure vs no), adjusting for potential confounders. We also estimated the proportions of PrEP-indicated participants potentially "reachable" by PrEP modalities (defined as use/interest in oral or LAI-PrEP) and used multivariable logistic regression with backward selection to examine characteristics associated with reachability by current/emerging PrEP products.

Of 970 included participants, stigma was highest in never users, lowest in current users, and not significantly associated with LAI-PrEP acceptability or uncertainty (Table). Of 752 PrEP-indicated participants, 65.7% were using oral PrEP and 28.4% were non-PrEP users interested in current/emerging PrEP products, leaving 5.9% potentially unreachable. After backward selection, greater stigma was negatively associated with reachability (OR=0.18, 95%CI=0.09-0.36).

PrEP stigma was not associated with willingness to try LAI PrEP across PrEP-use status but was associated with remaining unreachable by existing formulations. Reducing PrEP stigma is critical to increasing PrEP coverage.

Supporting Document

Table: Mean HPSS scores and Adjusted Odds Ratios for LAI PrEP Acceptability and Uncertainty by Oral PrEP Use Status (N=970)

		HPSS Score *Range 1-5; 5=maximum stigma*	**LAI Acceptability[a]** *"Yes" to interest in LAI-PrEP*		**LAI Uncertainty[a]** *"Unsure" to interest in LAI-PrEP*	
	N(%)	**Mean(SD)**	**aOR[b]**	**95% CI**	**aOR[b]**	**95% CI**
Current PrEP users *1-unit increase in HPSS*	575 (59.28%)	1.99(0.53)	1.01	0.64-1.58	1.38	0.82-2.32
Former PrEP users *1-unit increase in HPSS*	114 (11.75%)	2.10 (0.55)	0.85	0.33-2.14	2.68	0.70-10.18
Never PrEP users *1-unit increase in HPSS*	281 (28.97%)	2.31 (0.56)	0.62	0.35-1.10	1.13	0.57-2.23

Abbreviations: SD=standard deviation, aOR=adjusted Odds Ratio, 95% CI=95% Confidence Intervals
[a] Reference Category: "No" to interest in LAI-PrEP

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Optimizing Prevention, Treatment, and Care Delivery / Thème : Optimiser la prévention, le traitement et la prestation des soins

Abstract #242

The STI Care Now Initiative: Sexually Transmitted and Blood-borne Infection Testing and Treatment and HIV Pre-exposure Prophylaxis in Nova Scotia

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Introduction: Sexually transmitted and blood-borne infections (STBBIs) are increasing in Canada. Barriers to STBBI services delay early diagnosis, treatment and access to prevention strategies. The STI Care Now initiative is designed to expand access to STBBI testing, prevention, and treatment services in Nova Scotia. The initiative includes HIV, chlamydia/gonorrhea (CT/NG) self-testing, CT/NG treatment, and HIV pre-exposure prophylaxis (PrEP) services.

Methods: Individuals self-referred through an online webform. HIV self-tests and CT/NG self-testing kits with prepaid return postage were mailed to participants or picked up at community-based organizations and high schools. Pharmacists conducted HIV PrEP assessments and prescribed virtually. CT/NG results were provided by email or phone, and individuals with a CT/NG diagnosis were assessed virtually by a pharmacist and treated or referred when needed. Initiative utilization metrics were collected, and patient experience feedback was obtained through an electronic questionnaire.

Results: Between July 8, 2024 and January 7, 2026, the initiative received 6944 self-referrals from 5304 individuals. 7180 testing kits were issued, including 2128 HIV self-tests. 35% of individuals self-reported their HIV self-test results, with 601 non-reactive, 144 invalid, and 0 reactive results. For CT/NG self-testing, the kit return rate was 55% (3943/7180). Among returned tests, 219 were positive for CT and 40 for NG, yielding a 6.6% positivity rate. All individuals with positive results were successfully linked to care. 298 individuals requested HIV PrEP. 338 PrEP assessments were completed (including 191 eligibility, 64 initial prescription, and 83 refill assessments), and 134 prescriptions were written (99% emtricitabine/tenofovir disoproxil fumarate, 1% emtricitabine/tenofovir alafenamide). The questionnaire had a 55% response rate (2136 responses) and indicated high satisfaction, including ease of use and convenience.

Conclusion: STI Care Now successfully facilitated access to HIV testing, HIV PrEP, chlamydia and gonorrhea testing and care, and has potential for future use with other STBBIs.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Optimizing Prevention, Treatment, and Care Delivery / Thème : Optimiser la prévention, le traitement et la prestation des soins

Abstract #180

Barriers to HIV PrEP Uptake Among People Who Use Drugs in Vancouver - Applying Population Attributable Fractions to Quantify Importance

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People who use drugs (PWUD) remain disproportionately affected by HIV in Canada. Despite its proven effectiveness, HIV pre-exposure prophylaxis (PrEP) uptake among PWUD is minimal. We quantified barriers to PrEP use among PWUD engaged in care in Vancouver's Downtown Eastside (DTES).

PWUD age 19 and older from 6 addictions and primary care clinics in DTES completed questionnaires about their willingness to use PrEP (yes, maybe/don't know, no) and potential barriers to using PrEP. We computed the proportion of participants reporting each barrier, and adjusted risk ratios (aRRs) and 'population attributable fractions' of being unwilling to use PrEP (vs. willing/uncertain) for those reporting each barrier using multivariable modified Poisson regression. We repeated this analysis, restricting to participants who reported willingness or uncertainty about taking PrEP to estimate contribution of each barrier to uncertainty.

288 participants most-commonly cited low risk perception (56%), lack of knowledge (45%), and concern about side effects (36%) as barriers to taking PrEP (Table). Low risk perception was significantly associated with unwillingness to take PrEP (aRR 3.51 [2.16-5.84]), accounting for 58% (95% CI 39%-72%) of unwillingness in the sample. Among participants who were willing or unsure about PrEP, low knowledge was the only barrier significantly associated with uncertainty (aRR 1.88 [1.11-3.23]), with 33% (9%-53%) of uncertainty in the population attributable to this barrier.

Even among participants with indications of HIV risk, low risk perception represented a significant barrier to PrEP uptake among PWUD in DTES. Educational campaigns may prove most effective for engaging those uncertain about PrEP.

Supporting Document

Attribution of unwillingness and uncertainty about PrEP to cited barriers among PWUD in Vancouver, CA

Barrier	Fraction Citing	Unwillingness in those citing / not citing	'Risk' Ratio (95% CI)*	PAF (95% CI)†	Uncertainty in those citing / not citing	'Risk' Ratio (95% CI)*
Don't think high enough risk	55%	40% / 12%	3.51 2.16 - 5.84	58% 39% - 72%	32% / 28%	0.68 0.47 - 1.05
Wouldn't take medication daily	17%	31% / 27%	1.34 0.67 - 2.36	5% -9% - 15%	53% / 25%	1.57 0.98 - 2.29
Don't like to take medication	25%	26% / 28%	1.19 0.73 - 1.82	4% -11% - 15%	43% / 25%	1.24 0.8 - 1.92
Don't believe PrEP works	3%	50% / 27%	1.7 0.77 - 2.73	3% -1% - 8%	20% / 30%	0.43 0.08 - 1.36
Too many blood tests	12%	29% / 27%	0.97 0.41 - 2.02	0% -19% - 9%	29% / 30%	0.58 0.29 - 1.1
Difficult to find provider	7%	15% / 28%	0.41 0.15 - 1.18	-5% -18% - 0%	24% / 30%	0.52 0.21 - 1.11
Concerned what others would think	11%	19% / 29%	0.43 0.18 - 1.1	-10% -34% - -1%	35% / 29%	0.94 0.48 - 1.62
Concerned about side effects	36%	20% / 32%	0.58 0.35 - 0.94	-19% -40% - -4%	41% / 22%	1.42 0.92 - 2.2
Don't know enough	45%	19% / 34%	0.58 0.36 - 0.93	-23% -56% - -1%	42% / 17%	1.88 1.11 - 3.23

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Healthy Aging and the Care Continuum / Thème : Vieillir en santé et continuum de soins

Abstract #182

Healthcare Utilization of Older Adults Living with HIV- A Population Based Match Cohort Study in Ontario, Canada.

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Background
Advances in antiretroviral therapy have improved survival, leading to a growing population of older adults living with HIV. Population level data on aging related outcomes and health care utilization in this group are limited.

Methods
We conducted a population based matched cohort study in Ontario, Canada. The study cohort included 2,826 individuals diagnosed with HIV between April 1, 2005 and March 31, 2020 who were aged 50 years and older. Matched controls were Ontario residents without HIV, matched on age, sex, and rurality. Outcomes included mortality, hospitalization, emergency department visits, hospital length of stay, frailty, neighbourhood income quintile, and prior health care use measured using Resource Utilization Bands (RUB) in the 2 years before baseline.

Results
Within 1 year of diagnosis, mortality was higher among older adults living with HIV (264 deaths, 9.3%) than controls (34 deaths,1.2%;SD 0.37; p< .0001). Mortality rates remained higher at 3 years (55.2vs12.1 deaths/1,000 py) and 5 years (44.7 vs 13.3 deaths/1,000 py) (all p< .0001). Hospitalization>1 year occurred in 34.3% of older adults living with HIV versus 5.9% of controls (SD 0.757;p<.0001). Emergency department visit rates at 1 year were 1,112.4 versus 382.9/ 1,000 py (p<.0001), with persistently higher rates at 3 and 5 years. Hospital length of stay was higher among older adults living with HIV at all follow up periods (all p< .0001). Frailty in the 2 years prior to baseline was more common among older adults living with HIV (12.1%vs3.2%;SD 0.339;p<.0001). Prior health care utilization differed, with fewer low users (RUB0–2: 27.6% vs 19.1%), more moderate users (RUB3:48.7%vs31.1%), and more high users (RUB4–5:23.8%vs49.8%) (p< .0001).

Interpretation
Older adults living with HIV experience higher frailty, mortality, and sustained excess health care utilization, supporting the need for aging focused models of care and targeted research.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Healthy Aging and the Care Continuum / Thème : Vieillir en santé et continuum de soins

Abstract #361

Serum Proteins Reveal Unique Frailty-Associated Signatures in Older People Living with HIV

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People living with HIV (PLWH) exhibit persistent immune activation and chronic inflammation despite successful antiretroviral therapy, contributing to chronic comorbidities. Additionally, HIV is associated with increased risk of geriatric syndromes, such as frailty. However, the underlying mechanisms leading to frailty, particularly among older PLWH, remain unknown. We aimed to identify serum proteomic signatures associated with frailty in this population. PLWH were selected from the Correlates of Healthy Aging in Geriatric HIV study, including frail (n = 44), pre-frail (n = 70), and non-frail (n = 18) individuals, as assessed using Fried's criteria. HIV-negative individuals (n = 40) served as controls. Serum proteomic levels were measured using the Olink Reveal assay, based on the principles of the Proximity Extension Assay. Unsupervised clustering was initially performed using principal component analysis and heatmap visualization. Protein expression differences between groups were calculated as $\log_2$ fold-changes and corrected using the Benjamini-Hochberg method. Gene Ontology enrichment analysis was conducted using Enrichr, and protein-protein interaction networks were explored via STRING. A total of 62 out of 1,034 proteins were differentially expressed; 51 were upregulated and 5 were downregulated in frail PLWH compared to controls. The top five upregulated proteins were LY9, PRELP, LIFR, VEGFB, and GCNT1, while the top five downregulated proteins were CLEC4A, CTSV, NAGA, TMEM106, and MUC20. Most of these proteins are involved in inflammatory and senescence-related processes. Multinomial logistic regression highlighted 52 proteins that significantly altered the odds of a frail classification whilst adjusting for sex, age, body mass index (BMI), chronic obstructive lung disease and asthma. Validating these biomarkers could enable their translation into predictive tools for early triage and clinical decision-making, with the potential to transform frailty care through timely prevention and targeted monitoring.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Healthy Aging and the Care Continuum / Thème : Vieillir en santé et continuum de soins

Abstract #110

Having ever experienced homelessness, more than HIV Seropositive Status, is Linked to Higher PhenoAge in Women from the BCC3 Cohort in British Columbia

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Background: Recent studies show higher mortality in women vs. men living with HIV in British Columbia (BC), although drivers of the mortality gap, whether socio-structural, biological, or HIV-related, are not fully elucidated. PhenoAge is a biological age estimator that reflects health status and mortality risk better than chronological age. We evaluated PhenoAge, stratified by HIV status and by lifetime experience of homelessness, both reported predictors of adverse health outcomes.

Methods: BCC3 is a cohort enrolling socio-demographically similar women aged ≥16y, living with and without HIV in BC. PhenoAge(y), based on 9 blood measures (cell counts, metabolism, C-reactive protein), was calculated using survey data and clinical laboratory results. Lifetime history of homelessness was self-reported. Descriptive statistical analyses employed Spearman's correlation, Mann-Whitney, and Wilcoxon tests.

Results: This analysis included 493 women recruited between Dec 2020-July 2024 (40% living with HIV; median [IQR] age 48[37-57]y). PhenoAge was strongly correlated with chronological age (rho=0.88, p<0.0001). Women living with HIV (WLWH) (n=196, 87% HIV undetectable) were older than controls (n=297); 49[41-58] vs 46[33-57]y, p=0.005. Median PhenoAge and chronological age were similar in WLWH (50[40-60] vs 49[41-58]y, p=0.92), but differed slightly in controls (45[31-58] vs 46[33-57]y, p=0.001). Women who experienced homelessness ever, representing 39% of the cohort (n=193; 87 WLWH and 106 controls), were older than those who did not (51[42-58] vs 47[32-57] y, p=0.001), and median PhenoAge was 2y higher than chronological age (53vs51, (p<0.0001). The opposite was true for women with no experience of homelessness, for whom PhenoAge was 3y lower than chronological age (44vs47, p<0.0001).

Conclusions: In this cohort of women with high rates of adverse life experiences, having a history of homelessness was associated with older PhenoAge, while living with HIV itself showed little difference. This reinforces the need to consider social context when investigating aging biomarkers, especially in more vulnerable populations.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Healthy Aging and the Care Continuum / Thème : Vieillir en santé et continuum de soins

Abstract #140

HIV Care Cascade and Longitudinal Engagement Over Five Years in the Quebec HIV Cohort

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Background: HIV care cascades demonstrate progress towards UNAIDS targets but may not fully capture dynamic and long-term outcomes. Using data from the Quebec HIV Cohort (QHC), we examined cascade and longitudinal patterns of care engagement, viral suppression (VS), and loss to follow-up (LTFU) over five years.

Methods: The QHC includes 12939 people receiving HIV care at six clinics across Quebec since early pandemic. We here included individuals with ≥1 HIV viral load (VL) reported in 2017-2023. Cascade variables were defined as: "engaged in care" (≥1VL measurement within a year), "on antiretroviral therapy (ART)" (prescribed ART before/during the year), "VS" (VL <200 copies/mL at last measurement of year). For longitudinal analyses, individuals were assigned mutually exclusive annual statuses: "New patient" (regardless of VL), "VL<200", "No VL but stable" (no VL that year but VS documented before and after), "VL>200", "Moved", "Died", and "LTFU" if none of previous applied.

Results: A total of 8882 people living with HIV were engaged in care at some point between 2018 and 2023. Among those engaged in care, ART coverage was 98% (95%CI:97-98) in 2018 and 98% (95%CI:98-98) in 2023. Of those on ART, VS was achieved by 97% (95%CI:96-97) in 2018 and 97% (95%CI:97-98) in 2023. Stratified cascade analyses for 2023 showed VS below 95% among individuals aged <30 years; of Indigenous ethnicity; with a lifetime history of injection drug use; and those with vertically acquired HIV. Annually, 242-427 new patients entered the cohort, 5-15% of people with VS in the previous year were LTFU, while 11-22% of those LTFU were re-engaged after a median of 2 years (range 1-5).

Conclusion: High ART coverage and VS were observed using cross sectional cascades, yet longitudinal analyses demonstrated frequent transitions into and out of care. Integrating longitudinal measures provide a more complete understanding of HIV care continuity.

Clinical Sciences Oral Abstract Session / Sciences cliniques présentation orale d'abrégés

Theme: Healthy Aging and the Care Continuum / Thème : Vieillir en santé et continuum de soins

Abstract #157

Health Care Provider Perspectives and Knowledge of Home and Continuing Care Pathways for Older People Living with HIV

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Background: Healthcare providers (HCPs) are key to supporting older adults living with HIV as health needs become more complex with age. They often identify changing needs, initiate conversations about home care and continuing care, and help patients navigate referrals, eligibility, and privacy or safety concerns. We explored HCP perspectives on continuing care services for older adults living with HIV in Alberta.

Design: We used purposive sampling to recruit 14 HCPs with current or past experience caring for older people living with HIV through the Southern Alberta Clinic (SAC). Semi-structured interviews were analyzed thematically using a framework approach informed by the 2024 Alberta Quality Matrix for Health (accessibility, acceptability, appropriateness, effectiveness, safety, efficiency).

Setting: Southern Alberta Clinic (SAC), Calgary, Alberta, Canada.

Participants: Fourteen HCPs (physicians, nurses, social workers) and community-based organizing staff involved in care for PLWH aged ≥50 years.

Results: Across interviews, providers most often emphasized efficiency, safety, and effectiveness, using limited resources well, protecting confidentiality and privacy, and supporting strong outcomes. Appropriateness and acceptability were also prominent, with attention to respectful, relevant, evidence-informed care aligned with older patient needs. Familiarity with home care and continuing care pathways differed by role: physicians, social workers, and community workers described distinct responsibilities and levels of involvement in referral and navigation.

Discussion/Conclusions: HCPs described quality largely in clinical terms, using limited resources carefully, reducing risk, and delivering evidence-informed care to support optimal? outcomes. Accessibility was discussed less often, highlighting an opportunity to improve access considerations in routine care planning. Attending to these perspectives alongside patient priorities can guide practical changes that improve access to home care and continuing care while prioritizing patient-centred clinical processes.

Clinical Sciences - Poster Abstracts / Sciences cliniques - Abrégés affiches

Abstract #1

HIV Care and Treatment Among ACB Women in Toronto, Ontario

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Background;

African, Caribbean, and black (ACB) women in Ontario, particularly Toronto, are disproportionately affected by HIV. Although ACB communities represent less than 5% of Ontario's population, they accounted for 25% of new HIV diagnoses in 2015. Despite advances in antiretroviral therapy(ART), systemic barriers such as stigma, racism, immigration challenges, and socioeconomic exclusion continue to limit equitable access to HIV care and treatment.

Methods:

A mixed- methods study was conducted in Toronto between 2022-2024
Quantitative: Surveys of n=250 ACB women living with HIV measured ART uptake viral suppression, and healthcare access.
Qualitative: In- depth interviews with n= 40 participants explored stigma, disclosure, and lived experiences in healthcare.
Data were analyzed using descriptive statistics and thematic analysis.

Results:

ART Uptake: 21/250 women (84%) reported current ART use
Viral Suppression: 175/250(70%) achieved viral suppression (,<200 copies/ml).
Barriers to Care:
60% reported HIV -related stigma
45% experienced racism in healthcare settings
30% faced economic barriers (housing instability, unemployment).
Disclosure & support: Only 40% felt comfortable disclosing HIV status to family/friends. Peer-based support programs improved care engagement by 25%.
Healthcare Access: 35% reported delay in seeing HIV specialists; 20% missed appointments due to childcare or transportation challenges.

Conclusions:

ACB women in Toronto demonstrate high ART uptake (84%) but lower viral suppression rate (70%) compared to provincial average, Persistent barriers - stigma, racism, and socioeconomic exclusion -limit optimal HIV care outcomes. Community-based, culturally tailored Interventions and peer support models significantly, improve engagement and adherence. Addressing structural inequities is essential to achieving equitable HIV care and treatment for ACB women in Ontario.

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Abstract #9

A Rodgers' Concept Analysis of HIV PEP and PEP-in-Pocket Among Women Globally

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Background
Cis and trans women face increasing rates of HIV, yet prevention medication uptake remains low. While there is literature on PrEP for women, there is less known about post-exposure interventions. Non-occupational post-exposure prophylaxis (PEP) among women is used after sexual assault but not widely used otherwise. PEP-In-Pocket (PIP) is a self-initiated PEP option for infrequent high-risk exposures and could offer increased autonomy over sexual health; yet community perspectives on PIP and uptake remain understudied.

Methods
Rodgers' evolutionary concept analysis was used to examine PEP and PIP among women. A systematic search (January 2012-May 2025) of Ovid, Medline, Emcare, and Global Health identified 30 peer-reviewed studies with disaggregated PEP or PIP data for women. Two reviewers screened and extracted data using Covidence. Rodger's methodology is a flexible, non-linear approach, ideal for examining evolving health concepts using three phases: defining the concept; identifying key attributes, antecedents, and consequences; and interpreting findings to guide future research.

Results
PEP, attributes include reactive use after potential exposure, clinical initiation, and time-sensitive access. PIP was characterized by self-initiation, episodic use, autonomy, and accessibility outside healthcare settings. Shared antecedents include low PrEP uptake, access barriers, and the need for adaptable HIV prevention. PIP-specific antecedents include infrequent but high-risk exposures and a desire for greater individual control, especially for those who cannot /do not engage with healthcare. Consequences of both strategies include reduced HIV acquisition risk and expanded options. Unique to PIP are increased agency, empowerment, and potential to fill critical prevention gaps. Overall, the literature on PIP implementation and awareness was limited.

Conclusions
PEP and PIP are promising HIV prevention strategies that support autonomy and timely access to care but remain underused. This analysis identifies significant gaps in research and implementation, underscoring the need for further investigation to advance equitable, women-centered HIV prevention.

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Abstract #10

Prevention in Principle and Gaps in Practice: Canadian Provider Attitudes Toward HIV Prevention Among Women

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BACKGROUND:
Reducing new HIV infections among women requires increased offering and uptake of HIV prevention medications from providers. We assessed provider-level awareness and practices related to HIV prophylaxis for women.

METHODS:
We conducted a cross-sectional survey study of attitudes and offerings toward HIV prophylaxis among nurse practitioners (NP), family physicians and obstetricians/gynecologists in Canada (May 2023-December 2024). Participants were identified through networks, organizations, and fax databases. Survey questions examined practice characteristics, HIV knowledge, prevention familiarity and prescribing practices for women. Respondents rated their knowledge and familiarity with PrEP/PEP on a 5-point Likert scale. Barriers to prescribing, including gender-related factors were explored using multiple-choice/select-all-that-apply questions.

RESULTS:
149 surveys were initiated with 114 (95.8%) completed and included in the analysis. Most specialized in primary care: 51 NPs (46%) and 34 physicians (30%). 23% (SD: 29%) reported caring for those at high-risk for HIV. In the past year, respondents reported a mean of 45 (SD: 221) patient inquiries about HIV prevention, 50 (SD: 226) counselling instances, and 76 (SD: 409) HIV prophylaxis prescriptions. Respondents felt knowledgeable (rating 4/5) about HIV transmission (74%), risk factors (79%), and medication-based prophylaxis (73%). Despite 78% of respondents indicating familiarity with PrEP (ratings of 3-5), when asked about their willingness to prescribe, 17% reported avoiding prescribing, with 54% prescribing only when asked. The main prescribing barrier was provider knowledge and comfort (59%). Despite 74% of respondents indicating familiarity with PEP (ratings of 3-5), 50% refereed patients elsewhere. Notably, 67% were more likely to discuss HIV prevention with men than women, and 90% felt medical education focused on HIV prevention for women could improve access.

CONCLUSIONS:
Limited provider knowledge remains a key barrier to prescribing HIV prevention for women. Educational interventions and provider-level guidance should address hesitations and knowledge gaps to reduce bias and discomfort.

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Abstract #11

Receipt of mpox vaccine among gay, bisexual, and other men who have sex with men living with HIV: Findings from the Ontario HIV Treatment Network Cohort Study

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Background: Gay, bisexual, and other men who have sex with men (GBMSM) have experienced a disproportionate burden of the mpox outbreak that started in 2022. GBMSM who meet the eligibility criteria (i.e., sexually transmitted infection [STI] in the past year, have two or more sexual partners, and attend venues for sexual contact, or have anonymous sex) were prioritized for publicly funded mpox vaccination (two-dose series). We identified factors associated with receipt of mpox vaccine among GBMSM living with HIV and receiving HIV care in Ontario.

Methods: Using annual questionnaires (2023-2024) from the Ontario HIV Treatment Network Cohort Study (OCS), we measured self-reported receipt of mpox vaccine. We used a modified Poisson regression to calculate prevalence ratios and 95% confidence intervals adjusted for age, education, and OCS site in the entire sample and a subset who were eligible for publicly funded vaccination.

Results: Of the 1518 GBMSM included in the sample (median age: 58 years; 72% white; 66% born in Canada; 73% in Toronto area), 607 (40.0%) had received ≥1 dose; among one-dose recipients, 330 (54.4%) completed the two-dose series. There was higher receipt of mpox vaccine (≥1 dose) among GBMSM who were born in Canada, received care in Toronto or Ottawa, had CD4 cells count of ≥500 cells/mm3, had higher income, used recreational drugs, were concerned about mpox, had been diagnosed with a STI, had multiple sexual partners, sought sexual partners from sex venues or using dating apps/websites, and had received other vaccines. Findings were similar among the 576 GBMSM who were eligible for publicly funded vaccination although receipt of ≥1 dose was higher (58.9%) than the entire sample.

Discussion: Tailored strategies that address low risk perceptions, promote equitable vaccine access and uptake, and ensure completion of the two-dose series are needed given the ongoing mpox virus transmission in Ontario.

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Abstract #13

Patient and physician perspectives on using a patient-reported measure (the I-Score) to screen for barriers to HIV medication adherence: qualitative results of a pilot study in Montreal (CTNPT039)

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Background
We developed a 7-item PROM, the I(Interference)-Score, to screen for barriers to HIV medication adherence within seven domains (i.e. habits/activities, thoughts/feelings, social situation, economic situation, medication, care, and health) and report on its feasibility for use in HIV care.

Methods
We conducted a 6-month mixed-method pilot study (CTNPT039) administering the I-Score at three-month intervals via a patient portal at the McGill University Health Centre (Montreal, Quebec). We report its qualitative results. Semi-structured, audio-recorded interviews held with participating people living with HIV (PWH) and physicians underwent content analysis, drawing on the updated Consolidated Framework for Implementation Research, to understand participant experiences.

Results
Twenty-five PWH (40% women, 48% African) and 4 physicians were interviewed (June 8, 2022-October 9, 2025) at 3-months and/or 6-months. Individual interviews with PWH lasted 19 minutes, on average. The three provider group interviews lasted 47-57 minutes. On the I-Score's relative advantages, participants reported that it: "Helps the doctor," "Gives the doctor advance knowledge of their patient," "Eases the sharing of sensitive information", "Fosters greater patient awareness", "Introduces broader issues", "Accounts for change", and "Spurs conversations." However, for some participants, it had "Little to no impact on care." Regarding the I-Score's complexity, participants remarked that it was "Easy" and "Quick to complete" but some noted it "Takes practice." Concerning the I-Score's design, participants found the I-Score questions "Acceptable" but, also "Hard to understand," and that it "Provides limited information" (e.g., given its sole focus on adherence). In terms of need, participants expressed polarized views on the I-Score's relevance (e.g., dependent on patients' level of experience living with HIV, personal struggles with adherence).

Conclusion
Findings suggest overall feasibility and numerous potential benefits of I-Score use, notably, for patient-provider communication. Its lack of perceived impact, relevance and information, for some participants, is consistent with the variable nature of adherence problems.

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Abstract #17

Sexual Activity and Satisfaction of Older Adults Living with HIV- Data from the CHANGE HIV Cohort

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Background: Sexual activity and function decline with age, but positive dimensions are important, and contribute to overall quality of life. We explored the correlates of sexual activity and satisfaction in an aging cohort of persons with HIV in Canada.

Methods: The CHANGE HIV (Correlates of Healthy Aging in Geriatric HIV), is an ongoing prospective cohort of 553 Canadians > 65 years. We evaluated baseline questionnaires regarding sexual activity (oral, anal or vaginal intercourse) and sexual satisfaction (NSSS-s scale, Cronbach's alpha 0.9-.96). Logistic regression determined predictors of reporting sexual activity. Linear regression assessed the relationship between sexual satisfaction and covariates of interest after adjusting for reported sexual activity.

Results: Overall, 399 participants (365 men, 30 women) completed baseline questionnaires on sexual activity. Those completing were more likely white, male and in a steady relationship than those who did not complete the questionnaire. Of those completing, 43% of the men and 8% of the women reported being sexually active in the previous 6 months. On multivariable analysis, for men, the predictors of reporting sexual activity (aOdd's; 95% CI) included lower age (.57; .34-.97), being in a steady relationship (2.27; 1.44-3.59), a having higher healthy aging score (1.16:1.04-1.29). We found no correlation with frailty, stigma, substance use, loneliness, depression, or overall physical activity. After adjusting for being sexually active, linear regression revealed significant relationships ($p<.05$) between sexual satisfaction and HAS, frailty, depression, quality of life, loneliness as well as being physically active.

Conclusion: In this cohort of older adults less than half the men and only 8% of women reported being sexually active. Increased sexual satisfaction was associated with higher physical and mental health scores and with overall improved quality of life. Sexual activity and sexual satisfaction are important components of healthy aging in persons with HIV and should be routinely assessed.

Clinical Sciences - Poster Abstracts / Sciences cliniques - Abrégés affiches

Abstract #31

The Canadian Alliance for Transplant-related Cures in HIV (CATCH): a pan-Canada network for monitoring HIV cure following allogeneic hematopoietic stem cell transplantation

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Background: Antiretroviral therapy has transformed HIV infection into a manageable condition, but it cannot eliminate long-lived HIV reservoir cells. While rare HIV cures have been achieved through allogeneic hematopoietic stem cell transplantation for blood cancers, until recently it was believed such cures required donors who are homozygous for the CCR5-delta32 mutation that confers resistance to infection by most HIV strains. However, two recent HIV cures achieved with CCR5-delta32 heterozygous, or wild-type donors have overturned this paradigm, and indicate that transplant-related cures can occur through mechanisms beyond CCR5-mediated resistance. This also raises the possibility that undetected transplant-related HIV cures may have already occurred in Canada.

Objectives: We are establishing CATCH (Canadian Alliance for Transplant-related Cures in HIV), a pan-Canada network of people living with HIV including individuals with transplant experience, community organizations, researchers, clinicians, testing laboratories, and health service providers to monitor and investigate potential HIV cures following allogeneic hematopoietic cell transplantation.

Methods: CATCH has four objectives: (1) to extend existing transplant-related HIV cure research protocols to additional Canadian sites and expand these to recruit people with HIV who previously underwent allogeneic hematopoietic cell transplantation; (2) to engage community and individuals with living experience; (3) to validate a CCR5-delta32 genotyping assay to enable screening of Canadian hematopoietic cell donors, eliminating the current need to seek international donors when CCR5 genotype is sought; and (4) to form an expert panel to develop clinical guidance for pre-transplant assessment and post-transplant monitoring, including treatment interruption criteria.

Progress/Impact: CATCH is a coordinated Canadian response to an exciting new development in transplant-related HIV cure research. CATCH will enhance clinical care for people with HIV undergoing allogeneic hematopoietic cell transplantation, improve Canadian donor utilization through national CCR5 genotyping capacity, and ensure Canada's continued international leadership in HIV cure research. Participants are already being enrolled at four sites.

Clinical Sciences - Poster Abstracts / Sciences cliniques - Abrégés affiches

Abstract #48

Do People with HIV and Care Providers Agree on the Key Patient-Reported Outcomes to Monitor in HIV Care? Preliminary Results of a Core Outcome Set Project in Montreal, Quebec

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Background: We are creating a core outcome set of patient-reported outcome (PRO) measures for use in HIV care. Phase 1 involves outcome selection through a 2-round Delphi with two expert panels: people with HIV and healthcare/social service providers.
Objective: To describe outcomes reaching consensus in both panels at Round 1 and evaluate differences in panel ratings of outcomes attaining consensus in at least one panel.

Methods: Between August 2024-July 2025, adults with HIV and providers recruited in Montreal completed an online survey. They evaluated the importance of 14 broad outcome domains and 72 specific outcomes for a hypothetical annual patient questionnaire for HIV care. Panelists rated each from 1 to 3 (1=Not important enough;2=Important but not critical;3=Critical). 'Core' outcomes needed to meet these consensus criteria: >70% responding 3 and <15% responding 1, in each panel. Differences in rating distributions between panels were evaluated with Chi-square or Fisher's exact tests, as appropriate.

Results: Round 1 included 45 people with HIV and 36 providers. Overall, 7/14 outcome domains and 9/72 specific health outcomes qualified as 'core' (see Table 1, in bold). Twenty other outcomes unequally reached consensus (10 per panel). For a few outcomes (n=6), importance score distributions differed significantly.

Conclusion: Both panels agreed on a set of PROs that matter most for HIV care follow-up. However, people with HIV alone reached consensus on more mental health, stigma, self-management and quality of life outcomes, while providers did so on more outcomes tied to substance use, symptoms, physical health, and socioeconomic issues.

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Table 1. Domains and specific outcomes reaching consensus in at least one Delphi panel and results of evaluating differences in their score distributions.

Domains and specific outcomes	Panel (n = 81)		P-value*
	People w/ HIV	Providers	
Mental health (domain)	**84%**	**89%**	n.s.
• **Depression symptoms**	**80%**	**89%**	n.s.
• **Anxiety symptoms**	**71%**	**72%**	n.s.
• Stress symptoms	73%	39%	0.004
• PTSD symptoms	71%	56%	0.097
• Distress symptoms	62%	72%	n.s.
• Psychological wellbeing	76%	33%	<0.001
• Suicide risk	69%	86%	n.s.
• Psychosocial illness impact	73%	69%	n.s.
Substance use/abuse (domain)	**76%**	**86%**	n.s.
• **Drug use/misuse**	**73%**	**89%**	n.s.
• Alcohol use/misuse	53%	75%	n.s.
Perceived symptoms (domain)	**87%**	**83%**	n.s.
• **HIV-related symptoms**	**80%**	**83%**	n.s.
• Physical symptoms	67%	75%	n.s.
• Perceived side effects	64%	89%	0.031
Sexual/ reproductive health (domain)	**71%**	**83%**	n.s.
• Sexual behavior/activity	69%	81%	n.s.
• History of STIs	80%	61%	n.s.
Physical health (domain)**	69%	81%	n.s.
Self-management (domain)	78%	68%	n.s.
• **Adherence to medication**	**80%**	**86%**	n.s.
• **Adherence barriers**	**73%**	**97%**	0.008
• Health self-management	71%	58%	n.s.
Treatment-related perceptions (domain)	**76%**	**78%**	n.s.
• **Treatment burden**	**73%**	**81%**	n.s.
• Treatment satisfaction	64%	81%	n.s.

HIV stigma (domain)	**82%**	**72%**	n.s.
• HIV stigma	71%	69%	n.s.
• HIV status disclosure	73%	68%	n.s.
Socioeconomic issues (domain)	68%	75%	n.s.
• Food insecurity/nutritional risk	49%	75%	0.020
• Quality of life***	73%	50%	0.045

*Alpha set to p ≤ 0.05. **No specific outcome of this domain reached consensus in either panel. ***The domain of this specific outcome (Quality of life) did not reach consensus in either panel. n.s. = nonsignificant. Bold identifies outcomes meeting initial criteria for the core set. Yellow highlighting indicates that only the panel of people with HIV reached consensus on the outcome, while teal highlighting indicates that only the panel of providers did.

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Abstract #52

Five-year extended follow-up of the observational BICSTaR cohort: Final analysis in people with HIV (PWH) receiving bictegravir/emtricitabine/tenofovir alafenamide (B/F/TAF) in routine clinical practice

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Purpose: BICSTaR is a 2-year, multicountry observational cohort study of B/F/TAF in treatment-naïve (TN) and treatment-experienced (TE) PWH. Follow-up was extended by 3 years (for a total of 5 years) in Canada, France, and Germany to assess long-term effectiveness and tolerability of B/F/TAF in routine clinical practice.

Methods: The final 5-year data (60 months [M]) for PWH enrolled in the three countries were pooled. Outcomes included virologic effectiveness (HIV-1 RNA <50 copies/mL; missing=excluded), immunologic outcomes, quality of life (QoL; HIV Symptom Index [HIV-SI] bothersome symptoms and 36-Item Short Form Health Survey mental/physical component summary [M/PCS] scores), treatment satisfaction (HIV Treatment Satisfaction Questionnaire [HIVTSQ]), safety (drug-related adverse events [DRAEs], metabolic and renal parameters), and resistance.

Results: Of 823 (132 TN; 691 TE) PWH included, 493 (79 TN; 414 TE) entered the extension phase. At baseline, median age was 39 (TN) and 49 (TE) years (26.5% and 48.6% were aged ≥50 years, respectively); 63.6% TN and 84.1% TE participants had comorbidities. At 60M, 97.9% (47/48) of TN and 96.8% (306/316) of TE participants were virologically suppressed. Median CD4 cell count and CD4/CD8 ratio increased from baseline. At 60M, HIV-SI overall bothersome symptom count remained low. MCS and PCS scores improved from baseline, except a small decrease in PCS score in TE participants, and HIVTSQ scores were high with B/F/TAF. Changes in metabolic and renal parameters were small. Through 60M, DRAEs occurred in 18.9% (25/132) of TN and 14.6% (101/691) of TE participants, leading to B/F/TAF discontinuation in 5.3% and 7.7%, respectively. No treatment-emergent resistance to B/F/TAF was reported.

Conclusion: Through 5 years of follow-up, B/F/TAF was highly effective, generally well-tolerated, and associated with improvements in QoL and treatment satisfaction. These results further support long-term B/F/TAF use across a range of PWH and are consistent with data from other settings.

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Abstract #53

Demographic and clinical characteristics of Phase 3 participants in ARTISTRY-1, an open-label study comparing a bictegravir/lenacapavir (BIC/LEN) single tablet regimen (STR) with complex antiretroviral therapy (ART) regimens

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Purpose: People with HIV (PWH) who require complex ART regimens due to resistance, intolerance, or drug–drug interactions may benefit from regimen optimization. ARTISTRY-1 is evaluating switching from complex regimens (CRs) to a BIC/LEN STR, with the aim of optimizing treatment for PWH who are virologically suppressed (VS) on CR. Here, we describe baseline demographics and clinical characteristics of this Phase 3 population with an unmet clinical need.

Methods: ARTISTRY-1 (NCT05502341) is an ongoing, randomized, open-label, global, multicenter Phase 2/3 study. In Phase 3, participants who were VS on CR (≥6 months prior to screening) were randomized 2:1 to switch to an STR of BIC/LEN (75/50 mg) or continue their CR. The primary endpoint is HIV-1 RNA ≥50 copies/mL (FDA Snapshot) at Week 48.

Results: In Phase 3, 557 participants were enrolled and treated. At baseline, median age was 60 years; >66% had at least one comorbidity; median HIV treatment duration was 28 years; many had extensive treatment experience and multi-class resistance as evident by the diversity of baseline CRs shown in the Figure. Median (range) number of pills per day was 3 (2–11); 39% of participants had a twice-daily dosing frequency.

Conclusion: At baseline, ARTISTRY-1 Phase 3 participants who were VS on CR were predominantly aged >50 years, with a high rate of comorbidities, extensive HIV treatment experience, multi-class resistance, and high pill burden; nearly three-quarters were on a PI-containing regimen. This population could benefit from treatment optimization by switching to a BIC/LEN STR.

Abstract #55

A Phase 4 Study to Evaluate the Safety and Efficacy of Oral B/F/TAF After Discontinuing Injectable CAB + RPV

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Background: People with HIV-1 (PWH) on injectable cabotegravir + rilpivirine (CAB+RPV) may switch back to oral therapy for various reasons. Bictegravir (BIC)/emtricitabine/tenofovir alafenamide (B/F/TAF) is a guideline-preferred once-daily oral regimen, but the overlap of the two integrase inhibitors, CAB and BIC, has not been evaluated.

Methods: This prospective, single-arm, open-label, interventional Phase 4 study (NCT06104306) included PWH who chose to switch from every-2-month CAB+RPV, having maintained HIV-1 RNA <50 copies(c)/mL for ≥6 months at screening, to daily B/F/TAF due to intolerance, adverse events (AEs), or personal preference. Coprimary endpoints were the proportion of participants experiencing treatment-emergent Grade 3/4 study drug–related AEs and Grade 3/4 laboratory abnormalities through Week (W)12. Secondary endpoints included the proportion of participants with HIV-1 RNA ≥50 c/mL at W12, and the proportion of participants discontinuing B/F/TAF by W12.

Results: Twenty-nine participants from North America switched to B/F/TAF around the time of their next scheduled CAB+RPV dose (see Table for demographics and baseline characteristics, and key safety and efficacy data). The most common reason reported for switching from CAB+RPV to B/F/TAF was side effects (55.2%). No participants experienced treatment-emergent Grade 3/4 study drug–related AEs and one experienced treatment-emergent Grade 3/4 laboratory abnormalities, deemed unrelated to study drug, through W12. One participant had HIV-1 RNA ≥50 c/mL at W12. One participant discontinued B/F/TAF by W12 for reasons other than efficacy/safety (they moved away).

Conclusions: These safety and efficacy data support switching from injectable CAB+RPV to oral B/F/TAF when needed or desired.

Supporting Document

Table: Demographics and Baseline Characteristics, and Key Safety and Efficacy Data

	B/F/TAF (N = 29)
Demographics and Baseline Characteristics	
Age, years, median (IQR)	46.0 (34.0-58.0)
Male sex at birth, n (%)	20 (69.0)
Race, n (%) White Black Other	 16 (55.2) 6 (20.7) 7 (24.1)
Ethnicity, n (%) Not Hispanic/Latine Hispanic/Latine	 18 (62.1) 11 (37.9)
BMI, kg/m^2, median (IQR)	29.2 (26.0-32.6)
HIV-1 RNA, n (%) < 50 c/mL ≥ 50 c/mL	 27 (93.1) 2 (6.9)
CD4 count/μL, mean (SD) ≥500 cells/μL, n (%) ≥350-499 cells/μL, n (%) ≥200-349 cells/μL, n (%) <200 cells/μL	705 (251.4) 23 (79.3) 5 (17.2) 0 1 (3.4)
Previously switched from B/F/TAF to CAB + RPV, n (%)	12 (41.4)
Duration of time on CAB + RPV, years, median (IQR)	1.1 (0.4-1.8)
Time between last CAB + RPV dose and B/F/TAF initiation, days, median (IQR)	55 (49-57)
Primary Endpoint Results	
Grade 3 or 4 treatment-emergent AEs related to study drug through W12, n (%)	0
Participants with Grade 3 or 4 treatment-emergent laboratory AEs through W12, n (%)	1[a] (3.6)
Secondary Endpoint Results	
HIV-1 RNA <50 c/mL at W12 (M=E), n/N (%)	26/26 (100)
HIV-1 RNA ≥50 c/mL at W12 (M=E), n/N (%)	0/26
HIV-1 RNA <50 c/mL at W12 (D=F), n/N (%)	26/27 (96.3)
HIV-1 RNA ≥50 c/mL at W12 (D=F), n/N (%)	1/27[b] (3.7)
Study drug premature discontinuation by W12, n/N (%)	1/29[c] (3.4)

[a]Grade 3 decrease in neutrophils and WBCs.
[b]Two were excluded from Week 12 D=F analysis, 1 had missing HIV-1 RNA in Week 12 while on study drug B/F/TAF and another discontinued the study but remained on commercial B/F/TAF.
[c]Due to participant decision: 1 moved away and was no longer able to participate.
AE, adverse event; B/F/TAF, bictegravir/emtricitabine/tenofovir alafenamide; BMI, body mass index; c, copies; CAB + RPV, cabotegravir + rilpivirine; CD, cluster of differentiation; D=F, discontinuation = failure; IQR, interquartile range; M=E, missing = excluded; SD, standard deviation; W, Week; WBC, white blood cell.

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Abstract #58

The Interplay of Comorbidity, Disability, and Physical Activity among Older Adults Living with HIV: Insights from the CHANGE HIV Study

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Objectives: Comorbidities may result in health-related challenges, known as disability, among people living with HIV. Rehabilitation strategies such as physical activity may help to mitigate disability. Our aim was to characterize comorbidity profiles and examine their relationships with disability and physical activity among a cohort of older adults living with HIV in Canada.

Methods: We conducted a cross-sectional analysis of data collected from adults living with HIV aged 65 years and older and enrolled in the Correlates of Healthy Aging in Geriatric HIV (CHANGE HIV) study. We examined the presence of 14 comorbidities and performed hierarchical linear regression to assess the associations between number of comorbidities, disability (Stanford Health Assessment Questionnaire Disability Index), and physical activity (Rapid Assessment of Physical Activity Aerobic Scale) while sequentially adjusting for intrinsic (personal attributes) and extrinsic (HIV stigma and social support) contextual factors.

Results: Among the 516 participants (median age=69 years, interquartile range (IQR)=6), most identified as male (90%) and White (77%). Participants reported a median of two comorbidities (IQR=3) in addition to HIV. The most common comorbidities included dyslipidemia (51%), hypertension (45%), history of cancer (28%), diabetes (23%), and arthritis (21%). Diabetes and arthritis were each significantly associated with higher disability scores. Additionally, a greater number of comorbidities was associated with more severe disability ($\rho=0.25$, $p<0.001$). Yet, higher levels of physical activity attenuated the impact of each additional comorbidity on disability, and this moderating effect remained robust after accounting for the influence of intrinsic and extrinsic contextual factors.

Conclusion: Comorbidities are prevalent among older adults living with HIV in Canada and are associated with disability. Physical activity attenuated the negative associations between comorbidity and disability. Routine screening and management of chronic conditions, coupled with tailored physical activity interventions, may have a role in addressing disability among older adults living with HIV.

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Abstract #61

HIV PEP Beyond Specialist Reliance: Educating and Empowering Front-line Clinicians to Prescribe HIV Post-Exposure Prophylaxis (PEP) in Saskatchewan

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Background: In April 2024, Saskatchewan expanded access to HIV PEP by enabling all authorized prescribers, not just specialized HIV/ARV prescribers, to prescribe HIV PEP. This change supported more timely and widespread PEP initiation in emergency and urgent care clinical settings. To support this change, a provincial HIV PEP continuing medical education (CME) group was created to develop educational and clinical resources to empower prescribers in Saskatchewan to provide HIV PEP.

Method: The HIV PEP education group included 8 clinicians from emergency medicine, infectious diseases, pharmacy, and public health. The group was granted approval by the Saskatchewan Health Authority (SHA) to lead the development of an evidence-based Blood and Body Fluid Exposure (BBFE) order set for use in emergency and urgent care settings. Saskatchewan-specific HIV PEP content was developed for the SHA facilitated Firstline mobile application, including resource links, prescribing guidelines and a risk assessment tool. In October 2025, an online CME course, Prescribing HIV PEP in Saskatchewan, was launched alongside the release of the new BBFE order set. A live webinar was delivered that included an HIV PEP overview and demonstration of the use of the BBFE order set and Firstline app.

Results: Between October 1, 2025, and December 31, 2025: The Firstline HIV PEP content was accessed 377 times. 242 people registered to receive the webinar recording (with 133 attending live). The online course enrolled 145 learners, primarily Saskatchewan-based (86%), with 82% (118/145) front-line health care professionals representing 29 provincial communities. A 100% post-course assessment quiz pass rate (87/87) indicates strong comprehension of essential HIV PEP concepts.

Conclusion: The combined approach of developing continuing medical education and clinical resources was used to increase timely HIV PEP initiation and enhance provider readiness. The uptake of educational and clinical resources is empowering prescribers to increase access to HIV PEP in Saskatchewan.

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Abstract #63

Missed Prevention Opportunities: PrEP Gaps and HIV Incidence

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Background: Gaps in pre-exposure prophylaxis (PrEP) uptake, adherence, and persistence can lead to missed opportunities for HIV prevention. Understanding these gaps among newly diagnosed individuals can help inform targeted interventions.

Methods: We conducted a retrospective chart review of 162 individuals newly diagnosed with HIV at a Canadian community-based sexual health clinic between 2022 and 2025. PrEP history and documented offers were assessed to identify missed prevention opportunities. Among the 162 individuals identified as HIV-positive in the chart review, we analyzed 102 who presented at the initial clinic visit without a prior positive diagnosis

Results: Of the 102 new HIV diagnoses, 77 (47.5%) tested positive at their initial visit; all had received a PrEP offer at this initial visit prior to diagnosis; 4 (2.5%) were taking PrEP at diagnosis. Prior PrEP use was documented in 14 (8.6%) individuals who had discontinued before seroconversion, and 6 (3.7%) had multiple prior offers. Only one (0.6%) represented a true missed PrEP offer.

Conclusion: Most new HIV diagnoses were identified either prior to individuals' first clinic visit or at the time of their initial presentation. These findings underscore the need for earlier, risk-informed PrEP initiation, and sustained support to close prevention gaps.

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Abstract #66

Fostemsavir and Lenacapavir Use in Highly-Treatment Experienced Patients: Real World Experience

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Background: Fostemsavir (FOS) and lenacapavir (LEN) are approved in Canada for treating multi-drug resistant HIV in people failing/unable to construct a suppressive regimen. These drugs have differing pharmacologic characteristics which may favour use for management of side effects, drug-drug interactions (DDIs), or adherence challenges, but real-world experience in such scenarios is limited. We describe the clinical characteristics and outcomes of patients who received FOS or LEN in a Canadian clinic setting.

Methods: Retrospective case series of patients attending the Toronto General Hospital Immunodeficiency Clinic, prescribed FOS or LEN outside of a clinical trial, with a minimum of 6 months of follow-up. All participants provided consent.

Results: From October 2021-June 2025, 6 patients (5 male) initiated FOS and 5 patients (4 male) initiated LEN with similar median age (66 vs. 61 years) and duration of antiretroviral therapy (ART) (32 vs. 30 years) between the groups, with a median 3-class drug resistance/patient. Individuals receiving FOS had more comorbidities and comedications versus those receiving LEN (6 vs. 2, and 7.5 vs. 4, respectively). All patients initiating FOS and 2 (40%) initiating LEN were virally suppressed at switch for a median 16.4 (4.1-22.5) and 9.4 (1.9-16.9) years, respectively. All patients initiated FOS to avoid protease inhibitor DDIs, while LEN was initiated for viremia (n=3) or intolerance (n=2). Median optimized susceptibility scores of new regimens were 3 (2-4.5) for FOS and 2 (1.5-2.5) for LEN, with median daily oral ART pill burden of 4 (3-5) and 1 (0-2), respectively. Median follow-up was 31.3 months on FOS and 20.6 (6-36) months/4 (2-7) injections on LEN. All patients achieved/maintained viral suppression.

Conclusion: FOS and LEN are well-tolerated and effective in patients with multi-drug resistant virus. FOS can be used to avoid PI-related DDIs, while twice-yearly LEN injections are appealing for those intolerant/non-adherent to standard oral ART.

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Abstract #67

Patterns of Oral PrEP Adherence and Persistence in Community-Based Care

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Background: Oral pre-exposure prophylaxis (PrEP) is highly effective in preventing HIV, yet its real-world impact is constrained by challenges with adherence and persistence. Addressing these gaps may help highlight areas for improving PrEP engagement and improve prevention outcomes.

Methods: We conducted a retrospective chart review using electronic medical records (EMR)s from a Canadian community sexual health clinic. Data from 3,239 individuals initiating PrEP between 2022 and 2025 were analyzed to assess adherence and persistence. Adherence was defined as obtaining all PrEP refills within a ±14-day window of the expected date, and persistence was defined as continuous engagement in care without a ≥6-month lapse or documented discontinuation. Multivariate logistic regression was applied to identify demographic and behavioral predictors.

Results: Overall, 47.9% of participants remained persistent and 49.8% were adherent. Higher adherence and persistence were associated with older age, self-identification as a gay male, and use of multiple PrEP agents. Individuals reporting exclusively insertive or receptive sexual positioning demonstrated lower engagement. These associations were consistent across both adherence and persistence models.

Conclusion: Key demographic and behavioral factors may influence PrEP engagement in community-based care. Tailored interventions that address these differences are critical to sustaining PrEP use and optimizing HIV prevention outcomes.

Supporting Document

Table 1: Best-subset multivariate regression model for adherence and persistence

Term	OR	95% CI	p-value	OR	95% CI	p-value
		Persistence			**Adherence**	
Age	1.03	1.01, 1.04	**<0.001**	1.03	1.01, 1.04	**<0.001**
Sexual Orientation Bi Pan	0.65	0.48, 0.88	**0.005**	0.67	0.50, 0.91	**0.01**
Sexual Orientation Other Unknown	0.74	0.49, 1.11	0.14			
Rx Category Multiple	7.38	2.91, 24.9	**<0.001**	7.68	3.02, 26.0	**<0.001**
Ethnicity Black	1.39	0.93, 2.10	0.11	1.4	0.93, 2.11	0.1
Mother Tongue Not English	0.81	0.63, 1.03	0.088	0.82	0.64, 1.04	0.094
Has a Family Doctor	0.99	0.79, 1.25	>0.9	0.99	0.79, 1.25	>0.9
Prescription Coverage	1.09	0.87, 1.37	0.5	0.79	0.55, 1.13	0.2
Sexual Practice Top	0.67	0.50, 0.89	**0.005**	0.67	0.50, 0.89	**0.005**
Sexual Practice Bottom	0.7	0.54, 0.92	**0.012**	0.72	0.54, 0.94	**0.015**
Alcohol Ever Yes	0.88	0.62, 1.24	0.5	0.85	0.60, 1.19	0.3
Meth Ever Yes	0.97	0.59, 1.62	>0.9	0.94	0.57, 1.56	0.8
Smoking Ever Yes	0.89	0.69, 1.15	0.4	0.86	0.67, 1.10	0.2
Other Substance Ever Yes	0.83	0.64, 1.06	0.14			
Poppers Ever Yes	1.23	0.96, 1.56	0.1	1.19	0.94, 1.51	0.14
Condom Use	1.07	0.81, 1.41	0.6	0.93	0.75, 1.17	0.6

Abbreviations: CI=confidence interval, OR=odds ratio

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Abstract #71

Material Deprivation and its Sociodemographic and Clinical Correlates Among Treatment-Naïve Migrants with HIV Receiving Free ART: The ASAP Study

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Background
Material deprivation (MD) is linked with poorer HIV clinical outcomes. In Canada, migrants with HIV (MWH) represent a growing population, yet the extent and implications of MD in this group remain underexplored. This study examined the prevalence and nature of MD at Week 4 of antiretroviral therapy (ART) initiation and its sociodemographic and clinical correlates.

Methods
A sub-study analysis was conducted using data from 56 ART-naïve migrants enrolled in the Antiretroviral Speed Access Program (ASAP), a rapid ART cohort at the McGill University Health Centre, Montréal, Canada. MD was measured using a 17-item index, with deprivation defined as reporting ≥2 items. Analyses included Fisher's exact test, Wilcoxon signed-rank test, McNemar's exact test, and correlation coefficients.

Results
At Week 4, 48/56 participants (85.7%) reported MD, most commonly difficulty covering unexpected expenses (49/56, 87.5%), affording dental care (41/56, 73.2%), or buying small gifts (41/56, 73.2%). MD was significantly associated with occupation ($p = 0.027$), with higher prevalence among employed (7/7, 100%) and unemployed (36/40, 90%) participants compared with foreign students (2/5, 40%). MD was also associated with immigration stream ($p = 0.016$), being more frequent among asylum seekers (33/36, 91.7%) and visitors (11/12, 91.7%) than foreign students (3/7, 42.9%). No statistically significant associations were observed between MD and HIV clinical outcomes, although descriptive trends suggested longer times to ART initiation (mean: 19.3 vs. 5.5 days) and viral suppression (mean: 60.8 vs. 45 days) among deprived participants. MD scores declined significantly by Week 48 (median: 7.5 to 4.0; $p < 0.001$), although 67.9% (38/56) remained deprived. Significant improvements were observed in five MD items spanning financial, social, and nutritional domains ($p < 0.05$).

Conclusion
MD was highly prevalent and persistent among MWH initiating ART. Although MD improved over time, its continued burden underscores the need to address material needs alongside HIV care.

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Abstract #76

Post-Exposure Prophylaxis (PEP) Use Among Individuals Prescribed PrEP

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Background: Post-Exposure Prophylaxis (PEP) provides critical HIV prevention for individuals at risk, particularly when PrEP adherence or persistence is suboptimal. Examining PEP use can identify gaps in ongoing PrEP engagement.

Methods: We conducted a retrospective chart review of PEP requests among 3,239 individuals who had previously been initiated on PrEP at a Canadian community-based sexual health clinic between 2022 and 2025. Prescription patterns and PrEP adherence or persistence among PEP recipients were assessed. Adherence was defined as obtaining all PrEP refills within a ±14-day window of the expected date, and persistence was defined as continuous engagement in care without a ≥6-month lapse or documented discontinuation.

Results: During the study period, 100 PEP requests were documented. Of these, 48 received a PEP prescription, and 41 of those individuals who received a PEP prescription were categorized as either non-adherent to PrEP or non-persistent. No HIV seroconversions were documented among any of the individuals requesting PEP.

Conclusion: PEP use among individuals prescribed PrEP highlights adherence and persistence gaps. These findings underscore the need for improved PrEP engagement strategies, tailored adherence support, and proactive follow-up care to maximize HIV prevention in community-based settings.

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Abstract #88

Clinical Characteristics and HIV Care Timelines Among Newly Enrolled Patients at a Montreal Tertiary Clinic

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Background: Timely progression through the HIV care continuum, from diagnosis to viral suppression, improves health outcomes and prevents transmission. This study describes care continuum and clinical characteristics among newly registered patients at the Chronic Viral Illness Service (CVIS), McGill University Health Centre (MUHC) in Montreal.

Methods: This retrospective cohort study used electronic medical records of adults (n=682) newly enrolled at the CVIS, MUHC, between 2022 and 2024. Information collected at first visit included sociodemographic and clinical data: diagnosis status, viral load (VL) and CD4 counts. Median time (days) and interquartile ranges (IQR) were calculated between continuum milestones, stratified by diagnosis type (new or previous).

Results: Of the 682 patients, 34% were women (n=232/682) and median age was 37.7 years old. Most were migrants (96%, n=652/682). 40% (n=274/682) had a new HIV diagnosis. Of those newly diagnosed, most (85%, n=234/274) had a detectable VL, with 28% (n=65/234) having a VL > 100 000 copies/mL; half (n=137/274) had CD4 counts ≤350 cells/mm³. For those previously diagnosed, majority had undetectable VL (80%, n=326/408) and CD4 counts >350 cells/mm³ (75%, n=308/410).
Timelines differed by diagnosis status (Table 1). Newly diagnosed patients had longer median intervals from entry into Canada to viral suppression than those previously diagnosed, though both groups initiated ARV rapidly once seen by a physician.

Conclusions: 96% of all newly enrolled patients were migrants. Delays in the HIV care continuum were more pronounced before linkage to care and between ARV prescription and viral suppression, highlighting key opportunities to improve timely engagement.

Supporting Document

Table 1. Median time (days) between continuum milestones by diagnosis status, CVIS, MUHC, 2022-2024

Continuum Step	New Diagnosis - Median days (IQR) (n=274)	Previous Diagnosis - Median days (IQR) (n=408)
Entry into Canada to 1st CVIS visit (n=262, n= 380	64 days (IQR 40-94.5)	53 days (IQR 29-160)
1st CVIS visit (nurses)* to 1st physician visit (n= 274, n= 408)	14.0 days (IQR 5-25)	13.5 days (IQR 0-27)
1st physician visit to antiretroviral prescription (n= 263, n= 406)	0.0 days (IQR 0-0)	0.0 days (IQR 0-0)
ARV prescription to viral suppression** (n=210, n=70)	56.5 days (IQR 42-77.8)	49 days (IQR 35-66.5)

**Note: CVIS nurse visit represents the first clinical contact in care. **Calculated only among patients presenting with a detectable VL at first visit.*

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Abstract #91

Cabotegravir Injections Are More Acceptable Than Lenacapavir Injections Following a Single Dose: Results From CLARITY, a Randomized Crossover Study of Long-Acting Injectable Antiretrovirals

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Purpose: Differences in injection site reaction (ISR) acceptability and tolerability are important considerations when choosing long-acting injectable (LAI) antiretrovirals. The CLARITY study (NCT06970223) was designed to provide detailed insights into ISRs and the acceptability, tolerability, and preference of single-dose cabotegravir (CAB) IM and lenacapavir (LEN) SC injections.

Methods: CLARITY is an open-label, randomized crossover study (CAB IM and LEN SC, 1 dose each) in 63 adults without HIV-1. The primary endpoint was participant-reported local reaction acceptability 7 days after injection using the Perception of Injection (PIN) questionnaire. Participants (n=60) and healthcare providers (HCPs; n=7) also completed preference questionnaires. Additional endpoints evaluate investigator-assessed ISR incidence, severity, duration, and imaging through a 6-month follow-up. Here we report primary endpoint and preliminary data on ISRs up to 21 days after administration of each drug.

Results: A diverse group of 63 participants were enrolled (33% female; mean age, 48 years). Based on PIN acceptability domain scores, participants perceived CAB injections as more acceptable (75% “totally” or “very acceptable” with CAB vs 57% with LEN). After both drugs were administered, participants and HCPs preferred CAB (90% participants; 86% HCPs) versus LEN (10% participants; 14% HCPs). After receiving both doses, ISR profiles showed LEN ISRs were more frequent (LEN, n=540 vs CAB, n=117) and participants experienced more visible ISRs (induration 86% vs 21%, nodules 74% vs 18%, erythema 58% vs 10%, and swelling 57% vs 34% in LEN and CAB, respectively). No serious adverse events were reported.

Conclusions: The CLARITY study found clinically relevant differences in ISR acceptability and tolerability favoring CAB over LEN injections after 1 dose of each drug. LEN injections led to more frequent and visible ISRs with participants and HCPs preferring CAB. These data are important in empowering individuals and their HCPs to make fully informed decisions regarding LAI antiretrovirals.

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Abstract #99

Assessing Healthcare Provider Perspectives on Doxycycline as Bacterial STBBI PrEP/PEP for 2S/GBTQ People in British Columbia

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BACKGROUND: 2S/GBTQ people continue to face disproportionate rates of STBBIs in Canada. Evidence supports the use of doxycycline as pre- or post-exposure prophylaxis (doxy PrEP/PEP) to prevent bacterial STBBIs among 2S/GBTQ people, particularly syphilis and chlamydia. In December 2023, British Columbia (BC) implemented a provincially funded public doxy PEP program linked to the BC HIV PrEP and Treatment Programs. We aimed to identify key priorities and lessons learned from early implementation of doxy PrEP/PEP among community-embedded healthcare providers (HCPs) in BC.

METHODS: Peer researchers were trained to co-lead all phases of the study, including recruitment, data collection, and analysis. HCPs delivering 2S/GBTQ-focused sexual health care and/or involved in doxy PrEP/PEP implementation in BC were recruited. Between December 2024 and June 2025, peer-led, in-depth interviews with 21 HCPs were conducted, audio-recorded, transcribed, and analyzed using the Consolidated Framework for Implementation Research.

RESULTS: Key themes included: (1) the need for enhanced HCP training, stronger partnerships with community-based organizations, and clearer doxy PrEP/PEP clinical guidelines; (2) increasing HCP confidence in prescribing doxy PrEP/PEP and improving knowledge of 2S/GBTQ health; (3) implementation challenges related to linking doxy PrEP/PEP to BC's centralized HIV PrEP/Treatment Programs; (4) benefits of a province-wide program to increase access for 2S/GBTQ people, particularly in rural BC; and (5) HCP observations of fewer cases of syphilis and chlamydia following doxy PrEP/PEP use, supporting continued promotion of the intervention.

DISCUSSION: This study provides early, practice-informed insights into integrating doxy PrEP/PEP within existing STBBI prevention, testing, and treatment services in BC. Key priorities include enhancing HCP support and training, tailoring health promotion messaging for 2S/GBTQ communities, leveraging existing STI prevention infrastructure, addressing access gaps for underserved populations (e.g., rural communities), and exploring pharmacy prescribing, online platforms, and delivery models. Lessons from BC's early implementation may inform broader doxy PrEP/PEP rollout across Canada.

Abstract #126

Accuracy of Self-reported Lipid Status Among Women Living With and Without HIV in British Columbia (BC)

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Objective
In Canada, approximately half of patients aged ≥40 years seen in primary care have dyslipidemia. Women living with HIV have a higher risk of both dyslipidemia and cardiovascular disease than women without HIV. Hence, it is important women be aware of their lipid levels. Here, we assessed accuracy of self-reported lipid status among women living with and without HIV.

Methods
We conducted a cross-sectional analysis of 604 nonpregnant female participants ≥16 years of age (275 women living with HIV and 329 women without HIV) in BC and enrolled in the BCC3 study between December 2020-2024. Clinical designation of dyslipidemia was positive if participants a) were taking lipid medication, or b) had dyslipidemia based upon interpretation of clinical lipid values according to current Canadian guidelines. Self-report lipid status was extracted from answers to the study question "Has a doctor ever told you that you have high cholesterol?" Univariate analysis used Wilcoxon rank-sum and Chi-square tests for continuous and categorical variables, respectively. Multivariable logistic regression included variables with $p<0.2$ univariably to estimate an adjusted odds ratio (AOR).

Results
In this cohort, 141/604 women self-reported having dyslipidemia, while 271/604 had dyslipidemia according to laboratory measures. 68.9% of participants self-reported lipid status accurately. Younger participants (AOR: 1.16 (1.01-1.33) per year of age, $p=0.004$, those with lower body mass index (BMI) (AOR: 1.06 (1.03-1.08), $p<0.001$), and African/Caribbean/Black women (AOR: 2.34 (1.15-4.97), $p=0.03$) were more likely to accurately report lipid status. HIV status was not associated with accuracy of self-report.

Conclusion
Results from this cohort suggest that a majority of women knew their lipid status independent of HIV status. However, efforts are needed to improve awareness, particularly among older women with high BMI.

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Abstract #144

Intersecting Barriers: HIV Stigma, Menopause, and Immigration Shaping Access for African, Caribbean & Black Women

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Background:
African, Caribbean & Black (ACB) women remain underrepresented in HIV care and support programs. For those navigating menopause and immigration, intersecting stigmas further limit access and engagement.

Methods:
Community dialogues with ACB women and service providers were analyzed using an intersectional HIV stigma and equity framework.

Results:
Key barriers include persistent HIV stigma and fear of disclosure; lack of culturally informed menopause support contributing to medical mistrust; and immigration-related stressors such as precarious status, financial pressures, and limited social networks.

Conclusion:
ACB women's low uptake reflects structural and stigma-driven inequities, not disengagement. Improving access requires confidential, culturally grounded, and immigration-responsive HIV and menopause supports.
Keywords: HIV stigma; African

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Abstract #150

Exploring Barriers and Building Trust: A Qualitative Study of Peer-Led Harm Reduction Pop-Up Testing in Saskatchewan

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Background: People who use drugs (PWUD) face stigma, discrimination, and prolonged wait times in healthcare. In Saskatchewan, First Nations and Métis peoples are disproportionately impacted by HIV and other STBBIs, reflecting colonial legacies, systemic racism, and inequitable access to care. Saskatchewan reports one of the highest incidences of HIV in Canada, with high rates of syphilis and hepatitis C. The healthcare barriers experienced by PWUD- particularly Indigenous PWUD—remain under-documented. Peer-led qualitative research interviews explored barriers and facilitators to HIV and STBBI care following harm reduction pop-up testing events.

Methods: Since June 2025, peer-led pop-up events provided point-of-care testing for HIV, syphilis, and hepatitis C, with safer drug use and safer sex education. Quota sampling was used to recruit PWUD for semi-structured interviews a week later. 12 interviews have been completed. Trained peer researchers with lived experience, including Indigenous peers, co-developed and conducted interviews on healthcare access, drug use, and experiences navigating healthcare. Interpretive phenomenology was applied to explore lifeworld's of drug use, determinants of harm, and meaning-making around healthcare access. Cultural safety principles guided peer training and data collection, with emphasis on Indigenous accountability.

Results: Participants consistently reported long emergency department wait times, often leaving without care. Many reported stigma related to drug use, while Indigenous participants reported racism. Housing instability further limited access to scheduled appointments. Participants frequently reported using drugs alone in concealed spaces due to fear of stigma and judgment. Needle exchange programs were described as safe, welcoming environments where trusted staff and peers fostered dignity, sense of belonging, and engagement in care.

Conclusion: Peer-led, community-based harm reduction approaches build trust and reduce barriers to HIV and STBBI care for PWUD. Findings underscore the importance of culturally safe, community-driven, and Indigenous-led models that integrate testing, education, and care within low-barrier settings to address persistent health inequities.

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Abstract #153

Influence of a 3-month letermovir treatment on inflammation, immunity and HIV reservoirs in people with HIV on antiretroviral therapy

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Background:
Persistent inflammation in people with HIV (PWH) despite effective antiretroviral therapy (ART) contributes to increased risk of non-AIDS comorbidities. Co-infection with cytomegalovirus (CMV) exacerbates inflammation and contributes to HIV persistence. We conducted a randomized controlled trial to evaluate whether 14 weeks of treatment with letermovir, a CMV-terminase inhibitor, could reduce inflammation and HIV reservoir markers in CMV-seropositive ART-treated PWH.

Methods:
Thirty-three CMV-seropositive PWH on ART for ≥3 years were randomized: 21 received letermovir daily for 14 weeks in addition to their ART; 12 continued ART alone. Plasma and PBMCs were collected at baseline, during, and after treatment. We used conventional assays to quantify plasma inflammatory markers, humoral and cellular anti-CMV responses, and HIV DNA and RNA.

Results:
Participants had a median age of 53 and had been living with HIV for a median of 20 years. 32/33 were male. Median CD4 count was 742 cells/μL and CD4/CD8 was 1.1. Letermovir was well tolerated. CD4 counts increased slightly in the letermovir group (+15 cells/μL) and decreased in controls (–14 cells/μL). Plasma LPS levels, a biomarker of gut permeability, declined in the letermovir group (–9.2 pg/mL) and rose in controls (+4.5 pg/mL), without reaching statistical significance (p=0.31). Markers of inflammation (sTNFRII, sIL6R, cytokines) remained unchanged. Anti-CMV IgG levels and frequency of CMV-specific IFN-γ producing CD4 T-cells significantly decreased in the letermovir group (p=0.02 and 0.03) but not in the control arm, and anti-CMV IgG rebounded 12 weeks post-treatment. HIV DNA levels remained stable in both groups. However, participants receiving letermovir displayed a 39% reduction in cell-associated HIV RNA relative to baseline (p=0.046), indicating reduction of HIV transcription.

Conclusions:
Letermovir was safe, reduced CMV-specific IgG and T-cell levels, and HIV transcriptional activity, supporting CMV inhibition as a potential strategy to modulate immune activation and HIV persistence in ART-treated PWH.

Abstract #155

The psychosocial experiences and adherence of migrants with HIV rapidly switching to B/F/TAF and how they relate to sociodemographic factors: Findings from the ASAP-Switch Study

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Background: Migrants with HIV arriving in Canada could benefit from rapidly changing antiretroviral therapy (ART) regimens when their medical history is uncertain, but little is known about their experiences and outcomes during this transition or how they vary by subgroup. Among migrants rapidly switching to bictegravir/emtricitabine/tenofovir alafenamide (B/F/TAF), we evaluated how sociodemographic variables were linked to psychosocial characteristics and adherence over time.

Methods: The ASAP-Switch cohort includes newly referred ART-experienced recent migrants with HIV at two Montreal, Canada sites (McGill University Health Centre and Clinique L'Actuel), who were prescribed a free, on-site, rapid switch to B/F/TAF. Patient-reported measures (PRMs) were collected over 24 weeks (3 timepoints), including treatment change readiness, self-management confidence (SMC-MMT), psychological distress (K6), stigma (IA-RSS), social support (MOS-SSS), health worries (PoZQoL), ART adherence barriers (I-Score), and 30-day adherence. Descriptive analyses were performed. Linear mixed models examined PRMs over time and sociodemographic variables (age, gender, sexual orientation, and birth country).

Results: Forty participants completed a 24-week follow-up, including 29 (73%) people from Africa, 15 (38%) women, and 9 (22%) men who have sex with men. Mean age was 41 years (SD=10.4). At baseline, results suggest participants experienced importance and confidence to change to B/F/TAF (mean=9.3/10), self-management confidence (17.6/20), low distress (12.2/30), moderate stigma (3.0/6), some social support (59.0/100), and moderate health worries (3.4/5). After 4 weeks, participants reported limited perceived barriers to adherence (0.8-2.4/7) and high ART adherence (97.5/100). Over time, health worries ($p=0.043$), psychological distress ($p<0.001$), and adherence barriers tied to medication concerns ($p=0.05$) decreased significantly. Sociodemographic characteristics were not associated with PRMs.

Conclusion: Migrants rapidly switching to B/F/TAF showed several favourable psychosocial experiences and outcomes, including self-reported adherence, all unrelated to sociodemographic factors. However, health worries, as well as persistent stigma and limited social support, underscore the relevance of routine psychosocial support in HIV care.

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Abstract #160

Priorities and Barriers in Accessing Continuing Care for Older Adults Living with HIV in Alberta

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Background: As people living with HIV (PLWH) live longer, aging-related needs increasingly intersect with continuing care (CC) needs, including home care and long-term care. Yet, little is known about older PLWH perspectives and knowledge of these services. Using a qualitative approach, we explored older PLWH perspectives and knowledge of CC services in Alberta to highlight what matters most and opportunities for improvement.

Design: We used purposive sampling to recruit 22 PLWH aged 50 or older who receive care at Southern Alberta Clinic in Calgary, Canada, and completed semi-structured interviews. Interview data were analyzed thematically using a framework approach guided by the 2024 Alberta Quality Matrix for Health (accessibility, acceptability, appropriateness, effectiveness, safety, efficiency) to map participants' priorities and experiences.

Setting: Southern Alberta Clinic (SAC), Calgary, Alberta, Canada

Participants: A cohort of PLWH ≥50 years, receiving comprehensive HIV-care at SAC.

Results: Accessibility was the strongest priority. Participants described wait times, complex care pathways and cultural barriers as key factors influencing awareness of CC resources and whether CC felt feasible to use. Acceptability was also important; participants wanted care that was respectful, meaningful, and tailored to their needs and preferences. Safety was raised often, including concerns about confidentiality and privacy, the risk of unintended disclosure of their HIV diagnosis within the community, and trust in clinical care. Many participants described knowledge gaps around CC, such as who qualifies, and how to start the process. Efficiency was mentioned less often and was not a main driver of perceived quality.

Discussion/Conclusions: Older PLWH identified clear targets for improving continuing care: timely and in close proximity services, individualized and stigma-free care, and strong protections for privacy and confidentiality. Clearer information and navigation support may help address knowledge gaps and improve access. These patient perspectives should guide CC planning for PLWH.

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Abstract #171

Impact of Sexual Debut on the Immune Milieu and Microbiome of the Penile Urethra in Adolescent Males from Rakai, Uganda

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Background: The penile urethra is a primary site of HIV acquisition in males, but little is known about urethral determinants of HIV acquisition. Inflammation at other genital sites enhances risk, and studies in adults suggest that some inflammatory bacteria may be acquired from the vagina of female sexual partners. Here, we characterize the impact of sexual debut on the microbiome and immune milieu of the penile urethra in adolescent males from Uganda.

Methods: A cohort of 185 sexually naïve adolescent males were enrolled in a 3-year longitudinal study in Rakai, Uganda with follow-up every 3 months, and urethral swabs collected annually. Urethral levels of 9 soluble immune factors (IL-1α, IL-1β, IL-8, MIP-1β, sEcad, resistin, TIMP-1, VEGF, and MMP-9) were quantified by chemiluminescent multiplex immunoassay, and 16S rRNA sequencing was performed to characterize the urethral microbiome. Unsupervised clustering and mixed-effects models were used to evaluate the impact of sexual debut on the urethral microbiome and immune milieu.

Results: Median participant age at enrollment was 16 years, and during the follow-up period 80/185 (43%) reported penile-vaginal sexual debut. Although the urethral microbiome was highly diverse, at 36 months unsupervised clustering identified two distinct Community State Types (CSTs): CST-1 was dominated by Streptococcus mitis/oralis and CST-2 by BV-associated bacteria (Gardnerella vaginalis, Sneathia spp. and Fannyhessea vaginae). CST-2 was greatly enriched at 36 months compared to baseline and was strongly associated with prior sexual debut (LR= 6, p=0.01). Bacterial species enriched in CST-2 were significantly associated with both sexual debut and urethral inflammation, independent of serum testosterone and circumcision status.

Conclusion: Sexual debut resulted in colonization of the penile urethra by BV-associated bacteria. This may have adverse effects on male reproductive health by inducing urethral inflammation and may serve as a reservoir for reintroduction of BV-associated bacteria into the vagina of female sexual partners.

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Abstract #173

Switch to Dor/Isl (100/0.25 mg) QD from BIC/FTC/TAF: 96-Week Update from a Blinded Phase 3 Study

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Background: The NNRTI doravirine (DOR) and the investigational nucleoside reverse transcriptase translocation inhibitor (NRTTI) islatravir (ISL) have complementary mechanisms of action and resistance profiles. Primary analysis of the MK8591A-052 study in people living with HIV-1 (PLWH) demonstrated that switching to DOR/ISL 100 mg/0.25 mg was noninferior to continuing bictegravir/emtricitabine/tenofovir alafenamide (BIC/FTC/TAF) in maintaining virologic suppression at Week (W) 48. Here we present W96 efficacy and safety data from this study.

Methods: Phase 3, double-blind clinical trial (NCT05630755) in adults with HIV-1 RNA <50 copies/mL for ³3 months on BIC/FTC/TAF, CD4+ T-cell count ≥50 cells/mm3, and no prior therapy failure or known DOR resistance. Participants were randomized 2:1 to switch to DOR/ISL (100/0.25 mg) or continue BIC/FTC/TAF. Discontinuation was required for confirmed decline in total lymphocytes (≥30% and <1.0 x109/L) or CD4+ T-cells (≥30% and either <350 cells/mm3 if ≥350 at baseline or <200 cells/mm3 if ≤349 at baseline). The proportion of participants with HIV-1 RNA ≥50 copies/mL (FDA snapshot) at W96 was a secondary endpoint. Other virologic outcomes (HIV-1 RNA <50 and <200 copies/mL), safety, and tolerability through W96 were also assessed.

Results: Week 96 efficacy and safety results will be presented.

Conclusions: DOR/ISL (100/0.25 mg) had similar efficacy and a comparable AE profile to BIC/FTC/TAF at W96. These findings are consistent with the study's primary W48 results.

Abstract #179

Switching to Doravirine/Islatravir (100 mg/0.25 mg) Once Daily Maintains Viral Suppression Through Week 48 in the Presence of Archived NNRTI Resistance-Associated Mutations or M184I/V in Proviral DNA

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Background: Doravirine/islatravir [DOR/ISL (100/0.25mg)] is an investigational once-daily single tablet regimen of DOR, abeing evaluated in Phase 3 studies in adults living with HIV-1. Participants with HIV-1 RNA <50 copies/mL and no known treatment failure or documented DOR resistance were randomized to switch to DOR/ISL (100/0.25mg) once-daily or to continue baseline antiretroviral therapy in P051 or BIC/FTC/TAF in P052. In P054, participants who previously received DOR/ISL (100/0.75mg) were switched to DOR/ISL (100/0.25mg) in a single-arm study. This analysis examined the prevalence and impact of preexisting resistance-associated mutations (RAMs) at baseline in proviral DNA on virologic outcomes among participants who received DOR/ISL through Week 48.

Methods: Preexisting RAMs present in proviral DNA were identified retrospectively using the GenoSure Archive assay (Monogram Biosciences). The impact of NNRTI RAMs and M184I/V was evaluated in participants with HIV-1 RNA ≥50 copies/mL at any time through Week 48.

Results: Of the 1227 participants with baseline resistance data who received DOR/ISL, 6 (0.5%), 23 (1.9%), and 71 (5.8%) met the criteria for DISC, LLV, or TV, respectively (Table 1). Among participants who received DOR/ISL, 26.3% had preexisting NNRTI RAMs and 5.7% had preexisting M184I/V. The percentage of participants in each category was similar between all participants and those with NNRTI RAMs or M184I/V.

Conclusions: Preexisting NNRTI RAMs or M184I/V did not impact virologic suppression through Week 48 in participants switching to DOR/ISL (100/0.25mg) in Phase 3 clinical studies.

Supporting Document

Table 1: Virologic Outcomes in Participants with Preexisting NNRTI RAMs or M184I/V

	P051 DOR/ISL	P052 DOR/ISL	P054 DOR/ISL	Pooled DOR/ISL
All Participants with Archived Proviral DNA Data, N	N=322	N=309	N=596	N = 1227
Participants with DISC, n (%)	3[b] (0.9)	2 (0.6)	1 (0.2)	6[b] (0.5)
Participants with LLV, n (%)	5 (1.6)	5 (1.6)	13 (2.2)	23 (1.9)
Participants with TV, n (%)	15 (4.7)	18 (5.8)	38 (6.4)	71 (5.8)
Any NNRTI RAMs[a] at Baseline, M/N (%)	79/322 (24.5)	82/309 (26.5)	162/596 (27.2)	323/1227 (26.3)
Participants with DISC, m (%)	2[b] (2.5)	0 (0.0)	0 (0.0)	2[b] (0.6)
Participants with LLV, m (%)	1 (1.3)	3 (3.7)	9 (5.6)	13 (4.0)
Participants with TV, m (%)	3 (3.8)	4 (4.9)	14 (8.6)	21 (6.5)
M184I/V at Baseline, M/N (%)	20/322 (6.2)	24/309 (7.8)	26/596 (4.4)	70/1227 (5.7)
Participants with DISC, m (%)	1[b] (5.0)	0 (0.0)	0 (0.0)	1[b] (1.4)
Participants with LLV, m (%)	0 (0.0)	2 (8.3)	1 (3.8)	3 (4.3)
Participants with TV, m (%)	0 (0.0)	1 (4.2)	3 (11.5)	4 (5.7)

[a] Based on the following list of NNRTI RAMs:
V90I, A98G, L100I, K101E/H/P, K103N/R/S, V106A/I/M/T, V108I, E138A/G/K/Q/R, V179D/F/L/T, Y181C/I/V, Y188C/H/L, G190A/E/S, H221Y, P225H, F227C/H/I/L/R/V, M230I/L, L234I, P236L, Y318F

[b] Includes 2 participants that were ineligible for enrollment due to either previous history of virologic failure or previous documentation of DOR resistance.

Participants with HIV-1 RNA ≥50 copies were assigned to 1 of 3 mutually exclusive virologic outcome groups with the following hierarchy:
DISC: discontinued, 2 consecutive occurrences of HIV-1 RNA ≥200 copies/mL
LLV: low-level viremia, 2 consecutive occurrences of HIV-1 RNA ≥50 copies/mL without meeting discontinuation criteria
TV: transient viremia, HIV-1 RNA ≥50 copies/mL at any on-treatment visit preceded and followed by HIV-1 RNA <50 copies/mL

N or M=Participants in the category; n or m=Participants with virologic outcome of interest; Percentage=n/N, M/N, or m/M

Clinical Sciences - Poster Abstracts / Sciences cliniques - Abrégés affiches

Abstract #185

Longitudinal cognitive and academic development in school-aged children who are HIV-exposed, uninfected

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Purpose: The present study investigated longitudinal intellectual, language, and academic abilities in school-aged children who are HIV-exposed uninfected (CHEU) and children who are HIV-unexposed uninfected (CHUU).

Methods: CHEU and CHUU 6 to 12 years of age underwent two neurodevelopmental assessments approximately 2 years apart through the Kids Imaging and Neurocognitive Development (KIND) study at the Hospital for Sick Children. Intellectual, language, and academic abilities were measured using the WISC-V, CELF-5, and WIAT-II. Generalized linear models were used to investigate HEU status with each neurodevelopmental outcome at each timepoint. Sex effects were investigated with an interaction term. Linear mixed effects models were used to investigate longitudinal neurodevelopmental outcomes by an interaction term of HEU status by age. Significance was held at $p < 0.05$.

Results: 41 CHEU (23 female) and 29 CHUU (12 female) underwent two developmental assessments at the median ages of 8 and 11 years of age. HEU status was associated with lower working memory scores at the first timepoint and lower working memory, full scale IQ, and expressive language at the second timepoint. HEU status was also associated with lower processing speed and math skills with age. At the first timepoint, male CHEU demonstrated lower scores in working memory, processing speed, full scale IQ, word reading, and spelling. At the second timepoint, male CHEU demonstrated lower scores in verbal comprehension, working memory, full scale IQ, word reading, and spelling. There were no differences observed in females by HEU status.

Conclusions: Male CHEUs were most susceptible to poorer performance on aspects of intellectual abilities and literacy skills over time, indicating the need for timely assessments and intervention. Future work will investigate potential contributions of pre-and peri-natal exposure to ARVs on cognitive development.

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Abstract #186

Estradiol and leukocyte telomere length in women living with and without HIV in the BCC3 cohort

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Introduction: Women living with HIV experience shorter life expectancy and earlier onset of age-related conditions compared with women without HIV, suggesting altered biological aging trajectories. Leukocyte telomere length (LTL), a biomarker of cellular aging that reflects cumulative replicative stress and chronic immune activation, is shorter in people living with HIV. Sex hormones like estradiol play a role in immune regulation and cellular processes, yet their contribution to biological aging in this context remains poorly understood. Examining estradiol's relationship with LTL may provide insight into aging among women living with HIV.

Methods: We examined biological correlates of LTL among premenopausal women living with (N=116) and without HIV (N=171) enrolled in the BCC3 cohort (Dec 2020-Oct 2025) with estradiol measurements. Multivariable linear regression was used to assess associations between LTL and age, HIV status, estradiol level, and non-HIV chronic/latent viral burden.

Results: Women living with HIV had significantly shorter LTL compared with women without HIV after adjustment for age, estradiol level, and non-HIV chronic/latent viral burden. Older age was independently associated with shorter LTL, whereas current estradiol did not explain LTL differences. Higher non-HIV chronic/latent viral burden showed a trend toward shorter telomere length (R^2=0.1774, data found in Table 1).

Conclusions: Ongoing analyses will extend this work by measuring free and bioavailable estradiol, and incorporate composite measures of lifetime estradiol exposure and psychosocial stress and resilience to characterize how hormonal and psychosocial experiences across the life course shape biological aging among women living with and without HIV.

Supporting Document

Table 1. Multivariable linear regression model of factors associated with leukocyte telomere length

Predictor	Women Living with HIV (N = 116)	Women Without HIV (N = 171)	Unadjusted β (95% CI)	Unadjusted p-value	Adjusted β (95% CI)	Adjusted p-value
Leukocyte Telomere Length (outcome)	6.83 [6.04–7.41]	7.31 [6.54–8.24]	NA	NA	NA	NA
HIV status (reference: Women Without HIV)	116 (40.4%)	171 (59.6%)	0.63 (0.35, 0.91)	<0.001	0.36 (0.06, 0.66)	0.018
Age (years)	41.35 [35.20–47.02]	35.40 [26.85–43.45]	-0.05 (-0.06, -0.04)	<0.001	-0.04 (-0.05, -0.02)	<0.001
Current Estradiol Level† (pg/ mL)	241.50 [167.65–373.05]	216.20 [160.45–328.45]	0.26 (0.01, 0.51)	0.039	0.05 (-0.21, 0.30)	0.710
No. of non-HIV Chronic/ Latent Viruses*	5.00 [4.00–6.00]	4.00 [3.00–5.00]	-0.24 (-0.33, -0.14)	<0.001	-0.05 (-0.17, 0.06)	0.369

Unadjusted β coefficients are from separate univariable linear regression models (one predictor at a time).

Adjusted β coefficients are from a multivariable linear regression model including age, log-transformed estradiol, number of non-HIV chronic/latent viral infections, and HIV status.

† Estradiol was timed in women cycling normally (day 2–5 of the menstrual cycle) and measured at a random time in women cycling irregularly. Estradiol is log-transformed in the model.

* Non-HIV chronic/latent viruses counted: CMV, EBV, HSV-1, HSV-2, VZV, HHV-8, HBV, HCV.

among premenopausal women in the BCC3 cohort (N = 287)

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Abstract #187

Perceived HIV Risk and PrEP Acceptability Among People Who Use Drugs in Vancouver BC

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Uptake of HIV pre-exposure prophylaxis (PrEP) among people who use drugs (PWUD) in Canada remains low despite its proven effectiveness. We examined self-perceived risk and objective HIV risk indicators, and how these correlated with PrEP interest among PWUD in Vancouver's Downtown Eastside (DTES).

PWUD aged 19 and older recruited from 6 DTES primary care and addiction clinics completed questionnaires assessing drug use patterns, self-reported HIV risk (high/low), self-reported HIV risk status as a barrier to start PrEP, and PrEP acceptability. We considered scoring >45 on a modified ARCH-IDU scale (omitting points for use of "shooting galleries") to be an objective indication for PrEP. Among participants found to be objectively eligible for PrEP, demographic characteristics, drug use patterns, and willingness to use PrEP were compared by whether participants reported low self-perceived HIV risk as a barrier to PrEP.

Of 293 participants indicating past-6-month drug use, 83% self-identified their risk as low, while 42% actually met substance use criteria indicating PrEP eligibility. Among participants with objective indicators for PrEP (n=124), 52% reported low self-perceived HIV risk as a reason not to start PrEP. Within these participants with objective HIV risk, those who perceived themselves as low risk were significantly less willing to take PrEP compared to those who perceived themselves at higher risk (61.5% vs 86.4%, p=0.002).

Risk perceptions among PWUD did not correlate with objective HIV risk, and self-perceived lower risk was associated with lower PrEP interest. Tailored public outreach efforts on risk indications may improve PrEP uptake in this population.

Supporting Document

Table: Demographic and drug use characteristics among participants indicated for PrEP by modified ARCH-IDU, stratified by viewing low risk as barrier to PrEP

	Low risk is barrier (N=65)	Low risk is not barrier (N=59)	Overall (N=124)	p
Age (years)				
Median (Q1,Q3)	38.0 (31.0,50.0)	38.0 (34.0,48.0)	38.0 (32.8,49.0)	0.881
Gender identity				
Man	38 (58.5%)	31 (52.5%)	69 (55.6%)	0.588
Woman/other	27 (41.5%)	28 (47.5%)	55 (44.4%)	
Racial/Ethnic Identity				
White	41 (63.1%)	36 (61.0%)	77 (62.1%)	0.726
Indigenous	15 (23.1%)	17 (28.8%)	32 (25.8%)	
Other	9 (13.8%)	6 (10.2%)	15 (12.1%)	
Main income source (past month)				
Employment income	2 (3.1%)	4 (6.8%)	6 (4.8%)	0.558
Social support / Pension	60 (92.3%)	51 (86.4%)	111 (89.5%)	
Informal/criminalized/not working	3 (4.6%)	4 (6.8%)	7 (5.6%)	
Main Housing (past 6 months)				
Stable	40 (61.5%)	25 (42.4%)	65 (52.4%)	0.0473
Unstable	25 (38.5%)	34 (57.6%)	59 (47.6%)	
Frequency of drug use				
Daily or less	22 (33.8%)	13 (22.0%)	35 (28.2%)	0.166
Multiple times per day	43 (66.2%)	46 (78.0%)	89 (71.8%)	
Engagement in opioid substitution (past month)	35 (53.8%)	29 (49.2%)	64 (51.6%)	0.719
Any Prior STI				
Yes	16 (24.6%)	23 (39.0%)	39 (31.5%)	0.121
No/No recent partners/Missing	49 (75.4%)	36 (61.0%)	85 (68.5%)	
Prior awareness of PrEP	20 (30.8%)	14 (23.7%)	34 (27.4%)	0.425
Willingness to take PrEP	40 (61.5%)	51 (86.4%)	91 (73.4%)	0.0021

Clinical Sciences - Poster Abstracts / Sciences cliniques - Abrégés affiches

Abstract #202

Exploring the Feasibility of Implementation of an Online Tele-Coaching Community-Based Exercise Intervention among Adults Living with HIV in Toronto, Ontario

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Objective: To assess the feasibility of implementation of an online community-based exercise (CBE) intervention in Toronto, Ontario.

Methods: We conducted an observational longitudinal study with adults living with HIV engaged in a six-month tele-coaching CBE intervention (biweekly exercise supervised online by a personal trainer, weekly group online exercise classes, monthly educational sessions, and e-learning modules). Participants were asked to wear a physical activity monitor (Fitbit) throughout. We administered a web-based questionnaire at month 2 and 6 to assess feasibility operationalized as: ease of use (7 items) and helpfulness (6 items) for components of the intervention [personal training sessions, group exercise classes, monthly educational sessions (all via Zoom); Fitbit; YMCA Virtuagym website; Sweat for Good App; self-directed e-learning modules], reliability of the technology (technology interruptions, need to reboot (2 items)), and satisfaction (10-item Telehealth Satisfaction Scale (TeSS)). We calculated frequencies and percentages for each item, and median (25th, 75th percentiles) of the TeSS (range: 10-40; higher scores indicating higher satisfaction).

Results: Of the 32 participants (70% men, median age 51.5 years) who initiated the intervention, 30 completed a questionnaire at month 2 or 6. Intervention components were rated as 'easy or very easy to use' by 35-96% of participants (for the Virtuagym website and monthly educational sessions, respectively), and 'helpful or very helpful' by 50-96% of participants (e-learning modules and Zoom, respectively). Most participants (50-79%) reported no interruptions or need to reboot technology. Median satisfaction (TeSS) scores were 38/40 (32, 40; month 2) and 37/40 (34, 40; month 6).

Conclusion: The online CBE intervention appears feasible for implementation among this sample of adults living with HIV. Personal training and group educational sessions (via Zoom), and the Fitbit were considered easiest to use and most helpful among participants. Results can inform ways to tailor online CBE interventions with adults living with HIV.

Clinical Sciences - Poster Abstracts / Sciences cliniques - Abrégés affiches

Abstract #214

Effectiveness of Progressive Resistive Exercise among Adults Living with HIV: An Updated Systematic Review and Meta-Analysis using the Cochrane Collaboration Protocol

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Purpose:To examine the effectiveness of progressive resistance exercise (PRE) on immunological, virological, body composition, strength, cardiorespiratory, flexibility, and quality of life (QOL) outcomes in adults living with HIV.

Methods:We conducted an update of a systematic review using the Cochrane Collaboration protocol. We searched databases up to January 2021. We included randomized controlled trials comparing resistance exercise with no exercise or another intervention performed at least 3 times per week for at least 4 weeks among adults living with HIV. Two reviewers independently determined study eligibility. Data were extracted from studies that met inclusion criteria using standardized forms. We assessed risk of bias using Cochrane risk of bias assessment. Meta-analyses were conducted using random-effects models with Review Manger (RevMan) computer software.

Results:Forty-one (41) studies met inclusion criteria (20 from previous review; 21 from this update). There were 1,622 participants at study completion; the majority were men (57%), and the majority of studies (80%) included participants taking antiretroviral therapy (33/41 studies). Exercise interventions included PRE alone (15 studies) and/or a combination of PRE and aerobic exercise (27 studies), ranging from 6 to 52 weeks. Eighty-seven (87) meta-analyses were performed, 68 (78%) of which were new or updated for this review. Main results indicated statistically significant improvements in selected outcomes of body composition (lean body mass, body fat percent), strength (bench press, chest press, lateral pull down, quadriceps) and cardiopulmonary status (maximum oxygen consumption: combined aerobic and PRE) among exercisers compared with non-exercisers. No significant differences in change in CD4 count and viral load were found for the majority of meta-analyses.

Conclusions:Performing progressive resistance exercise or a combination of PRE and aerobic exercise at least 3 times per week for at least 6 weeks is safe and can lead to improvements in cardiorespiratory fitness, strength and body composition for adults living with HIV.

Abstract #234

Changes in Disability during a Two-Phased Online Community-Based Exercise (CBE) Intervention Study with Adults Living with HIV: Results from the Tele-Coaching CBE Study

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Objective: To examine changes in disability among adults with HIV engaged in an online community-based exercise (CBE) intervention in Toronto, Canada.

Methods: We conducted a 12-month study with adults with HIV involving two phases: 1) Intervention: participants were asked to exercise 3 times/week, supervised biweekly with online personal coaching, and monthly online educational sessions(6-months), and 2) Follow-Up: participants were asked to continue exercising thrice weekly, independently(6-months). We measured disability bimonthly using the Episodic Disability Questionnaire(EDQ) which includes six domains: physical, cognitive, and mental-emotional symptoms; difficulties with day-to-day activities; uncertainty about future health; challenges to social inclusion. Higher scores (range:0-100) indicate greater presence, severity and episodic nature (within past week) of disability. We conducted a mixed-effects segmented regression analysis to assess changes between and within phases.

Results: Of 32 participants who initiated (69% males, median age:53 years), 22(69%) completed the intervention; and 18(56%) completed the study. Participants attended median 10/13(77%) coaching sessions. Highest EDQ scores at baseline were in the uncertainty domain for severity (34.1) and presence (64.5), and mental-emotional domain for episodic nature(27.5). At the end of the intervention, there was a significant mean decrease in EDQ uncertainty scores for severity (-5.2 points; 95%Confidence Interval(CI):-9.3,-1.0); increase in physical scores for severity (4.2; 95%CI:0.5,7.9) and episodic nature (10.3; 95%CI:0.2,20.5); and social scores for episodic (8.4; 95%CI:1.9,14.8). At the end of follow-up, there was a significant decrease (improvement) in the EDQ mental-emotional episodic scale (-14.9; 95%CI:-29.3,-0.4). During follow-up, there was an improvement for physical symptoms and reduction in benefits with uncertainty. There were no changes in EDQ presence scores.

Conclusion: Participants demonstrated an increase in severity of physical symptoms and improvement with uncertainty about future health during the online CBE intervention phase, which were diminished during follow-up. Future work should examine the clinical importance of disability changes and influence of contextual factors among persons with HIV.

Clinical Sciences - Poster Abstracts / Sciences cliniques - Abrégés affiches

Abstract #249

Assessing the Capability of Artificial Intelligence to Identify Potentially Inappropriate Medications in a Canadian Cohort of People with HIV Aged 65 and Older (CHANGE-AI)

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Background:
Potentially inappropriate medications (PIMs) and drugs with an elevated anticholinergic or sedative burden (ACB, SB) are of particular concern among people aging with HIV, given their association with frailty and falls. Artificial intelligence platforms may be clinically useful in identifying prescribing issues in this population, especially in settings lacking specialty pharmacists.

Methods:
We randomly selected 100 participants with polypharmacy (≥5 non-antiretroviral co-medications) from the Correlates of Healthy Aging in Geriatric HIV (CHANGE HIV) study, a Canadian cohort of people living with HIV age 65 years or older. Co-medication lists were individually submitted to ChatGPT-5 in November 2025 for PIM identification (yes/no) and ACB/SB score calculations (none/negligible/minimal=0, low/mild/weak=1, moderate=2, high/strong=3). Cumulative ACB and SB scores were calculated for each patient. Two reviewers independently assessed ChatGPT response accuracy compared to a blinded pharmacist assessment utilizing established tools (Beers criteria; Anticholinergic and Sedative Burden Catalogs). Sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) were calculated for each measure.

Results:
Median participant age was 69 years (range 65-85); 94% were male with median 5 comorbidities and 7 (range 5-26) co-medications. ChatGPT performed n=846 PIMs/ACB/SB assessments of 233 unique co-medications. Across 846 co-medication assessments, PIMs (83%) and ACB (81%) accuracy were highest; SB accuracy was 54%. ChatGPT identified ≥1 PIM in 80% of participants vs. 72% via pharmacist assessment, but under-reported cumulative ACB (25% of participants with score ≥3 vs. 36% by pharmacist assessment) and SB (56% with score ≥3 vs. 83 % by pharmacist assessment). PIMs/ACB/SB specificity was high (87%/94%/80%) but sensitivity poor (66%/34%/22%). NPV was 93%/84%/57%; whereas PPV was only 50%/60%/48%.

Conclusion:
ChatGPT-5 underestimated medication-related factors that could contribute to frailty and falls in older adults with HIV. While future models may address some performance limitations, caution is warranted regarding ChatGPT's use for clinical decision making in this setting.

Clinical Sciences - Poster Abstracts / Sciences cliniques - Abrégés affiches

Abstract #257

A Changing HIV Demographic: A Retrospective Cohort Study Describing Mortality in Manitoba's Incident HIV Cases from 2018-2022

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Background: Manitoba continues to see growing numbers of incident HIV cases yearly and is the only Canadian province that did not meet the previous 90-90-90 UNAIDS targets. A recent retrospective cohort study of Manitoba's incident HIV population described a unique HIV population made up of majority heterosexual individuals with a disproportionate number of females, houselessness, mental health comorbidities, and injection drug use. This study sought to report mortality rates and describe the characteristics associated with mortality in Manitoba's incident HIV population.

Methods: This was a retrospective cohort study of all people 18 years and older newly diagnosed with HIV in Manitoba, Canada between January 1st, 2018 and December 31st, 2022. Retrospective data was collected up to December 31, 2025. Population variables were determined using frequencies for categorical variables and medians for continuous variables with interquartile range. A multivariate analysis using Poisson log regression was conducted to compare variable. A community-based research approach was applied.

Results: There were 604 people newly diagnosed with HIV in Manitoba from 2018-2022 and 79 died, representing 13.1% of the cohort and a mortality rate of 130.8. This population was composed of 44.8% females, 60.9% heterosexual, with 56.2% reporting injecting drug use, 35.1% reporting houselessness, and 40.3% reporting a mental health condition. Median age at time of death was 36. The main cause of death was substance related at 62%, followed by advanced HIV at 2.2%. The median CD4 count at time of diagnosis was 419 cells/mm3. Further data analysis continues specifically exploring the association of sex, substance use, and houselessness with mortality.

Conclusion: Manitoba has a distinct, growing HIV population. Preliminary data demonstrates this population has a high mortality rate driven by substance use disorder and advanced HIV.

Clinical Sciences - Poster Abstracts / Sciences cliniques - Abrégés affiches

Abstract #258

Patient-Provider Trust Associated with Better HIV PrEP Adherence in the Ontario PrEP Cohort Study

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Background: PrEP adherence may be strengthened by positive patient-provider relationships, while also shaped by race, gender and other dynamics. We examined whether patient-provider relationship quality was associated with PrEP adherence.

Methods: ON-PrEP was a prospective multicenter cohort of Ontario PrEP users. Participants completed questionnaires assessing patient-provider relationship quality using 7 multi-item scales, at 6- and 18-months, each represented as a 0-100 value (low-high). Mixed-effects logistic regression models assessed associations between relationship quality and self-reported past 4-day adherence (optimal if 4/4 days, suboptimal if <4) among daily PrEP users, adjusting for age, White race, income, country of birth, and prior experiences of discrimination in healthcare.

Results: Among 730 participants, 431 were daily PrEP users who completed 6- and/or 18-month relationship questionnaires. Mean (SD) age was 39 (10.7) years, most were sexual minority men (96.8%), earning ≥$60,000/year (64.7%), Canadian-born (71.7%), and 40.1% were racialized. Overall adherence was high; 87.4% reported optimal adherence at 6 months and 88.4% at 18 months. Patient-provider quality of adherence dialogue scores were high, with 75.8% (323/426) and 78.9% (254/322) scoring above 75, at 6- and 18-months respectively. In adjusted analyses, the only scale associated with optimal adherence was Trust in Provider (aOR=1.03, 95%CI=1.01-1.05). Race, discrimination and other sociodemographics were also important.

Conclusions: Among these daily PrEP users, greater trust in providers was linked to higher adherence. Understanding the care factors that foster patient-provider trust may inform strategies to support PrEP adherence. Given the predominantly male, white, and higher-income cohort, further research in diverse PrEP populations is needed.

Supporting Document

Adjusted odds ratios showing associations between seven measures of patient-provider relationship quality and optimal PrEP adherence, after adjustment for key covariates

Predictor	Scale						
	Quality of Adherence Dialogue	**PrEP-Specific Communication**	**Trust in Provider**	**Satisfaction of Care**	**Willingness to Recommend**	**Decision-Making**	**General Communi-cation**
Patient-Provider Relationship Scale Score (per 1-point increase)	1.03 (0.99-1.06)	0.99 (0.98-1.01)	1.03 (1.01-1.05)*	1.01 (0.98-1.03)	1.01 (1.00-1.01)	1.00 (0.99-1.01)	1.01 (0.99-1.03)
Age (per year)	1.03 (0.95-1.12)	1.04 (1.00-1.07)*	1.04 (1.01-1.08)*	1.04 (1.00-1.07)*	1.04 (1.00-1.07)*	1.04 (1.00-1.07)*	1.04 (1.01-1.08)*
White race	2.25 (0.42-11.92)	2.52 (1.25-5.09)*	2.28 (1.14-4.57)*	2.56 (1.23-5.36)*	2.39 (1.19-4.78)*	2.41 (1.18-4.92)*	2.44 (1.15-5.16)*
Income ≥ $60,000	2.38 (0.49-11.50)	1.86 (1.00-3.48)	1.94 (1.05-3.60)*	2.05 (1.06-3.95)*	1.97 (1.06-3.66)*	1.98 (1.05-3.74)*	2.15 (1.10-4.21)*
Born in Canada	2.70 (0.47-15.41)	2.07 (1.05-4.09)*	1.82 (0.91-3.61)	1.93 (0.95-3.95)	2.03 (1.03-4.01)*	2.17 (1.08-4.34)*	2.24 (1.07-4.68)*
Discrimination in Healthcare (per 1-point increase)	0.41 (0.14-1.18)	0.50 (0.31-0.82)*	0.57 (0.35-0.92)*	0.50 (0.30-0.83)*	0.51 (0.31-0.82)*	0.52 (0.32-0.85)*	0.49 (0.29-0.83)*

† Each column represents a separate mixed-effects logistic regression model including one patient-provider relationship quality scale and adjusting for age, race, income, country of birth, and experiences of healthcare discrimination.
* $p < 0.05$

Abstract #263

A Preliminary Analysis on the Effect of Hepatitis C virus (HCV) Clearance on Selected Markers of Inflammation among Women Living with HIV

Zama Julliet[1,2,3], Izabella Gadawski[1], Pamela Aldebes[6], Isabelle Robichaud[6], Matthew Knight[6], Shelly Tognazzini[9], Melanie Murray[3,4], Angela Kaida[4,5], Marina Klein[6,7,8], Hélène Côté[1,2,3], for the Children and women Antiretroviral therapy and markers of aging (CARMA, CTN+ 277), the British Columbia CARMA-CHIWOS Collaboration (BCC3, CTN+ 335), and the Canadian Co-infection Cohort (CCC, CTN+ 222) Studies.
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Background: HIV and HCV elevate inflammation which impacts health and aging. Women living with HIV in Canada have shorter health/life span than men, and HCV-related inflammation could be contributing. We investigated the effect of HCV clearance on selected markers of inflammation among women with HIV.

Methods: This longitudinal study included women ≥16y from the CARMA, BCC3, or CCC cohorts with baseline and follow-up visits ≥1y apart. Women were divided into four groups: HIV+/HCV RNA+ who cleared HCV between visits (G1), and comparators who remained with chronic HCV (G2), with HIV only (G3) and HIV-/HCV- (G4). These groups were matched based on age at visit, time between visits, and ethnicity as best possible. Plasma IL-10, IFN-□, TNF-□, IL-6, and IL-8, were measured by MSD multi-spot assay. Groups were compared cross-sectionally by Anova or Kruskal-Wallis and longitudinally by paired t- or Wilcoxon signed-ranked test.

Results: Among 48 women (n=12/group), age was similar between groups, but imbalance persisted around time between visits and ethnicity (Table 1). Cytokine levels differed between groups at baseline and follow-up (all $p<0.003$), with G1 showing higher levels in most markers. Longitudinally, IL-10 decreased in G1 and G4, while IL-8 increased for G3. No significant changes were observed in G2 (Table 1).

Discussion. Unlike the persistent inflammation among those with chronic HCV (G2), HCV clearance (G1) shows a favourable pattern, which itself could drive the 67% decrease in IL-10. This suggests partial improvement of inflammation with HCV clearance. Data from the full sample (n=39/group) will strengthen analysis.

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Abstract #286

Comparative analysis of metabolic and liver disease risks in women living with and without HIV from the British Columbia CARMA-CHIWOS Collaboration (BCC3) study and Canadian Longitudinal Study on Aging (CLSA)

Jansen Zhou[1,2], Tetiana Povshedna[2,3,4], Amanda Yonkman[5], Terry Lee[6], Elizabeth M King[1,5,7,8], Angela Kaida[5,8], Melanie CM Murray[1,2,6,7,8], Hélène CF Côté[2,3,4,8], . on behalf of the British Columbia CARMA-CHIWOS Collaboration (BCC3; CIHR CTN+ 335)
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Introduction: Women living with HIV (WLWH) face poorer health outcomes (such as metabolic and liver disease) compared to women without HIV as they age. We hypothesize that adverse social determinants of health (SDH) that disproportionately affect WLWH compared to women without HIV contribute to these disparities in metabolic and liver health.

Methods: Our study sample (n=765) included three groups of women ≥45y: BCC3 WLWH (n=173), sociodemographically-similar BCC3 women without HIV (n=167), and CLSA general population women without HIV (matched 3:1 to BCC3 WLWH; n=425). Two outcomes of interest - the Visceral Adiposity Index (VAI) for metabolic health (includes waist circumference, body mass index, high density lipoprotein (HDL), triglycerides) and the Non-Alcoholic Fatty Liver Disease (NAFLD) Ridge Score (NRS) for liver health (rules in/out NAFLD, composed of alanine aminotransferase, HDL, triglycerides, HbA1c, white blood cell count, hypertension), were calculated from self-reported survey data and clinical laboratory results. These outcomes were compared between the groups as shown in Table 1, alongside selected SDH available in both BCC3 and CLSA.

Results: The BCC3 groups show a more adverse SDH profile compared to CLSA (Table 1). Higher scores for VAI and NRS reflect worse metabolic health and higher prevalence of NAFLD, respectively, in the two BCC3 groups compared to CLSA.

Conclusions: Women in BCC3, regardless of HIV status, share a less favorable metabolic and liver health profile compared to CLSA women from the general population. This observation could be explained by different SDH profiles between the two cohorts, and will be investigated further.

Supporting Document

Table 1. Characteristics of study participants stratified by three comparison groups

	BCC3 WLWH (N=173)	BCC3 women w/o HIV (N=167)	CLSA women w/o HIV (N=425)	p-value across all groups	p-value between BCC3 groups
Age in Years, Median [IQR]	55.0 [10.9]	56.0 [11.9]	55.0 [11.0]	0.201[a]	0.467[d]
Residing in a Rural Area, n (%)	20 (11.6)	11 (6.6)	107 (25.2)	**<0.001[b]**	0.345[e]
Ethnicity, n (%)				**<0.001[b]**	**0.001[e]**
White	72 (41.9)	74 (44.6)	317 (74.6)		
Indigenous	53 (30.8)	56 (33.7)	30 (7.1)		
African/Caribbean/Black	32 (18.6)	7 (4.2)	1 (0.2)		
Other Racialized Groups	15 (8.7)	29 (17.5)	77 (18.1)		
<High School Education, n (%)	48 (27.7)	29 (17.4)	8 (1.9)	**<0.001[c]**	**0.006[f]**
Household Income <$20,000/year, n (%)	68 (39.3)	57 (34.1)	13 (3.1)	**<0.001[c]**	**0.007[f]**
Self Reported Diabetes/Prediabetes, n (%)	30 (17.3)	40 (24.1)	39 (9.2)	**<0.001[c]**	0.374[f]
Visceral Adiposity Index, Mean (SD)	3.06 (3.34)	2.49 (1.88)	1.86 (1.55)	**<0.001[a]**	0.725[d]
NAFLD Ridge Score Categories, n (%)				**<0.001[c]**	1.000[f]
Rule in Steatosis	56 (32.4)	63 (37.7)	67 (15.8)		
Indeterminate	62 (35.8)	56 (33.5)	125 (29.4)		
Rule out Steatosis	55 (31.8)	48 (28.7)	233 (54.8)		

Abbreviations: BCC3: British Columbia CARMA-CHIWOS Collaboration; WLWH: women living with HIV; w/o: without; CLSA: Canadian Longitudinal Study on Aging; IQR: interquartile range; SD: standard deviation; NAFLD: Non-Alcoholic Fatty Liver Disease

[a]Kruskal–Wallis Test [b]Fisher's Exact Test [c]Pearson's χ^2 Test [d]Dunn's Test with Bonferroni [e]Pairwise Fisher's Exact Test with Bonferroni [f]Pairwise Pearson's χ^2 Test with Bonferroni

All missing data (excluded from the table for clarity) make up at most 8% of the total.

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Abstract #292

Experiences with Technology among Adults Aging with HIV Engaged in an Online Community-Based Exercise Intervention Study: a Longitudinal Qualitative Descriptive Study and Secondary Data Analysis

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Objectives: Our aim was to describe experiences with technology uptake and usage among adults living with HIV participating in a six-month online community-based exercise (CBE) intervention.

Methods: We conducted a longitudinal qualitative descriptive study using interview data from adults aging with HIV in Toronto, Canada. Participants engaged in a six-month online CBE intervention in partnership with the YMCA, consisting of thrice weekly exercise, supervised biweekly with online personal coaching sessions, weekly group exercise classes, and monthly self-management education sessions (via Zoom©). Technology included Zoom© software and webcam; Sweat for Good YMCA App© and YMCA Virtuagym Website©; and participants wore a wireless physical activity monitor (Fitbit Inspire 2©) throughout. Participants completed interviews at baseline and post-intervention. We conducted a group-based content analysis of interview transcripts, focusing on digital access, setup, usage, and perceptions of technology. Questionnaire data describing digital literacy and access to technology provided additional context to the interview data.

Results: Eleven participants completed at least one interview (six women, five men; median age 52 years). Experiences with technology uptake and usage among adults aging with HIV were characterized by four components: i) preparations for technology; ii) interactions with technology; iii) facilitators and satisfaction with technology; and iv) challenges and frustrations with technology, that interacted with intrinsic contextual factors (prior exposure with technology) and extrinsic contextual factors (COVID-19 pandemic, technological and social support).

Conclusion: Experiences with technology among adults aging with HIV engaging in an online CBE intervention varied from increasing ease of use, to increasingly burdensome over time. Results highlight the need to incorporate personal preferences, and ongoing technological support when implementing online CBE intervention with adults aging with HIV.

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Abstract #315

Engagement of People who Use or Inject Drugs Living with HIV into a Multidisciplinary Program of Care in BC, Canada.

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Purpose: The primary objective of this analysis is to describe the enrollment rates and baseline characteristics of participants enrolled in the BRAVVO study, a single-arm, prospective, observational cohort study designed to evaluate the impact of an integrated, multidisciplinary model of HIV care among inner-city residents with a history of substance use and non-adherence to their ARV medication.

Methods: Participants are primarily recruited from VIDC patient populations, upon review of their medical records and identification of non-adherence to their medication(s) and/or a recent unsuppressed viral load. Community-based outreach events at which point-of-care HIV antibody testing is performed are also used to identify individuals who are eligible for study participation. The individuals included in this analysis were recruited from January of 2024 until June of 2025.

Results: On average, we have identified approximately 3 individuals every month (60 individuals over 18 months) who meet the study eligibility criteria and agreed to enroll in the study. The characteristics of these individuals are shown in Table 1.

Conclusions: We found that the demographics of our study participants are largely similar to the demographics of the overall population of individuals living with HIV in Vancouver's inner city, with males and Indigenous individuals disproportionately represented. Our steady participant recruitment rates emphasize the urgent and a vital need for programs which help individuals remain adherent to their HIV treatment regimens and achieve viral suppression.

Supporting Document

Sex at birth	**N**	**%**
Female	9	15
Male	51	85
Ethnicity	**N**	**%**
White	35	58
Indigenous	18	30
White/Indigenous	3	5.0
Asian	2	3.3
African	1	1.7
ND	1	1.7
Housing Status	**N**	**%**
No Fixed Address (NFA)	3	5.0
Shelter	1	1.7
Temporary Housing	35	58
SRO	4	6.7
Unknown	10	17
Permanent Housing	7	12
	Age	
Mean	50.81355932	
Median	53	
Min	26	
Max	72	
Baseline UDS resutls	**N**	**%***
Cocaine	30	50.8
Amphetamine	29	49.2
Methadone	11	18.6
Morphine	18	30.5
Oxycodone	6	10.2
Benzodiazepines	26	44.1
Fentanyl	20	33.9
Polysubstance Use	33	78.57
None	3	5.1
Unknown	5	
Baseline HIV viral load	**N**	**%**
<40	39	83.0%
>40 copies <1000	1	2.12%
>1000 copies	7	14.9%

Table 1. Demographics of study participants at baseline. *percentage of individuals who provided UDS

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Abstract #329

Patient Satisfaction and Determinants of Long-Term Persistence on B/F/TAF: A Qualitative Study of Lived Experiences and Care Engagement Among People Living with HIV

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Background: Bictegravir/emtricitabine/tenofovir alafenamide (B/F/TAF) is widely used in Canada and valued for its efficacy and tolerability, yet little is known about how long-term users integrate this regimen into their daily lives. This study examines the impacts of treatment satisfaction with B/F/TAF on the patient experience, quality of life, adherence, and persistence.

Methods: We conducted a qualitative study at Clinique l'Actuel with adults living with HIV actively receiving B/F/TAF for ≥24 months, and being on ART for ≥36 months. Participants completed a sociodemographic, behavioural, substance-use, and HIV Treatment Satisfaction questionnaire, as well as a semi-structured interview—either in French or English. Purposive sampling was used to increase the diversity of the participant population. Interviews were transcribed, translated into English when required, and analysed inductively using Braun and Clarke's framework.

Results:
A total of 32 participants were interviewed. The median age was 62 years. Most participants were men (91%); no participants identified as transgender or non-binary. Key populations included 66.5% men who have sex with men, 6% identifying as bisexual, 34% migrants, 12.5% African, Caribbean, or Black individuals.
Overall, participants perceived high treatment satisfaction with B/F/TAF that enabled a sense of ease and normalcy with managing HIV within daily life. Compared to previous regimens, participants described B/F/TAF as simple and less toxic, with minimal to no experience of side effects. Combined with better perceived tolerability and high treatment satisfaction with B/F/TAF, ease of administration facilitation stable daily routines and trust in care relationships with healthcare providers supported adherence and long-term persistence with the regimen.

Conclusion:
In this Canadian observational study, B/F/TAF was perceived as a treatment regimen associated with stability, tolerability, and normality. Treatment satisfaction emerged as a multidimensional experience extending beyond the absence of side effects, and may be associated with sustained adherence and long-term persistence.

Clinical Sciences - Poster Abstracts / Sciences cliniques - Abrégés affiches

Abstract #341

In-utero EcoHIV Exposure is Associated with Elevated Maternal & Fetal Brain CHI3L1

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Background: Antiretroviral therapy in pregnancy has reduced rates of vertical HIV transmission, resulting in a growing population of children born HIV-exposed uninfected (CHEU). CHEU experience poorer neurodevelopmental outcomes than their HIV-unexposed peers; the contributing mechanisms are not fully understood. Alterations in fetal brain development may arise from pathological changes to the in-utero environment. We utilized the EcoHIV mouse pregnancy model to explore HIV-associated in-utero changes and effects on the fetal brain. Here we report on chitinase-3-like protein 1 (CHI3L1), a glycoprotein that mediates inflammation, macrophage polarization, and apoptosis, which has been associated with growth and developmental deficits in CHEU.

Methods: 7-week-old C57BL/6 mice were infected with 2.5×10^6pg EcoHIV virus or mock-infected and mated one week post-infection. Pregnant dams were euthanized on gestational day (GD) 14.5 or 18.5 (N=5/group). HIV gag expression was used to quantify viremia. CHI3L1 protein levels were quantified in fetal brain and placental lysates, and maternal plasma using Luminex assays. Mann-Whitney U test was used to compare between groups. Correlations were assessed using Spearman rank correlation coefficient.

Results: Placental CHI3L1 protein levels were significantly higher in EcoHIV-infected dams vs. controls at GD14.5 and 18.5, while maternal plasma CHI3L1 levels were higher only on GD14.5. Fetal brain CHI3L1 levels were significantly higher at GD14.5 in EcoHIV-exposed fetuses vs. controls. Fetal sex differences in CHI3L1 expression were observed only in the fetal brain in the EcoHIV-exposed group, with levels being higher in female fetuses. We observed an association between fetal brain and maternal plasma CHI3L1 levels in the EcoHIV group at GD14.5.

Conclusions: Our findings support an association between maternal HIV infection and altered CHI3L1 expression in the fetal brain. Associations between maternal plasma and fetal brain CHI3L1 support further investigation on its utility as a perinatal biomarker of neurodevelopmental deficits.

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Abstract #348

Investigating the Effects of HIV Integrase Strand Transfer Inhibitors (INSTIs) on Maternal Cardiovascular Remodeling During Pregnancy: A Comparative Preclinical Study

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Background
Globally, 1.3 million women living with HIV become pregnant each year, among them 85% receive Anti-Retroviral Therapy (ART). Integrase Strand Transfer Inhibitors (INSTIs) are highly effective at suppressing maternal viral load and reducing vertical transmission. However, their use has been associated with a higher risk of hypertension and metabolic dysfunction, which may increase long-term cardiovascular disease risk, especially during physiologically demanding states such as pregnancy that require maternal cardiac adaptation. Here, we examined the effects of INSTI-treatment on maternal cardiovascular remodelling using a mouse pregnancy model.

Methods
Starting gestational day (GD) 0.5, C57BL/6J female mice were orally administered either dolutegravir (5mg/kg/day, N=4), bictegravir (4mg/kg/day, N=1), cabotegravir (5mg/kg/day, N=5), or vehicle control (N=4) daily. Maternal hearts were collected at GD 18.5, fixed in formalin, and paraffin embedded. Cardiac sagittal sections at the levels of the mitral valve and transverse sections at the level of the papillary muscle were stained with Sirius Red/Fast Green to examine myocardial collagen deposition and fibrotic remodelling. Between 4-7 images per section were quantified.

Results
Collagen deposition was significantly increased in all INSTI-treated groups, with the mean (95% CI) percentage of tissue that was fibrotic for dolutegravir being 3.63% (2.05-5.22), cabotegravir 4.17% (3.17-5.16), and bictegravir 7.54%, compared to 1.00% (0.34-1.65) for control. In addition, we observed coronary vascular remodeling (i.e. increased fibrosis and increased interstitial space around the vessels) in maternal hearts within dolutegravir- and bictegravir-treated groups.

Conclusion and Future Directions
Our findings show increased fibrosis in maternal hearts at GD18.5, an irreversible marker of maternal cardiac maladaptation with long-term health consequences. Ongoing studies will assess INSTI treatment with ecotropic HIV infection on cardiac function in murine pregnancy. Comparing antiretrovirals will identify regimens that minimize maternal cardiovascular risk and improve outcomes for mothers and offspring.

Clinical Sciences - Poster Abstracts / Sciences cliniques - Abrégés affiches

Abstract #384

Initiating Lenacapavir With Increased Dosing in a Patient on Rifabutin: Efficacy and TDM Results

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Background: Lenacapavir (LEN) is a substrate of CYP3A4 and p-glycoprotein, and can be decreased by moderate/potent inducers. When LEN is used for pre-exposure prophylaxis, the US monograph recommends a supplemental SC (463.5 mg) dose every 6 months if a moderate enzyme inducer is initiated; however, there is no guidance for initiating LEN treatment in patients on chronic enzyme inducers. We report LEN concentrations in a patient initiating LEN while on stable rifabutin for disseminated M. avium complex (MAC).

Methods: A 30-year-old male with multi-drug resistant HIV and a history of non-adherence (CD4 <10 cells/mm3, HIV RNA 28,000 copies/mL) was hospitalized with P. jirovecii pneumonia and disseminated MAC. Antiretroviral treatment (ART) was re-initiated with bictegravir/tenofovir AF/emtricitabine and darunavir/cobicistat and later changed to dolutegravir, lamivudine, darunavir/ritonavir and tenofovir DF when rifabutin was added for enhanced MAC efficacy. After viral suppression (<20 copies/mL), ART was simplified to LEN plus daily darunavir/ritonavir. Increased LEN loading doses (900 mg po Days 1-2) and 1390 mg SC (3 x 1.5 mL injections Day 1) were administered and the original oral ART was continued for the first week after LEN initiation. Plasma samples for LEN therapeutic drug monitoring (TDM) were obtained daily (week one), weekly (month 1) and at months 2 and 3.

Results: All LEN concentrations were above the target value of 15.5 ng/mL (4xEC95), with a median value of 54.4 ng/mL. Median LEN values were similar to cohort LEN data (Le et al. CROI 2025). The week 2 LEN value was similar/higher than observed from CAPELLA in those on boosters (Jogiraju et al. ID Week 2024). Viral load suppression was maintained after LEN initiation.

Conclusions: LEN concentrations in the setting of rifabutin-mediated CYP3A4 induction, increased loading and injection doses and concomitant ritonavir were sufficient to maintain HIV viral suppression.

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Abstract #385

Improving Engagement, Adherence, HIV & Health Outcomes, Acute Care Use Among People Living with HIV Through Manitoba's PATHS Program

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Background: Due to structural racism and growing houselessness, injection drug use and mental health concerns, people living with HIV (PLHIV) in Manitoba experience barriers to engage in and adhere to HIV care. These barriers contribute to a growing HIV epidemic in the province, high volumes of emergency department (ED) visits, and poor health outcomes among PLHIV. The Program to Access Treatment for HIV and Support (PATHS) was developed in Manitoba to provide wrap-around care with psychosocial and cultural supports to improve linkage and retention in HIV care, promote stabilization and enhance health outcomes for PLHIV.

Methods: The analysis used PATHS monitoring data for PLHIV who were referred to and received care from PATHS between July 8th, 2024 and June 30, 2025. PATHS indicators included anti-retroviral (ART) initiation and adherence, viral suppression, acute care use, and mental health and social supports.

Results: By June 30, 2025, 65% of PLHIV assigned to PATHS were on HIV treatment, compared to 42% of PLHIV on the PATHS waitlist. Only 18% of PLHIV on the PATHS waitlist had a suppressed viral load, compared to 45% of PLHIV assigned to a PATHS pod. Emergency department (ED) visits among PLHIV assigned to PATHS reduced by 45.1%. The most common clinical interventions delivered by PATHS included medication refills and mental health and substance use assessments. PATHS facilitated a broad range of non-clinical interventions, from cultural, social and service coordination supports to housing, mental health and substance use supports.

Conclusions: Findings show that PATHS is facilitating engagement in and adherence to HIV care and improving clinical stability and health outcomes among PLHIV in Manitoba. Early evidence suggests that interdisciplinary programming can slow the speed of the HIV epidemic in Manitoba and strengthen Canada's progress toward 95 95 95 goals.

Supporting Document

Abstract Support Document: CAHR 2026

Improving Engagement, Adherence, HIV & Health Outcomes, Acute-Care Use Among People Living with HIV Through Manitoba's PATHS Program

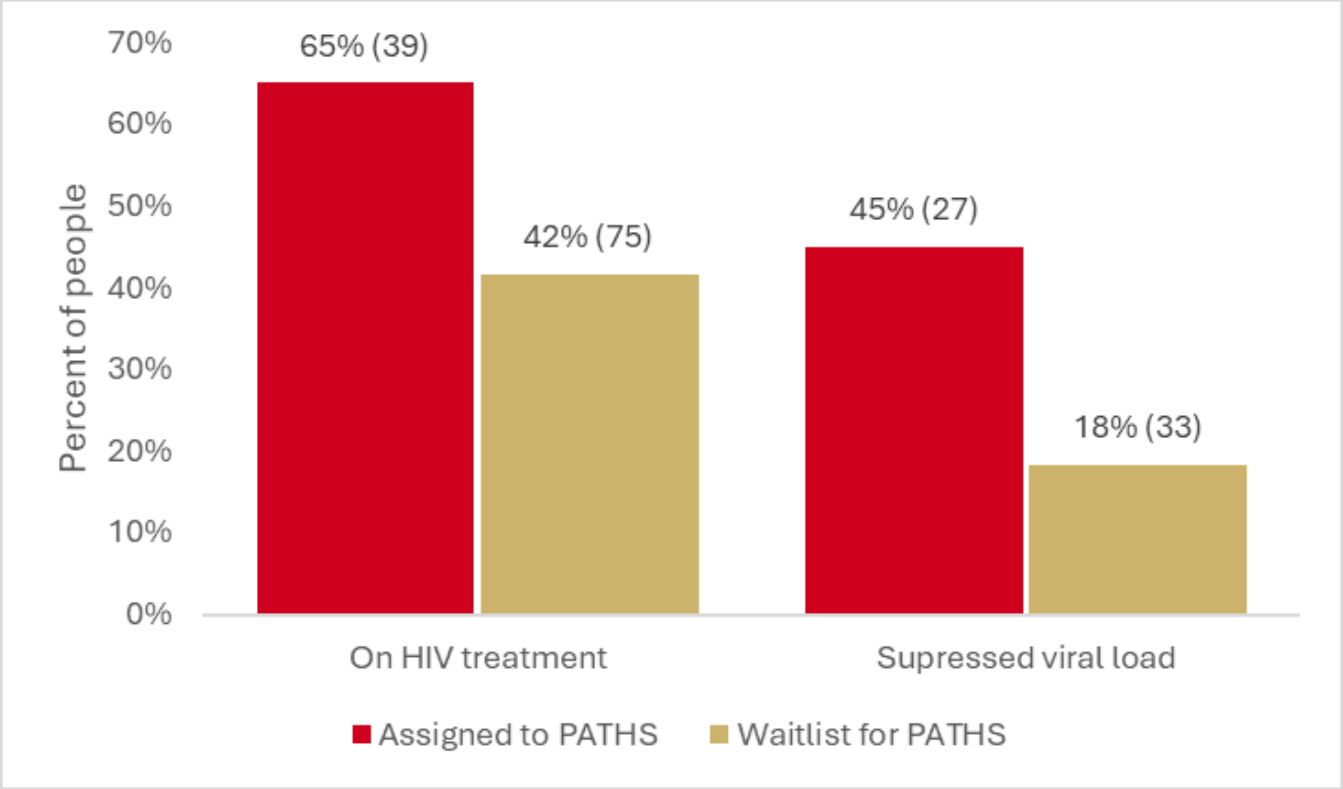

Figure 1. HIV care outcomes among people living with HIV assigned to PATHS (N = 60), compared to PLHIV on the PATHS waitlist (N = 180) between July 8, 2024 and June 30, 2025.*

***Assigned to PATHS:** Person living with HIV who has been referred to PATHS and who has been assigned to a PATHS team for care. **Waitlist for PATHS:** Person living with HIV who has been referred to PATHS but has not been assigned to a PATHS team for care. **On HIV treatment:** a) For PLHIV assigned to a PATHS pod "on HIV treatment" is documented by the PATHS nurse as being "on HIV treatment," and b) for PLHIV on the waitlist for PATHS, "on HIV treatment" is a MB eChart record of ART dispensation within three months of the reporting period. **Suppressed viral load:** a) For PLHIV assigned to a PATHS pod, "suppressed viral load" is documented by the PATHS nurse as having a suppressed viral load (most recent viral load test result is <200 copies/ml), and b) for PLHIV on the waitlist for PATHS, "suppressed viral load" is a MB eChart viral load test report within the six months prior to the reporting period with a value of <200 copies/ml*

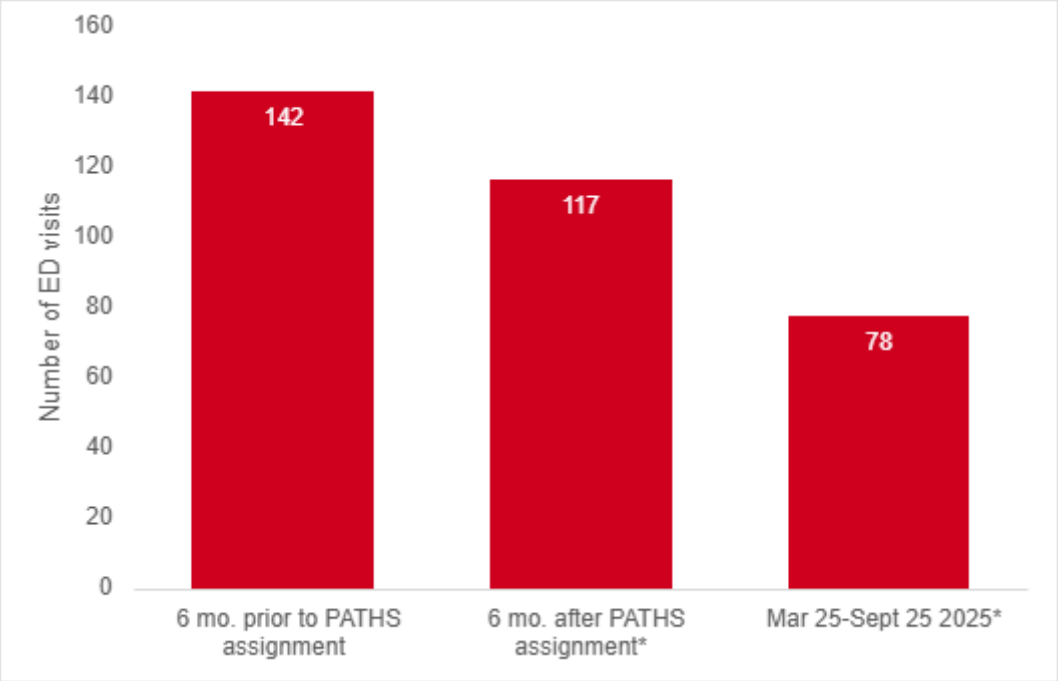

Figure 2. Emergency department (ED) visits among people living with HIV assigned to PATHS at 7th St. Health Access Centre and Nine Circles Community Health Centre, comparing the combined number of ED visits in the 6 months prior to being assigned to PATHS to the combined number of ED visits in the 6 months after PATHS assignment, to the combined number of ED visits in the 6 months prior to the report end date (n = 44), July 8, 2024 to September 25, 2025.

**For 14 out of the 44 PLHIV, the 6-month period after PATHS assignment overlaps with the most recent 6-month period (March 25–September 25, 2025). This means that some ED visits may be counted in both the "6 mo after PATHS assignment" and "Mar 25-Sept 25 2025" timeframes. This overlap varies across the 14 PLHIV depending on their individual PATHS assignment dates. Some may have only a few days of overlap, while others may have a few months. This overlap does not impact the trend over time demonstrated in the figure, but important to consider when interpreting the data.*

Clinical Sciences - Poster Abstracts / Sciences cliniques - Abrégés affiches

Abstract #386

Switch to DOR/ISL (100/0.25 mg) QD From Oral ART: Week 96 Update From an Open-Label Phase 3 Study

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Background
In an open-label, phase 3, randomized clinical study in virologically suppressed adults with HIV-1, switching to doravirine with islatravir (DOR/ISL 100/0.25 mg) once-daily showed non-inferior efficacy to continuing oral antiretroviral therapy at Week 48 (W48). We report on efficacy and safety through Week 96 (W96).

Methods
After W48 of the comparative portion of the study, all participants receive open-label DOR/ISL (100/0.25 mg) through Week 144. Discontinuation is required for participants with 2 consecutive HIV-1 RNA≥200 copies/mL 3-5 weeks apart or confirmed decline from baseline in total lymphocytes.

Results
On Day 1, 366 participants switched to DOR/ISL (Group 1) and 185 continued their baseline ART (bART; Group 2). At W48, 177 participants (95.7%) in Group 2 switched from bART to DOR/ISL, for a total of 543 on DOR/ISL. At W96, HIV-1 RNA was ≥50 copies/mL in 9 participants: 7 (1.9%) from Group 1 and two (1.1%) from Group 2, while virologic suppression was maintained in 92.6% and 96.6%, respectively. No participant developed treatment-emergent resistance to either DOR or ISL through W96. Adverse event rates in Group 2 (W48-96) were similar to those in Group 1 (W0-48). Mean % change in CD4+ T-cell and total lymphocyte counts were comparable across the groups at W96, with no discontinuations due to decreased CD4+ T-cell or total lymphocyte count.

Conclusions
Switching to DOR/ISL (100/0.25 mg) maintained a high rate of viral suppression over 96 weeks with no emergent resistance to DOR or ISL. DOR/ISL was well tolerated and did not adversely affect lymphocyte counts.

Supporting Document

Table. Selected Efficacy and Safety Outcomes at Week 96 in the MK-8591A-051 Study

	Group 1: DOR/ISL (N=366)		Group 2: DOR/ISL (N=177) Week 48-96
	Weeks 0-96	Weeks 0-48	
Virologic outcomes, n (%)[a]			
HIV-1 RNA ≥ 50 copies/mL	7 (1.9)	5 (1.4)	2 (1.1)
HIV-1 RNA < 50 copies/mL	339 (92.6)	350 (95.6)	171 (96.6)
No virologic data in window	20 (5.5)	11 (3.0)	4 (2.3)
CD4+ T-cell count, mean % change from DOR/ISL start (95% CI)[b,c]	4.5 (1.2, 7.8)	4.6 (1.7, 7.5)	5.5 (-2.1, 13.1)
Total lymphocyte count, mean % change from DOR/ISL start (95% CI)[b,c]	3.6 (0.1, 7.1)	3.3 (0.6, 6.1)	0.5 (-3.0, 4.0)
Participants with AEs, n (%)			
Drug-related AEs	50 (13.7)	45 (12.3)	20 (11.3)
Toxicity grade 3 or 4 AEs	54 (14.8)	40 (10.9)	11 (6.2)
Serious AEs	34 (9.3)	24 (6.6)	9 (5.1)
Discontinued due to AE	4 (1.1)	2 (0.5)	1 (0.6)
Weight (kg), mean change from DOR/ISL start (95% CI)[b]			
All participants[d]	0.94 (0.27, 1.61)	0.94 (0.45, 1.43)	0.89 (0.20, 1.57)
With EFV or TDF in bART[e]	2.99 (1.77, 4.20)	2.48 (1.68, 3.29)	2.45 (1.28, 3.62)
No EFV or TDF in bART[f]	-0.13 (-0.89, 0.64)	0.18 (-0.42, 0.77)	0.05 (-0.77, 0.87)

[a] FDA Snapshot Approach (modified Full Analysis Set). [b] Data as Observed (All Participants as Treated). [c] n=340, 352, and 172, respectively. [d] n=340, 350, and 172, respectively. [e] n=117, 116, and 60, respectively. [f] n=223, 234, and 112, respectively.

Words: 249 (without section headings)

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: HIV prevention and Control / Thème : Prévention et maîtrise du VIH

Abstract #278

Comparative HIV Testing among Adolescent, Young, and Older Women in Nigeria: Implications for Youth-Focused, Equity-Oriented Strategies

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Background: Nigeria's HIV epidemic remains a major public health challenge, with adult prevalence at 1.3–1.4% and nearly 2million people living with HIV. Adolescent girls and young women (AGYW) are a priority population for achieving national HIV testing and treatment targets, yet evidence comparing their testing patterns to older women using recent national data is limited. This study examined differences in HIV testing outcomes (awareness and use of HIV self-test kits, ever tested, recent testing, antenatal testing) and testing location between AGYW (10–19 years) and older women (25–49 years).

Methods: Data from the 2024 Nigeria Demographic and Health Survey (NDHS), a nationally representative survey of 39,050 women, were analyzed. Descriptive statistics and multivariate logistic regression were used to compare HIV testing outcomes between AGYW and older women and assess associations with education, employment, and wealth. Results: The analysis included 14,708 AGYW (median age 19, IQR 17–22) and 24,342 older women (median age 35, IQR 29–41). Education differed significantly ($p<0.001$): 8% of AGYW versus 17% of older women had higher education; employment was higher among older women (61.1% vs 38.9%, $p<0.001$). AGYW were more likely to be in poorer/middle wealth quintiles, while older women were concentrated in the richest quintile. HIV testing awareness and uptake were consistently lower among AGYW (all $p<0.001$): most had never heard of HIV self-test kits, recent testing was about half that of older women, and antenatal testing was also lower. Testing location differed ($p<0.001$): AGYW were more likely to use public facilities and less likely to use private facilities. Education, wealth, and employment were significantly associated with all HIV testing outcomes ($p<0.05$).

Conclusion: AGYW show markedly lower HIV testing knowledge and uptake and greater reliance on public facilities, highlighting the need for youth-friendly interventions such as school-and community-based testing, HIV self-testing expansion, and strategies addressing educational and economic barriers.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: HIV prevention and Control / Thème : Prévention et maîtrise du VIH

Abstract #302

Public Knowledge and Acceptance of U=U in Canada in Persons Accessing HIV Self-Testing

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Undetectable equals Untransmittable (U=U) is a public health message that can combat HIV-related stigma. Ensuring widespread awareness and acceptance of U=U is critical to challenging persistent stereotypes about people living with HIV. Yet, population-level data on U=U awareness and acceptance remain limited. This study addresses this gap by assessing U=U-related outcomes among Canadians who may be at risk for HIV and examining variation across sociodemographic characteristics.
Participants (N=3,004) using I'm Ready, Test, a national app that enables Canadians to order HIV self-testing kits, completed a survey when ordering a kit between January and October 2025. Survey questions assessed demographic characteristics and U=U-related outcomes: awareness, knowledge of supporting science, acceptance, and discussions with healthcare providers (HCP).
Participants self-identified as White (37%), Asian (30%), Black (17%), Indigenous (2%) or other (14%). Most identified as cis-men (64%), cis-women (26%) or other genders (10%). Sexual orientations included heterosexual (51%), gay (24%), bisexual (15%), or other (10%). Overall, 42% were aware of U=U. Among those aware, 79% understood the science, 77% accepted it, but only 26% discussed it with an HCP. Using multiple logistic regression, heterosexual participants were less likely to be aware of U=U than gay participants (OR 0.24, 95% CI 0.19–0.31). Asian (OR 0.57, 95% CI 0.45–0.73), Middle Eastern (OR 0.39, 95% CI 0.25–0.62), and Indigenous participants (OR 0.43, 95% CI 0.19–0.95) were less likely to be aware compared with White participants. Cis-women were less likely than cis-men to be aware (OR 0.77, 95% CI 0.60–0.98) and accept U=U (OR 0.63, 95% CI 0.40–0.97).
Promotion of U=U among the public remains a priority. Population-specific and culturally relevant U=U messaging is recommended to engage diverse populations. Beyond awareness, disparities in acceptance of U=U science and message persist, suggesting need for further research to identify barriers to uptake.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: HIV prevention and Control / Thème : Prévention et maîtrise du VIH

Abstract #237

Access to PrEP at first attempt among gay, bisexual and other men who have sex with men [GBM] is associated with health service type in two Canadian Provinces

Jonathan Easey[1], Mark Hull[1,2], Wendy Zhang[2], Jenny Li[2], Jason Trigg[2], Viviane Lima[1,2], Nathan Lachowsky[3], Paul MacPherson[4], Daniel Grace[5], Darrell Tan[5]
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Background: Understanding GBM experiences in attempting to obtain PrEP may help develop interventions to improve PrEP access.

Methods: We undertook a community-based survey of GBM accessing sexual health services at community clinics and online in BC and Ontario. Respondents currently or previously using PrEP were asked about various factors (e.g., prior STIs, HIRI-MSM scores, clinic location/type) and the outcome (i.e., whether they were prescribed PrEP) of their first attempts to seek PrEP, with a particular focus on clinic type (sexual health, primary care, on-line service). Factors associated with success at first attempt to obtain PrEP were analysed using bivariate and logistic regression analysis.

Results: Overall 1705 individuals (53.8% in ON, 52.0% White, median age 34, Q1-Q3=28–41) were surveyed June-October 2022. Individuals reported prior STIs (38.2% gonorrhea, 34.1% Chlamydia, 19.6% syphilis) and 13.4% had HIRI-MSM risk scores >25. N=837/938 individuals who reported PrEP use completed responses regarding their first PrEP experience, with 89.6% (n=750/837) able to access to PrEP at first attempt. Individuals were more likely to have success if they accessed PrEP at a sexual health clinic (92.3%) vs. a general practitioner [GP] (85.9%), walk-in clinic (82.2%) or online service (80%), p=0.002. In logistic regression adjusted for age, income, province, prior bacterial STI, and HIRI-MSM risk index score (>25) only clinic type was associated with likelihood of
obtaining PrEP at first attempt: adjusted odds ratio [aOR]=0.483, 95%CI=0.283–0.823 with a GP, aOR=0.369, 95%CI=0.156–0.873 for a walk-in clinic, aOR=0.322, 95%CI=0.149–0.696 for an online provider compared to a sexual health clinic.

Conclusions: Self-reported success at first attempt to access PrEP was inversely associated with clinic type, with non-sexual health clinics being less likely to provide PrEP. Improving access to GBM sexual health services while examining how to improve outcomes for GBM seeking PrEP through other providers remain crucial to expanding PrEP uptake.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: HIV prevention and Control / Thème : Prévention et maîtrise du VIH

Abstract #277

A Qualitative Study Exploring the Educational Needs of Non-Infectious Diseases Physicians and Health Care Providers in Canada Related to Engaging in HIV Prevention Care for Women

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Introduction: In 2024 in Canada, 36% of new HIV diagnoses were among women, yet PrEP uptake among women remains low. We explored unmet educational needs, barriers and facilitators to prescribing PrEP to women in Canada.

Methods: Informed by the COM-B framework, which posits that practitioners require adequate Capability, Opportunity and Motivation to engage in changes in Behaviours like PrEP prescribing, we conducted 25 semi-structured qualitative interviews with non-infectious diseases physicians, final-year residents, pharmacists, nurses, or nurse practitioners in Canada. We recruited interviewees from our professional networks, using purposive and snowball sampling. Coding was performed until thematic saturation was reached, and analysis used constructivist grounded theory and constant comparison analysis.

Results: We interviewed two nurses, two psychiatrists, two endocrinologists, five OBGYN, six pharmacists, and eight family doctors across seven provinces. Preliminary themes are: (1) Provider misconceptions of HIV epidemiology and structural barriers perpetuate gender-based inequities in PrEP uptake (e.g., stereotypes of who is affected by HIV, discrimination related to sexual practices of women), (2) The nature of provider-patient relationships impacts willingness to discuss PrEP with women (e.g., reason for visit, longitudinal versus episodic care), (3) Providers expressed interest in communities of practice to support both PrEP prescribing and allied health-led interventions (e.g., collaborative prescribing, access to PrEP experts), (4) Provider education must address women-specific concerns (e.g., PrEP in pregnancy/breastfeeding/chestfeeding, women's self-perceived HIV risk), and (5) Education on HIV PrEP should be low-barrier, practical, incentivized, tailored to diverse providers, and decoupled from HIV education, and include public education (e.g., share information at OBGYN conferences, women peer-led education).

Discussion: One strategy to increase PrEP uptake among women is via women-centred, specialist-supported, and low-barrier education programs for non-infectious diseases physicians and allied health professionals. Further work is needed to develop tailored models of PrEP care for women that integrate provider-specific priorities with community needs.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: HIV prevention and Control / Thème : Prévention et maîtrise du VIH

Abstract #174

Cango Lyec (Healing the Elephant): resilience and HIV vulnerabilities among adolescent girls and young women in post-conflict Northern Uganda

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Background: Resilience is a key mediator of health disparities and HIV outcomes. This study identifies factors linked to increased resilience among adolescent girls and young women (AGYW) in post conflict Northern Uganda.

Methods: Cango Lyec is an open cohort in Northern Uganda. Between December 2020 and March 2023, 924 AGYW aged 13-24 were enrolled across four districts and completed interviewer-administered questionnaires on trauma, depression and sociodemographic characteristics. Venous blood was collected for HIV, HBV, and syphilis serology. Multivariable logistic regression was used to assess factors associated with increased resilience measured using the Connor-Davidson Resilience Scale.

Results: HIV prevalence was 2.7% (1.1% among 13-14; 1.7% among 15-19; 5.0% among 20-24). Six (25.0%) out of 24 HIV cases were not sexually active. Among sexually active AGYW (N=424), HIV prevalence was 4.2% (2.2% among 15-19; 5.2% among 20-24). Of the 24 HIV+, 50% had detectable viral loads. Resilience scores ranged from 16 to 93, with a mean of 60.5. Separate logistic regression models were fitted using the median (61.0) and the 3rd quartile (69.0) as a cutoff and adjusted for age and district. Factors associated with resilience scores below the median included having been sexually assaulted (OR=0.41;p=0.028), having been physically or verbally abused by a partner (OR=0.42;p<0.001), experiencing ≥3 distinct traumatic events (OR=0.40;p<0.001), sexual assault in the context of war (OR=0.22;p<0.001), and currently experiencing a lack of food or water (OR=0.37;p=0.030). Factors associated with resilience scores above the median included age (OR=1.15;p<0.001), currently attending school (OR=1.72;p=0.004), and having attained a secondary or higher education (OR=1.86;p<0.001). Having tested for HIV (OR=2.37;p<0.001) was associated with a resilience score above the 3rd quartile.

Conclusion: Ongoing legacies of war, especially gender violence, contribute to lower resilience and HIV vulnerability among AGYW in Northern Uganda. Wholistic approaches integrating HIV prevention with culturally-safe mental health initiatives are urgently required.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: HIV prevention and Control / Thème : Prévention et maîtrise du VIH

Abstract #324

Examining Unknown Cause Deaths Among People with and without HIV During British Columbia's Unregulated Drug Toxicity Crisis Between 2015 and 2020

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Background
People with HIV (PWH) are disproportionately impacted by British Columbia's unregulated drug toxicity crisis compared to people without HIV (PWoH). Unknown-cause deaths among PWH have increased since the crisis's onset, suggesting some may actually be unregulated drug toxicity deaths (hereafter, "drug-related"). We examined cause-specific mortality among PWH and PWoH in BC from 2015–2020 and adapted a method to classify unknown-cause deaths as likely drug-related.

Methods
From the COAST study, we characterized all deaths occurring 04/2015–03/2020 among PWH and PWoH (a general population sample) by three underlying cause groupings: unknown-cause (ICD-10 coded "R99"), drug-related (X41-X42;X44;Y11-Y12;Y14), and non-drug-related (all other deaths). We examined decedents' demographic and clinical characteristics, and classified unknown-cause deaths as likely drug-related based on: 1) aged 20-64, 2) an undetermined/unknown/pending manner of death, and 3) drug use history (administrative data).

Results
There were 853 PWH deaths (9% unknown-cause; 18% drug-related) and 17,543 PWoH deaths (2% unknown-cause; 2% drug-related); Table 1. Among PWH, unknown-cause deaths resembled drug-related deaths on demographic characteristics and drug-related healthcare contact within 12 months; among PWoH, these two groups were less similar. Most PWH unknown-cause deaths (76%) had a drug-related healthcare contact within 12 months, compared to 24% of PWoH unknown-cause deaths (Figure 1). Our criteria classified 86% and 40% of unknown-cause deaths in PWH and PWoH as likely drug-related.

Conclusion
Our findings suggested many unknown-cause deaths among PWH in BC between 2015-2020 may be drug-related, and highlighted discrepancies in cause-specific mortality ascertainment compared to PWoH within the unregulated drug toxicity crisis context.

Supporting Document

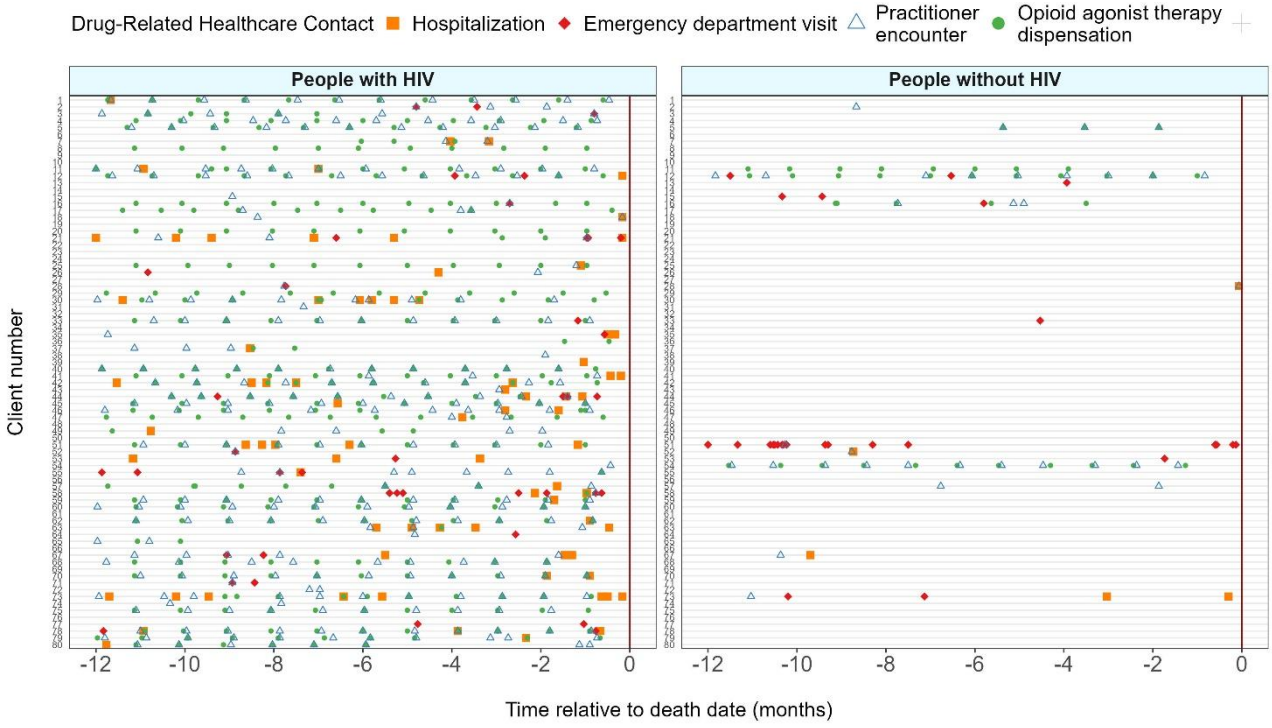
Table 1. Characteristics of people with and without HIV who died between 2015-2020 in BC, stratified by underlying cause of death (sourced from the COAST* study).

People with HIV (PWH)	**Unknown-cause** (n = 80)	**Drug-related** (n = 155)	**Non-drug-related** (n = 618)
Age [median (Q1, Q3)]	49 (43, 58)	49 (43, 54)	59 (52, 68)
Male sex	57 (71%)	106 (68%)	485 (78%)
Death occurred in hospital	19 (24%)	21 (14%)	333 (54%)
Resided in selected major urban centres[1]	60 (75%)	105 (68%)	323 (52%)
Drug-related healthcare contact, 12 months	61 (76%)	114 (74%)	267 (43%)
History of drug use (administrative data)	73 (91%)	155 (100%)	442 (72%)

People without HIV (PWoH)	**Unknown-cause** (n = 382)	**Drug-related** (n = 339)	**Non-drug-related** (n = 16,822)
Age [median (Q1, Q3)]	52 (37, 67)	39 (31, 52)	82 (71, 89)
Male sex	267 (70%)	277 (82%)	8,724 (52%)
Death occurred in hospital	77 (20%)	32 (9%)	7,444 (44%)
Resided in selected major urban centres[1]	100 (26%)	108 (32%)	2,662 (16%)
Drug-related healthcare contact, 12 months	90 (24%)	170 (50%)	1,026 (6%)
History of drug use (administrative data)	168 (44%)	335 (99%)	2,249 (13%)

*COAST = Comparative Outcomes and Service Utilization Trends Study. 1. Residing in Greater Victoria, Surrey, or Vancouver City Centre/Centre North local health areas in fiscal year of death.

Figure 1. Drug-related healthcare contact in the 12 months preceding unknown-cause deaths in BC (2015-2020) among PWH (n=80), and PWoH (a random of sample of 80 unknown-cause deaths).



Notes: Client number = unique but meaningless identifier. Each horizontal line represents a person. To simplify visualization, we randomly selected 80 PWoH unknown-cause deaths (from n = 382) and aggregated practitioner encounters/opiod agonist therapy dispensations to maximum once per month.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Surveillance, data and methodological science / Thème : Surveillance, données et science méthodologique

Abstract #360

Hepatitis C (HCV) Screening and Clearance Cascade in HIV Treatment and HIV Pre-Exposure Prophylaxis (PrEP) Programs in British Columbia (BC), Canada

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Introduction: In BC, HIV Treatment (HIV-Tx) and PrEP are centrally distributed and program therapeutic guidelines recommend screening for syndemic conditions including HCV. A lab-based HCV screening and clearance cascade was developed to inform potential quality improvement measures.

Methods: BC Centre for Excellence in HIV/AIDS HIV-Tx and PrEP program participants active in 2024 were included. Program registry lab records (2015-2024) were utilized for the cascade: (1) HCV ever screened, (2) Anti-HCV ever reactive, (3) HCV RNA ever tested, (4) Last HCV RNA negative. We described client demographics, HCV screening rates, and compared HIV-Tx and PrEP (Chi-square and Kruskal-Wallis tests).

Results: 8356 HIV-Tx and 9318 PrEP participants were included. Differences between HIV-Tx vs PrEP included median [Q1-Q3] age (55 [43-63] vs 36 [30-45] years, p<0.001); gender (cis-men 82% vs 96%, p<0.001), key populations (e.g., men-who-have-sex-with-men/MSM 44% vs 95%, p<0.001), and reported substance use history (26% vs 2%, p<0.001).

Most participants (>95%) had prior HCV screening. Screening rates (per person-year [95%CI]) were 1.15 [1.14-1.16] in HIV-Tx and 1.27 [1.26-1.28] in PrEP, over median [Q1-Q3] 10 [7-10] and 2.8 [1.3-5.6] years of follow-up per person, respectively. Most participants (82% HIV-Tx and 93% PrEP) had recent screening (2023-2024).

History of HCV was higher in HIV-Tx than PrEP (21% vs 1%, p<0.001); however, recent/current HCV viremia was low in both cohorts (Figure).

Conclusion: Adherence to HCV screening guidance, low population prevalence amongst MSM, and active provider involvement in care appear to have resulted in low numbers of HCV viremic participants needing repeat testing and potential treatment.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Surveillance, data and methodological science / Thème : Surveillance, données et science méthodologique

Abstract #151

Sex Differences in Sexually Transmitted and Bloodborne Infections Among People Incarcerated in Quebec Provincial Prisons

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Background: Incarcerated individuals are disproportionately affected by sexually transmitted and bloodborne infections (STBBIs) and studies suggest that incarcerated females have a higher prevalence of STBBIs compared with incarcerated males. As Canadian data are lacking, we aimed to determine the prevalence of bloodborne (HIV, hepatitis B virus (HBV), and hepatitis C virus (HCV)) and bacterial sexually transmitted infections (chlamydia, gonorrhea, and syphilis), stratified by sex, among people in Quebec provincial prisons.

Methods: Convenience sampling of adults (age >18) in three prisons in Montreal (two male and one female), where individuals are sentenced for <2 years, was undertaken. Participants were offered self- or peer-collected dried blood spot (DBS) testing for HIV and HCV antibodies (and HCV RNA if positive), hepatitis B surface antigen (HBsAg), and Treponema pallidum enzyme immunoassay (EIA; syphilis antibody). PCR testing was conducted on urine samples for Chlamydia trachomatis (chlamydia) and Neisseria gonorrhoea (gonorrhea). Test results were stratified by sex.

Results: From October 7, 2024–October 29, 2025, 811 participants were recruited (547 males (67%) and 264 (33%) females, median age: 37 years). Overall, 71/264 (27%) females and 84/547 (15%) males reported a history of injection drug use. 10% (84/811) self-collected their DBS. Among females, the prevalence of STBBIs was HIV: 1.1% (n=3); HBsAg: 0.4% (n=1); HCV antibodies: 13.3% (n=35); HCV RNA: 2.7% (n=7); chlamydia: 1.9% (n=5); gonorrhea: 1.1% (n=3); and syphilis: 6.8% (n=18). Among males, the corresponding estimates were HIV: 0.4% (n=2); HBsAg: 0.5% (n=3); HCV antibodies: 4.6% (n=25); HCV RNA: 0.9% (n=5); chlamydia: 2.4% (n=13); gonorrhea: 0.5% (n=3); and syphilis: 4.2% (n=23). Test positivity was two-fold higher among females than males (27.3% vs. 13.5%).

Conclusion: Females in Quebec provincial prisons had a higher prevalence of most STBBIs compared to males, underscoring the importance of gender-informed public health planning for incarcerated females to meet Canada's STBBI elimination goals.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Surveillance, data and methodological science / Thème : Surveillance, données et science méthodologique

Abstract #93

HEPATITIS C (HCV) ELIMINATION AMONG PEOPLE LIVING WITH HIV IN AN INNER-CITY COHORT IN VICTORIA, BRITISH COLUMBIA, CANADA

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Background:
To reach the WHO's 2030 hepatitis C virus (HCV) elimination target, Canada must maintain high treatment rates, especially among people who use drugs (PWUD), who account for the majority of new HCV cases in British Columbia and represent the highest proportion of HCV/HIV co-infection in Canada. Strategic elimination of HCV in this population will have both individual and community benefits as the potential for transmission, liver disease, and liver cancer risk will significantly decrease.

Methods:
A retrospective chart review of people living with HIV (plwHIV) was conducted through the Cool Aid Community Health Centre by reviewing data entered in electronic medical records from January 2019 to December 2025. History of HIV/HCV co-infection and results of strategic HCV treatment including sustained virologic response (SVR) were evaluated.

Results:
Of a total of 244 plwHIV, 91 (38%) had evidence of prior HCV co-infection indicated by a positive HCV antibody test. At the time of analysis, none had active HCV infection: 72 (79%) have been treated with SVR, 16 (18%) spontaneously cleared, and 3 (3%) are unknown if cleared or SVR. 16 (18%) experienced reinfection and all have been successfully retreated.

Conclusion:
This retrospective chart review data indicates significant progress towards elimination of HCV within plwHIV locally, with the entire cohort (100%) no longer burdened with HCV. Similar efforts are needed to eliminate HCV in plwHIV lost to follow up nationally. The overall progress towards elimination was impacted by the 18% reinfection rate observed but retreatment is now easily obtained through provincial reimbursement and should be prioritized to support the health of plwHIV.

Supporting Document

	HCV Ab+ (n=91)	Totals (n = 244)
Age		
20-39	3 (3.3%)	34 (13.9%)
40-49	19 (20.9%)	47 (19.3%)
50-59	38 (41.8%)	77 (31.6%)
60+	31 (34.1%)	86 (35.2%)
Mean	55	54
Gender		
Cisgender women	23 (25.3%)	42 (17.2%)
Cisgender men	66 (72.5%	196 (80.3%)
Transgender women	1 (1.1%)	2 (0.8%)
Two-spirit	0	1 (0.4%)
Antiretroviral therapy		
INSTI drug class	88 (96.7%)	212 (86.9%)
Single tab regimen	81 (89.0%)	202 (82.8%)
Mental health	61 (67.0%)	148 (60.7%)
Substance use	75 (82.4%)	145 (59.4%)
HCV Ab+		91 (37.3%)
Self-cleared	16 (17.6%)	16 (6.6%)
Previously treated with SVR	72 (79.1%)	72 (29.5%)
Unknown self-clear or SVR	3 (3.3%)	3 (1.2%)
Re-infected (all retreated)	16 (17.6%)	16 (6.6%)

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Theme: Surveillance, data and methodological science / Thème : Surveillance, données et science méthodologique

Abstract #321

Using Census-Based Evaluation Methods to Evaluate Health Equity in HIV Self-testing Access Among Key Populations in Canada: Findings from the I'm Ready Program

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Persistent health inequities drive disproportionate HIV rates among key populations in Canada. The I'm Ready program aims to reduce these inequities by improving access to HIV self-testing. To evaluate effectiveness of the I'm Ready program to address health equity, we compared participant characteristics and outcomes with census population distributions across Canada.

We analyzed 15,000 I'm Ready participants who received HIV self-tests between June 2021 and November 2025. Sample included all key populations, with > 2,000 Black participants, 500 Indigenous, 5,500 men who have sex with men, and 3,500 women; 90% resided in large urban/metropolitan areas. We compared participants' socio-demographic characteristics against 2021 Census population distributions. Proportional differences and odds ratios were calculated to assess over and under-representations of populations reached. Results were stratified by geography using Statistics Canada definitions - large cities (Census Metropolitan Areas), smaller cities (Census Agglomerations), and rural regions (non-CMA/CA).

Relative to Canadian population, participants identifying as 2SLGBTQ+ were significantly more likely to participate in I'm Ready (odds ratio [OR] = 27.5) while women were significantly less likely to be reached (OR=0.35). Gender diverse participants were more likely to participate nationally, with the strongest differences observed in smaller cities and rural communities (OR=37.3). Youth under 30 were more likely to participate (OR=3.2), as were Black participants (OR=3.4), particularly in rural regions (OR=19). Canadian citizens were more likely to participate in urban areas (OR=1.8) while non-citizens were more likely to participate in rural regions (OR=1.7).

I'm Ready Program is highly effective in addressing health inequities in HIV testing for most key populations, reaching 2SLGBTQ+ and gender diverse individuals, with higher proportions of gender-diverse participants in smaller cities and rural areas. Women, however, were under-represented, a pattern commonly observed in HIV testing. REACH Nexus is working on strategies to ensure women get access to low-barrier access in their community.

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Theme: Surveillance, data and methodological science / Thème : Surveillance, données et science méthodologique

Abstract #236

Beyond Clinical Markers: How Structural Vulnerability Impacts Survival among People Living with HIV in British Columbia

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Background: Survival among people living with HIV (PLWH) is shaped by intersecting socioeconomic and structural conditions. We applied latent class analysis (LCA) to identify intersectional social subgroups among PLWH in British Columbia (BC) and examined their relationship with all-cause mortality.

Methods: We linked survey data from the Longitudinal Investigation into Supportive and Ancillary Health Services (LISA) Study with administrative clinical and mortality records from the Comparative Outcomes and Service Utilization Trends (COAST) cohort (2007–2017). LCA indicators included income, education, employment, food security, housing stability, physical limitation, social supports, access to care, neighborhood cohesion, race/ethnicity, gender, immigration status, and sexual orientation. Identified classes were treated as baseline exposures. Time-varying clinical confounders (i.e., Charlson Comorbidity Index, viral suppression, and CD4 cell count) along with age and illegal drug use, were incorporated into the final Cox models.

Results: Of 1,000 participants, 996 were included in the analysis. A two-class LCA model best fit the data. The high structural vulnerability class (n = 658, 66%) was characterized by low income, limited education, food insecurity, unstable housing, physical limitation, and higher proportion of racial/ethnic groups whereas the low structural vulnerability class (n = 338, 34%) exhibited comparatively stable socioeconomic conditions. The high structural vulnerability group accounted for 198 (85.3%) of 232 deaths, and was associated with significantly higher mortality, after adjusting for confounders (adjusted Hazard Ratios = 2.47; 95% CI: 1.54–3.95).

Conclusions: Intersectional social profiles were strongly associated with mortality among people living with HIV, after adjustment for clinical confounders. Even in a setting with universal HIV care, these intersectional profiles were associated with mortality, underscoring that preventable deaths will persist unless HIV policy and practice address social conditions as co-occurring systems of risk rather than isolated determinants.

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Theme: Surveillance, data and methodological science / Thème : Surveillance, données et science méthodologique

Abstract #169

Income-based Inequalities in the Epidemiology of HIV and other STBBIs in Manitoba from 2012-2021

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Background. HIV and other sexually transmitted and bloodborne infections (STBBI), including chlamydia (CT), gonorrhea (GC), and syphilis, remain major public health concerns, with disproportionate impacts linked to structural inequities. Contemporary, population-based descriptions of income-related disparities across multiple STBBI are limited. We describe STBBI trends in Manitoba from 2012-2021, focusing on area-level income gradients.

Methods. A retrospective, population-based analysis using linked, anonymized administrative and laboratory data housed at the Manitoba Centre for Health Policy. Diagnoses followed provincial case definitions. Annual person-year (PY) rates with 95% confidence intervals (CI) were calculated for residents aged 16+ years, stratified by area-level income quintile (IQ). IQs were based on average household income from census data. Absolute risk differences (ARD) and rate ratios (RR) compared rates between lowest (IQ1) and highest (IQ5) income areas. Inequalities over time (2012–2015, 2016–2019, 2020–2021) were visualized using equiplots.

Results. HIV rates were 7.2 (95% CI: 6.5–8.1) and 7.4 (6.4–8.6) per 100,000 PY between 2012–2015 and 2020–2021. Syphilis rates rose ten-fold, from 16.5 (15.1–18.0) to 171.2 (165.8–176.7) per 100,000 PY. STBBI were consistently highest in lower-income areas. From 2012–2021, ARDs comparing IQ1 to IQ5 were: HIV 15.5 (95% CI: 13.6–17.4), syphilis 156.4 (150.1–162.3), CT 1015.6 (999.9–1032.2), and GC 494.1 (484.0–504.3) per 100,000 PY. Strong income-related gradients persisted across infections, with an HIV RR of 7.3 (95% CI: 5.5–9.9), although gradient changes varied by infection over time (Fig. 1).

Conclusions. Substantial income-based inequalities persist across multiple STBBI. Surveillance incorporating socioeconomic context is critical for guiding equitable prevention, testing, and care strategies.

Supporting Document

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Surveillance, data and methodological science / Thème : Surveillance, données et science méthodologique

Abstract #305

A Decade of Integrated Data for HIV Surveillance: The Ontario HIV Treatment Network Cohort Study, 2015–2024

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Background
Comprehensive and timely data capture are central to contemporary HIV surveillance, prevention, and control. Over the past decade, the Ontario HIV Treatment Network Cohort Study (OCS) has evolved into a mature data platform linking clinical, laboratory, and participant-reported data. We describe cohort characteristics, and data contributions from 2015 to 2024.

Methods
The OCS is an open, multi-site prospective cohort of adults (≥16 years) living with HIV in Ontario. Longitudinal follow-up integrates standardized clinical chart abstraction, structured interviews, and linkage to Public Health Ontario Laboratory (PHOL) for viral load. Data are harmonized to support HIV care cascade measurement and several embedded sub studies addressing HIV priorities in Ontario.

Results
Between 2015 and 2024, cumulative enrollment increased from 6,335 to 8,390 participants, with 2,208 new enrollments. As of 2024, 4,025 participants were active, contributing more than 72,000 cumulative person-years of follow-up. Active participants were geographically distributed across Toronto (66.8%), Southwest (18.0%), Eastern (12.3%), and Northern Ontario (2.9%). Sex at birth among active participants was 75.7% male, 24.0% female, and 0.3% intersex/other.
Average annual attrition was 4.8%, peaking during the COVID-19 period (6.0% in 2020). Each year, 800–1,400 participants contributed clinical-only data via chart abstraction and EMR, while 1,700–2,466 contributed both clinical and interview data. Interview completion among active participants ranged from 45.8% to 65.0%, while capture of clinical encounters exceeded 70% in 2024.

Conclusions
The OCS shows how integrated clinical, laboratory, and participant-reported data strengthen HIV surveillance and support priority research for people living with HIV.

Supporting Document

Table. Annual participant enrollment and data contribution in the OCS (2015-2024)

Year	Total Active* Participants	Proportion providing only clinical data	Proportion with clinical visits	Proportion completing at least one interview
2015	3736	33.9%	95.4%	57.4%
2016	3750	37.4%	93.2%	51.7%
2017	3714	38.7%	87.5%	45.8%
2018	3664	29.6%	83.4%	51.4%
2019	3818	35.5%	92.8%	55.1%
2020	3763	37.3%	90.3%	50.8%
2021	3795	26.6%	93.3%	65.0%
2022	3812	30.9%	91.3%	59.0%
2023	3989	28.7%	89.3%	59.3%
2024	4025	19.9%	74.3%	53.7%

*Participants providing medical chart or interview data

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Theme: Surveillance, data and methodological science / Thème : Surveillance, données et science méthodologique

Abstract #183

Disentangling Between- and Within-Person Effects of Crystal Methamphetamine Use Risk Differences on Incident Bacterial Sexually Transmitted Infections (STIs) Among Gay and Bisexual Men (GBM) in Canada

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Introduction: In cross-sectional research, problematic crystal methamphetamine (CM) use (e.g., high frequency, cravings, and health, social, legal, or financial problems) is associated with condomless anal sex (CAS) and bacterial STI prevalence. In longitudinal research, changes can be measured over time within and between individuals. However, it is unclear whether within-person changes in CM use risk or between-person CM use risk differences predict STI diagnosis among GBM.

Methods: We analyzed longitudinal data from 2449 sexually-active GBM from the Engage Cohort Study (2017-2022). We examined direct and indirect within- and between-person effects of CM use risk on CAS and incident bacterial STI diagnoses using multilevel mediation. CM use risk was assessed via the ASSIST-stimulant score among GBM reporting CM use in the past six months (ASSIST-CM). Potential mediators included escape motives and condom use attitudes.

Results: 9.3% participants reported using CM at any visit, and 27.5% developed an incident bacterial STI over a median of 1.70 years. Between-person differences in ASSIST-CM scores were associated with any bacterial STI diagnosis (β = 0.068, 95% CI: 0.014–0.122, p = 0.013), whereas within-person changes were not (β = 0.012, 95% CI: −0.008–0.033, p = 0.238). We also observed significant indirect effects between participants via greater escape motives, higher CAS, and more negative condom use attitudes.

Conclusions: STI outcomes differences were primarily driven by between-person differences in CM use risk, CAS, and condom attitudes, rather than within-person changes. These findings highlight the importance of targeted substance use treatment and STI prevention support for all CM-use GBM.

Supporting Document

Table. Multi-level model main effects of crystal methamphetamine use risk (ASSIST-CM) and treatment attitudes on bacterial STIs over a 4-year period among GBM in Toronto, Vancouver, and Montreal.

Between-Participants				
Direct effects				
Predictor	**Outcome**	**β**	**95% CI**	**P**
ASSIST-CM	Escape Motives	0.234	0.187, 0.282	**<0.001**
	Condom self-efficacy	-0.170	-0.220, -0.121	**<0.001**
	CAS	0.410	0.163, 0.658	**0.001**
	STI	0.311	0.209, 0.413	**<0.001**
Escape Motives	CAS	0.294	0.147, 0.440	**<0.001**

	STI	-0.088	-0.172, -0.004	**0.041**
Condom self-efficacy	CAS	-0.173	-0.301, -0.045	**0.008**
	STI	-0.122	-0.192, -0.052	**0.001**
CAS	STI	0.134	0.047, 0.221	**0.003**
Indirect effects				
Path		**β**	**95% CI**	**P**
ASSIST-CM to Escape Motives to CAS to STI		0.009	0.001, 0.018	**0.035**
ASSIST-CM to Escape Motives to STI		-0.021	-0.042, 0.000	0.055
ASSIST-CM to Condom self-efficacy to CAS to STI		0.004	0.000, 0.008	0.071
ASSIST-CM to Condom self-efficacy to STI		0.021	0.008, 0.033	**0.001**
ASSIST-CM to CAS to STI		0.055	0.013, 0.097	**0.011**
Total effects				
Predictor	**Outcome**	**β**	**95% CI**	**P**
ASSIST-CM	STI	0.068	0.014, 0.122	**0.013**
Within-Participants				
Direct effects				
Predictor	**Outcome**	**β**	**95% CI**	**P**
ASSIST-CM	Escape Motives	0.064	0.038, 0.090	**<0.001**
	Condom self-efficacy	-0.030	-0.052, -0.008	**0.008**
	CAS	0.077	-0.100, 0.254	0.394
	STI	0.047	-0.059, 0.153	0.386
Escape Motives	CAS	0.090	0.013, 0.166	**0.021**
	STI	0.066	-0.003, 0.135	0.06
Condom self-efficacy	CAS	-0.067	-0.169, 0.035	0.199
	STI	0.016	-0.073, 0.106	0.72
CAS	STI	0.101	0.009, 0.193	**0.031**
Indirect effects				
Path		**β**	**95% CI**	**P**
ASSIST-CM to Escape Motives to CAS to STI		0.001	0.000, 0.001	0.126
ASSIST-CM to Escape Motives to STI		0.004	0.000, 0.009	0.078
ASSIST-CM to Condom self-efficacy to CAS to STI		0.000	0.000, 0.001	0.301
ASSIST-CM to Condom self-efficacy to STI		0.000	-0.003, 0.002	0.719
ASSIST-CM to CAS to STI		0.008	-0.011, 0.027	0.427
Total effects				
Predictor	**Outcome**	**β**	**95% CI**	**P**
ASSIST-CM	STI	0.012	-0.008, 0.033	0.238

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Interdisciplinary Epidemiology / Thème : Épidémiologie interdisciplinaire

Abstract #264

Bacterial STI (B-STI) Incidence and Predictors by Ethnoracial Group Among Gay, Bisexual, and Other Men Who Have Sex with Men (GBM) in Toronto, Vancouver, and Montreal

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Background: Limited disaggregation of HIV/STBBI data by ethnoracial group in Canada constrains understanding of B-STI burden and prevention needs, especially among key populations such as GBM.

Method: We recruited sexually-active GBM aged 16+ years in Vancouver, Toronto, and Montréal using respondent-driven sampling from February 2017 to August 2019. Participants completed computer-assisted self-interviews and nurse-led B-STI testing every 6-12 months through August 2023. We estimated incidence rates (IR) stratified across ethnoracial groups. Using Poisson regression, we estimated associations of incident B-STIs in separate models for each ethnoracial group, controlling for city.

Results: Among 1,981 participants followed for a median of 4.33 years (IQR=3.56-4.64), IR ranged from 32.3-60.8 per 100 person-years. Compared to all other participants, incidence was significantly lower among white GBM (IR-ratio=0.86, 0.75-<1.00) and higher among African GBM (IR-ratio=1.75, 1.03-2.99). Across groups, past six-month (P6M) HIV-PrEP use, higher partner number, amphetamine use, and living with HIV were significantly ($p<0.05$) associated with higher incidence. Associations also varied across groups, with incidence significantly higher among: cisgender African/Caribbean/Black (ACB) and Indigenous GBM (compared with trans/nonbinary GBM); Latin American and white GBM with P6M cocaine use; ACB GBM with P6M opioid use; and ACB and Asian GBM with annual incomes <$30,000.

Conclusion: Disaggregating B-STI incidence and predictors by ethnoracial group highlights shared drivers of infection (e.g., HIV-PrEP use) and meaningful heterogeneity (e.g., differences in substance use), supporting targeted advocacy and intervention.

Supporting Document

Bacterial STI (B-STI) Incidence and Predictors by Ethnoracial Group Among Gay, Bisexual, and Other Men Who Have Sex with Men (GBM) in Toronto, Vancouver, and Montreal

Table 1

Incidence of B-STIs Among GBM Stratified by Ethnoracial Group (N = 1,981)

Ethnoracial Group	n	B-STI Count	Follow-up Time (Years)	Incidence Rate per 100 Person Years (95% CI)	Incidence Rate Ratio (95% CI)
African/Caribbean/Black	86	119	265.31	42.80 (32.73-55.97)	1.24 (0.94-1.63)
African	18	28	47.54	60.77 (35.72-103.39)	1.75 (1.03-2.99)
Black	46	66	146.14	42.36 (28.72-62.49)	1.22 (0.82-1.81)
Caribbean	50	63	161.89	37.10 (25.46-54.08)	1.07 (0.73-1.56)
Arab/West Asian	104	156	359.88	44.03 (33.40-58.03)	1.28 (0.96-1.71)
Asian	213	224	690.62	32.26 (26.25-39.63)	0.92 (0.74-1.14)
East Asian	118	127	387.03	32.44 (24.94-42.18)	0.93 (0.70-1.22)
South Asian	49	52	157.70	33.58 (22.28-50.59)	0.96 (0.64-1.46)
Southeast Asian	61	69	190.56	35.82 (23.56-54.45)	1.03 (0.67-1.58)
Indigenous	83	98	274.29	35.70 (25.15-50.68)	1.03 (0.72-1.47)
Latin American	178	240	612.94	40.08 (32.19-49.89)	1.17 (0.93-1.47)
white	1381	1623	4701.22	33.29 (30.39-36.46)	0.86 (0.75-<1.00)

Note. Ethnoracial groups are ordered alphabetically. Incidence analyses included participants with at least one follow-up visit after baseline. Ethnoracial group membership was defined using non-mutually exclusive dichotomous indicators (yes/no); participants could contribute to multiple ethnoracial groups. Incident rate ratios compare each ethnoracial group to all other participants not included in that group.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Interdisciplinary Epidemiology / Thème : Épidémiologie interdisciplinaire

Abstract #103

Gender and Sexual Orientation Differences in HIV Vulnerabilities and Prevention Needs among Northern and Indigenous Youth in the Northwest Territories, Canada

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Background: Adolescents in Northern Canada experience intersecting social and sexual health inequities that elevate HIV vulnerabilities. Gender and sexual orientation shape access to health and social resources yet are understudied in Northwest Territories (NWT) research. We examined gender and sexual orientation differences and temporal trends in HIV vulnerabilities, social disparities, and resilience among NWT adolescents.

Methods: We conducted repeated cross-sectional surveys with adolescents aged 13–18 years participating in school-based sexual health workshops across the NWT between 2018–2025. Mixed-effects regression models estimated adjusted associations between gender (reference: cisgender boys) and sexual orientation (reference: heterosexual) with HIV vulnerabilities (condom use self-efficacy [CUSE], sexual activity), social disparities (past 3-month substance use, food insecurity), and resilience, adjusting for socio-demographics and time. We assessed effect modification by time.

Results: Participants (n=1,913; mean age: 14.1, standard deviation: 1.2; 70.0% Indigenous) included 45.7% cisgender girls and 19.62% lesbian, gay, bisexual, queer and other sexually diverse (LGBQ+). In adjusted analyses, sexual activity was higher for girls (Adjusted coefficient [Acoef]: 0.06; 95% Confidence Interval [CI]: 0.01-0.12) and LGBQ+ youth (Acoef: 0.10; 95%CI: 0.02-0.18), as was food insecurity (girls: Acoef: 0.15; 95%CI: 0.07-0.23; LGBQ+ youth: Acoef: 0.17; 95%CI: 0.06-0.27). Resilience scores were lower among girls (Acoef: −8.82, 95%CI: -12.25, -5.38) and LGBQ+ youth (Acoef: −13.16; 95%CI: −17.53, −8.80). Substance use was higher among girls (Acoef: 0.11; 95%CI: 0.04-0.18), while CUSE was lower among LGBQ+ youth (Acoef: −1.30; 95%CI: −2.24, −0.35). Over time, food insecurity disparities worsened for girls (Acoef: −0.03; 95%CI: −0.05, −0.02), while resilience improved for girls (Acoef= 0.97; 95%CI: 0.14-1.79) and LGBQ+ youth (Acoef: 1.67; 95%CI: 0.61-2.73).

Results: Gender and sexual orientation-based inequities in HIV vulnerabilities and social determinants persist among NWT adolescents, despite resilience improvements. HIV prevention in NWT schools can integrate gender-transformative, LGBQ+ affirming, and resilience-building approaches while addressing food insecurity and substance use.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Interdisciplinary Epidemiology / Thème : Épidémiologie interdisciplinaire

Abstract #218

Unsuppressed HIV viral load among gay, bisexual and other men who have sex with men living with HIV in Vancouver, Toronto and Montreal: 2017- 2024.

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Introduction: Previous research has demonstrated high levels of HIV treatment uptake among gay, bisexual and other men who have sex with men (GBM) living with HIV (LWH) in Canada. We measured the proportion with unsuppressed HIV viral load (VL) in follow-up and related correlates among GBM LWH in Vancouver, Toronto and Montreal.

Methods: Sexually-active GBM aged ≥16 years were recruited through respondent-driven sampling from February 2017 to August 2019. Participants completed a computer-assisted self-interview, which included questions about healthcare, substance use, and mental health history, and VL measurements every 6–12 months until March 31, 2024. We measured the proportion of unsuppressed VL (defined as VL ≥200 copies/mL) and used multivariable generalized linear mixed modelling to examine sociodemographic, behavioural, and clinical factors associated with unsuppressed VL at each study visit.

Results: We recruited 215 GBM LWH in Montreal, 100 in Toronto, and 132 in Vancouver. An additional 21 participants acquired HIV in follow-up. Across all cities and study visits, a median of 3.70% had an unsuppressed VL over a median follow-up of 4.21 years (Q1–Q3: 1.45–4.65). In our multivariable model, crack cocaine use in the past six-months (P6M) (AOR=4.48; 95% CI 1.54-13.0) and methamphetamine use in P6M (Adjusted OR=3.52; 95% CI 1.82-6.81) were associated with higher odds of unsuppressed VL. Increasing age (AOR=0.95 per year; 95% CI 0.92-0.99), having a regular healthcare provider (AOR=0.14; 95% CI 0.04-0.48), higher AUDIT-C scores (AOR=0.14; 95% CI 0.04-0.48), and self-reported diagnosis of attention deficit hyperactivity disorder (AOR=0.31; 95% CI 0.10-0.96) had lower odds. There were no differences in odds of unsuppressed VL by city.

Conclusion: Among urban GBM LWH, we found generally low proportions of those with unsuppressed VL, with ensuing low risks of onward transmission. Addressing stimulant use and facilitating healthcare access may further reduce HIV viremia in this population.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Interdisciplinary Epidemiology / Thème : Épidémiologie interdisciplinaire

Abstract #231

Prevalence and Patterns of Comorbidities Among People Living with HIV in the OCS Cohort from 2020-2023

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Background: Comorbidities among people living with HIV (PLHIV) are a major concern for long-term health outcomes. This study identified prevalent comorbidities and examined their distribution across sociodemographic and priority population groups, focusing on four outcomes: any comorbidity, and three most prevalent comorbidities.

Methods: We analyzed interviewer-administered questionnaire data collected in 2020-2023 from participants in the Ontario HIV Treatment Network Cohort Study (OCS). Chi-square tests assessed associations between participant characteristics and comorbidities. Multivariable logistic regression models estimated adjusted odds ratios (aORs) for the four outcomes across priority populations, controlling for age and duration since HIV diagnosis.

Results: Among 3,282 participants, 77% were male, 23% female, and 61% were aged 50 years or older. The most prevalent comorbidities were mental health conditions (38%), high blood pressure (26%), high cholesterol (25%), diabetes (13%), and bone or joint disorders (10%). Priority populations experienced a higher comorbidity burden, particularly people who inject drugs (PWID), among whom 93.2% reported at least one comorbidity. In adjusted analyses, PWID had higher odds of any comorbidity (aOR=3.10, 95% CI: 1.55–6.38), while Black participants had lower odds compared to non-Black participants (aOR=0.48, 95% CI: 0.37–0.62). Older participants (≥50 years) had increased odds of high blood pressure (aOR=3.36, 95% CI: 2.70–4.19) and high cholesterol (aOR=4.10, 95% CI: 3.23–5.20). Younger participants (<50 years) had higher odds of mental health conditions (aOR=1.87, 95% CI: 1.56–2.24. Mental health conditions were also more common among PWID (aOR=2.88, 95% CI: 2.03–4.08) and Gay, Bisexual, Men who have Sex with Men (GBMSM) (aOR=1.60, 95% CI: 1.37–1.88), while Black participants had lower odds (aOR=0.46, 95% CI: 0.39–0.56).

Conclusion: Comorbidities are highly prevalent among PLHIV, with distinct patterns across physical and mental health outcomes. Targeted, integrated interventions are needed to optimize care for comorbidity burden in specific HIV priority populations.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Interdisciplinary Epidemiology / Thème : Épidémiologie interdisciplinaire

Abstract #346

Shelters as a public health opportunity for HIV and STBBI testing, treatment and linkage to care

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Background: Manitoba continues to experience high rates of sexually transmitted and blood-borne infections (STBBIs), especially for populations experiencing structural inequities. Our objective is to determine the incidence of STBBI among people experiencing homelessness and impact of a one-door-one-stop strategy.

Methods: Siloam Mission (SM) is a shelter that provides services to 600-800 community members experiencing homelessness and/or vulnerable individuals daily. Within SM, the Saul Sair Health Centre (SSHC), a low-barrier clinic, offers healthcare services from volunteer providers, harm reduction and basic hygiene supplies. We are conducting a prospective cohort study that invites people 18 years or older who visit SM for any reason. Blood, urine, and genital swabs are collected at SSHC on the same appointment, and tested for confirmatory testing for HIV, hepatitis B, C, syphilis, gonorrhea, and chlamydia. We also offer point-of-care testing for syphilis and/or HIV. Follow-up is scheduled at SSHC 8-10 days to deliver STBBI results, treatment on the spot and linkage to care as needed.

Results: 86% of participants agreed to STBBI testing, of those, 52% are females and 48% are males. At least one STBBI was identified in 92% of females and 25% of males, with 30% of females and 8% males having two or more STBBI co-infections. 24% of tested individuals are living with HIV (20% previous diagnosis and 4% new HIV), and 80% of them were not engaged in HIV care.
Among participants who had positive STBBI results, 86% returned for follow-up, which resulted in same day treatment for syphilis, chlamydia and gonorrhea, and referrals to HIV and HCV care. People are also offered access to opioid agonist treatment, where they can receive HIV or HCV treatment.

Conclusions: These results demonstrate the feasibility of STBBI testing and treatment and the high success for return for follow when services are provided at the shelter.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Interdisciplinary Epidemiology / Thème : Épidémiologie interdisciplinaire

Abstract #247

Substance Use Patterns and Progression Through the HIV Care Cascade During the Drug Toxicity Crisis

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Objectives: The drug toxicity crisis was declared a public health emergency in British Columbia in 2016. However, the impact of the increased contamination of the unregulated drug supply on progression through the HIV care cascade of people living with HIV (PLWH) who use unregulated drugs remains underexplored. A thorough understanding of how barriers and facilitators to cascade progression have evolved in the context of the drug toxicity crisis is critical to ensure optimal HIV clinical outcomes for people who use unregulated drugs (PWUD).

Methods: We analyzed data from a prospective cohort study of PLWH in Vancouver who use unregulated drugs. Data were collected between 2005 and 2020 and comprised semi-annual interviews with participants, HIV clinical monitoring, and a confidential link to antiretroviral therapy (ART) dispensation data. Barriers and facilitators to both cumulative and stepwise care cascade progression were identified using cumulative link mixed-effects models and included demographic, structural, and substance use exposures.

Results: Among 969 participants, 236 (24.4%) reported daily opioid use at baseline. Over the study duration, both daily opioid use (adjusted partial proportional odds ratio [APPO]=0.63, 95% confidence interval [CI]: 0.53–0.75, p<0.001) and a study period (after declaration of the overdose crisis) (APPO=0.59, 95% CI: 0.51–0.69, p<0.001) were independently associated with decreased cumulative cascade progression. Additional barriers to cascade progression included daily unregulated stimulant use (APPO=0.80, 95% CI: 0.71–0.90, p<0.001), recent incarceration (APPO=0.82, 95% CI: 0.68–0.99, p=0.037), and homelessness (APPO=0.58, 95% CI: 0.51–0.66, p<0.001). Engagement in opioid agonist therapy was significantly associated with improved cascade progression (APPO=2.05, 95% CI: 1.79–2.34, p<0.001).

Conclusions: These findings highlight the need to address the changing barriers faced by PLWH who use unregulated drugs in accessing and adhering to HIV care in the context of the drug toxicity crisis.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Interdisciplinary Epidemiology / Thème : Épidémiologie interdisciplinaire

Abstract #223

Health, Community, and Social Settings Associated With Chemsex Among Gay, Bisexual and Other Men Who Have Sex With Men in Montreal: 2022-2023

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Background
People practising chemsex report unmet psychosocial and STBBI prevention needs. Our objectives were to 1) characterize gay, bisexual and other men who have sex with men (GBM) engaging in chemsex in Montreal, focusing on sociodemographic factors, use of STBBI prevention strategies, and engagement in health and community services, and 2) identify health, community, and social settings associated with chemsex to inform the development of interventions that would meet these unmet needs.

Methods
We analyzed the most recent visit of Engage Montreal (01/2022- 02/2023), a cohort of sexually active GBM, aged 16+, recruited via respondent-driven-sampling (RDS). We defined chemsex, the main outcome, as self-reported use of crystal methamphetamine (CM), gamma-hydroxybutyrate (GHB), or ketamine in the two hours before or during sex in the past 6 months. We used separate multivariable logistic regressions to identify independent associations between chemsex substance and health, community, and social settings. Models were weighted for recruitment (RDS-II) and loss-to-follow-up, and adjusted for age, education, and income.

Results
Compared with HIV-negative GBM not using PrEP, GBM living with HIV had 7.6 (95%CI:3.9–14.9), 6.5 (3.4–12.7), and 4.6 (2.2–9.6) times higher odds of using CM, GHB, and ketamine during sexual activity, respectively, while GBM on PrEP had 1.9 (1.0-4.0), 4.2 (2.3-7.5), and 2.9 (1.3-6.1) times higher odds, respectively. Using harm reduction services and using drug-related services were strongly associated with CM, GHB, and ketamine use. The odds of attending a bathhouse were 1.9 (1.1-3.5) and 2.1 (1.2-3.5) times higher among CM and GHB users, but was not associated with ketamine use. Ketamine was associated with using an app to connect with other men.

Conclusion
PrEP or HIV care appointments may be opportunities to address unmet psychosocial needs, while harm reduction services and bathhouses may be settings to meet unmet STBBI prevention needs among GBM engaging in chemsex in Montreal.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Interdisciplinary Epidemiology / Thème : Épidémiologie interdisciplinaire

Abstract #170

Sexualised Drug Use Among People Who Inject Drugs in Montreal, Canada: Implications for Hepatitis C and HIV Prevention

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Background
People who inject drugs (PWID) are a key population for hepatitis C and HIV elimination. Sexualised drug use (SDU), defined as the intentional use of drugs to enhance sexual experiences, may increase the risk of hepatitis C and HIV. However, PWID are diverse and there remains a limited understanding of SDU among PWID. We aimed to examine the substances used among PWID based on sexual partners and SDU.

Methods
Data were drawn from the baseline interview of HEPCO since questions related to SDU were added in November 2022. PWID were defined as having no sex, sex without SDU and sex with SDU. We examined injecting and non-injecting amphetamine, cocaine and heroin use and used robust poisson regression to estimate prevalence ratios adjusted for gender, age and sexualality.

Results
Of 563 PWID, 537 (95%) had a response regarding sex in the previous month; 366 (68%) reported no sex; 85 (16%) reported sex but not SDU and 86 (16%) reported sex and SDU. Compared to the no sex group, there was no statistically significant difference for injection or non-injection heroin use or the injection of amphetamine or cocaine. Compared to those reporting no sex, non-injection cocaine use was 31% higher among those reporting SDU (aPR 1.31, 95%CI 1.16,1.48) and non-injection amphetamine use was 53% higher (aPR 1.53, 95%CI 1.22,1.91).

Conclusion
A minority of participants reported SDU, however the use of non-injecting stimulant drugs is higher among those reporting SDU, suggesting this is an important sub-group of PWID. Further research to understand the context of SDU among PWID should be conducted to inform tailored harm reduction services.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Implementation and Program Science / Thème : Mise en œuvre et science des programmes

Abstract #18

Testing Practices, Facilitators, and Barriers to STBBI Screening Among Clients of a Supervised Consumption Site in Vancouver, BC

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Background: People who use drugs (PWUD) have an elevated risk of acquiring sexually transmitted and blood-borne infections (HIV, HCV, and syphilis) yet often face barriers to routine testing. In this study, we characterized recent STBBI testing behaviours and assessed self-reported barriers and facilitators among a cohort of PWUD in Vancouver.

Methods: This analysis utilizes data from the longitudinal Health Connect study in the Downtown Eastside of Vancouver, BC. Health Connect participants are 19 years and older and clients of a supervised consumption site (SCS). For this analysis, we utilize baseline and 1-month follow-up data collected between January-November 2024. A logistical regression model was used to characterize STBBI testing practices in the previous 12-months (p12m) and we provide descriptive statistics on self-reported barriers and facilitators to testing.

Results: Among 299 study participants, 116 (39%) were women and the median age was 41 (34-48). Among 277 participants with available data, 133 (48%) had received an STBBI test in the p12m. Sexual activity in the p12m (aOR 2.05, 95% CI (1.22, 3.44) and frequent use of an SCS in the previous three months (aOR 2.25, 95% CI (1.05,4.84) were associated with receipt of STBBI testing in the p12m. Odds of STBBI testing did not vary by age, gender or housing status. Facilitators to STBBI testing included identifying this as a health priority (53%), just wanting to know their status (54%), and worries around onward transmission (29%). Reported barriers to STBBI testing included a fear of invasive procedures (11%), having no perceived risk (9%), and judgement/stigma (6%).

Conclusion: Half of our cohort had engaged in STBBI testing in the p12m. Factors associated with testing included more frequent SCS use and sexual activity. This study underscores the need to develop and implement low barrier models for STBBI testing in supervised consumption sites.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Implementation and Program Science / Thème : Mise en œuvre et science des programmes

Abstract #49

Using a Digital HIV Self-Testing Approach to Examine First-Time Testers and PrEP Awareness among Women in Canada: Insights from the I'm Ready Program

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Background:
Women represent 33% of new HIV diagnoses in Canada, yet only 2% have accessed PrEP. Persistent social and systemic barriers limit their access to HIV-related care, with critical evidence gaps in HIV testing and prevention. The I'm Ready digital program offers low-barrier HIV self-testing (HIVST) while generating essential evidence on women's first-time testing and PrEP awareness in Canada.

Methods:
Participants accessed the I'm Ready mobile app to order HIVST and completed a pre-test survey. We assessed demographics, testing history, HIV positive results, and PrEP awareness among women participants. Chi-square tests compared first-time cis-women testers with those who had previously tested.

Results:
Between June 2021 and October 2025, 14,904 individuals ordered HIVST, of which 3,768 were women. Majority of women participants were cis-women (96%), under age 30 (54%), heterosexual (66%), from racialized communities (58%) and urban residents (68%); 40% were first-time testers. There were significant differences among cis-women first-time testers and those who had previously tested by age, location and race ($p < 0.01$), with higher proportion of first-time testers among youth, rural and Asian cis-women. 24% of women submitted results through the app, with a 1.9% positivity rate, compared to the program's overall 1.7% positivity rate. Over half of women who tested positive were first-time testers. Among 70% women at high HIV risk (due to sexual behavior or injection drug use), one-third were first-time testers. Although nearly half were aware of PrEP, only 6% reported ever using it. PrEP awareness was lower among younger (<25), rural, heterosexual, and racialized women.

Conclusion:
This digital, low-barrier HIVST program revealed significant unmet testing and prevention needs among underserved and racialized women, while successfully reaching first-time testers, high-risk, and women with undiagnosed HIV. This actionable evidence can inform more responsive HIV programming to strengthen HIV testing and prevention for women in Canada.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Implementation and Program Science / Thème : Mise en œuvre et science des programmes

Abstract #117

Geospatial Mapping of Discarded Needles to Identify Seasonal Trends and Service Gaps in Regina, Saskatchewan

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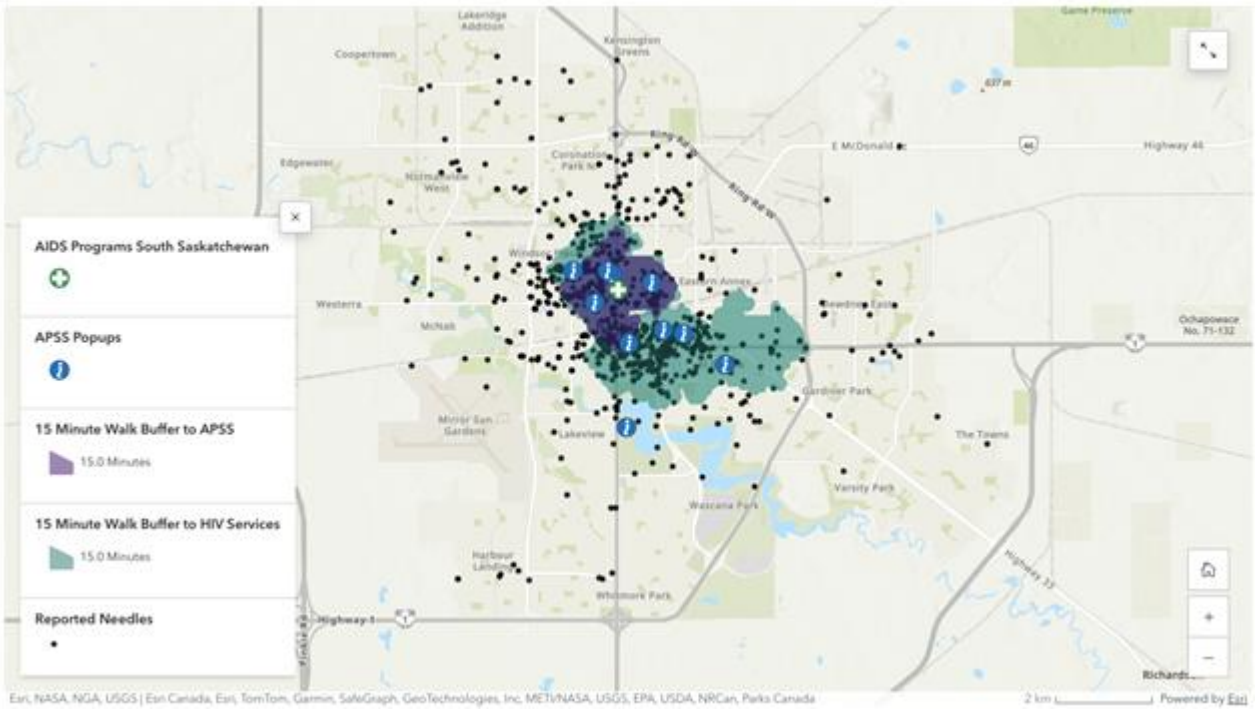
Background: ReportNeedles.ca is a community-driven initiative addressing alarming HIV, syphilis, hepatitis C, and overdose rates in Saskatchewan. Geographic service gaps limit equitable access to prevention and care. Given the decentralized nature of substance use, geospatial tools can identify areas of concentrated need and inform responsive harm-reduction deployment. This study examines four years of needle-report data to assess evolving hotspot patterns and emerging service gaps relevant to AIDS Programs South Saskatchewan (APSS).

Methods: Geospatial data from all needle reports submitted in Regina between April 2021 and September 2025 were analyzed using ArcGIS. Reports were mapped to assess spatial clustering and seasonal variation. Walk-time buffers were applied to evaluate the reach of APSS and HIV services. Spatiotemporal trends were visualized to identify changes in geographic distribution.

Results: A total of 1,108 needle reports were submitted resulting in 40,688 discarded needles. Overall, 95.1% of submissions resulted in APSS successfully locating and discarding needles, indicating strong responsiveness to community submissions. Analyses revealed persistent clustering in downtown neighbourhoods, with seasonal and year-to-year variation. Several high-activity areas fell outside a 15-minute walking radius of existing services (See Figure 1), indicating geographic misalignment between need and service location. While APSS deployed pop-up services in high-need clusters, capacity to reach more dispersed areas was limited. These findings informed expanded mobile outreach and re-evaluate placement of pop-up services.

Conclusions: Integrating community-generated geospatial data with service-accessibility analysis supports responsive, targeted harm-reduction planning. This approach strengthens APSS's ability to identify emerging hotspots, address service gaps, and optimize outreach in Regina.

Supporting Document



Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Implementation and Program Science / Thème : Mise en œuvre et science des programmes

Abstract #359

Undetectable Equals Untransmittable Awareness and Knowledge Across Diverse Groups of People Living with HIV in British Columbia, Canada

Tahani Shraida[1], Rachel Dunn[2], Claudette Cardinal[3], Mark Hull[4], Hélène Côté[5,6,7,8], Melanie Murray[2,4,7,8,9], Angela Kaida[1,8], Elizabeth King[1,2,4,8], on behalf of the British Columbia CARMA-CHIWOS Collaboration (BCC3; CIHR CTN+ 335)
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Introduction: Awareness of the Undetectable equals Untransmittable (U=U) message is crucial in improving well-being of People Living with HIV. U=U awareness has been assessed among gay, bisexual, and other men who have sex with men, but little is known among other groups living with HIV. We sought to establish the prevalence of U=U awareness and knowledge in British Columbia and associated sociodemographic factors.

Methods: People Living with HIV ≥19 years were included from two ongoing community-based studies, BCC3 (2021-present) and ReEvaluating antiretroviral Drug cOncentrations and Side Effects (REDOSE; 2024-present). U=U awareness and knowledge were assessed by two questions: "Have you heard of U=U?" and "How do you think taking antiretrovirals change your risk of transmitting HIV?", with "makes transmission a lot lower" considered full knowledge. Logistic regression was conducted to examine factors associated with awareness and knowledge.

Results: Among 474 participants (56% cis women, average age 49 years), the overall prevalence of U=U awareness and knowledge was 76.8% and 89.0%, respectively. In bivariate analysis, both U=U awareness and knowledge were lower among individuals identifying as Indigenous or heterosexual, and among those with lower education and income (Table 1). Multivariate analysis showed that having ≥high-school education and ≥$20,000 household income were associated with higher odds of U=U awareness (adjusted odds ratio (aOR)=2.68[1.29-5.58]; 2.14[1.18-3.89], respectively) and knowledge (aOR=2.68[1.15-6.23]; 2.05[0.99-4.29], respectively).

Conclusion: Despite high prevalence, important gaps in U=U awareness and knowledge persist among subgroups of People Living with HIV. Accessible and culturally appropriate knowledge mobilization efforts are needed in low barrier settings.

Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé publique présentation orale d'abrégés

Theme: Implementation and Program Science / Thème : Mise en œuvre et science des programmes

Abstract #131

Increasing the acceptance and use of HIV prevention tools among Black people in Canada: Effectiveness-implementation hybrid type 2 study of a culturally responsive community-based HIV prevention intervention (Safe Steps Project)

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Background: New HIV diagnosis are on the increase in Black communities in Canada. Effective tools to prevent HIV infection exist but awareness, acceptance and uptake is low among Black communities. To address this gap, we developed an intervention to increase the awareness, acceptance and uptake of HIV prevention tools among Black communities in Ontario. We present a description of the model and preliminary outcomes from the ongoing effectiveness-implementation study.

Method: Using the self-determination theory and behavioral change wheel framework, we co-developed a culturally responsive, theory-informed HIV prevention model -Safe Steps Program (SSP)- with Black-led community agencies in Toronto – BLACK CAP, TAIBU CHC and APAA to increase the awareness, acceptance and uptake of HIV prevention tools. The model consists of four components: outreach strategy to reach at-risk individuals; HIV awareness and risk perception tool to increase HIV risk perception; HIV pre-exposure prophylaxis decision support tool to improve quality decision-making regarding PrEP, and a care coordination system to facilitate linkage to clinical care and social determinants of health services. HIV service providers were trained to deliver the intervention. To evaluate the impact of the model, we designed an effectiveness-implementation hybrid type 2 study using a post-test-only design. Data collection for the implementation study began in November 2025.

Result: To date, 35 Black participants have been engaged through group-based interventions. Among participants reached, the majority (65.4%;19/29) identify as gay, lesbian, queer or bisexual, and were mostly women (56.7%;17/30) or men (40%;12/30). Approximately30.2% (10/33) of participants reported a preference for regular use of a condom or PrEP alone or PrEP plus condom use for HIV prevention. One in three participants (28% -7/25) indicated interest in starting PrEP.

Conclusion: Study findings indicate that a culturally responsive, theory-informed model could potentially enhance acceptance and adoption of HIV prevention tools within Black communities in Ontario.

Epidemiology and Public Health Sciences - Poster Abstracts / Épidémiologie et sciences de la santé publique - Abrégés affiches

Abstract #36

Understanding Insights and Trends in HIV Primary Care from the Manitoba Primary Care Research Network (MaPCReN)

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Primary care plays a critical role in HIV management, yet national-level insights into patient and provider characteristics remain limited. Leveraging data from the Manitoba Primary Care Research Network (MaPCReN) offers an opportunity to identify patterns and inform care strategies. We analyzed MaPCReN data (2010–2024) using a validated HIV case definition (sensitivity 90.7%, specificity 99.9%). Demographics, provider characteristics, comorbidities, and behavioral risk factors were compared between HIV and non-HIV cohorts using chi-square and t-tests. Among 164,531 patients, HIV prevalence was 0.63% (n=1,034). HIV patients were more often male (59.3% vs. 46.1%, p<.0001), urban-dwelling (93.4% vs. 78.6%, p<.0001), and older (mean 47.0 vs. 42.8 years, p<.0001). Providers caring for HIV patients were predominantly female (67.8% vs. 44.4%, p<.0001), Canadian-trained (98.8% vs. 81.8%, p<.0001), and salaried (95.0% vs. 24.6%, p<.0001). HIV patients had higher rates of dyslipidemia (33.7% vs. 15.0%), diabetes (20.6% vs. 13.4%), COPD (11.0% vs. 4.5%), depression (18.0% vs. 12.9%), and schizophrenia (3.7% vs. 0.8%) (all p<.0001). Smoking history (70.4% vs. 47.4%) and substance use (41.9% vs. 24.0%) were significantly more common (p<.0001). HIV patients in the primary care context in Manitoba exhibit distinct sociodemographic and clinical profiles, including higher multimorbidity and behavioral risk factors. A limitation of our work is that the data does not currently include the Northern Health region and does not capture small fee-for-service sites and providers as well. Our data shows that care is concentrated within urban, salaried practices, highlighting the need for integrated, multidisciplinary strategies to optimize HIV management.

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Abstract #42

Improving Data Quality to Better Meet Information Needs – Renewal of Canada's National HIV Surveillance Program

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Introduction

Effective surveillance is a core pillar of public health, driving evidence-based action. The National HIV Surveillance Program collects HIV diagnosis data submitted by provinces, territories and other data providers and publishes national trends on HIV epidemiology in Canada. An ongoing renewal process is aimed at improving data quality and usefulness to better meet diverse information needs.

Methods

A comprehensive review was completed to determine the gaps and needs for national-level HIV surveillance by conducting a technical assessment, questionnaires among data providers and users, community engagement, key informant interviews with other national programs, and literature reviews to identify best practices. Findings were synthesized to identify priorities for the renewal process and to develop an implementation approach.

Results

The Renewal involves various improvements, including revisions to the data elements collected through the program, an updated HIV case report form, and the development of tools including scripts and training materials to support the consistent and safe collection of information from newly diagnosed individuals. The Black Expert Working Group for National HIV Surveillance and the First Nations, Inuit, and Métis Working Group for National HIV and Syphilis Surveillance have been launched to facilitate ongoing engagement with experts from disproportionately affected communities to help inform routine work and program improvements. The working groups have also provided guidance for the improvement of race and Indigenous identity data. Revisions are also being made to sex, gender, and exposure data and the program is moving towards presenting HIV stage information rather than separately reporting new AIDS diagnoses.

Conclusion

The improvements being made to the national HIV surveillance program are key to improving the quality and availability of critical data to inform prevention and care programs, research, and policy. Through this evidence-based and community-engaged approach, progress towards addressing these key information needs will be made.

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Abstract #70

HIV Phylogenetic Clustering Patterns Suggest Gaps in HIV Testing and Prevention Coverage Among Men Who Have Sex with Men and Transgender People in Nigeria

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Background: Nigeria faces a mixed HIV epidemic, with key populations—female sex workers (FSW), men who have sex with men (MSM), people who inject drugs (PWID), and transgender people—experiencing disproportionately high national HIV prevalence (11-29%) compared to the adult Nigerian population (1%). We employed phylogenetics to characterize HIV transmission clusters and identify factors associated with cluster membership among key populations in Nigeria.

Methods: A cross-sectional integrated bio-behavioural surveillance survey (IBBSS) was conducted with informed consent among FSW, MSM, PWID, and transgender people across all Nigerian geopolitical zones (August to December 2020). HIV protease gene sequences (n = 541; 34% FSW, 32% MSM, 25% transgender, and 9% PWID) were obtained from viremic (>1000 copies/mL) dried blood spots. Phylogenetic clusters were defined by a pairwise genetic distance <2% on maximum-likelihood trees. Multivariable Poisson regression with robust errors estimated adjusted prevalence ratios (aPRs) and 95% confidence intervals (CIs) for factors associated with cluster membership.

Results: Overall, 26% of IBBSS sequences formed 47 phylogenetic clusters (2 -8 sequences). Transgender people (aPR=3.97; 95%CI=2.06,7.65) and MSM (aPR=3.86; 95%CI=2.01,7.40) were more likely to be in clusters than FSW. Cluster membership was lower in street-based hotspots compared with nightlife-based hotspots (aPR=0.65; 95%CI=0.43,0.97). HIV testing and outreach in the past year were generally low across both clustered (68% tested; 30% contacted) and non-clustered participants (67% tested; 33% contacted),

Conclusions: Among participants with viremic specimens, MSM and transgender people had higher clustering prevalence, suggesting more recent and ongoing transmission in these networks. Our findings suggest these clustering patterns may reflect gaps in HIV testing and prevention coverage, with hotspot typology offering a strategic entry point for programs. Targeted outreach that brings HIV testing and prevention into settings where key populations meet sexual partners may help overcome barriers to clinic-based care and help limit ongoing HIV transmission in Nigeria.

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Abstract #80

Community-Based Critical Knowledge Exchange on Molecular HIV Surveillance Reveals Gaps in Viral Load Testing—Findings from the CIPHR Study

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Molecular HIV surveillance (MHS) involves the secondary use of drug resistance genotyping data to identify and respond to transmission clusters. Although promising, this approach raises important ethical concerns, particularly related to privacy, consent, stigma, and criminalization. The Community Insights in Phylogenetic HIV Research (CIPHR) project aimed to assess the ethical implications of integrating MHS into key population programs in Nairobi, Kenya.

In our critical knowledge exchange project, we employed a community-based research approach to engage communities, clinicians, and researchers in a series of structured and informal discussions, both virtual and in-person. The sessions built scientific literacy around MHS, identified local priorities, and informed the co-design of a pilot study. During discussions, the CIPHR group raised concerns about delays in viral load testing, which limited clinicians' abilities to monitor treatment progress. Critical conversations uncovered how viral load testing was frequently disrupted by reagent stockouts and by infrastructure gaps at the clinic level, which prompted the adoption of dried blood spots (DBS) as an interim solution. Although DBS expanded access to viral load testing, interpretation of viral suppression was complicated by the assays lower limit of quantification (873 copies/mL) and the definition of suppression in Kenya (≤50 copies/mL). Clinicians adopted a precautionary approach and used this as an opportunity to re-engage all participants with detectable viral RNA, who would be considered virally suppressed under certain definitions (i.e., ≤1,000 copies/mL).

This study highlights how viral load testing functions not only as a clinical tool, but as a means of fostering trust and continuity of care—reflecting the broader significance of viral suppression as a meaningful personal milestone with important social, sexual, and emotional implications. Our findings demonstrate the importance of centering community voices, adapting to real-world constraints, and aligning MHS efforts with the needs and realities of those most affected.

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Abstract #81

Association between HHV-8 seropositivity, PrEP use and sexual behaviors in GBM by HIV status

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Background
HHV-8 is a Gammaherpesvirus that causes Kaposi sarcoma, lymphoproliferative disorders, and inflammation mostly in immunosuppressed men, including those living with HIV (LWH). Using an in-house serology assay, we determined HHV-8 seropositivity in gay and bisexual men who have sex with men (GBM) by HIV status. We assessed the association between HHV-8-seropositivity and demographics and sexual behaviour.

Methods
We analyzed serum samples from the Engage Montreal (2017-2018) and the McGill HIV (2019-2023) biobanks. We included 759 cis- and transgender participants: 552 HIV-negative GBM, 157 GBM LWH, and 50 HIV-negative heterosexual men. We quantified serum IgG binding to the HHV-8-infected BCBL1 cell line by flow cytometry. Comparisons of HHV-8 seropositivity, demographics, sexual behaviour and clinical information were performed by T-tests, Chi2 tests and logistic regressions.

Results
86% of participants were white. Median age was 47 (HIV-: 35, HIV+: 53, p<0.001).
43.8% of HIV-negative GBM were HHV-8 seropositive, compared to 68.6% of GBM LWH, and 8% of HIV-negative heterosexual men (p<0.0001).
Frequency of HHV-8 seropositivity was higher in Caucasians than GBM from other ethnicities (41.2 vs 34%, p<0.01).
HHV-8 seropositive GBM were older (HIV-: 35 vs 32 p<0.001, HIV+: 52 vs 50, p<0.001), had more male sex partners in the past 6 months (P6M) (8 vs 5, p<0.001, 10 vs 4, p=0.02), and reported having more often been diagnosed with an STI in their lifetime (70.9 vs 57.7%, p<0.001, 94.5 vs 79.5%, p=0.02). HIV-negative HHV-8 seropositive GBM had more often used HIV-PrEP in their lifetime (27.8 vs 14.2%, p=0.003). Overall, HHV-8 seropositive GBM declared more frequent condomless anal sex in the P6M (68.2 vs 63.3%, p=0.03).

Conclusions
Older age, higher numbers of sexual partners, condomless sexual activity, and HIV-PrEP use were associated with HHV-8 seropositivity, suggesting that ongoing transmission may lead to an increase in HHV-8–related conditions in GBM.

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Abstract #96

The Eng/aging Project: How HIV Impacts Recurrent Cardiovascular Events in a Population-Based Cohort in British Columbia

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Background: Cardiovascular disease (CVD) is a leading cause of mortality worldwide, and People Living with HIV (PLWH) may face an elevated risk of repeated CVD events. Our community-led team examined how HIV status affects the likelihood of remaining free from a subsequent CVD event among PLWH and people without HIV (PWoH) who have had an initial CVD event in British Columbia.

Methods: We used data from the Comparative Outcomes and Service Utilization Trends (COAST) study, a population-based administrative health data linkage from 01-Apr-1992 to 31-Mar-2020, including virtually all PLWH and a 10% random sample of all PWoH in BC aged ≥19 years. CVD events were identified using ICD codes from emergency department visits and inpatient hospitalizations. We restricted the study sample to those who experienced at least one CVD event. Recurrence-free time was defined as the time between an acute index CVD event and a recurrent event, or until the end of follow-up for individuals who did not experience a recurrent event. Kaplan-Meier (KM) curves and multivariable Cox proportional hazards models were used to assess the impact of HIV status on recurrence-free time after the index CVD event.

Results: Among 1,239 PLWH and 59,891 PWoH who experienced an acute index CVD event, 447 (36%) of PLWH and 29,068 (49%) of PWoH experienced a recurrent CVD event. The median follow-up time for PLWH was 931 days (Q1, Q3: 139-2,129) and 1,653 days for PWoH (Q1, Q3: 334-3,674). KM estimate was not statistically significant, however, after adjusting for time-varying confounders, PLWH had a higher hazard of a recurrent CVD event compared to PWoH (aHR: 1.19, 95% CI 1.12-1.26).

Conclusion: PLWH were less likely to experience recurrence-free survival, demonstrating the need for targeted secondary prevention efforts that address both medical and social determinants of cardiovascular health in this population.

Epidemiology and Public Health Sciences - Poster Abstracts / Épidémiologie et sciences de la santé publique - Abrégés affiches

Abstract #97

Knowledge, Attitudes, and Practices Regarding HIV and Pre-Exposure Prophylaxis Among Nigerian Youths in Nigeria and Canada: Community-Based Cross-Sectional Survey Protocol Development

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Background
Nigeria is the top African country for migrants to Canada. Disparities exist among youth in both Nigeria and Canada regarding HIV incidence and access to prevention, including PrEP. These disparities may result from limited sexual and reproductive health information and from neglect of social determinants of health in both regions, increasing HIV transmission risks after youths' sexual debut.

Objectives
We aim to investigate the knowledge, attitudes, and practices related to HIV and HIV pre-exposure prophylaxis (PrEP) among young Nigerians aged 19 to 29 living in Nigeria or Canada. We will also explore individual- and community-level factors associated with their knowledge, attitudes, and practices regarding HIV transmission and PrEP.

Proposed Methodology
Our community-based, cross-sectional, multimodal survey focuses on Nigerian youth aged 19-29 years residing in Anambra State, Nigeria, and Nigerian Canadians/migrants living in British Columbia, Canada. Our study is open to all sexes and genders, all HIV statuses, and all immigration statuses. We will recruit 1,000 youth participants (500 from each country) using convenience, purposive, and snowball sampling. We will recruit through academic institutions, community centres, and social media platforms across urban and non-urban settings. Participants will self-complete the survey via Qualtrics, with support available from community-trained peer assistants. Our survey development process includes a literature review, stakeholder engagement, item generation, expert review, pilot test, administration planning, and ethical approvals. We will use descriptive and inferential statistics to conduct a sex-and-gender-based analysis (SGBA+) that considers ethnicity, immigration status, and recruitment country. Multivariate regression models will identify correlates of key outcomes.

Potential impact
Our multinational team includes community advisors from existing partnerships in Nigeria and Canada. Our community-based participatory research approach aims to catalyze transnational migrant health research between Nigeria and Canada, to address the social determinants of health, and to inform targeted interventions for Nigerian migrants.

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Abstract #111

Co-Developing Approaches to working with Administrative Data alongside Peer Researchers to Identify and Understand Nonfatal Drug Poisonings Among People Living With HIV in British Columbia

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Issue: Nonfatal drug poisonings remain a significant health concern in Canada, particularly for People Living with HIV (PLHIV), who face intersecting social-structural and clinical vulnerabilities. Current administrative data definitions are narrow and poorly aligned with lived/living realities, often overlooking care encounters outside hospitals, stigma-related care avoidance, gendered pathways into and out of care, and experiences of trauma in healthcare settings. Population-level surveillance requires community-driven perspectives to accurately capture and reflect nonfatal poisoning events. However, there remains a paucity of approaches designed to meaningfully engage peers in administrative data research.

Approach: This project will combine community-based participatory research with linked administrative data to strengthen the measurement, interpretation, and relevance of nonfatal poisoning surveillance among PLHIV in British Columbia. Working alongside peer researchers with lived/living experience of drug use, HIV, drug poisoning, and structural violence, we will co-develop: a community-informed definition of nonfatal drug poisoning; collaborative approaches, including community-led Directed Acyclic Graphs, to engage peers in administrative data analyses; and an analysis of healthcare utilization in the year following a nonfatal drug poisoning. Peer researchers will play a central role in shaping research questions, analytic decisions, and interpretation.

Potential findings: We anticipate that peer-led analysis will reveal gaps in coding algorithms, including missed poisoning events and inequitable gendered and racialized patterns of care. Co-created causal diagrams are expected to elucidate structural pathways shaped by stigma, criminalization, and service fragmentation.

Implications: This work will demonstrate how community leadership can strengthen administrative data research by improving validity, equity, and policy relevance. Furthermore, we will generate practical guidance for integrating peer expertise into administrative data studies. By centering gender-responsive and Indigenous-informed governance, this work will advance ethical, trauma-responsive approaches to data use that address power imbalances and structural inequities, while offering a transferable model to inform harm reduction, HIV care, and health-system planning across contexts.

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Abstract #116

Harm-Reduction Restrictions and Drug-Related Harms in Saskatchewan: Declines in Needle Recovery

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Background: In January 2024 the Saskatchewan government introduced regressive legislation restricting harm-reduction supply distribution and mandating one-for-one needle exchange. These changes occurred within a syndemic of injection drug use, HIV, syphilis, hepatitis C, and overdose mortality driven by structural inequities including colonialism, stigma, poverty, and housing instability. We examined changes in community needle-collection patterns before and after the policy change.

Methods: Community needle-report data were obtained from ReportNeedles.ca, a geospatial reporting tool used to report discarded needles in Regina, Saskatchewan. Reports from April 2021–September 2025 were classified into pre-policy (April 2021–December 2023) and post-policy (January 2024–September 2025) periods. A Wilcoxon rank-sum test assessed differences in needles collected per report. Overdose mortality data from the Saskatchewan Coroners Service provided context on drug toxicity and demographic impacts.

Results: Across 1,108 reports, needle recovery declined following the January 2024 policy change. Pre-policy, 604 reports resulting in the disposal of 35,734 needles (mean 59.2 per report). Post-policy, 504 reports resulting in 4,954 needles discarded (mean 9.8 per report). Significantly fewer needles were collected per report after January 2024 ($W = 135{,}722$, $p = 0.0015$). Overdose mortality remained high with 343 deaths in 2024 and 267 deaths to October 2025, with increasing proportions of suspected toxicity cases. Deaths were concentrated in urban centres, and adults aged 20–49 and First Nations people were disproportionately represented among overdose fatalities.

Conclusions: A marked decline in needle recovery, despite stable community reporting volumes, followed Saskatchewan's 2024 harm-reduction restrictions. Reduced discarded needles may reflect changes in injection practices or access to sterile supplies, among other explanations. These shifts occurred alongside sustained overdose mortality and persistent inequities. Although provisional overdose counts show a slight year-to-date increase, this does not represent a meaningful improvement. Together, these findings underscore the need to strengthen evidence-based, accessible harm-reduction services in Saskatchewan.

Epidemiology and Public Health Sciences - Poster Abstracts / Épidémiologie et sciences de la santé publique - Abrégés affiches

Abstract #120

Influence of Sex and HIV on Acute Complications During Nonfatal Overdose Hospitalizations in British Columbia.

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BACKGROUND
Acute complications arising during hospitalized nonfatal overdose (NFOD), including acute kidney failure, respiratory and cardiac complications, and brain injury, are unequally distributed by sex and HIV status. People with HIV (PWH) may experience elevated risk due to structural inequities and a greater burden of multimorbidity relative to people without HIV (PWoH). This study assessed the influence of HIV status and sex on acute complications among individuals hospitalized for NFOD in British Columbia.

METHODS
Hospitalized NFOD resulting in discharge alive between April 1, 2012, and March 31, 2020, were identified using ICD-10-CA codes from the Discharge Abstract Database. The primary outcome was the occurrence of ICD-defined complications during a hospitalized NFOD event, including rhabdomyolysis (muscle breakdown), brain injury, respiratory or cardiac complications, acute renal failure, and paraplegia/tetraplegia. Complications were captured across inpatient, outpatient, and emergency department records. Multivariable logistic regression with generalized estimating equations evaluated associations between HIV status, sex, and their interaction, adjusting for confounders.

RESULTS
Acute complications occurred in 70(33%) PWH and 297(25%) PWoH during a NFOD hospitalization. The three most common complications were respiratory (13.68%), cardiac (10.53%), and acute renal failure (8.45%). A significant HIV–sex interaction (p=0.047) indicated that the association between HIV status and complications differed by sex. Compared to females without HIV, adjusted odds of complications were higher among females with HIV (aOR=1.86; 95% CI: 1.08–3.19), males with HIV (aOR=2.70; 95% CI: 1.72–4.24), and males without HIV (aOR=2.81; 95% CI: 2.14–3.68).

CONCLUSION
Acute complications during NFOD hospitalization are common and strongly influenced by HIV status and sex. These findings highlight the need for sex- and HIV-responsive clinical strategies to reduce preventable harms and improve outcomes for overdose survivors living with and without HIV.

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Abstract #121

Use of a clinical HIV cohort to validate population-based health administrative data for monitoring trends in HIV care engagement: Findings from Ontario, Canada

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Background
HIV-1 RNA viral load (VL) and CD4, CD8, and CD3 lymphocyte measures are established surrogate markers for assessing treatment effectiveness and immune function among people living with HIV (PLWH). They can potentially support monitoring of HIV care engagement trends in population-level administrative data. We validated and examined temporal trends in these measures among Ontario residents living with HIV.

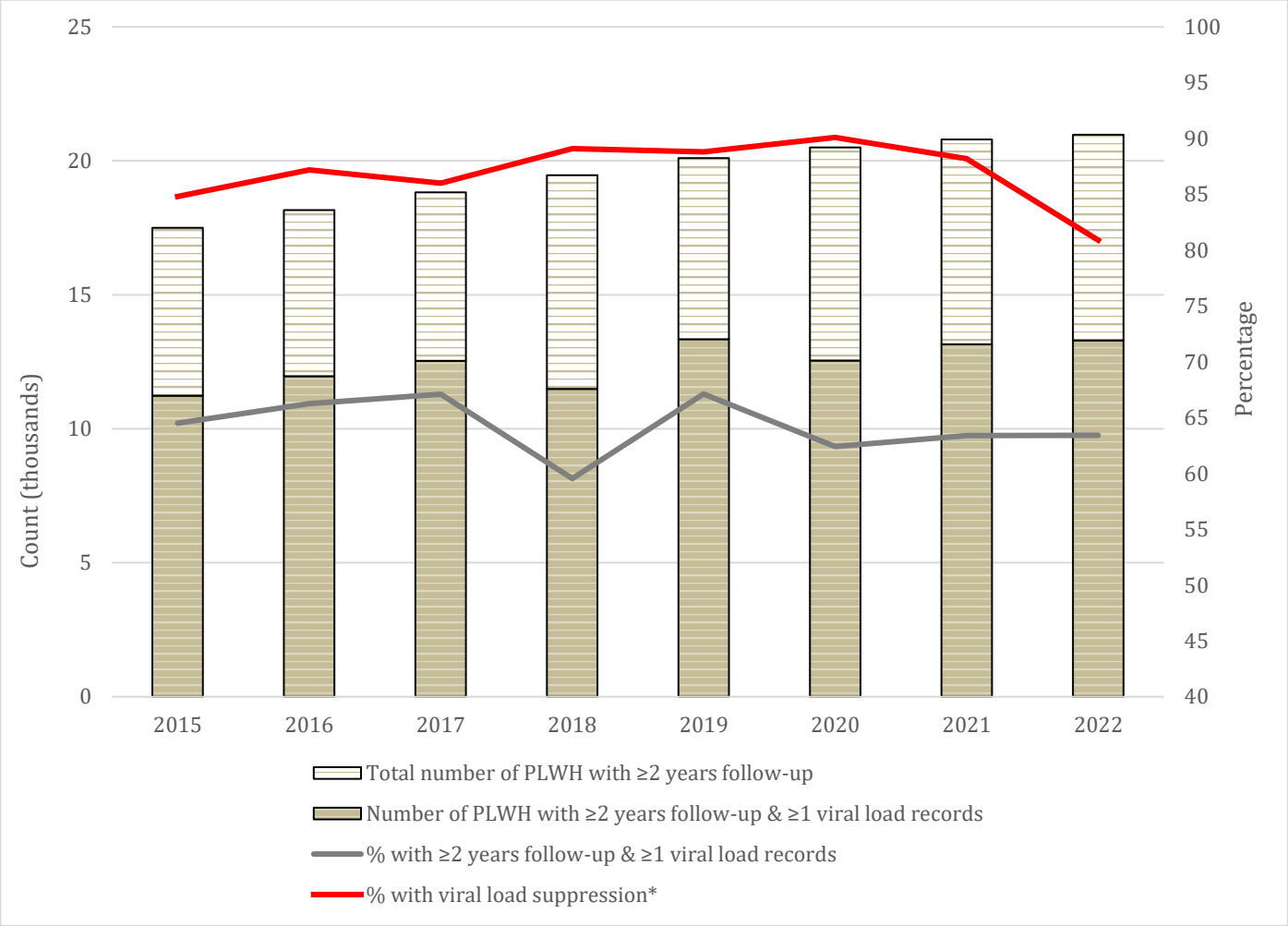
Methods
We conducted a population-based, retrospective longitudinal study using health administrative data at ICES (2015–2022). We extracted and cleaned available VL and lymphocyte records in the Ontario Laboratories Information System (OLIS) linked to PLWH. Our validation data source was the Ontario HIV Treatment Network (OHTN) Cohort Study. We defined percent agreement as the proportion of OHTN participants with an OLIS record matched within ±15 days (high ≥90%, moderate 80–89%, low <80%).

Results
Among more than 17,000 PLWH with ≥2 years of follow-up, the proportions with ≥1 VL record declined from 65–67% (2015–2019) to 62–63% (2020–2022) and with ≥1 lymphocyte records declined from 54-57% (2015–2019) to 49-50% (2020–2022) (Figure). The mean number of VL records per person decreased from 2.4 (2015) to 1.9 (2022), and CD4 records decreased from 2.3 (2015) to 1.7 (2022). Among those tested, VL suppression fell from 89% (2019) to 81% (2022), whereas the proportion with CD4 ≥200 cells/μL remained 93–95%. Percent agreement increased for VL from 90.6% to 96.6% (2015-2018), and for lymphocyte records from 65% to 76% (2015-2017), with site-level lymphocyte agreement dropping below 10% at two sites.

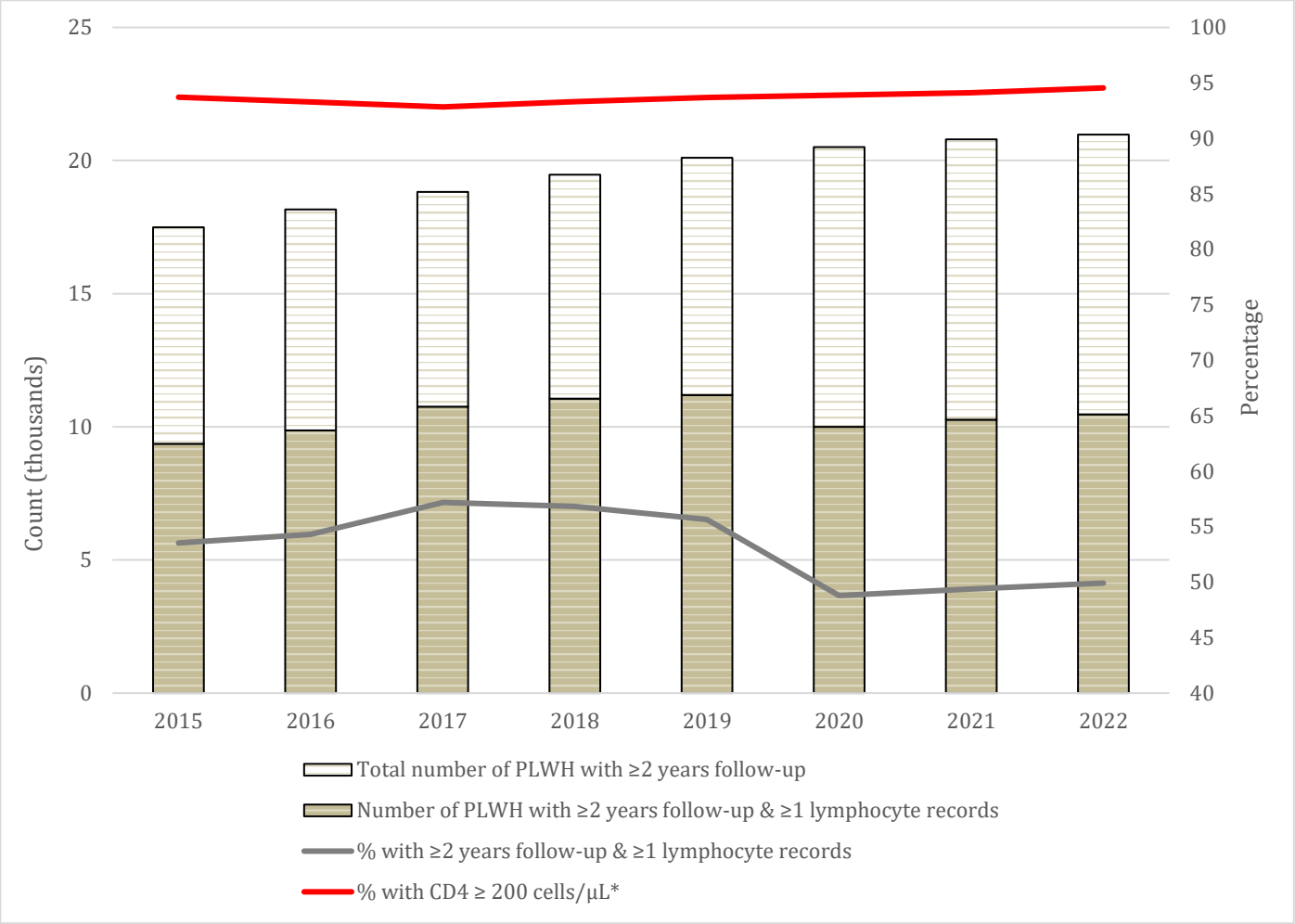
Conclusions
High agreement for VL records supports the use of OLIS for population-based research in Ontario. Lower agreement for lymphocyte records likely reflects data-flow artifacts and non-uniform reporting requiring further investigation. These findings underscore the need for periodic external validation of HIV laboratory measures in administrative data and routine reporting of data completeness as a standard practice.

Supporting Document

Figure. Longitudinal trends in viral load and CD4, CD8, and CD3 lymphocyte monitoring and suppression among Ontario residents living with HIV with ≥2 years of follow-up, from 2015 to 2022



*Denominator is PLWH with ≥2 years follow-up & ≥1 viral load records in year *t*



*Denominator is PLWH with ≥2 years follow-up & ≥1 CD4 records in year *t*

Epidemiology and Public Health Sciences - Poster Abstracts / Épidémiologie et sciences de la santé publique - Abrégés affiches

Abstract #123

Comorbidity burden in three cohorts of older women with and without HIV in British Columbia

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Background: HIV is associated with higher comorbidity burden in women. However, most studies of women living with HIV (WLWH) include sociodemographically-dissimilar comparison groups such that disentangling the effects of HIV and other comorbidity drivers is challenging. We investigated the roles of these factors by comparing comorbidity burden in WLWH and two control groups of women in British Columbia (BC).

Methods: We included women ≥45 years from three cohorts: WLWH from the BC CARMA-CHIWOS Collaboration (BCC3; recruited 2020-2025), BCC3 women without HIV with similar lived experiences, and age-matched women from the Canadian Longitudinal Study on Aging (CLSA; recruited 2011-2015) representing BC's general population. Self-report and biometric data were used to measure the prevalence of eight comorbidities. Quasi-Poisson regression was used to compare comorbidity counts.

Results: We included 188 BCC3 WLWH, 178 BCC3 women without HIV, and 563 women from CLSA. BCC3 participants were more likely to identify as non-white, report smoking tobacco, have lower household income and education relative to CLSA participants (Table 1). They were also more likely than CLSA participants to experience three or more comorbidities. In age-adjusted models, WLWH experienced similar comorbidity prevalence to BCC3 controls (β=0.01, p=0.98), but higher prevalence than CLSA controls (β=1.67, p=0.001).

Conclusion: BCC3 WLWH and BCC3 controls with similar lived experiences had comparable comorbidity burden, which was higher than that of women from the general population. This highlights that sociodemographic factors may be key comorbidity drivers in WLWH. Further investigation of these factors will inform targeted strategies for reducing comorbidity in this population.

Supporting Document

Table 1: Cohort characteristics and number of comorbidities experienced per person (n=929), separated by cohort.

Characteristic	BCC3 WLWH *n = 188*	BCC3 Controls *n = 178*	CLSA Controls *n = 563*
Age			
Mean (SD)	55.5 (7.3)	57.1 (8.0)	55.2 (7.2)
Ethnicity			
White	77 (41.0)	81 (45.5)	405 (71.9)
African, Caribbean, and Black	34 (18.1)	8 (4.5)	3 (0.5)
Indigenous	59 (31.4)	57 (32.0)	31 (5.5)
Other ethnicity	17 (9.0)	31 (17.4)	124 (22.0)
Annual Household Income			
<$20,000	74 (39.4)	62 (34.8)	17 (3.0)
$20,000-50,000	54 (28.7)	39 (21.9)	68 (12.1)
$50,000-100,000	34 (18.1)	26 (14.6)	208 (36.9)
≥$100,000	14 (7.4)	37 (20.8)	223 (39.6)
Education			

Less than high school	52 (27.7)	31 (17.4)	4 (0.7)
Completed high school	38 (20.2)	24 (13.5)	38 (6.7)
Some post-secondary schooling	33 (17.6)	35 (19.7)	49 (8.7)
Completed post-secondary degree	65 (34.6)	80 (44.9)	472 (83.8)
Smoking Status			
Current smoker	75 (39.9)	58 (32.6)	42 (7.5)
Former smoker	53 (28.2)	41 (23.0)	189 (33.6)
Never smoked	46 (24.5)	67 (37.6)	332 (59.0)
Number of Comorbidities*			
0	31 (16.5)	43 (24.2)	235 (41.7)
1	54 (28.7)	51 (28.7)	158 (28.1)
2	44 (23.4)	36 (20.2)	92 (16.3)
≥3	59 (31.4)	48 (27.0)	78 (13.9)

Results presented as n (%) unless otherwise specified.
Abbr: BCC3: British Columbia CARMA-CHIWOS Collaboration; WLWH: women living with HIV; CLSA: Canadian Longitudinal Study on Aging; SD: Standard Deviation.
***Note:** Out of the following eight possible comorbidities: Bone disease, hypertension, lung disease, dyslipidemia, chronic kidney disease, cardiovascular disease, diabetes, and non-AIDS cancers.

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Abstract #124

Exploring the effects of childhood sexual abuse and social support on HIV-PrEP uptake and discontinuation among HIV-PrEP-indicated gay, bisexual, and other men who have sex with men

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Introduction: Among gay, bisexual, and queer men (GBM), childhood sexual abuse (CSA) is associated with increased condomless anal sex in adulthood and HIV acquisition. HIV-PrEP uptake and discontinuation among GBM CSA survivors remain understudied. We examined whether CSA predicts HIV-PrEP uptake and discontinuation over time among GBM when moderated by social support.

Method: We recruited sexually active GBM aged 16+ from Vancouver, Toronto and Montreal using respondent-driven sampling (02/2017-08/2019). Participants completed STBBI testing and computer-assisted self-interviews every 6-12 months until 08/2023, self-reporting CSA at baseline, and social support (MOS Social Support Survey composite score) and HIV-PrEP use at each visit. We used generalized linear mixed effects models to estimate adjusted odds ratios (aOR) with 95% confidence intervals for HIV-PrEP uptake and discontinuation among HIV-negative and HIV-PrEP indicated participants per 2017 Canadian guidelines or used HIV-PrEP at any timepoint. Analyses excluded GBM who were not HIV-PrEP-indicated at initiation or who discontinued due to sexual inactivity, monogamy, adverse effects, or physician recommendation.

Results: We analyzed data from 1574 HIV-negative GBM over a median of 4.19 years. Of these, 980 (62.3%) reported taking HIV-PrEP at ≥1 study visit(s) and 347 (35.4%) had discontinued HIV-PrEP. 601 participants (39.8%) reported CSA. CSA (aOR=0.95; 95% CI=0.70-1.30), social support (aOR=0.91; 0.61-1.37), and their interaction (aOR=0.95; 0.77-1.21) were not associated with HIV-PrEP uptake. However, CSA survivors had higher odds of discontinuation compared with other GBM (aOR=2.20; 1.49-3.25), and this association was moderated by social support (aOR=0.68; 0.50-0.93); the odds of discontinuation among CSA survivors attenuated as social support increased and were no longer evident at the highest levels of social support.

Discussion: CSA was not associated with HIV-PrEP uptake, but was associated with HIV-PrEP discontinuation especially for those with low social support. Psychosocial interventions that increase perceived social support may help GBM survivors of CSA continue using HIV-PrEP.

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Abstract #125

Prevalence and Incidence of Insulin Resistance, Prediabetes, and Diabetes in the Canadian HIV and Aging Cohort Study (CHACS)

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Introduction: Despite successful ARV treatments, people living with HIV (PWH) face elevated risks of developing chronic comorbidities associated with premature aging and persistent inflammation. Glucose dysmetabolism, a spectrum including Insulin Resistance, Prediabetes and Diabetes is associated with premature morbidity and mortality. This study aims to describe the dysmetabolism among CHACS participants, and to compared them between PWH and people living without HIV[DM1.1] (PWoH).

Methods: CHACS is a controlled prospective cohort and biobank study, collecting data across 10 Canadian sites between September 2011 and march 2025. The exposed (PWH ≥ 40 years old or living with HIV ≥ 15 years) and non-exposed (PWoH participants ≥ 40 years old) groups were followed bi-yearly. Participants from CHACS were eligible to take part to this study if they had the required available data to define glucose dysmetabolism, including laboratory values for fasting insulin and glucose levels, and glycated hemoglobin. Outcomes were classified using laboratories results and antidiabetic medication intake, following Diabetes Canada guidelines. Crude prevalence and incidence rates were computed and compared using Fisher's exact and Poisson regression tests between PWH and PWoH.

Results: 361 PWH (83.7%males) and 116 PWoH (69.0% males) were included in the study, followed for a total of 838.52 person-years. The table below shows the incidence and prevalence of dysglycemia in the study population.
Over half of both groups were prevalent cases for dysglycemia events, no significant differences appear.

Conclusions: The results display the interest for an aging and fragile population to study dysglycemia events.

Supporting Document

Table I : Raw Incidence (Poisson regression test) and Prevalence rate (Fisher's exact test) of dysglycemia events in CHACS by HIV status

	PWH	PWoH	p-value
Prevalence of dysglycemia (%)			
Normal	42.11%	49.14%	0.20
Insulin Resistance	42.10%	36.21%	0.28
Pre-diabetes	8.59%	4.31%	0.16
Diabetes	7.20%	10.34%	0.32
Incidence of dysglycemia (per 100 patient-years)			

Insulin Resistance	16.1	18.0	0.70
Pre-diabetes	4.79	0.971	0.11
Diabetes	1.63	1.85	0.70

Legend: PLWH : People living With HIV, PWoH : People living without HIV

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Abstract #129

Factors associated with mobile app ordering of HIV self-test kits and reporting of results among Black people in Canada: Analysis of data from "I'm Ready" national HIV self-testing implementation study

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Background: HIV self-testing (HIVST) is an effective way to expand access and increase frequency of HIV testing. This study examined the factors associated with the uptake of HIV self-testing kits and reporting of test results among Black people who participated in the I'm Ready' – national HIV self-testing implementation study.

Method: We analyzed data of Black participants in the I'm Ready study. Descriptive statistics (frequencies, proportions) were used to describe demographic characteristics and variables of interest. Bivariate and multivariable binary logistic regression were used to examine associations between demographic characteristics and ordering a kit and submitting a test result.

Result: Among Black people who participated in the study from June 2023 – Dec 2025, 44.4% (1864/4194) ordered test kits through the app, and 24.9% (464/1864) of those who ordered test kits reported their test results. In the final multivariate model, participants who are 24 years and older (OR=3.1; CI: 2.1, 4.6) were more likely to order test kits compared to younger participants. In addition, those who identified as non-cisgender (non-binary, Trans man/woman, gender queer and self-described gender) (OR=3.9; CI: 1.3, 11.9) were more likely to order test kits compared to cis-male participants. Employment status, immigration status and sexual behavior were all negatively associated with ordering of test kits. For reporting of test results, Participants with precarious immigration status (OR =0.2; CI: 0.1, 0.4) and those with temporary status (OR=0.6, CI: 0.4, 0.9) were less likely to report test results compared to citizens/permanent residents.

Conclusion: Strategies to increase access to HIVST among Black people must consider factors associated with the uptake of test kits and reporting of test results.

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Abstract #148

Hepatitis C Treatment Outcomes Among Immigrants: A CANUHC Cohort Analysis

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Background: Immigrants to Canada are disproportionately affected by HCV infection. Little is known about treatment outcomes among immigrants at the national level or how outcomes vary across Canadian provinces.

Methods: We used data from the Canadian Network Undertaking against Hepatitis C (CANUHC), a prospective cohort enrolling HCV RNA positive patients from 17 sites across six Canadian provinces between 2015 and 2025. Sociodemographic data, clinical characteristics, immigration details, time to first consult and treatment outcomes were evaluated. Treatment outcomes included DAA initiation, SVR bloodwork completion, and SVR achievement.

Results: Of 2,521 patients, 427 (16.9%) were immigrants to Canada. Immigrants had higher educational attainment (60.8% vs. 28.2% college/university, p<0.001), higher employment (47.1% vs. 28.0%, p<0.001), and lower proportions with injection drug use history (25.8% vs. 75.3%, p<0.001), incarceration history (12.9% vs. 49.1%, p<0.001), and recreational drug use history (43.5% vs. 91.8%, p<0.001). Immigrants demonstrated excellent DAA treatment outcomes with higher crude rates of DAA initiation (95.6% vs. 92.2%, p=0.02), post-treatment SVR bloodwork completion (81.6% vs. 70.5%, p<0.001), and SVR (100% vs. 98.6%, p=0.03). However, after adjustment, immigration status was not independently associated with these outcomes. The mean time from immigration to specialist assessment was 24.9 years (SD 18.6). The delay in accessing care trended downwards with each 5-year interval from 1990 to the present (median years=26, 22, 16, 12, 7, 2, p<0.001).

Conclusions: Immigrants in the CANUHC cohort achieved excellent DAA treatment outcomes comparable to or exceeding those of Canadian-born patients. When engaged in care, immigrants can successfully complete the HCV treatment cascade.

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Abstract #161

Real-World Utilization of Cabotegravir/Rilpivirine Long-Acting Injectable: An Observational Analysis of Adherence and Persistence Using a Patient Support Program in Canada

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Purpose: Optimal antiretroviral therapy (ART) adherence is crucial for maintaining viral suppression. Cabotegravir (CAB) plus rilpivirine (RPV) is a long-acting (LA) injectable approved in Canada in March 2020 for HIV-1 treatment in adults who are virologically stable, requiring 6 or 12 doses (once-monthly [Q1M] or every-two-month [Q2M] injections) per year, potentially enhancing adherence. This study assessed real-world CAB+RPV LA adherence and persistence among people with HIV-1 enrolled in the CAB+RPV LA patient support program (CAB+RPV LA PSP).

Method: We conducted a retrospective study to identify people with HIV-1 enrolled in the CAB+RPV LA PSP who initiated CAB+RPV LA from 18/10/2022 to 30/05/2024. People with HIV-1 aged ≥18 years were followed for 12 months from index date (defined as 1st CAB+RPV LA injection). Outcomes included adherence (proportion of days covered, PDC) and persistence (days to discontinuation from index date).

Results: We identified 431 people with HIV-1: mean (SD) age 46.6 (12.3) years. Most were male (76.1%), resided in Ontario (53.8%), and had public insurance (59.6%). The majority were using single-tablet ART (87.5%) before initiating CAB+RPV LA (BIC/FTC/TAF: 33.2%); 91.6% were on Q2M dosing. At 12 months, 94.9% had a PDC ≥90%. People with HIV-1 with private insurance had significantly higher adherence vs. people with public insurance (PDC ≥90%: 99.4% vs. 91.8%, p<0.001). People with HIV-1 on Q2M dosing had higher adherence vs. people with HIV-1 on Q1M dosing (PDC ≥90%: 98.2% vs. 59.5%, p<0.001). About 96.8% of people with HIV-1 persisted on CAB+RPV LA at 12 months (median [IQR] 365 [365-365] days). People with HIV-1 who initiated Q2M dosing had significantly higher persistence vs. Q1M dosing (98.2% vs. 81.1%, p<0.0001).

Conclusions: High CAB+RPV LA adherence and persistence were observed over 12 months. Our findings suggest that long-acting injectable ART may improve adherence and persistence, which is crucial for maintaining viral suppression.

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Abstract #164

Improving Retention and Viral Suppression Through Low-Barrier, Peer-Led HIV Care in Hamilton, Canada

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Background: Hamilton, Canada continues to experience unacceptably high numbers of new diagnoses of HIV infection in people who use drugs (PWUD). A small but significant proportion of individuals living with HIV do not engage appropriately in treatment and prevention services due to barriers such as poverty and mental health diagnoses. To better meet the needs of this vulnerable population, a service delivery method, supported by the literature, was implemented which focuses on lowering barriers and providing a patient-centred approach to HIV care, with the aim of increasing access to care.

Methods: While the Hamilton HIV Treatment and Prevention Clinic consists of primary care physicians, an infectious disease specialist, psychiatrist, registered nurses and peer support workers, it is predominately led by the community of PWUD through partnership with a local PWUD advocacy group. Operating under a low-barrier approach, the program has weekly drop-in hours, free food, a safe place to interact with the patients' community, and access to primary care and psychiatry including medications to manage substance use disorders. To assess impact, patient chart review was conducted at baseline and at five time points over 18 months between 2020 and 2022 to analyze clinic retention rates and changes in viral load.

Results: Of the 15 HIV-positive patients recruited, all but two remained in care at study end. Two individuals had increased viral load levels during the study period, while the remaining 11 (85%) had either decreased levels or successfully remained undetectable. Further recruitment was impacted by the COVID-19 pandemic.

Conclusions: Integration of treatment and prevention models with peer-led support can lead to positive health outcomes. Evaluation of our model of care continues through additional funding, while also expanding the scope to include a more robust evaluation of the feasibility and effectiveness of a scaled up program of pre-exposure prophylaxis for PWUD.

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Abstract #196

The Correlation between HIV Diagnosis Rate and percent Indigenous Population in the Canadian Provinces

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Background: Public health efforts coupled with advancements in antiretroviral therapies are driving the global control of HIV epidemic. However, marginalized communities in Canada suffer from a disproportionate burden of HIV owing to socio-economic disparities. Along these lines, Indigenous people experience poor health outcomes in the context of structural and systemic factors deeply rooted in the legacy of colonization spearheaded by the notorious Indian residential school system. This study aimed to analyze percent Indigenous population in the context of HIV diagnosis rate in the Canadian provinces.

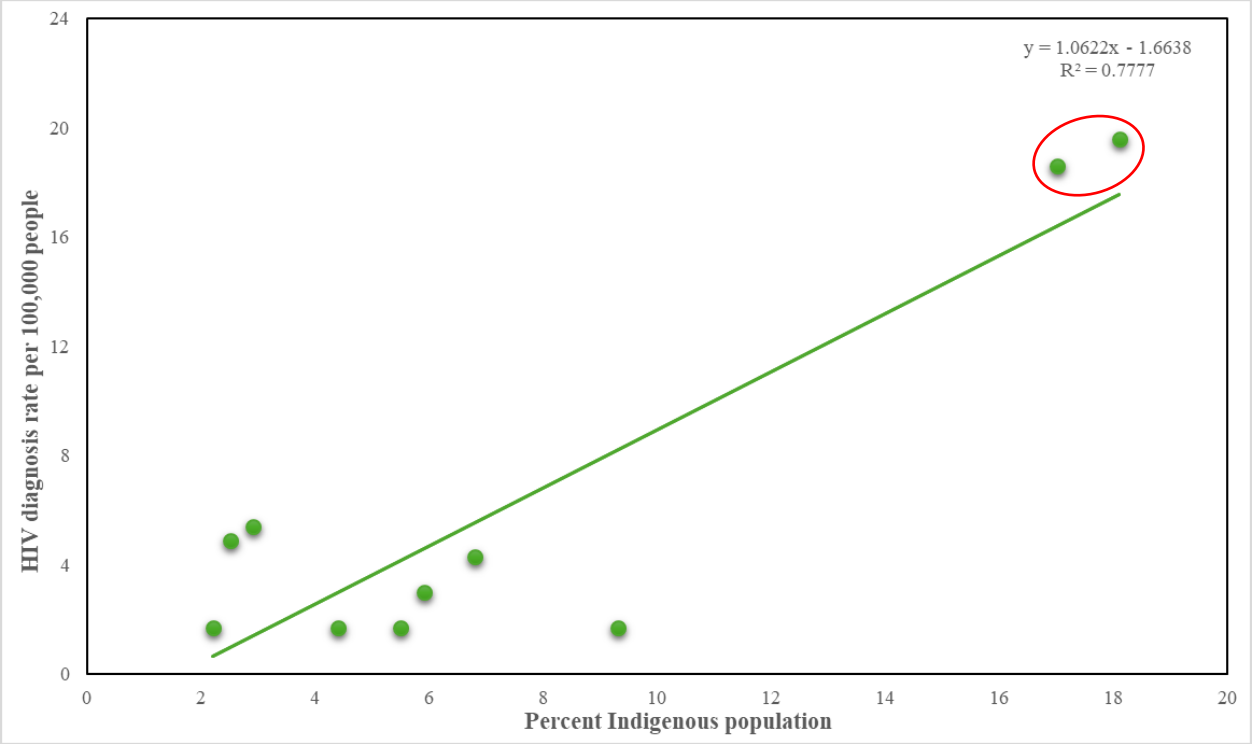
Methods: The Percentage of Indigenous population by province was obtained from the latest census of Canada. The new HIV diagnosis rate per 100,000 people was obtained from the Public Health Agency of Canada (PHAC): HIV in Canada: 2024 surveillance highlights. For Québec, the available 2023 HIV diagnosis rate was used. Pearson correlation test at 5%-α was conducted.

Results: A strong, positive ($r=0.882$; 95% CI [0.567, 0.972]) and statistically significant ($p<0.001$) correlation was observed between the two variables (Figure-1). These data show that the percentage of Indigenous population correlates with new HIV diagnosis rate in the provinces. Of note, the two provinces with the highest percent Indigenous population (Manitoba = 18.1%, and Saskatchewan = 17%, respectively) were the outliers with HIV diagnosis rates several times the Canadian average.

Conclusion: By highlighting the disproportionate burden of HIV in Indigenous people, the current study underlines the need for community-led, trauma-informed and culturally sensitive health services to close the gaps and to improve health outcomes of the marginalized populations.

Supporting Document

Figure 1. The correlation between HIV diagnosis rate and percent Indigenous population



Note: Each data point represents a province. HIV diagnosis rate averaged for the Atlantic provinces (Source: PHAC)

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Abstract #207

How Nonfatal Opioid Overdoses are Defined in Research Using Administrative Data within the United States and Canada: A Scoping Review

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Aim: Opioid overdose is a major public health threat across North America, disproportionately affecting people living with HIV. Inconsistencies in how nonfatal opioid overdoses are defined and measured, hinders surveillance. This scoping review examines definitions of nonfatal opioid overdose used in the United States (US) and Canada to identify variations and inform standardization.

Methods: We searched six databases in October 2024. Eligible sources included empirical studies or grey literature that defined or measured nonfatal opioid overdose, either as an exposure, an outcome, or a criterion for cohort inclusion. To align with the third wave of the overdose crisis in the US in 2013, characterized by synthetic opioid deaths, we included literature published from 2013-2024. Studies were excluded if published in languages other than English, conducted outside the US or Canada, involved non-human subjects, relied on self-reported overdose, or focused on substances other than opioids. After removing duplicates, we screened titles/abstracts of 6,966 articles. We assessed 635 full-texts, extracting data from 210 studies.

Results: Most studies were based in the US (n=195), compared to Canada (n=15). Definitions of opioid overdose varied: 175 studies examined any opioid, 33 focused on heroin, 19 on prescription opioids, and 16 on non-heroin opioids, with some using multiple definitions. Substantial variability was observed in the interpretation and application of ICD codes, regardless of the codebook used, and case fields searched (e.g., primary, secondary diagnoses). Studies using ICD-10-CM diagnostic codes demonstrated variability in definitions including intent specifications and encounter types, a feature specific to ICD-10-CM.

Conclusion: Inconsistent definitions of nonfatal opioid overdose limit comparability across studies, contributing to misclassification and underreporting. In HIV research, consistency is essential as overdose data informs risk pathways and targeted initiatives. This review provides a foundation for improving clarity in surveillance and underscores the need for standardized definitions and transparent reporting guidelines.

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Abstract #216

Improving Access to HIV Pre-exposure Prophylaxis (PrEP): Implementation and Evaluation of Innovative HIV Prevention Services Among Persons on Opioid Replacement Therapy in Western Canada [Study Protocol]

Cara Spence[2], Beverly Wudel[2], Larissa Kiesman[2], Chantelle Wong[2], Brett Shannon[6], Stuart Skinner[2], Christine McDougall[3], Nikki Williamson[2], Claire Allen[5], Andrew White[4], Mandy Challis[5], **Caley Shukalek**[1]
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Background: HIV incidence in Canada has increased since 2019, with the national rate reaching 6.1 per 100,000 people in 2023. In Western Canada, acquisition is increasingly concentrated among people who inject drugs, particularly in Saskatchewan where injection drug use is attributed to most new infections. Despite the known effectiveness of HIV Pre-Exposure Prophylaxis (PrEP), less than 2% of this population utilize it due to stigma and access (health system) constraints. Given that PrEP is covered by most provincial formularies, there is an urgent need to integrate HIV chemoprophylaxis into existing health services utilized by people who inject drugs.

Methods: This prospective implementation study at four clinics and multiple pharmacies in Alberta and Saskatchewan aims to enroll 350 participants aged 16 and older who are engaged in an opioid agonist therapy (OAT) program. Participants are offered daily oral PrEP—tenofovir alafenamide/emtricitabine or tenofovir disoproxil fumarate/emtricitabine—to be dispensed with their OAT for up to 12 months. Evaluation includes tracking initiation and maintenance via clinic records and dried blood spot adherence testing. Mixed-methods assessments of patients and providers collected at baseline; PrEP-initiation; regular intervals during PrEP use; and PrEP or study discontinuation.

Objectives: The study aims to evaluate oral PrEP awareness and uptake in an OAT setting by comparing baseline use to initiation and maintenance rates over six months. Patient- and provider-reported outcomes will contextualize numerical results and explore barriers, facilitators, and preferences related to PrEP uptake and adherence. Interest in alternative forms of prevention (e.g. long-acting injectable) to guide future care delivery models will also be explored.

Conclusions: By leveraging established OAT programs, this project offers a sustainable strategy to expand PrEP access to people who inject drugs. Findings will inform integrated service delivery frameworks to counter rising national infection rates.

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Abstract #219

Demographics of Under-Housed Females Living with HIV in British Columbia, Canada

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Purpose: To determine correlates of HIV infection among under-housed individuals identifying as female living in British Columbia, Canada.

Methods: Weekly pop-up testing events were conducted at places of residence, shelters, and other community locations in Vancouver's inner city and other cities in BC from 01/15 to 08/25. Point-of- care testing for HIV is completed on site, and a survey which includes several demographic and behaviour variables is filled out.

Results: HIV+ females (mean: 42.6) are generally younger than their HIV- (mean: 46.4) counterparts. It can also be seen that, of the HIV+ females, significantly more have also been exposed to HCV, making up 66.67% of the HIV+ vs. 33.3% of the HIV- group. There are differences in ethnicity between the HIV+ and HIV- groups, with the HIV+ female population consisting of significantly more indigenous than non-indigenous individuals. Differences in education are also significant, with a greater number of HIV negative individuals having completed college, university, or trade school. Regarding use of drugs, the HIV+ population has more individuals with a history of injection drug use, but not a significantly higher rate of using drugs alone or having a history of overdose. There was no difference in rates of incarceration between the HIV+ and HIV- cohorts. Significantly more HIV+ individuals always or mostly use sex protective measures than individuals who are not living with HIV.

Conclusions: Consistent with previous literature, we have shown that HIV disproportionately affects females who are Indigenous and living in inner-city communities in BC. Lower education attainment was also more common among HIV-positive females compared to their HIV-negative counterparts, highlighting the intersection of social determinants of health with HIV risk and outcomes. These findings underscore the importance of addressing both structural inequities and diverse transmission pathways to improve prevention and care strategies for women affected by HIV.

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Abstract #228

Changes in Self-Reported Housing Stability Among a Cohort of People Living with HIV in British Columbia, Canada.

Farnaz Azarmju[1], Lu Wang[1], Jason Trigg[1], Kate Salters[1,2], Surita Parashar[1,3], Katherine Kooij[1], Rosalind Baltzer Turje[4], Jennifer Demchuk[5], Robert Hogg[1,3], Jenny Li[1], Paul Sereda[1], Katie Timms[1], Tim Wesseling[1], Antonio Marante[1], Julio Montaner[1,2], David Moore[1,2]
[1]British Columbia Centre For Excellence In HIV/AIDS, Vancouver, Canada, [2]Faculty of Medicine, University of British Columbia, Vancouver, Canada, [3]Faculty of Health Sciences, Simon Fraser University, Burnaby, Canada, [4]Dr. Peter Centre, Vancouver, Canada, [5]Pacific AIDS Network (PAN), , Canada

Background: Housing stability is a well-established protective social determinant of health for people living with HIV (PLWH), however, temporal correlates of changes in housing stability remain explored. We examined time-updated factors associated with improved housing stability or maintaining stable housing among a cohort of PLWH from 2016-2021 in British Columbia (BC).

Methods: PLWH aged ≥19 years across BC were recruited into the STOP HIV/AIDS Program Evaluation study from January 2016-September 2018 and completed a baseline and two follow-up surveys 18-months apart. Surveys collected recent self-reported information on demographics, housing stability, HIV risk group, substance use, experiences of violence, food security, accessing HIV services, depression, social support, stigma, and resilience. Housing stability was classified at each visit as unstable, neutral, or stable based on a Likert-scale measure. Generalized mixed-effects logistic regression models were used to assess time-updated factors associated with improved or sustained housing stability at follow-up.

Results: Among 525 baseline participants (923 follow-up visits), median age was 51 years (Q1-Q3: 43-57) and 19.4% were women. At baseline, 80.0% rated their housing stability as stable, 7.6% as neutral, and 12.4% as unstable, and 10.1% were homeless in the past year. Of 179 visits where participants reported neutral or unstable housing, 105 (58.7%) reported improved housing stability at the following visit, although there were no independent associations between time-updated factors and improved housing stability. Of 744 visits where participants reported stable housing, 109 (14.7%) reported transitioning to unstable or neutral housing at follow-up. Time-updated food security (adjusted odds ratio [AOR] =4.79; 95% CI 2.84-8.06) and resilience (AOR=1.02; 95% CI 1.00-1.03) were independently associated with maintaining stable housing.

Conclusion: Although no time-updated factors were associated with improved housing stability, food security and resilience were associated with sustained stable housing. These findings highlight the role of intersecting structural and psychosocial factors in housing stability.

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Abstract #235

Understanding Sex Differences in All-Cause Healthcare Utilization After an Nonfatal Overdose Among People With and Without HIV in British Columbia

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Objectives:
To evaluate sex differences in healthcare utilization among People Living with HIV (PLWH) and without (PLWoH) following a nonfatal overdose (NFOD). We compared rates of all-cause emergency department visits, hospitalizations, and outpatient primary care encounters in the year before and after an NFOD.

Methods:
Using linked administrative data from the Comparative Outcomes and Service Utilization Trends (COAST) study, we identified PLWH and a 10% random sample of PLWoH aged ≥19 years who experienced an NFOD between April 1, 2012 and March 31, 2020. NFOD events and all-cause emergency department visits, hospitalizations, and outpatient primary care encounters were identified using ICD-codes. Poisson regression quantified associations between healthcare utilization rates and HIV status, sex, and period (year before vs. after the index NFOD) adjusting for potential confounders (Table 1).

Results:
The study included 921 PLWH (29.5% female) and 4551 PLWoH (45.9% female) who experienced an NFOD. Compared to the year before, with females without HIV as a reference, emergency department visit rates were significantly higher in the year after an NFOD for nearly all groups. Hospitalization rates were significantly higher after an NFOD across all groups. Outpatient primary care encounter rates were slightly higher after an NFOD among PLWH and significantly higher among PLWoH (Table 1).

Conclusion:
Healthcare utilization was generally higher in the year following an NFOD compared to the year before, most consistently for hospitalizations. These findings suggest NFODs have a substantial impact on healthcare systems; hence, interventions may be needed to better align care with post-overdose needs.

Supporting Document

Table 1: Rate ratios using Poisson regression for emergency department visits, outpatient primary care encounters, and hospitalizations by period (year before vs, after index non-fatal overdose), sex, and HIV status.

NFOD, HIV status, and sex			Emergency department visits	Outpatient primary care encounters	Hospitalizations
			aRR (95%CI)	aRR (95%CI)	aRR (95%CI)
Before NFOD	PLWoH	Female	ref	ref	ref
		Male	1.11 (0.99, 1.24)	0.95 (0.89, 1.02)	0.98 (0.84, 1.14)
	PLWH	Female	1.00 (0.85, 1.18)	1.49 (1.29, 1.72)	0.97 (0.77, 1.22)
		Male	1.15 (0.99, 1.34)	1.30 (1.17, 1.44)	1.15 (0.95, 1.38)

After NFOD	PLWoH	Female	1.14 (1.07, 1.23)	1.09 (1.05, 1.13)	2.85 (2.66, 3.06)
		Male	1.44 (1.28, 1.62)	1.14 (1.06, 1.22)	2.78 (2.45, 3.16)
	PLWH	Female	1.17 (0.98, 1.40)	1.55 (1.35, 1.77)	2.63 (2.19, 3.18)
		Male	1.46 (1.26, 1.69)	1.38 (1.25, 1.53)	2.90 (2.46, 3.40)

aRR: Adjusted rate ratio; NFOD: Non-fatal overdose; PLWH: People Living with HIV; PLWoH: People Living without HIV.
*Adjusted for age, rurality, neighbourhood block-level income, living in Vancouver's downtown Eastside neighbourhood, on opioid agonist therapy, mood and/or anxiety disorder, PharmaCare plan C (a proxy for low income), housing condition (indication of inadequate and/or lack of housing), and Charlson Comorbidity Index (CCI) score

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Abstract #241

Characterizing current health priorities among a cohort of people living with HIV across British Columbia, Canada.

Farnaz Azarmju[1], Wendy Zang[1], Jason Trigg[1], Adrian Wu[1], Viviane D Lima[1,2], Wayne Campbell[3], Joanna Mendell[4], Uju Egbuawa[5], Natalie Howe[6], Katie Timms[1], Tim Wesseling[1], Antonio Marante[1], Julio Montaner[1,2], David Moore[1,2], Kate Salters[1,2]
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Background: It is important that the healthcare system can address the most pressing current health concerns facing people living with HIV (PLWH). The present study aims to explore self-reported current health priorities within a sample of PLWH across British Columbia (BC).

Methods: PLWH aged ≥19 years across BC were invited to participate in the STOP HIV/AIDS Program Evaluation study from August 2024-September 2025. Eligible participants self-reported sociodemographic characteristics, health behaviours, and psychosocial outcomes on a cross-sectional survey (online, in-person, or via telephone) where they could report and rank any current health priorities. We characterized health priorities and compared gender and age groups for ranking a given priority using descriptive statistics (Chi-square and Fisher's exact tests).

Results: Among 972 PLWH who completed the survey, the median age was 53 years (Q1-Q3: 41-62), 189 (19.4%) were women, 352 (36%) reported excellent or very good health status, and 916 (94.2%) were on antiretroviral therapy. Among the overall sample, the most commonly reported health priorities were HIV (72.3%), mental health (48.2%), and effects of aging (32.6%). There were no statistically significant differences in the proportion of individuals selecting HIV, mental health or aging as a top-three priority across genders. However, 59.9% of those aged ≥60 years who selected HIV as a priority ranked it as a top-three priority versus 69.0% of 40-59-year-olds and 81.9% of those aged <40 years ($p<0.001$). Aging was selected as a top-three priority by 55.5% of those aged ≥60 years versus 39.8% of 40-59-year-olds and 53.3% of those aged <40 years ($p=0.028$). Age groups did not differ significantly in selecting mental health as a top-three priority.

Conclusion: HIV, mental health, and aging were the top health priorities in this sample of PLWH in BC. Understanding the diverse health priorities of PLWH is instrumental for delivering optimal and tailored HIV care.

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Abstract #248

Provincially Funded HIV Self Testing Kits have Increased Access to HIV Testing for Clients: An Overview of the HIV Self Testing Kit Program in the Province of Saskatchewan

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Introduction: In 2022, Saskatchewan conducted a pilot offering 797 HIV Self Testing Kits (STK) from 44 sites. Between November 2022 to December 2024, 49 HIV STK sites accessed the Public Health Agency of Canada (PHAC) HIV Self Testing kits. When the PHAC funding ended on March 31, 2024, the Saskatchewan government allocated base funding to continue a HIV Self Testing program.

Method: The HIV Self Testing program includes one REDCap research officer and eight Nurses from Saskatchewan Health Authority (SHA), Indigenous Services Canada (ISC) and Northern Inter-Tribal Health Authority (NITHA), led by the SHA Provincial STBBI Coordinator. The group developed a low barrier program with Saskatchewan-specific work standard, application form, tracking sheet, order form and poster. REDCap manages real-time inventory. In December 2025, Saskatchewan announced its commitment to make at-home HIV testing easier and more accessible. All Saskatchewan sites can be found on the ministry of health website.

Results: Between June 12, 2025, and January 12, 2026 there are seventy (70) HIV STK sites. Saskatchewan Health Authority have 45 (64.3%) sites, First Nations have 9 (12.9%) sites, and Non-Profit Organizations have 8 (11.4) sites. Ten (10) geographical SHA networks (76.9%, 10/13) have two or more sites in their area. REDCap captured 815 entries for inventory movement at point of service. This includes 3560 incoming, 1469 outgoing, 14 moved and zero (0) expired HIV STK. There are no self-reports of reactive HIV STK. Majority of clients (79.1%, 578/731) took 1 or 2 HIV STK and half of the clients (54.8%, 399/728) indicated this was their first time using a HIV STK.

Conclusion: The HIV STK program in the first 6 months has surpassed previous programs offered in the province. Provincial funding across all jurisdictions is pivotal for its success and uptake will continue in the first year of programming.

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Abstract #306

Trends in Key Populations Within a Large HIV Cohort: The Ontario HIV Treatment Network Cohort Study, 2015–2024

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Background
Monitoring trends among key populations is essential for equitable HIV prevention, care, and policy. The Ontario HIV Treatment Network Cohort Study (OCS) is a long-standing, multi-site cohort of people living with HIV in Ontario that supports longitudinal surveillance of populations disproportionately affected by HIV. We describe 10-year trends (2015–2024) in the representation of key populations within the OCS.

Methods
The OCS is an open prospective cohort recruiting adults (≥16 years) living with HIV from hospital- and community-based clinics across Ontario. Analyses focused on participants with a clinic visit or interview in the current year. Key populations included gay, bisexual, and other men who have sex with men (gbMSM), women, people who inject drugs (PWID), Black populations, and Indigenous Peoples. Annual counts and proportions were examined to assess trends over time.

Results
GbMSM represented the largest key population, comprising 60.8%–66.0% of interviewed participants annually, with 2,155 gbMSM interviewed in 2024 (63.2%). The proportion of women among participants with clinic visits increased from 18.8 % in 2015 to 22.5% in 2024. PWID declined steadily from 7.9% to 2.3%. Black participants increased from 17.0% to 24.2%, while Indigenous Peoples dropped from 4.8%-3.4% Across groups, both male and female participants were represented across race and exposure categories.

Conclusions
The OCS has documented stable proportions of gbMSM, increasing proportions of women and Black populations, and declining proportions of PWID and Indigenous People. These findings underscore the importance of sustained, equity-informed surveillance to guide HIV prevention and care.

Supporting Document

Table. Key populations among those who had an interview in the current year (2015-2024)

Year	Total number who completed an interview	Gay, Bisexual, Men who have Sex with Men	Women	People who inject drugs	Black People	Indigenous People
2015	2142	65.1%	18.8%	7.9%	17.0%	4.8%
2016	1921	64.8%	19.8%	6.6%	18.5%	4.4%
2017	1691	61.3%	20.0%	5.3%	20.8%	4.0%
2018	1868	66.0%	18.4%	4.3%	19.4%	3.9%
2019	2096	62.4%	22.3%	4.3%	23.2%	4.1%
2020	1905	60.8%	23.9%	3.8%	23.9%	3.7%
2021	2461	61.9%	22.1%	3.9%	22.9%	4.8%
2022	2240	63.0%	21.6%	3.3%	22.0%	3.4%
2023	2362	61.6%	23.5%	2.9%	25.4%	3.0%
2024	2155	63.2%	22.5%	2.3%	24.2%	3.4%

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Abstract #308

Decentralized Dried Blood Spot Testing to Reduce Inequities in STBBI Diagnosis in Canada

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Introduction:
Reaching the undiagnosed is a key priority of Canada's STBBI Action Plan. However, access to testing remains inequitable due to barriers including racism, stigma, and geographic isolation, which disproportionately affect key populations. To address these gaps, the National Laboratory for HIV Reference Services (NLHRS) leads the implementation of decentralized dried blood spot (DBS) testing for HIV, hepatitis C (HCV), syphilis, and hepatitis B (HBV). DBS testing is a low barrier, minimally invasive approach that mitigates many structural and social barriers to testing. This program has demonstrated high acceptability and expansion across diverse settings, including Indigenous communities, STBBI clinics, and community-based organizations.

Methods:
New testing sites are engaged through partnerships with community, municipal, regional, and provincial public health organizations. Training on DBS collection and specimen transport is delivered through virtual and in-person sessions. All screening and confirmatory testing is performed by the NLHRS under an ISO 15189 medical laboratory standard.

Outcomes:
To date, the program has trained more than 600 participants across over 90 sites nationwide and tested over 8000 DBS card submissions. In 2024, test positivity rates were 1.6% for HIV, 6.7% for HCV, and 9.9% for syphilis antibody, indicating this testing modality is preferentially reaching populations at higher risk compared with those accessing mainstream testing services. DBS testing has been incorporated into policies and case definitions in several Canadian provinces, with multiple jurisdictions at various stages of repatriating DBS testing into their provincial laboratory systems.

Conclusions:
Nationwide DBS-based STBBI testing is feasible, acceptable, and effective for reaching key populations. The NLHRS continues to expand DBS applications to additional infectious and non-infectious conditions and develop DBS-based proficiency programs. Integration of DBS testing into provincial policies and movement toward repatriation highlight the critical role of decentralized, low barrier testing models in advancing equitable access to STBBI diagnosis in Canada.

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Abstract #317

Participants Lost to Follow-up from the Canadian Coinfection Cohort Before, During, and After the COVID-19 Pandemic.

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Background
The COVID-19 pandemic significantly disrupted access to HIV care and may have had longstanding impacts. The Canadian Coinfection Cohort (CCC) is a national prospective cohort following individuals with HIV-hepatitis C virus (HCV) coinfection. Study follow-up visits are scheduled every six months. We assessed lost to follow-up (LTFU) from the CCC, before, during, and after the pandemic.

Methods
We included CCC participants enrolled before March 2018, on antiretroviral therapy for at least 6 months and with one or more follow-up visits. The characteristics of those not attending any visits were compared with those having at least three visits in each of the pre-pandemic (March 2018 – February 2020), pandemic (March 2020 – February 2022), and post-pandemic (March 2022 – February 2024) periods.

Results
Among 929 participants, 5% had no visits pre-pandemic, 39% had no visits during the pandemic, and 40% had no visits post-pandemic. Those with no visits post-pandemic were more likely to be Indigenous (32% vs. 19%), report injection drug use (29% vs. 18%), have detectable HIV RNA (21% vs. 7%) and be HCV RNA positive (21% vs. 4%) compared to those who had at least three visits (Table).

Conclusion
Over a third of CCC participants were LTFU during and were not re-engaged after the pandemic. People LTFU were disproportionately from marginalized groups and remain at risk for HIV and HCV transmission and disease progression. Tailored strategies and dedicated resources to re-engage people in care and treat ongoing co-infection are urgently needed if HIV and HCV elimination targets are to be met.

Supporting Document

Characteristics of study participants at their last visit before the beginning (1 March 2018) and end (1 March 2024) of the study period

Last visit	Before March 2018	Before March 2024	
Overall participants		At least three visits after March 2022	No visit * after March 2022
Median or percent (%)	n=929	n = 324	n = 373
Age, years	51	59	53
Female, %	31	26	28
Indigenous, %	27	19	32
gbMSM, %	24	29	21
Injection drug use, % [1]	32	18	29
Illicit drug use without injection, % [1]	40	34	28
Hazardous drinking, % [1]	42	37	39
Sexually active, % [1]	53	36	34
No fixed address, % [1]	6	6	8
Unemployed, % [1]	62	62	72
Duration of HIV infection, years	17	24	19
HIV RNA >50 copies/mL, %	16	7	21
HCV RNA positive, %	29	4	21

HCV, hepatitis C virus; gbMSM, gay and bisexual men reporting sex with men.

* Characteristics at last visit (after March 2018) of participants with no visits after March 2022

1 As reported by the participant, in the previous six months

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Abstract #325

The Impact of the Unregulated Drug Toxicity Crisis and COVID-19 Pandemic on Cause-Specific Mortality Ascertainment for People with HIV in British Columbia

Ly Nguyen[1], Cassidy Tam[1], Paul Sereda[1], Katherine Kooij[1], Megan Marziali[2,3], Kate Salters[1,4], Lu Wang[1], Robert Hogg[1,3], Julio Montaner[1,4], Junine Toy[1,4], Scott Emerson[1]
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Background
Deaths with an unknown underlying cause increased markedly alongside the 2016 declaration of the unregulated drug toxicity crisis in British Columbia and the COVID-19 pandemic, undermining accurate cause-specific mortality estimates. We examined cause-specific mortality during this era among people with HIV (PWH), who are disproportionately affected by these dual public health emergencies, and applied a method to classify suspected unregulated drug toxicity deaths ("drug-related deaths" hereafter) among unknown-cause deaths in this population.

Methods
We characterized and compared all deaths among PWH enrolled in the BC Centre for Excellence in HIV/AIDS Drug Treatment Program between January 2010 – December 2025 by three underlying cause groupings: unknown-cause (ICD-10 coded "R99"), drug-related (X41-X42;X44,Y11-Y12;Y14), and non-drug-related (all other deaths). We classified unknown-cause deaths as likely drug-related based on: 1) aged 20-64, 2) an undetermined/unknown/pending manner of death, and 3) drug use history from clinical and survey data.

Results
Among 2,433 deaths, 10% were unknown-cause, 19% drug-related, and 69% non-drug-related. Unknown-cause deaths rose in 2016 following the public health emergency declaration and peaked between 2019-2021, accounting for 22-26% of all deaths (Figure 1). From 2019 onwards, inverse patterns of unknown-cause and drug-related deaths were prominent; furthermore, notable similarities occurred regarding demographic characteristics (age/sex/residence/death location) and drug use history between these two groups. Our criteria classified 74% (181/244) of unknown-cause deaths as likely drug-related.

Conclusion
Our findings highlighted gaps in cause-specific mortality ascertainment for PWH amid the unregulated drug toxicity crisis and COVID-19 pandemic, and suggested many unknown-cause deaths in this period were likely drug-related.

Supporting Document

Figure 1. Trends in deaths by cause among people with HIV in BC during the unregulated drug toxicity crisis and COVID-19 pandemic..pdf (could not be inserted)

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Abstract #327

Use of HIV support and community services and its perceived influences among a cohort of people living with HIV in British Columbia, Canada.

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Background: Community-based services provide critical supports for people living with HIV (PLWH), from peer navigation to food programs. We characterized community-based service use among a cohort of PLWH across British Columbia (BC) and assessed the perceived impact of those services.

Methods: PLWH aged ≥19 years across BC were recruited into the longitudinal STOP HIV/AIDS Program Evaluation (SHAPE) study launched in 2016. In this study, we analyzed descriptive data from follow-up surveys administered between March 2019-September 2021 to examine services used in the past year and the perceived influence of accessing these services on knowledge and practices concerning general health, mental health, connection with peers, and having a positive outlook on life.

Results: Among 402 PLWH at follow-up, 61.4% were 40-59 years old, 19.7% were women, 20.1% identified as Indigenous, 66.9% identified as gay, bisexual men who have sex with men (gbMSM), and 18.7% identified as people who inject drugs. A total of 212 (52.7%) reported using any community services, with 149 (37.9%) using AIDS service organizations (ASOs), 93 (23.6%) using food banks or meal programs, and 51 (12.9%) using peer support (Table). The most commonly reported influences were “Improving knowledge and practices concerning general health” among ASO users, “becoming more positive about life” among food bank users, and “Improving mental health and wellness” among peer support users.

Conclusion: Community-based services are commonly used by PLWH in BC and were felt to have a positive impact on their general and mental health and helped them be more positive about their lives.

Supporting Document

Table – Support services used in the past year and perceived influence of these services among SHAPE Study participants living with HIV in British Colombia, Canada

Social support and community service	Number (%) of participants using the service in the past year*† N = 402
AIDS Service Organization/Community Based Organization	149 (37.9%)
Food bank or meal program	93 (23.6%)
Peer support/peer navigation	51 (12.9%)
Online health information and programs specific for people living with HIV	46 (11.7%)
Religious and/or spiritual support	41 (10.4%)
Other social support and community services	13 (3.4%)

Perceived influence of service use (among top 3 most used)	Number (%) of participants using the service who strongly agreed or agreed with the influence of service
Peer support/peer navigation	
Improving mental health and wellness	45 (88.2%)
Becoming more positive about life	43 (84.3%)
Improving knowledge and practices concerning general health	41 (80.40%)
Becoming better connected with peers living with HIV	38 (74.5%)
AIDS Service Organization/Community Based Organization	
Improving knowledge and practices concerning general health	121 (81.2%)
Improving mental health and wellness	114 (76.5%)
Becoming more positive about life	108 (73.0%)
Becoming better connected with peers living with HIV	101 (67.8%)
Food bank or meal program	
Becoming more positive about life	52 (57.1%)
Improving mental health and wellness	51 (56.0%)
Becoming better connected with peers living with HIV	46 (50.0%)
Improving knowledge and practices concerning general health	44 (48.4%)

Notes:
* Missing values are excluded from the table; percentages are calculated using the total available sample for each service as the denominator.
† Each participant could select multiple services.

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Abstract #328

Unmet HIV Prevention Needs in Canadian Cisgender Women: Findings from the Community HERO Prevention Survey

Seungwon Nam[5], Julia Charonnier[1], Nomfundo Eland[2], Robin Barkins[3], Xavier Guillaume[4], Amina Omri[4], Alexanne Morillo[4], Coline Lestriez[4], Dylana Mumm[5], Kristin Baker[6], Brett Shannon[6], Maureen Owino[7]
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Background: In Canada, gay, bi, and other men who have sex with men have been prioritized for HIV PrEP education and implementation. Given this focus, PrEP uptake among cisgender women (CGW) is low. Canadian HIV epidemiology suggests that HIV prevention needs among CGW remain unaddressed.

Methods: Community HERO Prevention Survey is a cross-sectional, observational, multi-country—Canada, US, UK, and South Africa—survey on understanding the HIV prevention environment. Multiple strategies were used to recruit and identify individuals at risk of acquiring HIV to complete questionnaires on awareness, drivers and barriers, and unmet need for PrEP.

Results: We recruited 260 Canadian participants, with 127 (48.8%) CGW. 51.2% of CGW reported that their overall personal HIV acquisition risk was low. Reported condom use with sexual partners with unknown HIV status was low (34.6%). 43.3% of respondents reported engaging in regular HIV testing, frequency ranging from monthly to yearly. 53.3% reported experience discussing HIV prevention with their healthcare providers. 3.9% reported currently using PrEP; 13.4% reported previously used PrEP; 60.6% reported never used PrEP but heard about it; and 22% reported never used nor heard about PrEP. Intention to use PrEP in the future varied: yes (47.1%); no (11.6%); and I don't know (41.3%). Participants reported various reasons—personal, access, and knowledge—for never taking PrEP.

Conclusion: There are gaps in terms of PrEP awareness, knowledge, and perceived needs among CGW. Tailored engagement, education, and counselling strategies are needed to address barriers and concerns for increasing PrEP uptake among CGW.

Supporting Document

Base: Participants that have never used PrEP but have heard of it	Cisgender Women		
	Yes, N = 77	No, N = 53	p-value[1]
B2: Reasons for never taking PrEP (multiple responses possible), n (%)			
Personal reasons	54 (70.1%)	36 (67.9%)	0.8
I'm against taking any medicine	4 (5.2%)	3 (5.7%)	>0.9
Taking PrEP could interfere with my daily life	9 (11.7%)	4 (7.5%)	0.4
I prefer to use condoms	21 (27.3%)	11 (20.8%)	0.4
I'm afraid of stigma or judgement from healthcare professionals	18 (23.4%)	9 (17.0%)	0.4
I'm afraid of stigma or judgement from my environment if they know I'm taking PrEP	14 (18.2%)	8 (15.1%)	0.6
I'm afraid people would think I have HIV	20 (26.0%)	17 (32.1%)	0.4
I am a frequent blood donor which is incompatible with taking PrEP	3 (3.9%)	3 (5.7%)	0.7
Risk of HIV	48 (62.3%)	37 (69.8%)	0.4
I don't believe to be at risk of getting HIV	27 (35.1%)	10 (18.9%)	0.044
I don't believe HIV is a serious disease	0 (0.0%)	1 (1.9%)	0.4
I think PrEP is for people who have a higher risk of getting HIV than me	22 (28.6%)	20 (37.7%)	0.3
I don't mind the risk I have of getting HIV	0 (0.0%)	3 (5.7%)	0.065
I think that PrEP is for men who have sex with other men (except for Men who have sex with Men)	8 (10.4%)	5 (9.4%)	<0.001
I don't think my risk is constant, so I don't want to take medication every day (if they do not know about event-driven oral pill and know about daily oral pill)	3 (3.9%)	6 (11.3%)	0.3
Access to PrEP	47 (61.0%)	29 (54.7%)	0.5
I don't know how to obtain it	15 (19.5%)	15 (28.3%)	0.2
I don't have access to a doctor or a pharmacy	2 (2.6%)	1 (1.9%)	>0.9
I don't like people knowing I take PrEP even if they are doctors/nurses or other trained professionals	12 (15.6%)	5 (9.4%)	0.3
I have been told by my doctor that I'm not eligible for PrEP	6 (7.8%)	1 (1.9%)	0.2
I don't like going to many visits to my doctor or a clinic every time I need to take PrEP	18 (23.4%)	14 (26.4%)	0.7
PrEP medication	50 (64.9%)	35 (66.0%)	0.9
I'm concerned about potential side effects	34 (44.2%)	20 (37.7%)	0.5
I don't think PrEP is effective to protect against HIV	1 (1.3%)	0 (0.0%)	>0.9
I'm afraid of PrEP interacting with other medication I take	14 (18.2%)	9 (17.0%)	0.9
I don't think I could easily remember to take the next dose when I should	14 (18.2%)	9 (17.0%)	0.9
PrEP knowledge	51 (66.2%)	34 (64.2%)	0.8
I didn't know about PrEP when I was in a situation where I could have needed it	23 (29.9%)	17 (32.1%)	0.8
I don't have enough information about it	33 (42.9%)	21 (39.6%)	0.7
Financial reasons	32 (41.6%)	23 (43.4%)	0.8
I cannot afford the medication	18 (23.4%)	18 (34.0%)	0.2
My insurance is not covering the treatment/I do not have insurance	18 (23.4%)	7 (13.2%)	0.15
Other	0 (0.0%)	0 (0.0%)	>0.9

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Abstract #333

Understanding PrEP Awareness, Knowledge, and Preferences in Canada: A Descriptive Analysis from the Community HERO Prevention Survey

Seungwon Nam[5], Julia Charonnier[1], Nomfundo Eland[2], Robin Barkins[3], Xavier Guillaume[4], Amina Omri[4], Alexanne Morillo[4], Coline Lestriez[4], Dylana Mumm[5], Kristin Baker[6], Brett Shannon[6], Maureen Owino[7]
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Background: In Canada, FTC/TDF for PrEP was first approved in 2016. Since then, multiple PrEP options have emerged. As the PrEP landscape evolves, understanding modality awareness and preferences may help expand implementation across key populations in Canada.

Methods: We conducted a cross-sectional, observational, multi-country—Canada, US, UK, and South Africa—survey to better understand current PrEP use patterns and unmet needs. Eligible participants were recruited via multiple channels, such as social media and referrals from patient advocacy groups, and completed survey questionnaires on PrEP use, awareness, preferences, unmet needs, drivers, and barriers.

Results: 260 Canadian respondents participated in the survey: 47 (18.1%) reported current PrEP use; 46 (18%) reported previously used PrEP; 130 (50%) reported never used PrEP but have heard of it; and 37 (14%) reported never used PrEP and never heard of it. Among those who used PrEP in the past or have never used it, 50% reported an intention to use PrEP in the future. Among participants who have never used PrEP but have heard of it, 118 (80.9%) reported some level of knowledge regarding PrEP. Awareness of current PrEP options was high, but knowledge of emerging options was limited. Regarding PrEP modalities, comfort was greatest with weekly oral PrEP, followed by daily oral and twice-yearly injectable PrEP.

Conclusion: PrEP awareness among Canadian respondents is high. Half of non-users expressed future intent, indicating potential for PrEP expansion. Limited knowledge of emerging modalities underscores the need for education on diverse options as the PrEP landscape continues to evolve.

Supporting Document

Table 19 - Knowledge about PrEP (Base: Participants that have used or are currently using PrEP or that have never used PrEP but know what it is; n=223)

A9: Source from which first learned about PrEP, n (%)	
Friend / Family / Colleague / Associate	50 (22.4%)
Advertisement / Commercial / Public health campaign	47 (21.1%)
Healthcare professional(s)	66 (29.6%)
School sex education (except South Africa)	7 (3.1%)

Sex partner(s)	13 (5.8%)
Online social networks or communities	36 (16.1%)
Other	4 (1.8%)
Own research	1 (0.4%)
Previous survey	2 (0.9%)
Work related to sexual health / medical training	1 (0.4%)
Do not remember	0 (0.0%)
Other answer	0 (0.0%)
A11A: Knowledge of PrEP administrative modalities (multiple responses possible), n (%)	
Event-driven oral pill	149 (66.8%)
Pill taken orally every day	169 (75.8%)
Injection given in the muscle of the buttock every 2 months	111 (49.8%)
A11B: Knowledge of PrEP future administrative modalities, n (%)	
Yes	82 (36.8%)
No	141 (63.2%)

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Abstract #338

Antiretroviral Therapy Utilization Trends in Manitoba, Canada (2007-2022): A Population-based Cohort Study

Lara Haidar[1], Laila Aboulatta[1], Payam Peymani[1], Qier Tan[1], Sherif Eltonsy[1, 1]University Of Manitoba, Winnipeg, Canada

Introduction:
Antiretroviral therapy (ART) has evolved substantially over the past two decades, but data on uptake of newer agents remain limited. Manitoba has one of the highest HIV prevalence rates in Canada, highlighting the need to understand local ART patterns. This study aimed to examine trends in ART use patterns in Manitoba.

Methods:
We conducted a population-based study using the provincial health databases including all individuals in Manitoba from January 2007 to March 2022. ART use was assessed quarterly overall and by class: protease inhibitors (PI), integrase strand transfer inhibitors (INSTI), nucleoside/nucleotide reverse transcriptase inhibitors (NRTIs), and non-nucleoside reverse transcriptase inhibitors (NNRTIs). We also evaluated use of first-line regimens: 2 NRTIs plus either INSTI, PI, or NNRTI. Trends were analyzed using linear regression models.

Results:
Among 5,749 ART users (mean age 27.9 years; 49.5% male; 58.9% from lower-income groups), overall ART use increased more than threefold, from 0.04% in Q1-2007 to 0.14% in Q1-2022 ($p < 0.001$). Males and lower-income individuals had higher ART use. We observed a 79-fold increase in INSTI-based regimens, rising from 0.0008% in 2007 to 0.07% in 2022 ($p < 0.001$). In contrast, use of NNRTI-based regimens peaked at 0.013% in 2014 then steadily declined to 0.005% by 2021/2022 ($p = 0.002$); PI-based regimens increased by 4% in 2014 before declining to 0.014% in 2021/2022 ($p = 0.03$).

Conclusions:
ART use in Manitoba has grown significantly over 15 years, driven by increased uptake of INSTI-based regimens and declines in older combinations. These trends align with HIV treatment guidelines recommending INSTI-based regimens as preferred first-line therapy.

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Abstract #366

Operational Success, Analytical Challenge: A Methodological Framework and Profile of British Columbia's Status-Neutral HIV Treatment and Prevention Cohort

Paul Sereda[1], Junine Toy[1,2,3], Scott Emerson[1], Alexander Korzuchowski[1], Jason Trigg[1], Robert Hogg[1,4], Kate Salters[1,2], Viviane D. Lima[1,2], Julio Montaner[1,2]
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Background
In British Columbia (BC), HIV treatment and prevention medication programs, and their monitoring and evaluation, are centralized, enabling a rapid rollout of a doxycycline for bacterial STI (bSTI) prevention (DoxyPEP) initiative in December 2023 for eligible persons living with HIV (PLWH) or receiving HIV pre-exposure prophylaxis (PrEP). The intersection of HIV, bacterial and other STIs emphasizes the need for an integrated status-neutral (regardless of HIV status) care continuum, to streamline monitoring and evaluation efforts. We developed a framework to harmonize PLWH and HIV PrEP registries into a single analytical cohort and highlight analytical considerations.

Methods
We aggregated data from the BC Centre for Excellence in HIV/AIDS (BC-CfE) HIV care registries (1987–2025), including client and provider demographics, program enrollment and discontinuation, medication dispensing, laboratory testing, and mortality. The current analytical population (active cohort) was defined using an antiretroviral medication dispensing-based proxy (Dec 1, 2023 to Dec 1, 2025).

Results
The harmonized cohort (N=33,316; n=17,489 (52.5%) PLWH, n=15,827 (47.5%) PrEP) represents >261,000 person-years of follow-up. The active cohort (n=22,382) comprised 59.5% PrEP participants (n=13,320) and 40.5% PLWH (n=9,062).

The framework enabled identification of all individuals (n=96) transitioning from PrEP to HIV treatment, preserving longitudinal history across the serostatus change, and highlighted differential uptake of the DoxyPEP initiative: 37.7% (n=5,024) of active PrEP clients versus 9.1% (n=823) of active PLWH.

The harmonization process highlighted critical analytical considerations, including heterogeneous definitions of retention, survivor bias, and the alignment of time zero. It demonstrated that medication gaps require context-specific definitions; while HIV treatment interruptions signal suboptimal utilization, PrEP gaps may reflect decreased risk or inappropriate discontinuation.

Conclusion
This cohort reveals a shift in BC's HIV/STI care landscape; prevention clients now outnumber treatment clients. While the harmonization process presents analytical challenges, the framework provides a vital platform for monitoring syndemics across the status-neutral continuum.

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Abstract #369

MMIWG and HIV in Manitoba

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Background: The rate of HIV transmission among Indigenous women in Manitoba has progressively increased over the past decade. In 2025, the Public Health Agency of Canada reported that Manitoba also has the highest rate of HIV transmission in Canada (19.5 vs 6.3 per 100K). These drivers have led to increasing rates of transmission among Indigenous women.

Methods: An analysis of intersectional social factors and health epidemiological data was undertaken to identify the drivers of HIV transmission in Manitoba. HIV epi reports as well HIV prevention interventions like sexual health promotion, PrEP and PEP awareness, and stigma reduction as well as social issues such as displacement to urban centres and racism in the healthcare system were included in the review.

Findings: Due to the stigma and complacency associated with the HIV pandemic, Indigenous people in Manitoba are increasing at risk of exposure to HIV and other STBBI. According to the Inquiry into Missing and Murdered Indigenous Women and Girls (MMIWG), Manitoba also has the highest rate of MMIWG. The intersection of resource extraction, importation and sale of prescription and illicit drugs, sexual exploitation and trafficking, and the lack of housing and mental health services has created a public health crisis with regard to HIV transmission.

Conclusion: The lack of a provincial HIV strategy with funding has allowed the HIV pandemic to spiral out of control. Despite the values and philosophies inherent in public health practice, the pandemic is driven by colonialism and systems compromised by implicit bias that fail to meet the needs of the Indigenous population.

Supporting Document

MB HIV Program Annual Update 2025.pdf (could not be inserted)

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Abstract #372

Children HIV-Exposed Uninfected in Canada – Epidemiologic and Clinical Trends from the Canadian Perinatal HIV Surveillance Program

Jason Brophy[1], Terry Lee[2], Fatima Kakkar[3], Athena McConnell[4], Jeannette Comeau[5], Alena Tse-Chang[6], Isabelle Boucoiran[3], Deborah Money[7], Joel Singer[2], Ari Bitnun[8], Laura Sauvé[9]
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Background: Children HIV-exposed but uninfected (CHEU) now greatly outnumber children living with HIV globally and in Canada. We describe the epidemiology and clinical characteristics of Canadian CHEU.

Methods: We reviewed Canadian Perinatal HIV Surveillance Program data from 01/1990–12/2024.

Results: 5878 CHEU were born in Canada in the 35-year period. Annual numbers of HIV-exposed infants rose from 1990-2007 and have since remained at ~250/year, with 1-7 infants infected/year (0.4-2.9% vertical transmission). Ontario (33%) and Quebec (23%) have had the highest proportion of cases over time, with Alberta (15%) and Saskatchewan (10%) increasing and BC (12%) decreasing over time. In 2023 the provincial proportion of cases was Ontario 31%, Quebec 24%, Alberta 15%, Saskatchewan 17%, and BC 5%. Birth parent demographics differ between Eastern (ON/QC/Atlantic) and Western (MN/SK/AB/BC) Canada. Overall 51% were African/Caribbean/Black (ACB), 21% White, and 21% Indigenous, but in Eastern 68% were ACB, 23% White, and 2% Indigenous versus in Western 47% Indigenous, 28% ACB and 17% White. Birth parent HIV transmission risk factor also differed geographically: overall 66% sexual, 20% injection drug use (IDU), 2% perinatal; Eastern primarily sexual (82%) whereas Western sexual (43%) and IDU (37%) predominated. Birth parent treatment anchor drug changed over time, with protease inhibitors most common (45% total, peaking at 82% in 2011) but integrase inhibitors predominating in the past 7 years (23% total, peaking at 89% in 2024). Preterm delivery occurred in 17% overall, peaking at 25% in 2008 (when 58% were treated with lopinavir/ritonavir) but down to 14% in 2024. Breastfeeding amongst CHEU is increasing, with 58 infants breastfed between 2021-2024.

Conclusions: Since 1990, nearly 6000 CHEU have been born in Canada, with changes in demographics and birth parent treatment over time. As evidence grows of the impacts of HIV and ART exposure on child health, monitoring this population remains increasingly important.

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Abstract #376

A longitudinal evaluation of over-recommendation in GetCheckedOnline

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Background: Rising sexually transmitted and blood-borne infection (STBBI) rates disproportionately affect equity-deserving populations who face barriers to testing. BC's digital STBBI testing service GetCheckedOnline (GCO) expands access; however, funding constraints have stalled further expansion. To save costs, decision-makers have considered reducing potentially unnecessary testing. Currently, GCO routinely recommends chlamydia, gonorrhea, syphilis and HIV tests for all clients irrespective of testing frequency, warranting exploration of over-recommendation. We explored the extent of potential over-recommendation based on clinical guidelines, and the demographic and behavioural characteristics associated with it.

Methods: A retrospective cohort study was conducted using GCO program data of repeat testers (September 2014 - December 2024). Demographic and behavioural characteristics, aligned with the Andersen Healthcare Utilisation model, were used to explore associations with potential over-recommendation. Negative binomial regression estimated rates of potential over-recommendation. Positivity rates were compared across recommendation categories.

Results: Among 22,267 repeat clients, 28.6% of screening episodes were classified as potential over-recommendations, representing 12.4% of all (repeat and single client) episodes during the study period. 33.9% of the repeat clients had ≥ 1potential over-recommendation episode. Potential over-recommendation rates were higher among racialised clients, 2SLGBTQIA+ and those who preferred not to answer sexual orientation related questions, and those reporting no condom use, having multiple sex partners, previous STBBI diagnoses, and HCV risk. Most potential over-recommendations (96%) occurred when clients tested within three months of a previous episode. Positivity was higher among potential over-recommendations (4.2%) than non-over-recommendations (3.6%, $p < 0.01$).

Conclusions: Potential over-recommendation mainly reflected high-frequency testing and was more common among clients at higher risk for STBBIs or from equity-deserving populations. Eliminating such episodes could reduce utilisation but pose potential testing barriers and miss diagnoses. Strategies that optimise resources while maintaining autonomy and accessibility are needed.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: African, Caribbean and Black People / Thème : Personnes d'origine africaine, antillaise et Noirs

Abstract #288

From Resilience to Resurgence: Theorizing Refusal (Ukataaji) as Activist Afrocentric Critical Theory

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Background: Despite a disproportionate HIV burden, Black communities in Canada remain sidelined in HIV research, policy, and governance, as structural anti-Black racism within public systems shapes access to care and protection. This paper theorizes Refusal as a Black emancipatory framework, grounded in global Black liberation traditions.

Development of the Theory: Refusal is theorized as an Activist Afrocentric Critical Theory that guides research design, data generation, analysis, and implementation. Grounded in Afrocentric philosophy, Ubuntu ethics, Pan-Africanism, Black feminist thought, and critical race theory, refusal functions as an ethical stance, methodology, and worldview that shifts research from extraction to collaboration and from institutional control to community sovereignty. It positions Black people as knowledge producers and offers a transferable, community-governed analytic framework that centres care, relationality, and collective power, reimagining HIV research and governance as moral, cultural, and liberatory practices.

Pillars of Ukataaji: Meaning and Implications: Refusal is grounded in five interrelated pillars that translate refusal into actionable, community-led HIV practices. Mapinduzi (Revolution) aligns with structural outcomes, including policy advocacy, community governance, and Black-led system redesign. Ulinzi (Sanctuary) informs care-based interventions by emphasizing the creation of safe community spaces, mutual aid networks, and culturally grounded healing practices that strengthen trust, retention, and well-being. Nguvu (Agency) supports leadership development, peer mentorship, community organizing, and the mobilization of lived experience into collective action and service advocacy. Uhuru (Freedom) advances innovative, creative methods and cultural expression to expand intervention design beyond traditional models and enable future-oriented, community-defined measures of wellness. Furahà (Joy) informs sustainability and resilience outcomes by positioning joy, rest, creativity, and spiritual affirmation as essential practices for healing and long-term community capacity.

Conclusion: Ukataaji offers an innovative Activist Afrocentric framework that centres Black self-determination and community authority in HIV responses grounded in community-governed systems that sustain equity, healing, and collective power.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: African, Caribbean and Black People / Thème : Personnes d'origine africaine, antillaise et Noirs

Abstract #181

Positive Pathways in HIV Care for ACB Women living with HIV in Winnipeg, Manitoba

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Background: African, Caribbean, and Black (ACB) women face historically rooted and socio-structural inequities, yet research about positive pathways that support their engagement in the HIV care continuum is limited. The study aimed to highlight positive coping among ACB women living with HIV in Winnipeg and what facilitates the ability of women to commit to care, be resilient and thrive despite experiences of adversity and/or trauma.

Methods: The community-based study involved 10 ACB women living with HIV in Winnipeg, along with 12 care staff. Guided by critical race and feminist theories, the qualitative study incorporated principles of intersectionality and constructivist grounded theory to inform data collection, organization, and analysis. Conducted in collaboration with HIV-focused clinics, the study used in-depth, semi-structured interviews to explore ACB women's experiences.

Results: ACB women's narratives reveal a deep sense of commitment to care and acceptance of their HIV status that shaped care use. Women are more moved to access care when they are treated with dignity and understanding. Their motivation centred on providers fostering respectful, caring, nonjudgmental, and emotionally supportive environments, as well as positive social connections and social supports. The healthcare clinic was also perceived as a safe space for accessing treatment, contributing to improved health and overall well-being.

Conclusions: This study makes a significant contribution to our understanding of the resilience of ACB women and underscores the importance of holistic, empathetic, and nonjudgmental patient engagement. It highlights the need for policy interventions that recognize the emotional and social dimensions of HIV care for racialized women, as well as the importance of social network strategies to strengthen connections among ACB women living with HIV and help women in accepting an HIV diagnosis, advancing toward self-acceptance, and sustaining care use.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: African, Caribbean and Black People / Thème : Personnes d'origine africaine, antillaise et Noirs

Abstract #358

Not Business As Usual: Initiating the Development of a National Black Community–Led Research And Policy Strategy for Transformative Change

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Background: There is a significant paucity of national research and data on strategies to improve HIV outcomes for Black Canadians. The limited number of supported Black researchers with HIV-focused research agendas, combined with national measurement approaches failing to capture the racial and cultural realities of Black communities, constrains effective policy and system responses. Evidence of HIV inequities and need is well established. In Ontario home to over 50% of Canada's Black population, Black individuals accounted for 24% of new HIV diagnoses in 2020.

Objectives: To generate community-informed data on the current realities and priorities of Black communities affected by HIV across Canada, and to use this knowledge to inform the development of a national, Black community–led research and policy strategy advancing population-level health system solutions beyond descriptive analyses of disparity.

Method: We conducted a descriptive qualitative study using six semi-structured focus groups (N=42) with Black community members living with HIV in Ontario. Participants represented diverse subpopulations, including youth, newcomers, cisgender women (English-speaking and Francophone), cisgender men, and 2SLGBTQIA+ individuals. Data was analyzed using conventional content analysis to identify overarching themes and priorities.

Results: Participants identified key priorities for a national HIV research and policy strategy, including aligning HIV prevention with spiritual and cultural values, addressing gaps in disaggregated demographic data, and evaluating culturally tailored awareness and education approaches. Additional priorities included the impacts of HIV disclosure and disclosure protections on care-seeking, aging with HIV, maternal and infant health, migration-related barriers to care, transitions from pediatric to adult services, PrEP access and uptake, and strengthened community education and engagement in HIV research.

Conclusion: Transformative Black HIV equity research and policy must move beyond documenting disparities to addressing avoidable and unjust inequities rooted in historical and contemporary injustices, advancing equitable health systems and outcomes for and led by Black communities in Canada.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: African, Caribbean and Black People / Thème : Personnes d'origine africaine, antillaise et Noirs

Abstract #215

Experiences and Acceptability of HIV and STBBI Testing Among African, Caribbean, and Black Communities in Manitoba

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Background: Manitoba has the highest HIV rate in Canada, with African, Caribbean, and Black (ACB) communities disproportionately affected among new diagnoses. The Ubuntu-Pamoja study examined experiences, perspectives, and the acceptability of various HIV and sexually transmitted and blood-borne infection (STBBI) testing methods among ACB community members in Manitoba.

Methods: We used a community-based participatory approach, conducting qualitative interviews (n=33), an online survey (n=351), and follow-up post-test interviews (n=10) with ACB community members. Participants were offered different HIV testing options, including self-testing and facility-based testing by trained healthcare providers. Qualitative data were analyzed using iterative, inductive, and thematic methods, while quantitative data were analyzed descriptively.

Findings: Among survey respondents, 245 individuals (69.7%) reported having been tested for HIV and 106 (30.3%) reported never being tested, while only 124 of 329 respondents (37.7%) reported having been tested for a sexually transmitted infection other than HIV, compared with 205 (62.3%) who had not. Among 114 respondents who evaluated their testing experience in Manitoba, most rated it positively: 40.4% described it as satisfactory, 32.5% as good, and 21.9% as excellent, while only 5.3% reported a bad or very bad experience. Qualitative findings revealed limited healthcare access, lack of information about testing options, HIV-related stigma, absence of culturally sensitive programs, and the centralization of testing clinics as barriers to HIV and STBBI testing.

Conclusions: while most respondents who accessed HIV and STBBI testing reported positive experiences, testing uptake—particularly for STBBIs other than HIV—remains low, indicating that barriers are primarily structural rather than experiential. Limited access, lack of information, centralized services, stigma, and the absence of culturally safe programs continue to constrain testing engagement. Expanding decentralized, community-based, and culturally responsive testing models alongside targeted outreach and stigma reduction is essential to improving equitable access to care.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: African, Caribbean and Black People / Thème : Personnes d'origine africaine, antillaise et Noirs

Abstract #354

Animating change: co-creating a community knowledge translation animated video to address systemic racism and HIV stigma experienced by Black African, im/migrant people living with HIV in BC

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Background: Arts-based knowledge translation and exchange approaches can support accessible, engaging, and community-responsive sharing of research. The objective of this study was to develop and implement a co-creation process for producing an animated video to disseminate synthesized findings from qualitative research.

Methods: Qualitative findings were drawn from Drive for Change, a three-year community-based participatory action research project to address systemic racism and HIV stigma experienced by Black African, im/migrant people living with HIV in British Columbia's healthcare system. The co-creation approach was conceived through a collaborative, community-engaged process, led by the community partner (Afro-Canadian Positive Network of BC) and in collaboration with the Community Advisory Team and a visual strategy studio. Iterative feedback cycles with the Community Advisory Team guided script refinement and visual design to uphold principles of community-based research. This process prioritized accessibility, cultural responsiveness, and respectful representation of lived experiences.

Results: Researchers, community partners, and people with lived experience co-created key messages, narrative framing and a visual representation of the narrative, ensuring that complex insights about healthcare experiences, systemic barriers, and opportunities for change were translated into clear, relatable visual and verbal language. Key themes from qualitative research findings of experiences in healthcare settings that were amplified in the video included: harms of disclosure of HIV status without consent, experiences of discrimination and exclusion, community resilience and determination to continue accessing care; and assertions that healthcare settings can be welcoming, culturally responsive and accountable.

Conclusions: This work illustrates an engaged approach to converting qualitative research findings into a digital media knowledge translation product that respects and amplifies community voices while promoting research uptake and system-level discussion and supports collective understanding and action toward healthcare equity among Black African im/migrant people living with HIV in Canada. The video is publicly accessible on the Drive for Change website (https://driveforchange.med.ubc.ca/knowledge-translation/).

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: Indigenous Communities / Thème : Collectivités autochtones

Abstract #87

Preferences for Land and Arts-Based Sexual Health Education Methods: Qualitative Findings from Northern and Indigenous Youth in the Northwest Territories, Canada

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Background: The evidence to support land and arts-based sexual health education with youth is growing, and multiple methods have been used in such approaches. Less is known about youths' experiences and preferences regarding the varied methods that can be included under the land and arts-based umbrella. To address this knowledge gap, we explored preferences for land and arts-based methods in Peer Leader Retreats (PLR) focused on HIV prevention with Northern and Indigenous youth in the Northwest Territories (NWT), Canada.

Methods: Weeklong land and arts-based PLR were conducted with youth aged 13-18 by a Northern and Indigenous sexual health program. PLRs focused on leadership, HIV and STI prevention, and sexual health through a variety of methods. Following the PLR we conducted focus groups and applied content analyses to examine patterns and themes in youth methodological preferences.

Results: Participants included n=185 youth (mean age: 14.91, standard deviation: 1.55; gender: cisgender women: 64.3%; cisgender men: 24.9%; gender diverse: 10.8%; Indigenous : 81.1%). Participant findings reflected four overall themes: (1) arts and crafts; (2) cultural and ceremonial activities; (3) film and storytelling; and (4) physical and outdoor activities. (1) Arts-based workshops (e.g., mushroom lights, clay molding, felting, watercolours, paint pouring) were perceived as calming, peaceful, and fostering creative freedom. (2) Cultural and ceremonial activities (e.g. drum circles, smudging, grief circles, traditional teachings and stories) were described as deeply meaningful, particularly for those who lacked access in home communities. (3) Sexual health film and storytelling (e.g. movie making, editing) combined education with humour and performance. (4) Outdoor activities (e.g. Arctic sports and Indigenous games) helped with managing energy and fostering healthy competition.

Conclusions: Participants described enthusiasm, learning, and personal growth from a range of land and arts-based modalities in HIV/STI prevention PLR. Findings can inform future HIV prevention methods with rural, Northern and Indigenous youth.

Supporting Document

Inflammatory markers suPAR and sCD163, but not HIV, are independently associated with PREVENT cardiovascular risk age in women living with and without HIV in British Columbia.

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Introduction: Women living with HIV are at higher risk of cardiovascular disease (CVD) than men, likely due to a combination of risk factors. Soluble urokinase plasminogen activator receptor (suPAR), a marker of immune activation, has been associated with adverse cardiac outcomes, whereas soluble (s)CD163, a marker of macrophage activation, has been associated with atherosclerosis. Cardiovascular risk estimators such as the recently developed PREVENT are useful tools in primary prevention of CVD, stratifying individual risk by combining risk factors into a single estimate.

Methods: We included all women enrolled in BCC3 (Dec 2020-July 2024), a community-engaged healthy aging study , eligible for the 10-year PREVENT Risk Calculation (aged 30-79), and with inflammatory marker data. We calculated PREVENT risk age, which estimates "heart age *vs.* chronological age,". suPAR and CD163 concentrations were assessed using MesoScale Discovery R-plex kits. Quantile regression was used to assess PREVENT risk age association with inflammatory markers, controlling for covariates/confounders.

Results: Among 354 BCC3 participants [58.1% living with HIV], higher PREVENT risk age was significantly associated with higher levels of suPAR (R^2=0.421) and sCD163 (R^2=0.380), both before and after adjusting for potential confounders, including chronological age itself.

Conclusions: Known heart health-associated inflammatory markers suPAR and CD163 are both associated with a higher PREVENT risk age, independent of HIV status, chronological age, smoking, and ethnicity. Further analysis will determine whether inflammatory markers not linked to heart health are also associated with PREVENT risk age and if they differ by HIV status.

Words: 248/250

Table 1. Unadjusted and adjusted estimates for inflammatory markers and PREVENT risk age.

	Women with HIV^ (n = 149)	**Women without HIV^ (n = 207)**	**Median Estimate [95% CI] unadjusted**	**Median Estimate [95% CI] adjusted#**
PREVENT Risk Age (y)*	61.0 [53.5 to 67.5]	59.2 [48.1 to 66.9]	NA	NA
Model for suPAR (n = 354)				
suPAR (pg/mL)	2418 [1897 - 3024]	2133 [1782 - 2671]	**0.0039 [0.0024 - 0.0058]**	**0.0019 [0.0004 - 0.0034]**
HIV status	149 (41.9)	207 (58.1)	1.25 [-1.86 - 4.37]	1.06 [-0.83 - 2.94]
Chronological Age (y)	52.3 [45.9 to 58.8]	52.7 [44.1 to 59.8]	**0.59 [0.48 - 0.71]**	**0.88 [0.76 - 0.95]**
Model for CD163 (n = 354)				
CD163 (µg/mL)	0.708	0.587	**$5x10^{-6}$**	**$3x10^{-6}$**

	[0.519 - 1.014]	[0.4189 - 0 782]	**[1x10^{-6} - 9x10^{-6}]**	**[1x10^{-6} - 6x10^{-6}]**
HIV status	149 (41.9)	207 (58.1)	1.25 [-1.86 - 4.37]	0.798 [-1.112 - 2.709]
Chronological Age (y)	52.3 [45.9 to 58.8]	52.7 [44.1 to 59.8]	**0.59 [0.48 - 0.71]**	**0.88 [0.79 - 0.97]**

^Data presented as n (%) or median [IQR]
*PREVENT risk age was calculated from the 10-year PREVENT-CVD score, which includes: sex, current smoking, lipid-lowering medication, age, high-density lipoprotein (HDL) cholesterol, body mass index, total cholesterol, systolic blood pressure, estimated glomerular filtration rate (eGFR), history of diabetes, and anti-hypertensive medication use
#Multivariable analyses were adjusted for age, tobacco smoking ever, and ethnicity, as these differed between the groups, bolded results indicate a p value <0.05.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: Indigenous Communities / Thème : Collectivités autochtones

Abstract #20

Co-Creating a Community-Driven Strategic Plan to Strengthen HIV/STBBI Research, Prevention, and Care in Manitoba: Findings from the Village Lab Partner Engagement Process

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Background: Manitoba currently has the highest rates of HIV in Canada, reflecting widening inequities rooted in colonialism, housing instability, substance use, and limited access to culturally grounded care. The Village Lab, an interdisciplinary community-based research hub at the University of Manitoba, leads HIV/STBBI, harm reduction, and equity-focused research in partnership with marginalized communities. To guide its next phase (2026–2027) and strengthen impact in the context of rising provincial HIV rates, the Lab undertook a multi-stage, community-led strategic planning process.

Methods: A partner engagement strategy was implemented from September–November 2025, grounded in decolonizing and community-based research principles. Activities included an environmental scan of engagement models; an Elder-guided collective reflection process; a full-day in-person engagement session (n=56 stakeholders, including peers, people living with HIV, Indigenous partners, service providers, students, and researchers); and a follow-up survey (n=30) to capture additional priorities. Data were analyzed using thematic synthesis with attention to community governance, Indigenous knowledge systems, and social determinants of health.

Results: Across engagement activities, participants emphasized the urgent need for Indigenous- and community-led research; attention to housing, mental health, racism, colonialism, substance use, and geographic inequities in HIV care; expanded outreach to rural/remote and northern communities; and arts-based, accessible knowledge sharing. Five strategic priorities emerged: (1) advancing Indigenous and community-led approaches; (2) strengthening social determinants of health research in HIV; (3) increasing accessible and impactful knowledge translation; (4) enhancing partnerships and long-term sustainability; and (5) fostering community and trainee capacity.

Conclusions: Through a rigorous, community-rooted engagement process, the Village Lab developed a strategic plan that directly reflects Manitoba's evolving HIV landscape and community-defined needs. This model demonstrates how collaborative, decolonizing strategic planning can strengthen research relevance, support Indigenous sovereignty, enhance prevention and care pathways, and build sustainable HIV/STBBI systems change.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: Indigenous Communities / Thème : Collectivités autochtones

Abstract #46

The Canoe Project: Working in Partnership to Increase National Capacity in Indigenous Harm Reduction Services

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Mainstream harm reduction strategies in Canada have struggled to serve Indigenous peoples, with discrimination, institutionalized racism and years of multigenerational trauma creating unique barriers and challenges. Increased culturally safe, stigma-free harm reduction services grounded in Indigenous Ways of Knowing and Doing are needed. The Canoe is an Indigenous Harm Reduction project and aims to bring relevant, non-stigmatizing, context-specific harm reduction practices for Indigenous communities to the national stage.

In this session, Cherese Reemaul, Canoe Project lead, will share key strategies for integrating Indigenous knowledge and cultural practices into harm reduction capacity-building initiatives. She will also discuss the impact of strengths-based, community-driven training on service providers' competencies and Indigenous health outcomes.

The Canoe facilitates an Indigenous Harm Reduction National Community of Practice (CoP) for frontline health professionals and organizations offering harm reduction services to Indigenous people. Each CoP begins with a Knowledge Giver opening the session, and remains to answer questions from their perspective. The Canoe team seeks out speakers and topics that speak to the interests of attendees. Past topics have included: Navigating Grief and Loss in Relation to Substance Use, Where Culture and Harm Reduction Intersect, and Navigating HIV Self Testing as Ceremony.

Findings indicate increased confidence and competency among service providers in delivering culturally safe harm reduction services. Participants reported enhanced understanding of Indigenous worldviews on topics of harm reduction, improved collaboration with Indigenous organizations and communities, and strengthened community relationships. Feedback also highlighted areas for improvement, including the need for extended mentorship and additional resources that address gaps in knowledge.

The Canoe Project demonstrates the effectiveness of strengths-based, culturally tailored capacity building in harm reduction service provision that is grounded in community needs and the feedback they provide. This approach delivers a model that reflects Indigenous Ways of Knowing and Doing, while enhancing Indigenous harm reduction services.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: Indigenous Communities / Thème : Collectivités autochtones

Abstract #201

The Ayaangwaamiziwin Initiative: A Community-Based Model for Testing, Treatment, and Linkage to Care for Underserved Populations with Syphilis and HIV in the Prairies and Northern Territories, Canada

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Rates of infectious and congenital syphilis and HIV have reached crisis levels in Canada, with a disproportionate impact in Manitoba, Saskatchewan, Alberta and the Northern Territories. The Ayaangwaamiziwin Initiative (Ojibwe, meaning carefulness and preparedness) is a three-year, community-based and public health implementation study that will provide testing to 11,500+ participants in the Prairie Provinces and Northern Territories.

Launched in March 2025, this Indigenous co-led study was first implemented in Saskatchewan, followed by Alberta and Manitoba. Front-line organizations offering sexually transmitted and blood-borne infection (STBBI) services integrated syphilis and HIV point-of-care testing (POCT) into routine care with the availability of cultural support and outreach. Individuals aged ≥16 years who presented for testing were eligible. The study employed a preference-based testing model, whereby individuals selected preferred POCT from three available options: (1) HIV and syphilis (bioLytical); (2) HIV alone (bioLytical); or (3) syphilis alone (MedMira), unless otherwise clinically indicated.

For the first 1,000 tested in Saskatchewan and Alberta: 71% were Indigenous (75% First Nations, 8% Metis, and 17% preferred not to answer), 22% Caucasian, 1% Black, 5% mixed race or other; mean age of 41 years, 53% cis-men, 47% cis-women; 38% indicated unstable housing and 32% use of injection drugs. First-time testers: overall, 12.5% for syphilis and 10.5% for HIV. Reactive POCT results: 17% syphilis (n=169) and 3% for HIV (n=27). Of these, 25% (n=42) and 5% (n=8) were newly diagnosed with syphilis and HIV, respectively. All individuals with reactive results were linked to treatment for syphilis and/or linked or re-linked to HIV care and treatment.

Early findings: Community-based health care STBBI POCT model is highly effective in testing and treating affected key populations with syphilis and HIV. Next steps focus on expanding health navigator and nursing capacity, engaging additional community agencies, and scaling up across the Prairies and northern communities.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: Indigenous Communities / Thème : Collectivités autochtones

Abstract #340

Reflecting on the Research Process of an Indigenous-Led, Community-Based Research Project Concerning the Sexual and Reproductive Health and Rights of Indigenous Women Living with HIV

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In 2017, the WHO released the consolidated guideline on the sexual and reproductive health and rights (SRHR) of women living with HIV. This report highlighted inequitable access to quality health services for Indigenous women living with HIV and their disproportionate vulnerability to sexual and reproductive rights violations. Our project aims to develop an Indigenous framework that promotes the well-being of Indigenous women living with HIV by addressing barriers to data progress in SRHR and incubating culture-informed solutions through the development of template materials.

We are a coalition of Indigenous women living with HIV, Indigenous and non-Indigenous researchers, and community groups. We have gathered knowledge about the SRHR of Indigenous women living with HIV using an Indigenous, community-based research methodology. We are holding Sharing Circles for Indigenous women living with HIV and Indigenous men in five cities across Canada. The data gathering process has been realized through collaboration between the Community Advisory Council led by Indigenous people living with HIV, a Kanien'kehá:ka healer and a research team at the Research Institute of the McGill University Health Centre.

The project team has learned many lessons through the process of implementing an Indigenous community-based research project on SRHR. First, to realize project goals, we must prioritize the meaningful engagement of Indigenous women living HIV in all stages of the research process. Second, there are specific institutional barriers to doing Indigenous community-based health research within the context of a health research institute, requiring creativity and flexibility. Third, solutions can only be achieved through a relational approach to collaborating with community partners and close attention to each unique context the research occurs in. Beyond the project findings, analysing the process of conducting Indigenous-led community-based research is essential to finding Indigenous-led solutions to strengthen the SRHR of Indigenous women living with HIV.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: People who use drugs / Thème : Utilisateurs de drogues

Abstract #138

Increasing legal and policy barriers against supervised consumption services in Canada: Update on their status

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Background
The HIV Legal Network's 2024 report Scaling-up supervised consumption services: what has changed in Canada? showed a promising expansion of supervised consumption services (SCS) in Canada but also noted insufficient legal safeguards for their ongoing operation, persistent funding constraints, and emerging legal and policy barriers provincially. By the end of 2025, only 32 federally exempted SCS were operating compared to 39 in February 2024, more than 11 SCS ceased operations in Ontario, and Canada's only hospital embedded SCS closed in Alberta. These closures are happening despite a relentless, unregulated toxic drug crisis and increases in new cases of HIV in Canada.

Description
In Ontario, the 2024 Community Care and Recovery Act prohibits SCS from operating within 200 metres of a school or childcare centre and prevents municipalities from operating or supporting a SCS without the province's approval. In Quebec, new legislation adopted in 2025 requires ministerial authorization for some SCS and imposes rules regarding minimum distances from a school or daycare. Additionally, provinces are limiting access to key HIV prevention and harm reduction services including needle and syringe programs. For instance, Ontario has prohibited the distribution of sterile needles and syringes at recovery-oriented "HART Hubs" meant to replace SCS, while Saskatchewan now requires a one-for-one exchange of equipment. Meanwhile, Health Canada has reportedly added new requirements for SCS applications while shortening the duration of exemptions.

Lessons learned
SCS, and harm reduction more broadly, is highly vulnerable to political context. Two constitutional challenges are ongoing to contest SCS closures and discriminatory legislation in Alberta and Ontario. Political will and funding are urgently required, including from the federal government, to safeguard access to vital harm reduction services that prevent toxic drug deaths as well as HIV and other STBBI infections.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: People who use drugs / Thème : Utilisateurs de drogues

Abstract #139

Support Group for People Who Use Drugs: A Low-Barrier, Harm Reduction Approach

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Background: Abstinence-based support groups for people who use drugs (PWUD) often require sobriety, limiting access for those actively using substances and undermining core elements of group support such as belonging, safety, and voice. In Saskatchewan, these barriers are especially consequential given substance-related harms shaped by settler colonialism and dislocation, which disproportionately affect Indigenous communities. Guided by liberatory harm reduction and dislocation theory, this study examines a community-led, low-barrier support group for PWUD in Regina, Saskatchewan.

Methods: Using a community-based participatory research design, AIDS Programs South Saskatchewan (APSS) and the Eaton Lab facilitated a low-barrier, harm-reduction-oriented drop-in support group for people who use drugs (PWUD). Sessions were co-facilitated by APSS First Nations staff and a social work practicum student, with attention to Indigenous ways of being and knowing. Two six-week phases were held (June 12–July 17 and August 7–September 11, 2024), and participation was open to anyone accessing APSS services. Structured group report notes captured session activities, discussion content, forms of engagement, and group dynamics, which were analyzed using qualitative thematic analysis.

Results: Groups ranged from 2 to 11 participants per session. All participants were Indigenous, and no additional demographic or attendance data were collected. Three themes emerged: (1) Storytelling as a Site of Healing and Resistance, enabling non-judgmental sharing and collective witnessing; (2) Peer-Led Learning, marked by horizontal knowledge exchange that recognized PWUD as experts in their own lives; and (3) Environmental and Bodily Safety, fostered through flexible engagement, non-mandated sobriety, and art-making that supported grounding, autonomy, and relational safety.

Conclusions: Findings demonstrate the importance of low-barrier, harm reduction-oriented support groups for PWUD. The group's model of care actively challenges the potentially exclusionary norms of sobriety-based support systems. Further research that employs formal outcome measures is needed to determine these groups' efficacy.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: People who use drugs / Thème : Utilisateurs de drogues

Abstract #311

Leveraging Community Resources to Strengthen Harm Reduction Approaches in Chemsex Contexts

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Background: Chemsex is commonly reported among gay and bisexual men and trans and non-binary people. Chemsex has been extensively studied in relation to motivations, health risks, and service needs. Research often relies on minority stress frameworks that emphasize vulnerability and risk. While these perspectives are important, they may overlook the informal protective strategies and collective resources that emerge within chemsex networks and that can contribute to safer practices.

Objectives: This presentation aims to (1) explore how people with chemsex experience organize mutual support and share knowledge about safer use, (2) examine the role of social bonds and trust in reducing harms associated with substance use and sexual practices, and (3) identify ways to better integrate these community-based resources into formal harm reduction interventions.

Methods: A community-based qualitative study was conducted with 64 sexually and gender-diverse participants who reported current or past chemsex involvement. Semi-structured interviews lasting approximately 90 minutes explored experiences of chemsex, peer support, and self-care practices. Data were analyzed using thematic analysis to identify recurring patterns related to community resources and harm reduction strategies.

Results: Participants described strong peer networks characterized by information sharing, collective monitoring of safety, and emotional support during and after chemsex sessions. These networks facilitated discussions about dosing, drug interactions, sexual health, and recovery practices. Many participants reported that trust and solidarity within these communities increased their sense of safety and reduced feelings of isolation. Individuals who had stopped practicing chemsex also recognized the value of these networks and emphasized their relevance for designing more acceptable and effective interventions.

Conclusion: Chemsex communities actively generate and circulate harm reduction practices that complement formal health services. Recognizing and partnering with these community resources can support more inclusive, participatory, and context-sensitive harm reduction strategies. Public health programs should incorporate the experiential knowledge of people with chemsex experience.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: People who use drugs / Thème : Utilisateurs de drogues

Abstract #94

Enhancing HIV PrEP Implementation Among People Who Use Substances in Vancouver, British Columbia: Qualitative Findings from Interviews with Healthcare Workers

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Background: Rollout and uptake of HIV pre-exposure prophylaxis (PrEP) has been limited among people who use substances (PWUS) in Canada compared with other priority populations. We assessed facilitators and challenges to PrEP implementation among PWUS in Vancouver's Downtown Eastside to understand how access can be improved within these communities.

Methods: We conducted in-depth semistructured key informant interviews with diverse healthcare workers serving PWUS in the Downtown Eastside from July-December 2025. Eligible participants were aged 19+ and were recruited from participating clinic sites. Interviews (n=18) were transcribed and thematically analyzed.

Results: Participants were doctors (n=6), nurses (n=5), peer workers (n=4), pharmacists (n=2), and administrative staff (n=1). While some prescriber participants currently provided PrEP to PWUS, most highlighted that provider and patient knowledge and overall implementation within this population was suboptimal. Many participants were uncertain about determining eligibility for PrEP in PWUS clients under current guidelines related to sexual and substance use practices. Actual and anticipated challenges with adherence to daily oral PrEP among PWUS (e.g., forgetting to take pills) were a common concern. Participants shared that low-barrier integrated care models that connected patients with primary care, mental health, harm reduction, pharmacy, and social services 'under one roof' helped facilitate PrEP uptake among PWUS. Peer-based approaches to outreach and linkage to care were crucial in PrEP initiation and maintenance in this population. Many participants viewed long-acting injectable PrEP as a feasible alternative to daily oral pills that could optimize adherence, reduce barriers, and be offered alongside other frequently prescribed injectable medications (e.g., Injectable Opioid Agonist Treatment).

Discussion: Improving PrEP implementation among PWUS will require integrated and peer-based care models and improved access to long-acting modalities that may reduce adherence challenges among this population. Clearer guidelines and training are needed to support healthcare providers to determine which PWUS would most benefit from PrEP.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: People who use drugs / Thème : Utilisateurs de drogues

Abstract #208

HIV, Syphilis, and Hepatitis C Point-of-Care Testing at Pop-Up Clinics for People Who Use Drugs in Regina, Saskatchewan

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Background:
Saskatchewan has Canada's highest rates of new HIV diagnoses for >15 years due to ongoing colonialism, systemic racism, and criminalization. Injection drug use is the primary transmission route and co-occurring endemics are syphilis and hepatitis C. People who use drugs face multiple barriers to testing, including stigma and inaccessible services. We offered combined point-of-care HIV, syphilis, and hepatitis C testing at outdoor pop-up clinics geo-located to areas of high discarded needle density in Regina.

Methods:
From June to November 2025, 147 people who use drugs were tested for HIV, syphilis, and hepatitis C at 9 pop-up clinics. Clinic staff trained in culturally safe and trauma-informed practices included nursing, phlebotomy, and Indigenous Peoples with lived experience of substance use. HIV and syphilis testing was conducted using the INSTI Multiplex HIV-1/HIV-2/Syphilis Antibody Test, and hepatitis C testing used the OraQuick HCV test. We conducted on-site phlebotomy and offered first-dose treatment for syphilis.

Results:
Participants were 57% men, 80% Indigenous, and 46% unstably housed. All but one person who approached pop-up and consented to participate completed testing. We identified 19 positive HIV cases and connected 17 to care, identified 21 positive hepatitis C cases and connected 12 to care, and identified 19 positive syphilis cases, treated 8 onsite, and connected 8 to care. We had one false positive HIV result. This low-barrier model is scalable and has identified a large number of previously undiagnosed infections.

Conclusion:
This model of geospatial pop-up testing clinics appears feasible and acceptable at identifying new cases of HIV, syphilis, and hepatitis C while linking participants to follow-up care. Collectively, these testing methods support real-world implementation in low-barrier, community-based environments. We discuss how to improve engagement with people who use drugs in HIV/STBBI testing and prevention and how future work aims to align with Indigenous data sovereignty frameworks.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: Sexual and Gender Minorities / Thème : Minorités sexuelles et de genre

Abstract #38

Mapping Availability of HIV/STBBI Prevention and Care and Gender-affirming Healthcare for Trans and Gender Diverse People in Western Canada: An Environmental Scan of Clinic Websites

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Background: Integrating gender-affirming healthcare (GAHC) (e.g., gender-affirming hormone therapy) with HIV/STBBI prevention and care improves health outcomes among trans and gender diverse (TGD) people. Availability of integrated care across Canada is unknown. We conducted an environmental scan of HIV/STBBI clinic websites in Western Canada to determine: 1) HIV/STBBI prevention/care service availability; 2) inclusion of TGD people in care delivery, services and/or planning; and, 3) availability of integrated HIV/STBBI prevention/care and GAHC.

Methods: We conducted an environmental scan (February-September 2025) using Shahid & Turin's 5-step framework to systematically assess information on HIV/STBBI clinic websites across Western Canada (British Columbia [BC], Alberta, Saskatchewan, Manitoba). A community-informed data extraction tool captured clinic characteristics, HIV/STBBI services, and TGD-specific indicators. Quantitative variables were summarized descriptively, geographic differences tested statistically, and eligibility criteria analyzed via qualitative content analysis.

Results: Across 548 HIV/STBBI clinic websites, clinic availability per capita varied substantially, with Manitoba showing the most (133 clinics; 9.91/100,000), then Alberta (181 clinics; 4.25/100,000), BC (207 clinics; 4.14/100,000), and Saskatchewan (27 clinics; 2.38/100,000). TGD website inclusion indicators (e.g., trans flag) were highest in BC (65.5%, n=135/206), then Saskatchewan (25.9%, n=7/27), Manitoba (19.5%, n=26/133) and Alberta (7.2%, n=13/181). Website mentions of medical (e.g. gender affirming hormone therapy) and social/legal (e.g., peer support, identification documentation update support) GAHC services were infrequent: Manitoba (5.3 and 8.3% respectively), Saskatchewan (11.1% and 7.4%), BC (2.4% and 5.3%), Alberta (0.6 and 4.4%). Integrated HIV/STBBI and GAHC appeared infrequently on websites across all provinces, with each province showing <3 services/100,000 population.

Conclusions/Implications: Across Western Canada, geographic inequities to TGD-inclusive and integrated sexual healthcare access exist. Our study draws attention to the relative rarity of HIV/STBBI clinic websites reporting access to GAHC. We highlight opportunities to increase TGD peoples' access to integrated GAHC and HIV/STBBI prevention/care and inform pathways to structural change (e.g., website updating).

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: Sexual and Gender Minorities / Thème : Minorités sexuelles et de genre

Abstract #285

Syndemic Social-Structural Conditions and Self-Rated Health Among Women Living with HIV With Minoritised Sexual Identities in Metro Vancouver

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Background:
Self-rated health (SRH) remains undermeasured among women living with HIV (WLWH) of minoritised sexual and gender identities. This warrants attention; SRH is a validated predictor of HIV-related morbidity, mortality, and engagement in care, reflecting how minority stress, material insecurity, and other structural conditions cumulatively shape lived health experiences. SRH offers a person-centred perspective beyond clinical measures. We draw on a syndemics framework to assess associations between co-occurring structural conditions (material insecurity, violence, and substance use) and general SRH among WLWH.

Methods:
Data were drawn from the Sexual Health and HIV/AIDS:Women's Needs Assessment, a community-based cohort of WLWH in Metro Vancouver (2014–2025). SRH was dichotomised as optimal("excellent/very good/good") versus suboptimal("fair/poor"). Associations between past 6-month substance use(yes/no), food insecurity(yes/no), housing insecurity(yes/no), exposure to violence(yes/no), main income source(full/part-time work[reference],informal work, criminalised work, peer work, no main income source) and SRH were examined using multivariable generalized linear mixed models, adjusting for age, race/ethnicity, immigration status, and duration of HIV diagnosis.

Results:
Analyses were restricted to participants with minoritised sexual identities ('lesbian','bisexual','asexual','queer','Two-Spirit','other'), yielding 179 participants (46% of the original sample, 389), contributing 1701 observations (Sep-2014-Feb-2025). Among participants, 59.2%(n=106) were Indigenous, 33.5%(n=60) White, and 7.3%(n=13) other Racialized women/women of colour. 31.3%(n=56) reported minoritised gender identities. In multivariable analysis, recent food insecurity (Adjusted Odds Ratio(AOR):0.62[95%Confidence Interval(CI):0.61–0.62;p<0.001]), housing insecurity (AOR:0.75[95%CI:0.75–0.76;p<0.001]) and having no main income source or peer work vs. full/part-time work[reference](AOR:0.59;[95%CI:0.58–0.59;p=<0.001] and 0.90[95%CI:0.90–0.91;p<0.001], respectively) were significantly associated with lower odds of optimal SRH.

Conclusion:
Among WLWH with minoritised sexual identities, housing, food and economic insecurity were significantly associated with lower odds of optimal SRH, underscoring the role of material conditions that shape health and wellbeing. These findings 1) underscore the value of measuring SRH alongside clinical HIV outcomes and 2) identify housing, food, and income precarity as associated with SRH, warranting meaningful intervention.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: Sexual and Gender Minorities / Thème : Minorités sexuelles et de genre

Abstract #75

From stigmatized status to responsibilized health behaviour: Gay, bisexual, and queer men's longitudinal narratives of shifts in PrEP-related stigma over time

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Background: For many gay, bisexual, and queer men (GBQM), using HIV PrEP has been extremely stigmatizing. PrEP-related stigma is one well documented barrier to its use among GBQM. Our objective was to trace changes in the accounts of PrEP-related stigma longitudinally within a group of GBQM living in Canada, including many who had used, or were currently using, PrEP. To our knowledge, this contribution represents the first qualitative longitudinal analysis of this phenomenon in Canada.

Methods: We conducted annual longitudinal qualitative interviews with 46 HIV-negative GBQM living in Ontario or British Columbia, Canada. A total of 128 in-depth interviews were conducted over three years (2020–2022), transcribed verbatim, and coded in NVivo using reflexive thematic analysis.

Results: Most participants described experiencing little or no PrEP stigma in the last few years, attributing this to PrEP normalization within queer communities. PrEP stigma was not only commonly described as a thing of the past; the (reclaimed) trope of the 'Truvada whore' had been remade anew into the mainstreamed 'responsible' gay citizen. However, some men said PrEP stigma was still anticipated or enacted in social, sexual, and healthcare contexts. Although a few participants expressed recent concerns about being perceived as 'slutty' due to PrEP use, no one reported increased PrEP stigma over time nor linked stigma to PrEP discontinuation. For some participants, a new PrEP-related stigmatized status had emerged—the non-PrEP using sexually active GBQM as deviant and irresponsible.

Conclusion: PrEP stigma must be understood as a dynamic and frequently resisted social phenomenon. Many GBQM noted a significant discursive transformation, storying PrEP use not as a stigmatized status but a responsibilized health behaviour. Rather than eliminated, PrEP stigma has been recapitulated, taking on altered states with the emergence of new categories of non-biomedical engagement for HIV prevention as deviant.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: Sexual and Gender Minorities / Thème : Minorités sexuelles et de genre

Abstract #267

Multilingual Community-Led HIV Prevention and U=U Outreach With South Asian and Middle Eastern Newcomers in Canada, Including 2SLGBTQI+ and Queer Muslim Communities (July–December 2025)

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Background:
South Asian and Middle Eastern (MENA) brown newcomers in Canada, including 2SLGBTQI+ and queer Muslim communities, face layered barriers to HIV prevention and care, including language gaps, stigma, conservative cultural norms, fear of disclosure, and limited culturally safe services. Experiences of Islamophobia and discrimination can further reduce trust in healthcare systems and discourage engagement with HIV prevention messaging, testing, and PrEP.

Methods:
From July to December 2025, HIV Buddies Canada implemented a multilingual, culturally responsive outreach initiative to increase HIV literacy, promote U=U/TasP, and enhance access to prevention through peer-led education and community dialogue. Program activities included nine multilingual awareness videos (English, Punjabi, Arabic), four HIV awareness postcards (English print), one HIV Buddies educational pamphlet, 25 peer discussion sessions "Let's Talk", two Dancing Buddies outreach events, and two storytelling sessions focused on stigma in South Asian and MENA communities. Outreach also included condom distribution, prevention messaging, and promotion of referrals for HIV/STBBI testing and clinical linkage through partner collaboration.

Results:
The initiative reached 500+ community members (South Asian, MENA, newcomers, and queer communities) through in-person outreach and digital platforms, with 5,000+ online views of U=U-related content. Outcomes included increased HIV literacy, improved confidence in discussing sexual health, reduced fear related to U=U, and improved awareness of prevention options(testing, TasP, and PrEP). Key challenges included conservativeness, community division, fear of being recognized within diaspora networks, language barriers, and misinformation. Queer Muslim participants highlighted additional concerns related to safety, stigma, and discrimination, reinforcing the need for trusted peer-based and culturally safe services.

Conclusions:
Multilingual, community-led HIV education can effectively engage diverse newcomer communities in Canada, including 2SLGBTQI+ and queer Muslim populations. Results support scaling culturally grounded peer models that address stigma, discrimination, and language equity to strengthen HIV prevention and care pathways.

Key Populations Oral Abstract Session / Populations clés présentation orale d'abrégés

Theme: Sexual and Gender Minorities / Thème : Minorités sexuelles et de genre

Abstract #339

Living with HIV is Associated with Concurrent Sexualized Substance Use and Condomless Anal Sex Among Gay, Bisexual, and Other Men Who Have Sex with Men

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Introduction: Gay, bisexual, and other men who have sex with men (GBM) may be at increased risk of sexually transmitted infections when sexualized substance use (SSU) and condomless anal sex (CAS) occur together, but this co-occurrence remains underexplored. Therefore, we examined factors associated with concurrent SSU-CAS at the sexual event level among GBM in Metro Vancouver, Canada.

Methods: We used data from the Momentum Health Study, a prospective cohort study of GBM recruited via respondent-driven sampling. Study visits with computer-assisted self-interviews occurred every 6 months from February 2012 to July 2019. At each visit, participants reported details on their last sexual events with up to five male partners in the past 6 months. We examined participant- and event-level variables. Concurrent SSU-CAS was assessed by asking if CAS occurred when using one or more of the following up to two hours prior to or during sex: poppers, methamphetamine, cocaine, crack, gamma-hydroxybutyrate, or erectile drugs. Multivariable generalized linear mixed models identified factors associated with SSU-CAS.

Results: Overall, 598 GBM, followed for a median of 3.5 years, contributed 1,922 visits and 3,810 sexual events, of which 449 (11.78%) involved SSU-CAS. Meeting partners online/apps (vs. other than community venue) was associated with higher odds of SSU-CAS (adjusted odds ratio [aOR]=2.73; 95% confidence interval [CI]=1.17-6.38). Living with HIV (vs. HIV-negative/unknown; aOR=9.73; 95% CI=4.15-22.83), prior knowledge of partner HIV status (vs. none/unsure; aOR=2.74; 95% CI=1.43-5.27), and more than one partner at that event (vs. only one; aOR=5.62; 95% CI=2.64-11.97) were also associated with SSU-CAS. Each additional male partner in the past 6 months was associated with higher odds of SSU-CAS (aOR=1.07; 95% CI=1.02-1.11).

Discussion: Findings underscore the need to integrate substance use and sexual harm reduction supports into health promotion and clinical services targeting GBM who are living with HIV and/or engaging with multiple sex partners.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: Impactful Community Approaches / Thème : Démarches communautaires efficaces

Abstract #115

Building the Conditions for Coordinated Action: A Decade of Collective Impact on HIV and STBBIs in Manitoba

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Background
Manitoba continues to experience high—and recently increasing—rates of HIV and sexually transmitted and blood-borne infections (STBBIs), driven by intersecting structural factors including substance use, housing instability, geographic inequities, stigma, and colonial systems. In response, the Manitoba HIV-STBBI Collective Impact Network (CINetwork) was established in 2016 to strengthen system coordination, community-based research, innovation, and cross-sector collaboration. This presentation examines what a decade of collective impact achieved, what it revealed about system limitations, and how these learnings inform CINetwork's future direction.

Approach
We present a retrospective, system-level case study drawing on CINetwork documentation, a PHAC mid-term evaluation, community-based research outputs (including the Northern HIV Journey Mapping Project), and synthesis from large-scale, multi-sector convenings held between 2016 and 2025. Analysis focused on CINetwork's role as a coordination, learning, and capacity-building backbone rather than a direct service delivery or policy-making body.

Key Contributions
Over its first decade, CINetwork contributed to system transformation by advancing community-based and non-clinical HIV testing models; elevating people with lived and living experience as leaders, researchers, and facilitators; serving as Manitoba's community-based HIV research coordinating hub within the national REACH-Nexus network; contributing knowledge through research projects, strengthening workforce and organizational capacity through sustained knowledge exchange and trauma-informed, anti-stigma, and culturally safe practice initiatives; and using participatory facilitation as a core intervention to build trust and enable candid system dialogue.

Critical Reflections
Significant foundational contributions have made an impact, but not on HIV and STBBI rates. This highlights a central learning: collective insight and innovation are necessary but insufficient without aligned authority, resourcing, and accountability. Mechanisms to advance the system are needed.

Implications
Findings point to the need for CINetwork to evolve toward a co-governed, action-oriented system mobilization platform capable of coordinated, Indigenous-led, and accountable system response.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: Impactful Community Approaches / Thème : Démarches communautaires efficaces

Abstract #7

Grassroots Pathways to PrEP through Autoethnographic Insights: Trans Refugee Community Knowledge and HIV Prevention in Ontario

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Trans and gender diverse refugees face layered barriers to HIV prevention in Canada, including stigma, limited culturally relevant information, mistrust of clinical environments, and settlement precarity (Murray 2015; Lee and Brotman 2011). This study examines how newcomer led community spaces strengthen HIV literacy, PrEP comfort, stigma reduction, and healthcare navigation. The project uses community based qualitative methods informed by transnational feminist and queer migration scholarship (Tambe and Thayer 2021; Luibhéid 2008), and integrates the author's autoethnographic reflections as a trans refugee researcher affected by HIV and co-founder of LubunTO, a grassroots collective for queer and trans migrants from Turkey and Beyond. Data include semi structured interviews, participant observation, collective thematic analysis, and reflexive fieldnotes documenting community organizing practices and positionality.

Preliminary findings show that community belonging is a critical structural component of HIV prevention for trans refugees. Participants describe nonprofits organizing as some of the only environments where they feel safe discussing HIV, and challenging misinformation. This relational safety increases comfort exploring PrEP, navigating testing, and engaging care providers, echoing evidence that community belonging among trans people is linked to more positive attitudes toward PrEP and prevention engagement (D'Avanzo et al. 2021). Community-based knowledge also fills major gaps in Ontario's prevention landscape, particularly around insurance coverage for PrEP and navigating eligibility during status transitions, documentation changes and periods of legal uncertainty where access pathways are inaccessible. Members also share strategies for accessing integrated HIV/GAHT, addressing barriers related to transphobia, racism, and complex injustices documented for trans refugees living with HIV (Arora et al. 2021; Mah and Ives 2010).

Findings indicate that newcomer led, trans led organizations are informal yet powerful HIV prevention infrastructures. Autoethnographic insights further show how shared lived experience strengthens relational safety and community rooted prevention pathways.

Keywords: trans refugees; HIV prevention; PrEP; autoethnography; community belonging; queer migration.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: Impactful Community Approaches / Thème : Démarches communautaires efficaces

Abstract #72

Cultural, Emotional, and Harm Reduction Needs in Indigenous HIV/STBBI Doula Work

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Background: The disproportionate rates of HIV/STBBI experienced among Indigenous (First Nations, Inuit, and Métis) people in Manitoba highlights the ongoing colonial violence within health care systems. Kotawêw explored the role of Indigenous doulas in HIV and STBBI care for Indigenous women and Two-Spirit people in Manitoba. Kotawêw, derived from the Ininew (Cree) language, translates to making a fire and represents the sacred act of bringing warmth and light into the world. HIV/STBBI doulas, a provincially funded project at the Ka Ni Kanichihk Sexual Wellness Lodge, ignite a flame of hope and healing.

Method: Kotawêw is rooted in Indigenous methodologies including kinship, stories, and land. A community-guiding circle of 6 Indigenous women and Two-Spirit people living with HIV/STBBI, an Indigenous Elder and cultural knowledge holder guided the project. Stories were collected using Indigenous storywork principles from people with lived experience of HIV/STBBI (n = 20), relatives of people living with HIV/STBBI (n = 7), Elders/Cultural Knowledge Holders (n = 5), and service providers/helpers (n = 8) Stories were thematically analyzed.

Findings: Shared stories described four primary domains, organized into themes essential to Indigenous HIV/STBBI doula practice: 1) Immediate emotional support at diagnosis, 2) Cultural and ceremonial grounding, 3) Harm reduction and practical support, 4) Advocacy within systems shaped by racism and stigma. Together, these interconnected domains illustrated the need for HIV/STBBI doulas to move beyond biomedical models towards relational, trauma-informed, culturally grounded care.

Conclusions: Indigenous HIV/STBBI doula work is wholistic, culturally grounded, and harm-reduction–oriented that integrates relational and cultural care. Findings underscore the need for care to elevate Indigenous knowledges, prioritize peer-led models, and address structural barriers faced by people living with or newly diagnosed with HIV/STBBIs. Resultingly, these findings have helped develop a curriculum to further train and implement additional Indigenous HIV doulas into the care cascade within Manitoba.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: Impactful Community Approaches / Thème : Démarches communautaires efficaces

Abstract #351

Strengthening Health Systems for HIV/STBBI Stigma Reduction: A Systems-Oriented, Co-Facilitated Capacity-Strengthening Model

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Stigma within health and social service settings remains a major barrier to HIV and sexually transmitted and blood-borne infection (STBBI) prevention, testing, treatment, and care. This challenge is particularly urgent in Manitoba, which has shifted from having the second highest to the highest rates of HIV infection in the country. Addressing stigma at this scale requires approaches that move beyond one-time training toward sustained, system-level change.

This presentation draws on implementation learnings from the Manitoba site, where Nine Circles Community Health Centre is a collaborating organization in a national initiative led by the Canadian Public Health Association and Centre for Sexuality, to pilot test standardized STBBI stigma-reduction training for health and social service providers. The presentation focuses on site-level implementation learning related to delivery, sustainability, and systems integration.

Implementation emphasized capacity strengthening at local and regional levels to support longer-term stigma-reduction efforts. Rather than treating workshops as stand-alone activities, a systems-oriented approach was adopted that recognizes stigma reduction as an ongoing process requiring periodic reinforcement. Full-day workshops were co-facilitated by a health educator and a person with lived and living experience, supporting sustained reflection and applied learning.

Quantitative indicators demonstrated broad reach and engagement, including nine workshops delivered since 2024, over 180 providers engaged, and more than 40 hours of training delivered. Post-workshop surveys indicated increased understanding of stigma and its drivers, greater self-reflection, and increased comfort applying stigma-reduction concepts, with approximately 80% of participants reporting gains across these areas. Qualitative feedback highlighted the value of lived-experience co-facilitation and activity-based learning, with participants reporting increased ability to create safer, more respectful services by reducing power imbalances, minimizing re-traumatization, and reframing stigma as structural violence rather than individual failure.

Overall, these implementation learnings highlight a systems-oriented, capacity-strengthening approach for embedding stigma-reduction practices within health systems facing high HIV burden.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: Impactful Community Approaches / Thème : Démarches communautaires efficaces

Abstract #211

Improving access to extragenital STI testing through community-based swab distribution in Ontario

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Background: Canadian STI guidelines recommend extragenital testing in men who have sex with men (MSM) and trans women – among others. Research indicates that 65–70% of chlamydia and gonorrhea infections among MSM are exclusively extragenital and would be missed with urogenital testing alone. However, access to timely extragenital testing remains a barrier.

Methods: In Ontario, GetaKit is an online service that allows individuals to obtain requisitions for STI testing at local laboratories, often enabling same-day testing. While urogenital specimens could be collected at labs, extragenital swabs required mailing, resulting in delays for individuals at elevated risk. In August 2025, GetaKit partnered with MAX Ottawa, a community-based health organization serving MSM to establish the first community distribution pathway in Ontario for in-person pick-up of swabs. We describe early outcomes from this pilot.

Results: Between August-December 2025, 78 testing orders were placed through the service, averaging 15.6 swab pickups per month. Sixteen individuals (20.5%) had positive STI results, yielding 22 infections: 7 syphilis, 10 gonorrhea, and 5 chlamydia cases. Among gonorrhea infections, 8 of 10 were detected exclusively at extragenital sites; fewer than five chlamydia infections were extragenital. Seven individuals requested extragenital swabs but did not submit samples, signalling a completion rate of 91.0% (n=71/78). Only one swab order was cancelled by the laboratory (for an error rate of 1.3%), likely due to transport issues rather than patient error.

Conclusion: Community-based distribution of extragenital swabs through partnerships such as MAX Ottawa appears feasible and acceptable, with low specimen loss and a high yield of extragenital gonorrhea detection. This model may reduce delays in testing for those with negative healthcare who feel more comfortable going to a community agency and help identify infections that would otherwise remain undiagnosed. It is also likely a more sustainable model for service delivery than specialized STI clinics.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: Impactful Community Approaches / Thème : Démarches communautaires efficaces

Abstract #100

An innovative approach to Knowledge Mobilization evaluation: the BCC3 study experience with the "Healthy Aging Talks"

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Background: "Healthy Aging Talks" was a series of community-based Knowledge Mobilization (KM) events designed to share personalized health results from the BCC3 study to participants. Led by Community Research Associates (CRAs), "Healthy Aging Talks" approached KM as a shared process, one that values lived experiences, relationships, and dialogue, not just information delivery. The Evaluation Toolkit was collaboratively adapted to understand how this KM project was received and its impact.

Methods: Our evaluations were informed by the "Engage with Impact" Toolkit. We worked collaboratively through toolkit modules: Planning, Tailoring, Data collection, Refinement, and Reporting. Three tailored evaluations were developed for the event participants, team members, and community partners. Measures were adapted from eight domains: knowledge and skills, confidence and trust, equity and inclusivity, priorities and decisions, effectiveness and efficiency, patient-centeredness, cultural change, personal outcomes, and experiences. Evaluations were distributed in person or electronically for virtual events. Learning was additionally evaluated through pre- and post-presentation trivia. Participants provided informed consent for their responses to be used for research.

Results: We hosted 12 events, engaging over 150 women in person and virtually. Based on evaluations, women valued the KM approaches that centre lived experiences and the integration of clinical expertise alongside community voices (>80% agree/strongly agree). There was strong interest in the event topics, which included stress and wellness, liver, heart, and kidney health. Women joined events from across BC and the Yukon, demonstrating the reach of virtual KM for rural and remote communities. Improved scores in the second round of trivia reflected successful knowledge uptake.

Conclusions: Our findings suggest that community-led, comprehensively evaluated KM supports learning while fostering strong relationships and equity. "Healthy Aging Talks" highlight the value of collaborative knowledge sharing where participants and facilitators learn together, strengthen peer connection, and affirm participants' central role in shaping the research they informed.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: HIV in Women and Youth / Thème : Le VIH chez les femmes et les jeunes

Abstract #297

Exploring the Acceptability and Usability of the Women-Centred HIV Care Model and Pocketbook Among African, Black and Caribbean Women Living with HIV in Ontario

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Background: African, Caribbean, and Black (ACB) women are disproportionately affected by HIV in Canada due to intersecting social and structural inequities, accounting for the majority of new HIV diagnoses among women. The Women-Centred HIV Care (WCHC) Model is an evidence-informed, community-driven framework designed to improve clinical and psychosocial care among women living with HIV. This study assessed the acceptability and usability of the WCHC Model and Pocketbook for ACB women living with HIV in Ontario.

Methods: Between August and November 2025, we conducted four in-person Talking Circles with 33 ACB women and gender diverse people living with HIV at partnering community organizations in Ontario. We conducted reflexive thematic analysis following Braun and Clarke's approach, applying an Afrocentric and women-centred lens to guide coding, reflexivity, and interpretation.

Results: Participants found the WCHC Model acceptable because it validated experiences of systemic inequities: HIV stigma compounding racial discrimination across healthcare, complex disclosure during immigration, and barriers where newcomers face institutional stigma, lack medication, and fear disclosure. This affirmed their vision for holistic, non-judgmental care. However, participants emphasized Afrocentric adaptations to strengthen implementation. Key themes centered cultural representation and safety: Black providers who understand anti-Black experiences, cultural brokers navigating between ACB and Western healthcare, locally-rooted narratives, and spiritual/religious integration as foundational. Participants identified that sexuality taboos in ACB communities increase HIV vulnerability, requiring education and self-advocacy. They emphasized peer-led community outreach as a way of fostering "sisterhood" and facilitating care linkage. Implementation priorities include digital tools and materials; Black healthcare provider and cultural navigation; expanded reproductive health, spiritually-informed mental health, immigration counseling, and sexuality education addressing cultural taboos.

Conclusion: The WCHC Model demonstrated strong acceptability by validating ACB women's experiences of systemic inequities. Implementation must centre Afrocentric principles, including spiritual integration, and address intersectional barriers such as colonial healthcare legacies.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: HIV in Women and Youth / Thème : Le VIH chez les femmes et les jeunes

Abstract #142

The W-PREV Model: Developing a Holistic and Empowerment-Based Model of Care for HIV/STBBI Prevention for Women and Gender Diverse People in Ontario and Saskatchewan

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Background:
Women and gender diverse people face unique risk factors to HIV and sexually transmitted and blood-borne infections (STBBIs) due to intersecting social, structural, and biological factors. Currently available HIV/STBBI prevention tools in Ontario and Saskatchewan fall short of addressing these challenges. Responding to this gap, we developed the Women-Centred Prevention (W-PREV) Model, a holistic, empowerment-based HIV/STBBI prevention model informed by women's lived experiences and social determinants of health.

Methods:
The W-PREV Model was developed using Graham et al.'s knowledge-to-action framework. Phase one involved a web-based environmental scan, rapid scoping review, and stakeholder interviews. In phase two, the core research team reviewed and selected applicable evidence from phase one. In phase three, the W-PREV Model was developed and refined.

Results:
Our environmental scan identified a biomedical focus among currently available HIV/STBBI prevention services for women. Findings from the rapid scoping review and stakeholder interviews underscored the need for women and gender diverse peoples' HIV/STBBI prevention efforts to: (1) address structural challenges; (2) involve community connection; (3) exist in non-clinical settings; (4) normalize sexual and reproductive health (SRH) discussions; (5) integrate SRH and HIV/STBBI services; (6) be sustainable.

The W-PREV Model addresses these findings by moving away from a biomedical model and integrating HIV/STBBI prevention and care with six interrelated domains: SRH care, gender-specific care, mental health, substance use and harm reduction, peer support and social connection, and individual capacity building. The model's trauma- and violence-aware, person-centred, and culturally-responsive foundation emphasizes care that is empowerment-focused, community-based, and accessible.

Conclusions:
The W-PREV Model offers holistic HIV/STBBI prevention solutions that bridge clinical and community settings and integrate HIV/STBBI prevention with social supports, addressing the unique challenges and care needs of women and gender diverse people. Work continues to operationalize the W-PREV Model into a community-based intervention that can be adapted to local contexts.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: HIV in Women and Youth / Thème : Le VIH chez les femmes et les jeunes

Abstract #30

Intersectional Healing Through Expressive Arts for Women Living With HIV: Insights From a Multi-Organization Toronto Partnership

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Background:
Women living with HIV in Canada—particularly African, Caribbean, Black, Indigenous, newcomer, and parenting women face intersecting stigmas shaped by race, gender, migration status, motherhood, trauma, and socioeconomic marginalization. These factors limit self-expression, undermine emotional wellness, and reduce engagement with care. In response, PASAN coordinated an expressive-arts program in partnership with Black CAP, Teresa Group, and Hospice Toronto to provide culturally grounded healing spaces for diverse women living with HIV.

Methods:
Using a community-based participatory approach, coordinators from each organization mobilized different groups of women: Black CAP engaged Black women; Teresa Group engaged mothers living with HIV; and PASAN engaged Indigenous and criminalized women. An expressive arts therapist from Hospice Toronto facilitated all sessions. Workshops incorporated painting, beadwork, poetry, storytelling, music, and reflective dialogue. Participants acted as co-researchers, contributing to shared knowledge creation. Data were collected through facilitator observations, group discussions, feedback forms, and reflections on artwork. Thematic analysis explored how intersecting identities shaped participants' experiences of healing, stigma, and empowerment.

Results:
Participants reported increased confidence, reduced isolation, and strengthened emotional and spiritual wellness. The expressive-arts space allowed women to process HIV stigma, racialized experiences, trauma histories, and migration and motherhood challenges in a culturally safe environment. Multi-organization collaboration strengthened peer networks, reduced fragmentation in HIV supports, and broadened cultural representation. Women described renewed identity beyond HIV, improved self-expression, deeper social support, and increased readiness for leadership roles within their communities and healthcare spaces.

Conclusions:
This partnership demonstrates that expressive arts are a powerful intersectional approach to healing and empowerment for women living with HIV. Community-led, culturally grounded programming fosters resilience, belonging, and stigma reduction across diverse groups. Findings support scaling and sustaining art-based interventions within HIV support frameworks across Canada.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: HIV in Women and Youth / Thème : Le VIH chez les femmes et les jeunes

Abstract #104

Advancing the HIV Prevention Cascade Through Trauma- and Violence-Aware Care: Insights from Northern and Indigenous Youth in the Northwest Territories

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Background: Northern and Indigenous adolescents in the Northwest Territories (NWT), Canada experience sexual health disparities rooted in historical and ongoing structural inequities. Climate–related emergencies, including recent wildfires, may exacerbate these inequities and contribute to cumulative stress that constrains HIV prevention engagement. Trauma-informed and violence-aware care (TVAC) is understudied within HIV prevention cascade domains. We explored HIV prevention experiences and TVAC-informed programming preferences among NWT adolescents.

Methods: This multi-method qualitative study with NWT youth aged 13-19 included: (a) focus groups (FGs) following land- and arts-based HIV prevention Peer Leader Retreats (PLR) to examine PLR experiences, and (b) a two-day youth think tank (TT) to examine wildfire impacts and support needs. Data were analyzed using framework thematic analysis informed by HIV prevention cascade domains (motivation; access; effective use) and TVAC principles (trauma impacts; safe environments; connection; coping capacity).

Results: FG participants (n=185; mean age: 14.91, standard deviation [SD]: 1.55; 64.3% cisgender girls, 24.9% cisgender boys, 10.8% gender diverse) and TT participants (n=14; mean age: 15.91, SD: 1.51; 28.6% cisgender girls, 50.0% cisgender boys, 21.4% gender diverse) were mostly Indigenous (FG: 81.1%, TT: 64.3%). PLR advanced HIV prevention motivation through strengthening HIV/STI knowledge, risk perception, and critical reflection on healthy relationships. Access was enhanced through bridging sexual health education gaps, fostering peer leadership, and creating culturally grounded, safer learning environments. Effective use was supported through improving safer sex skills, boundary communication, stigma reduction, and strengthening coping and emotional regulation. TT participants discussed how wildfire evacuations disrupted schooling, food security, and mental wellbeing, and emphasized the importance of integrating trauma-informed supports into community sexual health programming during climate emergencies.

Conclusions: NWT youth narratives document the potential of land- and arts-based, TVAC-informed approaches to strengthen the HIV prevention cascade. Integrating socio-environmental stressors into HIV prevention can advance youth-centred sexual health promotion in Northern Canadian contexts.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: HIV in Women and Youth / Thème : Le VIH chez les femmes et les jeunes

Abstract #357

"I Stayed Because I Had No Choice": How Dependency and Power Imbalances Shape HIV Risk Among African, Caribbean, and Black Migrant Women in Ontario, Canada

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Background:
African, Caribbean, and Black (ACB) migrant women in Canada face disproportionate HIV vulnerability, acquiring HIV after migration in contexts marked by sexual violence and coercion. Post-migration challenges, such as limited social support and dependency on partners for housing or financial stability, constrain autonomy in sexual decision-making and increase exposure to abuse. Guided by the Theory of Gender and Power (TGP), this study examines how structural and relational factors shape relationship dynamics and post-migration HIV vulnerability among ACB women.

Methods:
We analyzed 21 semi-structured interviews with heterosexual women from the MSAFIRI Study, which investigated post-migration HIV acquisition among ACB migrants in Ontario. Participants were purposively sampled from the Ontario HIV Treatment Network Cohort Study (2015–2017). Thematic analysis was informed by TGP constructs (sexual division of labor, sexual division of power and cathexis).

Results: Three interconnected themes emerged:
Economic Dependency and Migration Barriers:
Financial insecurity and reliance on partners for housing or immigration support limited women's ability to leave abusive relationships, reinforcing obligations to maintain partnerships for survival.

Power Imbalances in Sexual Decision-Making:
Participants described being unable to negotiate condom use or refuse sex, noting that partners were perceived as "stable" providers. Some felt compelled to satisfy partners' needs to avoid conflict or losing support, reflecting relational control and heightened HIV risk.

Norms Reinforcing Dependency:
Isolation and lack of family support, combined with cultural expectations that men provide stability, contributed to remaining in unsafe relationships. These norms perpetuated tolerance of abuse and constrained women's options for seeking safety.

Conclusion:
Post-migration dependency magnifies gendered power imbalances, limiting autonomy and increasing HIV vulnerability among ACB women. Using TGP as a lens highlights how economic insecurity and relational control intersect to shape HIV risk. Addressing these issues requires integrated interventions combining violence support with routine HIV screening that account for migration-related isolation and dependency.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: HIV in Women and Youth / Thème : Le VIH chez les femmes et les jeunes

Abstract #355

Syndemic Pathways Between Structural Vulnerability, Mental Health, Substance Use, and Sexual Health Among Youth in the Northwest Territories, Canada

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Background: Adolescents in Northern and rural contexts experience intersecting structural vulnerabilities that may influence sexual health outcomes through co-occurring mental health challenges and substance use. Guided by syndemic theory, this study examined psychosocial pathways linking self-esteem, substance use, depressive symptoms, and condom use self-efficacy (CUSE) among adolescents in the Northwest Territories (NWT), Canada.

Methods: We analyzed cross-sectional survey data from 1,913 adolescents participating in FOXY and SMASH arts-based sexual health programs across the NWT. Generalized structural equation modeling (GSEM) examined pathways linking self-esteem, recent drug use, depressive symptoms, and CUSE, adjusting for intersecting sociodemographic and structural factors including gender, sexual orientation, Indigenous identity, household composition, rural residence, and food insecurity. Indirect effects were estimated using nonlinear combinations of model coefficients, with robust standard errors.

Results: The sample was predominantly Indigenous (70.1%) and rural (68.1%), with 47.3% identifying as cisgender girls and 19.6% as LGBQ+. Self-esteem was positively associated ($\beta = 0.11$; 95% CI: 0.07, 0.15; $p < 0.001$), and depression negatively associated ($\beta = 0.18$; 95% CI: 0.11, 0.25; $p < 0.001$), with CUSE. Higher self-esteem was associated with lower depressive symptoms ($\beta = -0.28$; 95% CI: −0.32, −0.24; $p < 0.001$), while recent drug use was associated with higher depressive symptoms ($\beta = 1.96$; 95% CI: 1.29, 2.63; $p < 0.001$). Self-esteem was indirectly associated with higher CUSE through lower depressive symptoms (indirect $\beta = -0.05$; 95% CI: −0.07, −0.03; $p < 0.001$), while recent drug use showed a significant indirect association with (lower?) CUSE via depressive symptoms (indirect $\beta = 0.36$; 95% CI: 0.18, 0.55; $p < 0.001$).

Conclusions: Findings underscore the importance of syndemic mental health pathways shaping sexual health self-efficacy among NWT adolescents. They also highlight the potential value of integrated interventions that address psychosocial resilience, mental health, and substance use in structurally marginalized contexts.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: HIV in Women and Youth / Thème : Le VIH chez les femmes et les jeunes

Abstract #262

Connection beyond illness: Centering joy and strength through dance

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Peer-led community-based physical activity programming has been proposed as a potential modality to improve health, wellbeing, and social connection among women living with HIV (WLWH). The Positively Dance study was a community-based participatory research project designed by and for WLWH. At the conclusion of the project, we conducted a qualitative study to examine participants' experiences engaging in peer-led dance classes. Overall, ten women participated in semi-structured interviews and data were analysed using reflexive thematic analysis.

Our findings demonstrate that WLWH sought an affinity space – that is, a space where people with shared identities and experiences can gather and support each other. Simultaneously, they also sought a space that decentred their illness and suffering, and instead prioritized strength and joy. This had implications for peer dance instructors, and the research team more broadly, as we sought to understand how to facilitate affinity spaces in ways that both made space for class attendees to share their lived experiences of HIV while also attempting to create a space that moved beyond HIV as the sole and primary focus. Within the context of our study, our findings suggest that hosting dance classes in a non-illness identifying space (i.e., dance studio) facilitated this shift by helping women expand their sense of community and belonging. Through dance classes, participants expressed feeling more connected and included in other communities, such as the dance community. Dance classes also served as an important point of connection into other community resources, allowing participants to share knowledge about current activities, resources, and supports available. Our findings demonstrate the ways in which physical activity can contribute to community building. More broadly, our findings also highlight the complexities of facilitating affinity spaces revolving around the shared experience of HIV while also seeking to decenter illness and prioritize joy and strength.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: HIV in Women and Youth / Thème : Le VIH chez les femmes et les jeunes

Abstract #287

The Power We Hold, Forge, and Reclaim: Advancing Black Emancipation, Self-Determination, and Collective Action to Transform HIV in Black Communities in Canada

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Background: Although Black people represent approximately 5% of Canada's population, they account for 27.6% of people living with HIV, where race and ethnicity were reported. Despite four decades of HIV responses, systemic anti-Black racism and socio-economic disenfranchisement continue to limit the effectiveness of Canadian HIV strategies in Black communities. These abstract advances Black emancipation, self-determination, agency, and collective power as a community-led framework and intervention to address HIV inequities.

Methods: Between October 2024 and January 2025, forty-five Black women living with HIV participated in full-day cellphilm-making workshops, followed by facilitated group analysis and in-depth, semi-structured follow-up interviews. Data were analyzed using the DEPICT participatory method, in which participants collectively viewed and interpreted their cellphilms through a quilting process. Interview transcripts were thematically coded in NVivo and integrated with Cellphilms themes.

Results: Black emancipation and self-determination emerged as central, community-led responses to HIV inequities in Black communities. Participants critiqued current HIV research, policy, and programming as rooted in individualism, social-cognitive reductionism, and neoliberal logics that marginalize communal care and reproduce inequities, noting that tools developed within oppressive systems are insufficient to dismantle structural harm. Findings emphasized the need for interventions that challenge entrenched power structures and centre community authority through self-determination, collective care, cultural identity, spirituality, and collective action. Black health sovereignty emerged as a critical practice, defining wellness by communities rather than institutions and grounding interventions in asset-based approaches, including capacity building, leadership cultivation, peer support, material redistribution, and policy redesign accountable to community authority.

Conclusion: These findings demonstrate that effective HIV responses in Black communities require a shift from reformist, institution-centred approaches to emancipatory, community-governed models grounded in Black self-determination and health sovereignty. Centring community authority, lived experience, and Afrocentric values offers a transformative pathway to changing the HIV trajectory in Black communities in Canada.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: Treatment, Prevention and Improving Outcomes / Thème : Traitement, prévention et amélioration des résultats

Abstract #33

Driving without directions: The shortcomings of the HIVST & MSM's sexual health literacy

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Introduction: Numerous publications and public health bodies have hailed the introduction of the HIV self-test (HIVST) into the Canadian market as a significant advancement in enabling individuals, specifically men who have sex with men (MSM), to access the HIV care continuum. Yet, limited attention has been given to why MSM choose the HIVST over traditional testing modalities, or how the HIVST fits into MSM's sexual health literacy (SHL) and broader understandings of HIV and testing practices.

Methods: Between April 1, 2021, and December 15, 2024, 1441 MSM who had never previously been tested for HIV used GetaKit, an online platform for registering and ordering a free HIVST in Ontario. From this population, twenty individuals were recruited to participate in qualitative interviews exploring MSM's perceptions of the HIVST and how these intersected with their SHL regarding HIV and testing behaviours.

Results: The sociodemographic characteristics of participants were reflective of other studies of first-time HIVST users. Generally, individuals perceived themselves as having high SHL and being well-informed about HIV and the HIV care continuum; participants spoke knowledgably about physical HIV prevention methods and the importance of testing. However, twelve participants (n=60%, n=12/20) reported significant misinformation, particularly regarding pharmaceutical interventions (PrEP/PEP) and appropriate testing timelines; many doubted PrEP/PEP effectiveness and tested either immediately after sexual encounters or only once symptoms developed.

Conclusions: The observed errors, ranging from minor misconceptions to inaccuracies with potential for serious harm, highlight substantial gaps in both the factual and actionable dimensions of MSM's sexual health literacy related to HIV and testing. These findings point to an urgent need for more accessible, consistent, and contextually relevant sexual health education from community partners and public health, recognizing that without such education, the HIVST may contribute to widening, rather than narrowing, gaps in MSM's sexual health literacy.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: Treatment, Prevention and Improving Outcomes / Thème : Traitement, prévention et amélioration des résultats

Abstract #238

Improving Access To Long-Acting HIV Treatment in British Columbia: Community-Based Qualitative Interviews with People Living With HIV

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Background
New long-acting HIV treatment options could improve quality of life and health outcomes for people living with HIV. One standalone injectable long-acting HIV treatment received Health Canada approval in 2020; however, in British Columbia (BC), publicly-funded long-acting HIV treatment remains inaccessible.

Methods
To identify the priorities of people living with HIV for the delivery of long-acting HIV treatment in BC, we conducted a community-based qualitative interview study with 40 participants living with HIV. Participants aged 15+, living with HIV in BC, and who could complete an interview in English or Spanish were eligible. We prioritized participants who identified as Two-Spirit, lesbian, gay, bisexual, trans, non-binary, queer, intersex, and asexual (2S/LGBTQIA+); Indigenous, Black, a Person of Colour (IBPOC); women, and people who use substances. We conducted thematic analysis with peer researchers to understand the priorities of people living with HIV for long-acting HIV treatment.

Results
The majority of participants expressed interest in using long-acting injectables articulating benefits such as improved quality of life, greater convenience, fewer side effects, less stigma, easier medication adherence, and less medication fatigue. However, no participants were currently accessing long-acting treatment. Barriers to accessing long-acting treatment included limited information, eligibility criteria, a lack of support from their HIV care provider, and more frequent doctor's visits. Many participants pointed out a lack of representation of IBPOC, trans people, and women in long-acting HIV treatment research, which raised questions about safety within these communities. Participants wanted holistic, patient-centered care and emphasized the importance of choice and autonomy, including having long-acting HIV treatment as an option.

Conclusion
Access to long-acting treatment options must be improved to enhance health outcomes and quality of life among people living with HIV in BC. Underrepresented groups such as IBPOC, trans people, and women must be prioritized in long-acting HIV treatment rollout.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: Treatment, Prevention and Improving Outcomes / Thème : Traitement, prévention et amélioration des résultats

Abstract #92

Advancing PrEP Equity for Black Women in Canada

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Background: Black women continue to experience an inequitable impact of the Canadian HIV epidemic yet are underrepresented in prevention programs and PrEP uptake. While women account for 30% of HIV cases nationally, 98% of PrEP users are men, primarily white gbMSM. This gap underscores the need for community-driven strategies to improve access and uptake of PrEP among Black women.

Methods: Women's Health in Women's Hands Community Health Centre conducted two listening sessions (September 2025) with Black women with no prior PrEP experience. Sessions explored perceptions of HIV risk, testing practices, and attitudes toward PrEP to inform service delivery. Discussions were audio-recorded, transcribed verbatim, and analyzed. Pre- and post-session surveys assessed changes in awareness and willingness to use PrEP.

Results: Sixteen women participated (n=7; n=9). Four emerging themes were identified. (1) Risk Perception and Management: HIV risk was often underestimated due to reliance on partner assurances and stigma around partner count; mental health impacted risk tolerance. (2) Knowledge Gaps: Limited awareness of PrEP; lack of early sexual health education; believed PrEP is for gbMSM. (3) Barriers: Confidentiality concerns; HIV-related stigma; mistrust of pharmaceutical companies; lack of provider initiation of sexual health and PrEP discussions; accessibility and cost. (4) Motivators: Peer-led education; Black-aware providers; desire to protect oneself; culturally-tailored sexual health approaches; community-based outreach. Participants expressed interest in long-acting PrEP, despite concerns about side effects. Post-session surveys showed increased HIV and PrEP awareness (from 66.7% moderate to 73.3% high) and greater willingness to use PrEP (from 4 to 8 participants reporting high willingness).

Discussion: Findings emphasize the need for integrated, stigma-free HIV prevention within trusted community/clinical settings. Strategies include culturally-tailored education that integrates intersectional experiences of Black women, peer ambassadors, and proactive provider engagement. Expanding PrEP messaging beyond gbMSM and preparing for long-acting options could improve uptake of PrEP among Black women.

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Theme: Treatment, Prevention and Improving Outcomes / Thème : Traitement, prévention et amélioration des résultats

Abstract #379

The HIV Care Acuity Tool – A Mixed Methods Study

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Background:
Black communities in Ontario are disproportionately affected by HIV, accounting for 25% of new diagnoses while representing only 5% of the population. Existing interventions often fail to address the unique social, structural, and cultural barriers to care engagement for Black people living with HIV. There is a lack of validated tools tailored to assess and support the case management needs of this population.

Objective:
To develop the HIV Care Acuity Tool (H-CAT), a culturally relevant instrument for identifying and categorizing case management needs among Black people living with HIV in Ontario.

Methods:
An exploratory sequential mixed methods design was used. The qualitative phase involved in-depth interviews with healthcare providers, Black people living with HIV, and stakeholders, exploring the relevance of 22 pre-identified case management domains and identifying additional factors. Thematic analysis revealed two new domains: family situation and transitional care. In the quantitative phase, 28 experts rated 24 items for essentiality using Lawshe's Content Validity Ratio (CVR).

Results:
Of the 24 items assessed, 19 met or exceeded the critical CVR threshold and were retained for further consideration. These items reflect a broad range of clinical, psychosocial, and structural domains relevant to HIV care and support. Five items, including substance misuse and transitional care, were excluded due to lower consensus. The integration of qualitative and quantitative findings ensured the tool's cultural relevance and contextual

Conclusions:
H-CAT is the first acuity assessment tool specifically designed for Black people living with HIV in Ontario. Its development was grounded in community perspectives and rigorous content validation, ensuring cultural relevance and contextual fit. The tool supports equity-oriented, culturally responsive case management and has potential to improve care engagement and outcomes. Future work will pilot H-CAT in real-world settings to evaluate feasibility, reliability, and impact on care.

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Abstract #177

Acceptability of Dried Blood Spot Testing for HIV and Other Bloodborne and Sexually Transmitted Infections Among People Incarcerated in Quebec Provincial Prisons

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Background: Prisons are priority settings for efforts to eliminate HIV, hepatitis C virus, and other sexually transmitted and bloodborne infections. Dried blood spot (DBS) testing enables testing for multiple infections concurrently without the need for venepuncture or a healthcare professional. This qualitative study aimed to explore the acceptability of DBS testing among people incarcerated in Quebec provincial prisons.

Method: Semi-structured interviews were conducted in two Quebec provincial prisons (one men's, one women's) following disclosure of DBS test results, two weeks after testing. Participants were purposefully selected to ensure representation of injection drug use history, positive and negative test results, race/ethnicity, and self and assisted collection. Sekhon's Theoretical Framework of Acceptability, comprising seven constructs, informed the interview guide and analysis.

Results: Participants (n=30, 50% women, median age 35 years [range: 23-60]) described the DBS test as "easy" and "fast" (affective attitude). Although some participants reported anxiety waiting for their test results, most considered the wait time acceptable, with some stating that any inconvenience was offset by testing for multiple infections concurrently (burden). Participants valued having a choice between self or assisted collection (ethicality). Those who chose assisted collection (n=26) cited confidence in the research team's expertise in performing the test, while some with injecting histories preferred assisted collection to avoid being "triggered" (self-efficacy). Finger prick sampling also accommodated those with difficult venous access due to past drug use (self-efficacy). Incarceration was viewed as an opportune time for testing due to few competing priorities (opportunity cost). Trust in the research team underpinned confidence in test results (perceived effectiveness).

Conclusion: People in Quebec provincial prisons consider DBS testing an acceptable method to test for HIV and other sexually transmitted and bloodborne virus infections. Opt-out DBS testing with options for both self and assisted collection could be incorporated into standard practice at prison admission.

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Theme: Treatment, Prevention and Improving Outcomes / Thème : Traitement, prévention et amélioration des résultats

Abstract #381

Chronic Pain Among People Living with HIV in Canada: Insights from a Bilingual National Survey

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Introduction: Approximately 60,000 people living with HIV/AIDS (PLHAs) in Canada experience chronic pain, defined by the International Association for the Study of Pain (IASP) as pain persisting beyond three months. This pain, often associated with HIV infection or antiretroviral therapy side effects, negatively influences physical health, mental well-being, and social functioning, affecting sleep quality, emotional state, cognition, motor skills, and daily activities. PLHAs frequently employ medical, complementary, and mind-body approaches to manage these complex symptoms.

Methodology: This study employed a sequential mixed-methods design, beginning with a bilingual online survey developed collaboratively by researchers, clinicians, and Peer Researchers. The survey included demographic data and explored chronic pain characteristics, medication and alternative treatment use, substance use, mood, and access to services. Adult participants residing in Canada, classified as having chronic pain by the IASP definition, were recruited through a comprehensive network.

Results: Among 248 respondents, 60.1% were male, 31.5% female, with gender-diverse participants represented. Most were aged 40–59 (50.8%) and reported low annual incomes (<$20,000 CAD). While 43.5% engaged in employment or structured activity, 24.6% received disability benefits and 9.7% were unemployed seeking work. Common comorbidities included chronic joint pain (69.4%), soft tissue pain (68.5%), mental health disorders (55.2%), sleep difficulties (54.4%), and substance use disorders (26.6%). Support was mainly from family (55.1%), with fewer accessing physiotherapy or community organizations (28.4%). Qualitative responses expressed gratitude for care but also frustration with stigma, treatment delays, and inadequate pain management, emphasizing the need for greater empathy and improved access, particularly regarding financial barriers and wait times.

Discussion: Despite overall satisfaction with healthcare, persistent issues like stigma, treatment delays, and inadequate pain management remain. This highlights the need for patient-centered, empathetic care that addresses clinical and systemic barriers. Future research should target underrepresented groups and ways to overcome these obstacles in HIV-related pain management.

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Theme: Treatment, Prevention and Improving Outcomes / Thème : Traitement, prévention et amélioration des résultats

Abstract #159

Beyond Accuracy: Auditing Responsible AI in Large Language Model (LLM)-based ART Adherence Triage for HIV Care

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Background:
As AI enters HIV care, responsible development is critical to avoid reinforcing stigma and inequities while ensuring sustainability. Digital health tools such as the MARVIN HIV self-management chatbot may generate large volumes of patient messages that can support ART adherence monitoring. Building on previously developed LLM-based triage models to detect adherence barriers and stratify nonadherence risk, we conducted secondary analyses examining model interpretability, fairness, and sustainability as key responsible AI considerations for clinical integration.

Methods:
We evaluated our best-performing fine-tuned models (Flan-T5-xl for barrier detection and Flan-T5-large for risk stratification) against large-scale LLM baselines (GPT4.1 and Gemma-3). Error patterns were identified by inductively categorizing misclassified test-set sentences (n=1,380). Fairness was examined by injecting racial (Asian, Black, Indigenous, Latino, White) and gender (woman, man, trans) descriptors into 837 external validation sentences and measuring prediction shifts. Sustainability was assessed by estimating energy consumption per 1,000 inferences across models.

Results:
Six recurring error patterns were identified: ambiguous inputs, cross-category overlap, annotation inconsistencies, semantic overlap, implicit expressions, and contextual misinterpretation. For fairness, overall mismatch rates were similar for Flan-T5-xl (19.4%) and GPT-4.1 (18.0%), but distributions differed: Flan-T5 predictions with demographic descriptors clustered mainly in Social Situation barriers (65%), while GPT-4.1 often predicted None (44%), risking false negatives. For risk stratification, Flan-T5-large showed fewer mismatches (17.8%) than Gemma-3 (22.2%), which reclassified 33% of cases as None. For sustainability, Flan-T5-xl required 0.013 kWh per 1,000 inferences, higher than Flan-T5-large (0.007 kWh), but 3× lower than Gemma-3 (0.043 kWh) and 30× lower than GPT-4.1 (0.376 kWh).

Conclusions:
Error analysis highlighted misclassification patterns that can inform model refinement and clinical deployment. Fairness and sustainability assessments indicated that fine-tuned Flan-T5 models were more consistent and energy-efficient than large-scale LLMs. These exploratory findings support such systems' potential for responsible ART adherence triage, pending further validation in diverse clinical settings.

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Abstract #132

An Environmental Scan of 2SLGBTQ+ Inclusive and Affirming HIV/STBBI Prevention and Care Trainings: Implications for Trans and Gender Diverse (TGD) Peoples' HIV/STBBI Sexual Health Equity

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Background: Trans and gender diverse (TGD) peoples' health is scantly covered in allied healthcare professional post-secondary education. This contributes to a lack of providers with knowledge of gender-affirming healthcare (GAHC), particularly gender-affirming hormone therapy, surgery referrals, and integrated GAHC and HIV/STBBI prevention/care. In response, we identified and characterized trainings available for care providers in Canada in three areas: HIV/STBBI prevention/care, 2SLGBTQ+ inclusion/affirmation (including GAHC), and integrated 2SLGBTQ+ affirmative HIV/STBBI prevention/care.

Methods: Drawing from Shahid and Turin, we conducted an environmental scan of available trainings in Canada, analyzing website content. We extracted data relevant to each training: the type of training (HIV/STBBI prevention and care; 2SLGBTQ+ inclusion/care; integrated 2SLGBTQ+ affirmative HIV/STBBI prevention/care), availability (provincial/territorial; federal) and other characteristics (e.g., format [virtual/in-person]). We analyzed extracted data utilizing descriptive statistics (frequencies, proportions).

Results: We identified 163 trainings available in Canada (55.2% [n=90/163] HIV/STBBI prevention/care; 42.3% [n=69/163] 2SLGBTQ+ inclusion/affirmation in clinical settings; 2.5% [n=4/163] integrated). Of the limited integrated trainings, 75% (3/4) were federally created and offered. Less than one-sixth (15.3%; n=25/163) of the total trainings were federal, with the remaining region-specific. Quebec had the most trainings available (26.4% [n=43/163]), with the majority in French. Of all national and provincial trainings, 25% (n=41/163) were in French. None of the integrated trainings specifically addressed the clinical considerations of HIV/STBBI prevention/care and GAHC. Instead, 2SLGBTQ+-focused trainings addressed the health needs or inclusion of the 2SLGBTQ+ community broadly.

Conclusions/Implications: Despite many available HIV/STBBI prevention/care and 2SLGBTQ+inclusion/care trainings, there is still a pressing need for clinical trainings on GAHC and on integrated HIV/STBBI and GAHC for allied healthcare providers to prescribe gender-affirming hormone therapy, make referrals for gender-affirming surgeries, and to holistically integrate HIV/STBBI prevention/care. These trainings are urgently needed to address gaps in access to care among TGD communities and to improve sexual and overall health equity.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: HIV and the Law, Policy and Public Health / Thème : Le VIH et la loi, politique et santé publique

Abstract #130

"It's primarily around their viral load": Public health decision-making and HIV risk assemblages in Ontario, Canada

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Background: Public health organizations and authorities have subjected people living with HIV (PLWH) to surveillance and control to address the HIV/AIDS epidemic. In Ontario, public health authorities can issue and enforce orders against PLWH to prevent HIV transmission. However, how public health practitioners determine when someone constitutes a transmission risk remains underexplored. We examined how public health actors establish HIV risk in light of biomedical technologies, institutional practices, legal frameworks and social discourses.

Methods: Between March 2023 and January 2024, we conducted semi-structured interviews with 18 public health personnel across Ontario. Interviews were digitally recorded, transcribed, de-identified and thematically analyzed using Dedoose.

Results: Viral load measurement emerged as a significant factor when considering PLWH as a public health risk. First, high viral load was considered a potential indicator of risk, but only when linked to activities, such as condomless sex or non-disclosure of HIV-positive status. Second, discontinuity in HIV care or non-adherence to antiretroviral therapy may flag individuals for follow-up or intervention. Third, STBBI co-infection triggered a review of viral load status to assess the potential for HIV exposure. Fourth, non-compliance with public health orders positioned PLWH as needing management rather than support. Fifth, U=U (Undetectable=Untransmittable) has reconfigured risk, with participants generally viewing virally suppressed individuals as posing no transmission risk. Participants described using different informational infrastructures, including medical records and laboratory results, to determine one's viral load, often without the knowledge or consent of PLWH.

Conclusion: The use of medical records to access viral load data without patient consent is concerning, as it introduces the possibility of increased surveillance and could reduce rights to privacy and bodily autonomy. Access to this information should be balanced with accountability mechanisms to ensure that using medical records and viral load data does not result in unnecessary surveillance or further stigmatization of PLWH.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: HIV and the Law, Policy and Public Health / Thème : Le VIH et la loi, politique et santé publique

Abstract #345

Mapping Sero Surveillance: An online tool to enhance public understanding of what happens to HIV-related blood test samples and personal health information in Ontario

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Background: HIV testing and monitoring is a personal and vulnerable act, which can result in social and legal consequences — but what happens to the blood samples and personal health information afterward is rarely discussed, let alone understood. HIV-related test results, even when negative, or undetectable, are recorded in databases and accessed by public health practitioners, often without people's knowledge or consent. This project was developed to make these practices and the underlying legal and policy pathways visible via an online accessible mapping tool at: www.mappingsero.ca.

Methods: Mapping Sero Surveillance is a collaborative community-based project led by people living with HIV (PLHIV) and people who work in the social sciences, law, community service provision, and advocacy. We conducted 43 semi-structured qualitative interviews across Ontario with clinicians, public health workers, and PLHIV with experiences of interactions with public health. The findings were triangulated with outcomes of legal and policy analysis to map the pathways of biomaterial and health information from HIV-related tests.

Results: Findings indicate a patchwork of knowledge, understanding, and approaches to manage the HIV-related health information and biomaterial across Ontario. Gaps in knowledge may result in misinformation and undermine informed consent processes for those in being tested. To address this context, our website details the process of HIV tests, including anonymous, nominal, and self-tests, along with ongoing monitoring of viral load, CD4/CD8, and genotyping/resistance testing. We provide details on key actors, legislation, and public health procedures, making the processes transparent to those tested and involved in the process, from clinical settings, to private and public health laboratories, to aggregate data in surveillance reports.

Conclusions: The aim of this community-based online resource is to help increase knowledge, and to assist with informed consent, the awareness of privacy rights, understanding of public health practices, and support the bodily autonomy of PLHIV.

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Theme: HIV and the Law, Policy and Public Health / Thème : Le VIH et la loi, politique et santé publique

Abstract #304

Evidence for U=U Message as a Stigma Reduction Tool among People Living with HIV in Canada: Exploring Potential Mechanisms through Mediation Analyses

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Undetectable equals Untransmittable (U=U) remains a critical public health message. Beyond its biomedical importance, U=U may reduce HIV-related stigma by alleviating internalized shame and anticipated discrimination among people living with HIV. Limited evidence exists on how acceptance of U=U may affect stigma, and if so what are the underlying mechanisms.
People living with HIV from across Canada (N=730) completed the People Living with HIV Stigma Index between September 2018 and October 2024. Surveys assessed demographics, internalized and anticipated stigma, U=U awareness and acceptance. Causal mediation analyses examined individual resilience and healthcare empowerment around HIV treatment as potential mediators of the association between U=U acceptance and stigma, with nonparametric bootstrap 95% confidence intervals calculated based on 5,000 resamples.
Results indicated 72% of participants had heard of U=U, and among those, 71% fully accepted the message. Accepting U=U was associated with higher levels of resilience and healthcare empowerment, which in turn were linked to lower internalized and anticipated stigma ($p < .05$). Mediation analyses indicated that resilience partially mediated the association between U=U acceptance and lower internalized (ACME = -0.22, 95% CI [-0.33, -0.11], 28% mediated) and anticipated stigma (ACME = -0.15, 95% CI [-0.24, -0.08], 34% mediated). A smaller mediating effect for healthcare empowerment was found for internalized (ACME = -0.06, 95% CI [-0.12, -0.01], 7% mediated) and anticipated stigma (ACME = -0.04, 95% CI [-0.09, -0.01], 10% mediated).
Acceptance of U=U is associated with lower internalized and anticipated stigma among people living with HIV, in part through enhanced resilience and, to a lesser extent, healthcare empowerment with HIV treatment. Promoting U=U can be a key strategy for enhancing resilience and reducing stigma and its impacts. These findings highlight importance of including U=U in public health messaging and community-based interventions aimed at improving the health and wellbeing of people living with HIV.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: HIV and the Law, Policy and Public Health / Thème : Le VIH et la loi, politique et santé publique

Abstract #198

Legal Needs in Context: Community Perspectives on HIV Criminalization, Non-disclosure, and Care in Edmonton, Alberta

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Background: People living with HIV (PLWH) continue to experience structural marginalization, including stigma, inequitable access to services, and the impacts of HIV criminalization, such as fear, gender-based violence, and mistrust related to HIV non-disclosure. In Alberta, where HIV rates have nearly doubled since 2019, these dynamics disproportionately affect equity-deserving groups. While the impacts of HIV criminalization on stigma and health outcomes are increasingly recognized, less is known about how PLWH make sense of accessing legal supports and articulate their legal needs in everyday life.

Methods: This project was conducted in December 2025 in collaboration with HIV Edmonton, an AIDS Service Organization. Four focus groups were completed with 19 PLWH as part of a community consultation process. The discussion explored experiences accessing legal services, perceived legal needs, and the role of community organizations in legal navigation and support. Audio recordings and field notes were analyzed using thematic analysis to identify patterns in participants' sensemaking practices.

Emerging Themes: Participants described legal needs as deeply intertwined with health and social experiences rather than as standalone concerns. Key issues included fear and uncertainty related to HIV criminalization and disclosure, as well as the challenges of navigating fragmented and unclear legal systems. Participants highlighted the cumulative effects of structurally embedded HIV stigma, racism, and prior negative encounters with legal and health systems. Community organizations were identified as sites of trust and relational support; however, structural and resource constraints created gaps in available legal support and navigation pathways.

Implications: Integrated, relational, and justice-oriented approaches to HIV care that recognize legal needs as inseparable from health and social conditions are needed. Strengthening partnerships between HIV service organizations and legal supports may improve trust, access, and continuity of care for PLWH, informing community-based interventions aimed at advancing health equity across HIV service delivery and the broader care continuum.

Social Sciences Oral Abstract Session / Sciences sociales présentation orale d'abrégés

Theme: HIV and the Law, Policy and Public Health / Thème : Le VIH et la loi, politique et santé publique

Abstract #156

Preliminary Findings: Structural Barriers Limit Access to HIV, HCV, and Sexual Health Services for LGBTQI+ Immigrants and Refugees in Ontario

Wania Amir Khan[1], Muhammad Furqan Waleed[1], Syed Mustafa Jamal[1]
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Background
LGBTQI+ immigrants and refugees (IRN) in Canada experience intersecting barriers related to migration status, sexual orientation, gender identity, racism, and HIV-related stigma, yet many health services are often not designed to adequately address these layered realities (Ghabrial et al., 2024). In Ontario, service models frequently lack culturally responsive and affirming approaches, contributing to delayed diagnosis, disengagement from care, and poorer mental health outcomes for this community (Logie et al., 2018; Vlassoff & Ali, 2011; Comeau et al., 2023).

Methods
This study draws on a needs assessment conducted through the Community Alliance for Accessible Treatment's Rainbow Resilience Program, using a Gender-Based Analysis Plus lens to examine access to sexual health services for LGBTQ+ IRN. We employed a mixed-method, community-based approach engaging 42 service users and 51 service providers involving a total of 93 participants across Ontario. Data collection included 7 focus groups, 5 key informant interviews, and 44 surveys.

Results
Emerging findings reveal persistent system-level gaps, including limited provider capacity and training in cultural humility and trauma-informed care. Participants described fragmented referral pathways and reliance on informal networks to navigate services, highlighting systemic limitations. Layered stigma around sexual orientation, gender identity, HIV/HCV, race, and immigration status undermined trust and often delayed or prevented care, with key barriers including fear of disclosure, language barriers, and lack of representation in services and outreach tools/campaigns. Participants emphasized the need for peer-led, community-based approaches, centralized navigation, wraparound supports, and cross-sector collaborations to achieve equitable care.

Conclusion
Collectively, these findings add to existing literature by reframing inequities in HIV/HCV and sexual health care for LGBTQI+ IRN as consequences of structural fragmentation, limited cultural responsiveness, and capacity gaps rather than individual disengagement. Ongoing data collection will refine priorities and inform recommendations and tools to support equitable access to affirming HIV, HCV, and sexual health services.

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Abstract #5

Stigma, Discrimination, and Mental Health: Exploring Social Determinants in HIV Care

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Background:

Stigma and discrimination remain persistent barriers to effective HIV prevention, treatment, and care. These social determinants not only limit access to health services but also exacerbate mental health challenges among people living with HIV. Older women and marginalized populations are particularly vulnerable, facing intersecting forms of stigma related to age, gender, and HIV status.

Methods:

This study employed a mixed-methods approach combining quantitative surveys with qualitative interviews among women aged 50+ engaged in HIV health services navigation programs Data were collected over six months (April- September) to assess experiences of stigma, discrimination, and mental health outcomes. Thematic analysis was used to identify recurring patterns, while descriptive statistics quantified prevelence and impact.

Results:

Findings revealed that 72% of participants reported experiencing HIV related stigma in healthcare settings, while 65% noted discrimination based on age or gender, Mental health impacts included heightened anxiety, depressive symptoms, and reduced self-efficacy in navigating care. However, participation in capacity development and health promotion activities fostered resilience, peer support, and improved coping strategies mitigating some negative effects.

Conclusion:

Stigma and discrimination continue to undermine mental health and equitable access to HIV services. Community-based interventions that integrate capacity building and peer support can reduce psychosocial burdens and empower older women to advocate for their health. Addressing these social determinants is essential to achieving equitable HIV care and improving mental health outcomes.

Keywords:

HIV, stigma, discrimination, mental health, social determinants, women 50+, community-based interventions

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Abstract #6

From Intervention to Practice: Evaluating effectiveness of an HIV stigma reduction intervention for racialized immigrants in Canada

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Introduction: Racialized immigrants in Canada face disproportionately high rates of new HIV infections, compounded by persistent stigma and heightened vulnerabilities emanating from a confluence of factors including racism, systemic discrimination, lack of culturally sensitive HIV care, unequal healthcare access, and selective criminalization related status non-disclosure. Amid inadequate policy attention, this implementation study evaluates the effectiveness of an online HIV stigma reduction intervention, designed for racialized immigrants in Canada.

Methods: From a community-driven, collaborative, and knowledge co-creation standpoint, we engaged key stakeholders in a multi-phase implementation across Ontario and Alberta. Data were collected via focus group discussions, and pre- and post-intervention surveys.

Results: Results showed that:1) the intervention effectively reduced interpersonal HIV stigma between service providers and their clients, previously perpetuated unconsciously in the course of service delivery; 2) it enhanced psychological flexibility and acceptance of lived HIV experiences, empowering some service providers to become HIV anti-stigma activists in both their workplaces and communities;3) the online format bridged access barrier by offering service providers the opportunity to meet colleagues from different local sites/provinces based on facilitation cohorts that favored their schedule; and 4) long-term adoptability of the intervention and the scope of adoption (full versus partial adoption) are dependent on the size, vision and mission/goals of the collaborating organizations. Statistically, participants' empowerment readiness [pre-intervention($\bar{x}$=31.47,CI:29.79-33.14);post-intervention($\bar{x}$=33.15,CI:31.68-34.63)] and confidence to combat HIV stigma and social injustice [pre-intervention($\bar{x}$=40.63,CI:38.78-42.48);post-intervention($\bar{x}$=43.28,CI:41.50-45.07)] significantly increased post-intervention.

Conclusion: The ACE intervention effectively promoted psychological flexibility and acceptance of lived HIV realities/ experiences, as well as promoted collective empowerment against HIV stigma and related forms of social injustices. However, sustained adoption requires organizational commitment and supportive government policies for integration into health service delivery settings.

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Abstract #8

Mapping Trans and Gender Diverse Inclusion in Ontario's HIV Prevention System: A Provincial Environmental Scan

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This environmental scan maps how Ontario's HIV sector is integrating, or failing to integrate, the needs of trans and gender diverse (TGD) people across the HIV prevention and care continuum. The scan focuses on six regions (Toronto, Ottawa & Eastern, Northern, Central East, Central West, Southwest) and asks how HIV prevention, PrEP, testing, and harm reduction are connected to gender affirming care for TGD communities.

Using a mixed qualitative design, we combined narrative website and document analysis of 93 organizations with 40 semi structured and informal interviews with AIDS service organizations, community health centres, public health units, clinicians, peer navigators, and program staff. Data were coded for TGD visibility, TGD specific programming or referrals, mention of gender affirming care, and linkage between HIV prevention and trans health.

Across all regions, only 23 of 93 organizations had TGD specific programming or referral structures, and 42 showed some TGD or broader 2SLGBTQ+ visibility online. Twenty two organizations mentioned gender affirming care in strategic plans or reports, mainly in Toronto and Central East. Integration of HIV prevention and gender affirming care is still rare, concentrated in a few urban hubs, leaving many TGD people in Northern, Eastern, and smaller Central regions to travel or assemble fragmented services. Regional narratives highlight persistent policy and data gaps, uneven PrEP visibility, limited provider training, and rising impacts of anti trans rhetoric on patient and provider safety.

Findings show that TGD inclusion in Ontario's HIV response remains ad hoc and project based. The scan calls for provincial standards on gender identity data collection, sustained investment in integrated HIV and gender affirming care models, and formal partnerships with TGD led and community-based organizations to make trans health central to HIV prevention policy and practice.

Keywords: trans and gender diverse, HIV prevention, PrEP, gender affirming care, Ontario, environmental scan

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Abstract #14

Maamwi! Reimagining Harm Reduction on Reserves. Indigenous Led Culturally Grounded Insights For STBBI Health Promotion.

Connor Reid[1], Angie Carriere[1]
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Background:

Indigenous Peoples in Canada continue to experience disproportionate HIV and STBBI burdens, with communities on reserves facing persistent inequities in access to culturally grounded harm reduction services. Despite national expansion of harm reduction approaches, reserve-based programs remain inconsistent due to jurisdictional fragmentation, stigma, racism, confidentiality concerns, and chronic underfunding. Communities, Alliances & Networks (CAAN) has generated over two decades of Indigenous-led and community-based research documenting culturally rooted harm reduction strategies informed by youth, adults, and people living with HIV/STBBIs. This study mobilizes CAAN's community-led data to identify systemic barriers, cultural strengths, and actionable pathways to strengthen harm reduction access on reserves.

Methods:

A secondary qualitative synthesis was conducted using an Indigenous methodological framework grounded in OCAP®, Two-Eyed Seeing, relational accountability, and decolonizing analysis. Data were drawn from multiple CAAN-led initiatives, including Weaving Our Wisdoms, GIPA Homefire, 2SHAWLS, Re:Membering, and Keeping Our Fires. Additional sources included community surveys, program evaluations, knowledge exchange events, and narrative datasets. Reflexive thematic analysis identified cultural, structural, relational, and community-defined determinants influencing harm reduction engagement and service uptake.

Results:

Three interrelated themes emerged.
Cultural supports as harm reduction: Ceremony, land-based practices, kinship, language, storytelling, and intergenerational knowledge strengthened belonging, reduced shame, and increased trust in services.
Systemic and structural barriers: Participants identified jurisdictional silos, discrimination in off-reserve settings, confidentiality challenges in small communities, and inconsistent harm reduction supply access as barriers that undermined safety and uptake.
Community-driven and youth-informed innovation: Peer-led distribution systems, cultural harm reduction bundles, and community-developed outreach approaches improved engagement, reduced stigma, and supported collective protection.

Conclusion:

Participants across age groups described harm reduction as culturally grounded and relational. Strengthening reserve-based harm reduction requires sustained Indigenous-governed funding, community-designed programming, integrated on-reserve services, and policy frameworks rooted in cultural safety, OCAP®, and distinctions-based Indigenous governance.

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Abstract #16

Exploring the HIV-Related Mental Health Struggles amongst Men Having Sex with Men (MSM) in Canada: An Integrated Literature Review

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Background:
MSM in Canada face significant mental health challenges that heighten vulnerability to HIV and related adverse health behaviors. While existing research highlights elevated risks in this population, limited attention has been given to the distinct experiences of key subgroups, including Indigenous MSM, East and Southeast Asian MSM, and transgender MSM. This review examines how mental health, HIV risk, and sociocultural factors intersect within these understudied communities.

Methods:
A systematic literature review was conducted across Medline, Web of Science, and Scopus. A total of 139 peer-reviewed articles were screened, and 15 studies met inclusion criteria. Eligible studies focused on MSM in Canada and explored mental health experiences in relation to HIV risk or health behaviors. Thematic analysis was used to identify recurring patterns and subgroup-specific challenges.

Results:
Three overarching themes were identified: (1) Psychological distress, including depression, anxiety, and trauma; (2) Identity conflicts, such as internalized stigma, cultural alienation, and challenges navigating sexual and gender identities; and (3) Self-concept difficulties, reflected in low self-esteem, social marginalization, and strained interpersonal relationships. Subgroup analyses revealed unique vulnerabilities: Indigenous MSM experienced compounded effects of historical trauma and systemic discrimination; Asian MSM faced cultural stigma, fear of disclosure, and social isolation that contributed to healthcare avoidance; and transgender MSM reported heightened body image anxiety and stigma, resulting in risky sexual practices and reduced access to affirming healthcare. These mental health challenges were linked to substance use, inconsistent HIV testing, and elevated HIV risk.

Conclusions:
Mental health disparities among MSM in Canada are shaped by complex social and structural determinants. Culturally responsive mental health services, stigma reduction efforts, and inclusive policy strategies are essential. Future research should prioritize subgroup-specific barriers to strengthen mental health and HIV prevention initiatives.

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Abstract #29

"We Expected Better": How Intersectional Racism and Immigration Status Delay Emergency Care for Black African Women Living With HIV in Canada

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Background:
Black African immigrant women living with HIV often enter the Canadian health system expecting timely, compassionate, and equitable care. Instead, many encounter racial bias, stigma, and delayed emergency responses that worsen health outcomes. For women who are newcomers, refugee claimants, or living with precarious immigration status, these harms are intensified by intersecting systems of oppression, including anti-Black racism, gendered discrimination, migration trauma, and HIV stigma. Despite frequent reports from peer navigators and community organizations, little research has examined how intersectional racism shapes emergency care access for this population. This work-in-progress study addresses a critical evidence gap.

Methods:
This ongoing qualitative project uses a community-engaged framework informed by intersectionality, Black feminist thought, and Critical Race Theory. Data collection includes: (1) a rapid literature and policy scan on racialized emergency care disparities; (2) consultations with Black African immigrant women living with HIV, peer navigators (including PWA), and cultural safety facilitators; and (3) preliminary informal interviews exploring triage delays, pain dismissal, misdiagnosis, and perceived bias. Thematic analysis examines how intersecting identities influence clinical interactions, communication patterns, and structural barriers to timely care.

Preliminary Insights:
Early findings highlight repeated triage delays, dismissal of pain, stereotyping, and harmful assumptions linked to immigration status. Participants describe feeling unsafe, misunderstood, and discouraged from seeking emergency care due to previous trauma. Many expressed disappointment with Canada's well-resourced system, stating, "We expected better." Peer workers report multiple cases of delayed access, worsening symptoms, and avoidable poor health outcomes among newcomer Black women.

Next Steps:
Upcoming phases include formal interviews, expanded community engagement, and development of recommendations to improve culturally safe, anti-racist emergency care. Findings will support training modules, policy advocacy, and creation of an intersectional framework to reduce racial bias and prevent delayed treatment.

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Abstract #32

Intersecting Stigma and Mental Health: Experiences of Older African, Caribbean, and Black Adults Living with HIV in Ontario, Canada

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The proportion of older adults (aged ≥50) living with HIV (PLWH) is growing rapidly across the globe. In Canada, African, Caribbean and Black (ACB) people constitute 2.5% of the population but 16% of people living with HIV. In the province of Ontario, ACB people constitute only 5% of the population but represent 25% of all new infections. For older ACB people in Canada, HIV stigma intertwines with ageism, racism, and minority stress, creating complex pathways to poor mental health outcomes. The prevalence of HIV/AIDS in ACB communities is among the highest in Canada, yet no empirical research has explored the experience of stigma and mental health among older members of these communities. Thus, the aim of this proposed study is to explore the intersecting stigma and mental health experiences of older PLWH in ACB communities in Ontario, Canada.
An explanatory sequential mixed methods will be utilized. Phase 1 will involve a cross-sectional survey using standardized scales (DASS-42; HIV self-stigma scale) to examine the prevalence of depression and anxiety and their association with HIV-related stigma among older PLWH in Ontario. Phase 2 involves in-depth qualitative interviews; purposively sampled from community-based HIV organizations in Ontario, to contextualize quantitative findings. Interviews will probe stigma experiences, experiences related to mental wellbeing, access to mental health services/support and coping with mental health. Analysis will integrate descriptive and bivariate statistics (STATA) and thematic coding (Nvivo) with integration occurring at the interpretation stage.
This study will generate insights and inform policies and services to reduce stigma and poor mental health outcomes among ACB people living HIV/AIDS. The study aims to improve engagement in care, adherence treatment, and overall health outcomes. This study will also generate and disseminate scholarly insights into how HIV-related stigma is enacted and experienced by older people in ACB communities.

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Abstract #41

Building pathways by addressing Equity and Social Determinants of Health to improve Health Outcomes of Indigenous Peoples in Canada to progress towards the 95-95-95 HIV/AIDS global targets.

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Problem Statement: Health equity and Social Determinants of Health (SDOH) concerns for Indigenous Peoples in Canada impact their health outcomes such as HIV rates. Data: Data collection sources were gathered from publicly available data from recognized government sites, including Statistics Canada, the Public Health Agency of Canada (PHAC), and Indigenous Services Canada (ISC). Data collection and analysis followed First Nations principles of OCAP. Method: The study design is a mixed method approach for the quantitative data; the descriptive component utilized a method of logistic regression analysis, and for the prescriptive component, the method of simulation analysis was utilized framed by a qualitative analysis from key informant interviews.The HIV/AIDS cascade of care framework is adapted in this research to add a pillar titled: Access to HIV/AIDS healthcare services. Results: The descriptive analysis results indicated that SDOH for First Nations Peoples, Inuit and Métis Peoples significantly impacts health outcomes negatively. Through the qualitative analysis six key themes emerged namely SDOH a holistic health approach, health equity and human rights, culture as a strength of self-determination as well as a list of barriers and innovative and creative approaches as solutions. The prescriptive analysis results indicated that addressing the SDOH of health care access through the Integration of Traditional Medicine with Western Medicine, New Testing Technologies (HIV Point of Care self-testing) and Health Transformation, the 95-95-95 HIV/AIDS global target rates for First Nations Peoples living on reserve will substantially improve. Conclusion: The results derived from the research inform the urgency for policymakers and decision makers to promote, advocate and fund integrated models of care, enhance access to new testing technologies and create pathways for health transformation within the Canadian healthcare system for Indigenous health in general and specifically HIV/AIDS healthcare for First Nations living on reserve.

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Abstract #43

Centering women's leadership to address inequities in HIV and STBBI prevention and care in Ontario: a community-engaged qualitative study with cis and trans women and nurses

Molly Bannerman[1], Meagan Deutekom[11], Grace Chiutsi[2], Karen Campbell[3], Mia Biondi[3], Tamara Barnett[3], Asya Gunduz[4], Elene Lam[5], Grace Gitau[6], Rosan Wesley[7], Shanice Harris[8], Grace Kirai[9], Michelle Hermans[3], Guillaume Fontaine[10]
[1]Women and HIV / AIDS Initiative, Toronto, Canada, [2]AIDS Committee of Toronto, Toronto, Canada, [3]York University, Toronto, Canada, [4]Ontario HIV Treatment Network , Toronto, Canada, [5]Butterfly: Asian and Migrant Sex Worker Support Network, Toronto, Canada, [6]Regional HIV / AIDS Connection, London, Canada, [7]Rosan Wesley Counselling & Advocacy Services, Thunder Bay, Canada, [8]CAYR Community Connections, York, Canada, [9]AIDS Committee of Durham Region, Oshawa, Canada, [10]McGill University, Montreal, Canada, [11]AIDS Committee of North Bay & Area, North Bay, Canada

This poster will provide an overview of the participatory and community informed processes undertaken in this project, methods used, key findings and next steps.

Background: Cis and trans women in Ontario, particularly those who are Indigenous, African, Black, Caribbean, migrant, sex-working, using drugs, recently incarcerated or living with HIV, face persistent inequities in HIV/STBBI prevention and care. This CIHR-funded, implementation science–informed project aimed to identify multi-level barriers and facilitators and co-develop strategies for women-led, women-centred, nurse-facilitated models of care embedded in community settings.

Methods: Guided by community-based, intersectional, and trauma-informed principles, we conducted 23 focus groups with 88 individuals across Ontario (including cis and trans women, recently incarcerated women, sex workers, women who use drugs, recent migrants, women living with HIV, Indigenous women, African, Black and Caribbean women). Additional focus groups were held with NPs, RNs (primarily in rural/northern regions), AIDS Service Organisation (ASO) staff, and policy makers. A women-led governance structure, co-developed as a living document, ensured accountability to communities.

Process and engagement: Engagement strategies included talking circles, creative and storytelling-based activities, small- and large-group discussions, and one-to-one conversations to support safer participation and shared leadership. Focus group facilitation was co-designed with community partners to centre women's priorities and expertise rather than treating them solely as "participants."

Results and implications: Themes on structural and social barriers, existing strengths within communities and ASOs, and priority strategies to operationalise women-led, nurse-facilitated models of HIV/STBBI prevention and care were developed. We also outline our community report-back process and implications for policy, service planning, and future implementation research focused on women in Ontario.

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Abstract #45

A Seat at the Picnic: Unpacking Social and Structural Determinants of Health: A facilitation tool to talk about how stigma and discrimination impact HIV prevention and care.

Maddie Yim[1], **Shanice Harris**[2], Safa Al-Sahar[3], Marlyse Assonken-Sobtafo[4], Kristin Boyer[1], Kelita Braithwaite[5], Shuying Chen[6], Tracy Gregory[7], Selam Hagos[8], Sharifah Kyomukama[9], Cassandra Odamtten[10], Meagan Vaughan[11], Molly Bannerman[1]
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This poster will provide an overview of the Women and HIV/AIDS Initiative (WHAI)'s tool "A Seat at the Picnic: Examining how social and structural determinants of health impact HIV risk and health outcomes".

The goal of this resource is to raise awareness about how social and structural determinants of health impact particular populations more than others with a focus on HIV risk and health outcomes. It is intended to support community organizations to build strategies to work towards health equity. Using the picnic as a visual tool is meant to evoke feelings of collaboration and connection that come from planning and sharing a meal. Planning must be intentional and thoughtful to ensure the gathering runs smoothly. While social and structural determinants of health impact all aspects of health, we are focusing on HIV risk and health outcomes for this resource. Throughout WHAI work, we have drawn on creative measures for community capacity building. We use these methods to foster a range of learning and engagement styles. For this resource, we have selected to work with artist Jessica Campbell and use the analogy of a picnic to examine how social and structural determinants impact HIV risk and health outcomes for those living with HIV.

The resource includes
a facilitation guide,
an accompanying poster illustration of a picnic, and
key symbolic cut outs of items within the picnic image that can be used during facilitation as analogies to examine barriers, facilitators, tools, resources and needs.

This resource is for anyone who works with and supports women who may be living with HIV or who face social and structural risks related to HIV. This includes anyone who works at a community organization, in healthcare settings, harm reduction, shelters, prisons, settlement organizations, AIDS service organizations or in other related roles.

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Abstract #50

Supporting Youth Living with HIV Transitioning to Adult HIV Care: An Evaluation of the HIV & Youth Peer Engagement (HYPE) Program in Ontario

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A critical challenge for youth living with HIV is the transition from pediatric to adult care, a shift often marked by fragmented services, reduced social support, increased responsibility, and heightened stigma. Many youth feel unprepared, leading to disengagement from care and poorer mental health. To address these gaps, the AIDS Committee of Durham Region (ACDR) developed the HIV & Youth Peer Engagement (HYPE) program. This study presents findings from a multi-year evaluation (2017–2022) examining the HYPE program's impact on youth living with HIV in Ontario.

HYPE is a peer-led, Ontario-wide, youth-centered model designed to strengthen transition readiness, reduce social isolation, and improve communication between pediatric and adult care systems. Evaluation methods included pre-post surveys, focus groups, interviews, narrative reflections, and service-provider feedback. Quantitative data were analyzed descriptively, whereas qualitative information was summarized thematically.

Over five years, HYPE engaged 562 youth living with HIV and 407 service providers. Youth mostly identified as African, Caribbean, or Black (55%), gay, bisexual, or men who have sex with men (45%) and women (42%). Workshops increased youth capacity in communication, self-advocacy, and healthcare navigation by 52%, with 60% reporting improved health behaviours, including medication adherence and appointment attendance. The annual HYPE Summit strengthened social connectedness as 77% found it a meaningful opportunity to meet peers, and 91% reported greater confidence advocating for themselves in healthcare settings. Provider-focused activities improved confidence in youth-affirming and stigma-reducing practices by 13%. Qualitative findings reflected strong appreciation for HYPE activities, particularly opportunities for social connections, and noted the need for more youth-focused programming and sexual health education.

Findings highlight the value of peer-driven, community-based programming in supporting youth transitioning to adult HIV care. HYPE's integrated model of mentorship, education, and provider engagement offers a scalable strategy to improve continuity of care and reduce stigma among youth living with HIV.

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Abstract #51

Community HERO Treatment Survey: Experiences of People with HIV (PWH) in Canada

Maureen Owino[1], Robin Barkins[2], Marcel Dams[3], Carlos Saucedo[4], Yun-Chung Lu[5], Xavier Guillaume[6], Amina Omri[6], Larkin Callaghan[7], Neia Menezes[7], Connie Kim[7], Hugh Ngo[8], Megan Dunbar[7]
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Background: Understanding the diverse experiences of people with HIV in Canada is crucial for enhancing engagement in care and improving long-term health outcomes.

Methods: A 45-minute, cross-sectional, online survey was co-developed by investigators and community advocates from 11 countries. This sub-analysis of the global survey summarizes the responses of adult participants in Canada regarding their treatment-related quality of life, motivators for staying on HIV treatment, and experiences with stigma. The HIV Treatment Satisfaction Questionnaire status version (HIVTSQs) measured patient satisfaction with current antiretroviral therapy (ART) treatment (range: 0-60).

Results: Among 200 participants, 65% were cis-men; 32% were older than 50 years old; 29% identified as Black and Latinx MSM and other BIPOC communities; 23% identified as a person who uses drugs. 90% (180/200) were on ART at the time of the survey; 78% (139/179, excluding missing data) were taking one single-tablet oral daily ART. Among respondents currently on ART, the median HIVTSQs score was 52 (interquartile range [IQR] 45, 59). Achieving and/or maintaining an undetectable viral load with a treatment that is well-tolerated and effective over a long period of time were ranked among the most selected top motivators for staying on treatment. Dosing frequency and a treatment that requires fewer clinic visits were ranked numerically higher as motivators for staying on treatment than mode of ART administration. The majority did not feel judged by their HCP regarding their sexual orientation. However, over 40% reported having to work hard to keep their HIV status a secret, feeling like it affects their relationships in a negative way, and feeling uncomfortable in their romantic partnerships because of their diagnosis.

Conclusion: Despite high reported treatment satisfaction, these findings suggest further opportunities to facilitate treatment adherence and connect PWH in Canada with resources to deal with stigma and foster resilience.

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Abstract #54

HIV Viewpoints: Survey on the Treatment Experiences of People Living with HIV in Canada, Mexico, and the United States

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Background: Understanding the diverse experiences of people with HIV (PWH) is crucial for enhancing engagement in care and improving long-term treatment outcomes.
Methods: A 45-minute, cross-sectional, online survey was co-developed by investigators and community advocates from Canada, Mexico, and the US and translated into local languages. The survey captured treatment experiences of PWH across the HIV care continuum. Participants ≥ 18y were recruited through patient databases, patient panels, advocacy groups, and physician referrals.
Results: Among 852 participants, 24% were in Canada, 29% in Mexico, and 47% in the U.S. Most participants (97%) were currently on or had previously taken antiretroviral therapy (ART), with the majority (77%) of those currently treated taking single-tablet oral daily ART. Among those who were or had been on ART, 36% initiated treatment >30 days after diagnosis, including 48% of those diagnosed ≥ 10 years ago and 28% of those diagnosed < 10 years ago. Top reasons for delayed initiation were fear of potential side effects (29%), needing time to accept HIV diagnosis (28%), and physician recommendation based on CD4 count (25%).
Difficulties with treatment adherence were reported by 16% of participants taking oral ART and 13% taking injectable ART. The most important treatment features identified for staying on treatment long-term or for switching were that the treatment allowed PWH to achieve/maintain an undetectable viral load, was well tolerated and effective over a long period of time and had limited or manageable side effects.
Conclusions: Participants identified treatment effectiveness, long-term safety, and side effects as top considerations for remaining on or switching HIV medication. A substantial proportion of participants delayed starting treatment. These factors highlight important considerations for supporting PWH to remain engaged in care and take medication as prescribed.

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Abstract #59

Bridging HIV Care Access Gaps for Structurally Excluded Patients in New Brunswick

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People living with HIV who are structurally excluded from provincial health insurance experience persistent barriers to timely and continuous care. In New Brunswick, individuals without a valid Medicare card (including newcomers and people with precarious residency or documentation) often face delays in HIV testing, specialist referral, ART initiation, and access to supportive services. These barriers contribute to poorer health outcomes and undermine public health efforts to achieve viral suppression and reduce transmission. This project describes a healthcare navigation pilot aimed at bridging HIV care access gaps for structurally excluded patients in New Brunswick.

A low-barrier, client-centred healthcare navigation pilot was implemented to support structurally excluded individuals across the HIV care continuum. Navigation activities included linkage to HIV testing and confirmatory diagnostics, coordination of referrals to HIV specialists, facilitation of interim or alternative medication access, and advocacy within healthcare and social service systems. The model emphasized trauma-informed, culturally responsive, and confidential care, with collaboration between community-based organizations, public health, and clinical providers. A mixed-methods evaluation assessed feasibility, acceptability, and early outcomes. Quantitative measures included time to specialist appointment, time to ART initiation, and retention in care. Qualitative interviews with clients explored experiences of access and perceived impact of navigation.

Preliminary findings indicate that healthcare navigation reduced delays in specialist linkage and treatment initiation for structurally excluded patients. Navigation addressed administrative and systemic barriers, including insurance ineligibility, documentation requirements, and care coordination challenges. Qualitative data highlighted increased client trust, improved understanding of the healthcare system, and enhanced provider capacity. Process data identified recurring system-level gaps affecting access to HIV care.

Healthcare navigation shows promise as an effective strategy to bridge HIV care access gaps for structurally excluded patients in New Brunswick. This pilot provides actionable evidence to inform scalable, equity-focused interventions that support timely treatment, retention, and improved outcomes for marginalized populations.

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Abstract #64

Navigating HIV Care During COVID-19: Service Provider Perspectives on Relationships, Regulation, and Resilience in a Canadian Context

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During the COVID-19 pandemic, population-level administrative health data from Manitoba indicated that people living with HIV (PLHIV) had higher COVID-19 vaccination rates than the general population, while also experiencing higher rates of COVID-19 infection. These patterns differed from other STBBI-affected populations and raised critical questions about how HIV care and public health services functioned during periods of rapid system disruption. However, administrative data alone cannot explain how HIV service providers navigated pandemic-related challenges or supported PLHIV amid evolving public health guidance. This qualitatively driven mixed-methods study was designed to contextualize population-level administrative findings related to COVID-19 vaccination and infection among PLHIV through the perspectives of service providers and PLHIV. Semi-structured interviews and focus groups were conducted in Manitoba, Canada with 15 HIV service providers and 25 PLHIV who were engaged in care between April 2020 and March 2022. Guided by constructivist and critical paradigms, qualitative data were analyzed using reflexive thematic analysis. Service providers described three interrelated challenges. First, participants highlighted difficulties navigating complex and frequently changing public health regulations, often describing uncertainty and strain associated with shifting guidance. Second, providers reported extensive efforts to counteract COVID-19 misinformation and misconceptions among clients, requiring additional relational and educational labour. Third, service providers leveraged long-standing, trust-based relationships with PLHIV to respond to broader pandemic impacts, including heightened mental health distress and substance use challenges. These relationships enabled flexibility in service delivery and helped maintain continuity of care despite systemic disruptions. Findings underscore the central role of relational care and provider adaptability in sustaining HIV services during COVID-19 and other public health emergencies. Supporting HIV care during future pandemics and public health emergencies will require policy environments that enable relational work, allow flexible service delivery, and recognize the emotional and regulatory burden placed on frontline providers.

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Abstract #65

A semiotic analysis of word-imagery and narrative among Indigenous people living with HIV in Manitoba

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This article explores how First Nations people living with HIV in northern Manitoba and the health care providers who support them articulate their experiences of diagnosis, treatment, and long-term care through imagery and narrative storytelling. Grounded in Indigenous methodologies of Two-Eyed Seeing, storywork, and Ethical Space, the study engaged participants (n = 25) in qualitative interviews incorporating imagery-elicitation prompts at six milestones along the HIV care cascade. Participants described images or words symbolizing or describing each stage, producing a corpus of visual and verbal data analyzed through a semiotic lens. For some, visualization was difficult or deferred; moments of silence, pause, or narrative substitution held meaning in themselves, revealing the affective and embodied weight of remembering. The resulting interpretations trace a symbolic movement from disconnection to renewal, illuminating how participants with lived experience construct meaning within and against dominant biomedical discourses. Early imagery expressed fear, stigma, and rupture, while later imagery evoked rebuilding, learning, and relational continuity. Service providers emphasized both the structural barriers and moments of human connection that shape care, reflecting the intertwined experiences of those receiving and delivering services. Integrating Indigenous epistemologies with semiotic analysis reframes HIV care as a communicative and relational process, highlighting the power of creative and participatory approaches to advance decolonizing health research. The findings underscore the importance of culturally grounded, trauma-informed, and relationship-based models of HIV care and call for greater inclusion of Elders, Knowledge Keepers, and peer navigators to strengthen trust and cultural safety across the HIV care cascade.

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Abstract #68

Perspectives on Access to Integrated Gender-Affirming Healthcare and HIV/STBBI Prevention and Care for Trans and Gender Diverse People in Ontario: Findings from Stakeholder Interviews

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Background: Transgender (trans) and gender diverse (TGD) people are disproportionately impacted by HIV/STBBIs in Canada. Timely access to gender-affirming healthcare (GAHC; e.g. gender-affirming hormone therapy) is essential for optimizing HIV/STBBI prevention and care engagement among TGD communities. Yet, little is known about the barriers to accessing such care at a provincial-level. We explored barriers and facilitators to HIV/STBBI prevention/care among TGD people in Ontario, with special interest in GAHC integration.

Methods: We conducted brief demographic surveys and semi-structured interviews with HIV/STBBI clinic service providers/leaders and TGD community members/leaders across seven Ontario health regions. Interviews explored barriers, facilitators, current and best practices in providing integrated HIV/STBBI prevention and care and GAHC. Audio recordings were transcribed verbatim and analyzed in Atlas.ti using directed qualitative content analysis. We summarized participant characteristics with descriptyive statistics.

Results: Forty-two participants (n=20 HIV/STBBI clinic service providers/leaders; n=22 TGD community members/leaders) represented Ontario's seven health regions. 90% (n=18/20) of service providers worked in urban centres. Notably, 20% (n=4/20) reported no TGD health training. Approximately one-third (32%; n=7/22) of TGD participants had never been tested for HIV/STBBIs. Anti-trans stigma (e.g., misgendering, limited provider knowledge about TGD healthcare), structural barriers (e.g., long wait times), and geographic inequities impeded care access. Peer support, warm referrals, integrated service models, and flexible care delivery (e.g., virtual care) facilitated access. Participants felt TGD care engagement was better when trauma-informed, culturally-aware care approaches were used and racialized and TGD staff were present.

Conclusions/Implications: Our findings highlight significant barriers to integrated HIV/STBBI prevention/care and GAHC for TGD people across Ontario, especially outside urban centres. Strengthening provider training and clinic inclusion, particularly in GAHC, may improve care access and engagement.

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Abstract #79

Navigating complex care for older women with HIV: role of geriatrician support

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Background/Purpose
As the population with HIV ages, older women (aged ≥50 years) living with HIV face unique challenges due to the intersection of aging, gender, and HIV-related factors. These challenges necessitate a nuanced, multidisciplinary approach to care. This study aimed to explore the application of the 5-Ms framework—Mind, Mobility, Medications, Multimorbidity, and what Matters Most—developed in geriatric medicine to address the diverse needs of this population, incorporating insights from interviews with older women living with HIV.

Methods
A qualitative study was conducted involving interviews with nine cisgender and transgender women aged ≥50 years living with HIV. Data were analyzed to understand the medical, psychosocial, and functional challenges they face. Findings were contextualized using the 5-Ms framework to propose tailored care strategies.

Results
Findings revealed significant cognitive vulnerabilities, including impairments in attention, memory, and psychomotor speed. Mobility issues, such as sarcopenia, low bone density, and increased fall risks, were prevalent, exacerbated by HIV therapies and substance use. Polypharmacy, hyperpolypharmacy, and multimorbidity posed substantial challenges, with adverse outcomes such as falls, cognitive decline, and drug interactions. Participants emphasized the importance of person-centered care, addressing stigma, sexual health, and their lived experiences.

Discussion
Geriatricians, in collaboration with multidisciplinary teams, are uniquely positioned to tailor care, reduce medication-related risks, and enhance quality of life.

Conclusion
Applying the 5-Ms framework can optimize health outcomes by addressing their medical, psychosocial, and functional needs, ensuring equitable, tailored care for this underserved population.

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Abstract #86

Adulterated Drugs, Service Retrenchment, and Structural Vulnerability: Implications for HIV/HCV Prevention in Canada

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Background: Canada's unregulated drug supply is increasingly adulterated with non-opioid sedatives (e.g., xylazine, medetomidine) and ultra-potent synthetic opioids (e.g., nitazenes). Concurrently, policy changes in several jurisdictions have reduced/eliminated harm reduction and HIV/hepatitis C virus (HCV) prevention services, including needle and syringe programs, supervised consumption services, safer supply prescribing, and HIV/HCV testing. Using a structural vulnerability framework (SVF), we examine how these developments intersect with housing and income insecurity, food insecurity, criminalization, and engagement across the HIV/HCV care continuum.

Methods: We conducted a narrative review of scientific and grey literature published up to January 1, 2026. Searches focused on xylazine, medetomidine, and nitazenes in relation to HIV/HCV prevention, testing uptake, linkage to care, treatment continuity, and access to harm reduction services. Findings were synthesized using an SVF to examine how social, economic, and policy conditions shape exposure to a toxic drug supply, constrain access to HIV/HCV prevention technologies, and disrupt engagement in care.

Results: Xylazine, medetomidine, and nitazenes do not appear to directly increase biological susceptibility to HIV or HCV infection. However, the synthesis identifies indirect pathways through which these adulterants may elevate transmission risk, including increased injection frequency, prolonged sedation, assisted injecting, soft-tissue injury, and heightened exposure to sexual violence. Concurrent reductions in harm reduction and testing services undermine prevention infrastructures that support access to new injecting supplies, early diagnosis, and treatment as prevention. Structural vulnerabilities—particularly housing and income insecurity—amplify these risks by shaping drug use environments, limiting access to testing and care, and undermining the stability required for sustained antiretroviral therapy and direct-acting antiviral adherence.

Conclusions: Effective HIV/HCV prevention in the context of an increasingly toxic unregulated drug supply cannot be separated from broader structural and policy conditions. Maintaining low-barrier harm reduction, testing, and treatment services is critical to mitigating transmission risk and supporting continuity of care.

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Abstract #98

"Healthy Aging Talks" - an innovative community-led knowledge mobilization approach to bringing research results back to women living with and without HIV in British Columbia

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Background: We developed "Healthy Aging Talks"- a series of Knowledge Mobilization (KM) events that bring personalized research results from the BCC3 study back to its participants. This initiative aimed to bridge capacity and peer relationships among women with shared experiences, while centering their roles in the research they made possible. Through events led by Community Research Associates (CRAs), we created an inclusive KM space to share study results and interactively highlight community-based research.
Methods: We partnered with Ribbon Community, a BC AIDS Service Organization, to plan and host the events. Their space and peer navigators were essential for attendee recruitment given their long-standing relationship with women in the community. The "Healthy Aging Talks" team included BCC3 CRAs, students, and staff. A BCC3 participant was hired in a paid role to co-develop the booklets and event artwork. Each event included CRA-led trivia, a presentation on healthy aging informed by study findings, a shared meal, Q&A with a physician, evaluations (Engage with Impact Toolkit), honoraria, and gift card draws.

Results: We identified actionable BCC3 research results and developed four booklets: Liver Health, Heart Health, Kidney Health, and Stress & Wellness Roadmaps. Each booklet included personalized research results, health-promoting information, and links to additional resources upon request. For each booklet, we hosted two events for women living with HIV (in-person and virtual) and one virtual event for women without HIV, resulting in 12 events engaging over 150 women. Virtual province-wide events maintained confidentiality to foster open sharing.

Conclusions: "Healthy Aging Talks" demonstrates that community-driven KM works to reduce stigma surrounding healthy aging with HIV. More funding is needed to scale this approach and create meaningful opportunities for connection, empowerment, and mutual learning by taking KM beyond standard presentations, embedding innovative engagement strategies, such as sharing personalized research results, and holistically promoting healthy aging.

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Abstract #105

A Feminist Relational Discourse Analysis of Harm Reduction Access in Rural, Remote, and Indigenous Communities of British Columbia, Canada

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Introduction: People who use drugs (PWUD) in rural, remote, and Indigenous communities are disproportionately affected by the ongoing overdose crisis, yet there remains limited research on existing harm reduction strategies. One such strategy includes opioid agonist treatment (OAT) that aims to reduce the risks of unregulated opioid use. In rural Canada, there are unique challenges regarding harm reduction service access, including access and adherence to OAT. Meanwhile, most of the research focuses on large urban centres, which cannot be directly translated. Research Aim: We aimed to describe the unique experiences of OAT and harm reduction service access for PWUD and Indigenous-PWUD in the qathet region of British Columbia (BC), Canada. Methods: A rapid ethnography was completed in the qathet between 2024-2025, involving semi-structured qualitative interviews with PWUD and Indigenous-PWUD (n=32). Participants were greater than 19 years old and had been on a prescribed OAT medication program within the 1-year of the start of the study. A feminist relational discourse analysis (FRDA) was used to analyze the interview transcripts. Results: Participants described contradicting discourses on OAT medication and harm reduction experiences, specifically related to the need for in-person witnessed dosing. Power imbalances were described within patient-prescriber relationships that perpetuated structural vulnerabilities, inhibited individual autonomy, and heightened stigma. Conclusions: Our findings illustrate how OAT medication and harm reduction experience barriers are perpetuated by structural vulnerabilities and stigmatization faced by PWUD in the qathet. The use of FRDA allowed us to highlight the individual voices of participants and illuminate the power hierarchies in OAT and harm reduction service structures, whilst un-silencing minority and/or conflicting individual voices that can get erased in traditional qualitative analysis techniques. Overall, we advocate for the inclusion of PWUD in decision-making processes regarding harm reduction service access in rural, remote, and Indigenous communities.

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Abstract #108

An Intersectionality-Informed Analysis of Loneliness and Discrimination due to Sexual Orientation Experienced by 2S/GBTQ+ Persons with a Disability Before and During COVID-19: Four Cycles of Community-Based Survey Data

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Introduction: Social inequities such as loneliness and discrimination due to sexual orientation (herein, discrimination) are prevalent across disabled people and Two-Spirit, Gay, Bisexual and Trans men, Queer and Non-Binary (2S/GBTQ+) communities. However, little is known about how loneliness and discrimination were experienced in Canada at the intersection of disability and 2S/GBTQ+ identity, especially before and during the COVID-19 pandemic.

Method: To address this knowledge gap, four cycles (2019, 2020, 2021, 2022) of cross-sectional, bilingual, community-based Sex Now survey data were used, which included 2S/GBTQ+ people aged 15 years or older and living in Canada. A total of 12,355 2S/GBTQ+ participants responded to loneliness outcomes, and 11,575 to discrimination outcomes. Among 2S/GBTQ+ participants living with disabilities, multivariable logistic regression models of each outcome identified temporal trends by survey year, and social determinants of health correlates.

Results: Compared with 2019 (before COVID-19), the odds of reporting loneliness were greater for 2S/GBTQ+ participants living with disabilities in 2020 and 2021 (but not 2022). 2S/GBTQ+ participants living with a disability who reported a racialized identity, financial strain, or a gender-expansive identity had greater odds of reporting loneliness. Compared with 2019 (before COVID-19), decreased odds of reporting discrimination were found in 2021 and 2022 (but not 2020). Generally, older 2S/GBTQ+ participants living with a disability were less likely to experience discrimination. 2S/GBTQ+ participants living with disabilities who were racialized, queer versus bisexual identified, and gender-expansive reported greater odds of discrimination.

Conclusions: These findings suggest that 2S/GBTQ+ people living with disabilities were impacted by greater loneliness and lesser discrimination during COVID-19. Equitable policy planning is needed to ensure that underserved yet deserving communities are not disproportionally affected by future pandemics and associated public health responses.

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Abstract #114

Improving the HIV Care Cascade for Indigenous People in Manitoba: Barriers, Facilitators, and Recommendations for Systems Change

Laurie Ringaert[1], Linda Larcombe[1,2], Jared Star[1,2], Pam Orr[2], Albert Mcleod[1], Mike Payne[1], Gayle Restall[2], Rusty Souleymanov[2], Yoav Keynan[2], Matthew Singer[2], Ann Favel[2], Melissa Morris[2], Elizabeth Hydesmith[2], Kelly McDonald[2]
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Background:
Indigenous people in Manitoba experience disproportionately high and rising rates of HIV, driven by intersecting structural, social, and historical determinants rooted in colonization, racism, and inequitable access to care. This community-based participatory research study (2019–2024) examined barriers, facilitators, and systems-level recommendations across the HIV care cascade for Indigenous people in Manitoba, using a socio-ecological and systems-change lens.

Methods:
We conducted 29 in-depth semi-structured interviews with 18 Indigenous people living with HIV and 11 healthcare providers across urban, rural, and northern Manitoba. Two Indigenous research associates with lived HIV experience supported data collection and analysis. Interview data were analyzed thematically and interpreted using Bronfenbrenner's socio-ecological model alongside the Six Conditions of Systems Change framework. Findings were validated and expanded through a Two-Eyed Seeing data interpretation workshop with 44 stakeholders, including Indigenous leaders, policymakers, healthcare providers, researchers, and people with lived experience.

Results:
Participants identified persistent barriers across the HIV care cascade, including limited access to healthcare in rural and remote communities, stigma and discrimination, confidentiality concerns, gaps in HIV-related knowledge, and unmet social determinants such as housing insecurity, poverty, and substance use. Key facilitators included culturally safe, relationship-based care; comprehensive care hubs offering wrap-around services; peer and community supports; and access to cultural and spiritual connections. Recommendations emphasized the need for Indigenous leadership in health governance, improved healthcare access and transportation, equitable resource distribution, community-led solutions, enhanced HIV education, and mandatory culturally safe, trauma-informed care training. A community report and recommendations from the study informed a strategy provided to policymakers.

Conclusions:
Applying a systems-change and Two-Eyed Seeing approach reveals that improving HIV outcomes for Indigenous people requires coordinated structural, relational, and transformational change across health, community, and societal systems. This study provides actionable, Indigenous-informed recommendations to strengthen the HIV care cascade and advance health equity in Manitoba and similar contexts.

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Abstract #122

Condomless Sex with Different Partner Types and STI Acquisition Among Non-Monogamous Sexual Minority Men in Canada.

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Background: Condomless anal sex (CAS) is considered a risk factor for STIs among sexual minority men (SMM) and can lead to additional health burdens for SMM living with HIV (LWH). However, STI acquisition may differ based on their relationship with sexual partners. We examined how variation in CAS across casual (e.g., a one-night stand), close non-romantic (e.g., friends with benefits), and romantic partners was associated with STI acquisition among single and non-monogamous SMM who are HIV-negative or LWH.

Methods: We used data from a longitudinal study of SMM health across Vancouver, Toronto, and Montreal (Engage Cohort Study; N = 2206). Participants completed STI testing and reported sexual and relationship details on their five most recent sexual partners, including information about condom use, every 6-12 months. We modelled how variation in the number of CAS events with casual, close non-romantic, and romantic partners was associated with STI acquisition, moderated by HIV-status.

Results: Engaging in CAS with casual (aOR=1.31, 95%CI:1.21, 1.42) and close non-romantic partners (aOR=1.30, 95%CI:1.21, 1.40) was positively associated with STI acquisition for all participants. However, SMM LWH had lower odds of STI acquisition when they reported more CAS events more romantic partners, aOR=0.40, 95%CI:0.22, 0.71; this effect was non-significant for HIV-negative SMM, aOR=0.89 95%CI: 0.69, 1.13.

Conclusion: Attending to who SMM are choosing to engage in CAS with is important for understanding their sexual health needs, as our results show CAS may not always elevate STI risk. Having more CAS partners was associated with STI acquisition only when this occurred with casual and non-romantic partners. When participants engaged in CAS with more romantic partners, there was either no increased risk for STI acquisition (among HIV-negative SMM) or lower odds (for SMM-LWH). These findings suggest there is a continued need for more tailored sexual health interventions among diverse SMM.

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Abstract #134

Flood, Fire and Drought: The role of HIV Community Health Workers in disaster preparedness and response for continuity of HIV care in South Africa

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Background: Disasters, including socio-political crises, extreme weather events, and pandemics, are increasing due to climate change and structural inequities. Strengthening disaster preparedness and response within the HIV sector is urgent. HIV community health workers (CHWs), long central to primary healthcare in South Africa, hold critical contextual knowledge, yet their role in disaster response remains underexplored.

Methods: This qualitative study (Western Cape, Nov 2024–Jan 2025) examined CHW priorities, experiences, and strategies related to disasters. We engaged 46 CHWs (ages 20–65) from urban Mitchell's Plain and rural Morreesburg, Western Cape Province through two participatory workshops (n=24) and in-depth interviews (n=22).

Findings: CHWs identified floods, fires, and drought as key disasters. Maintaining HIV care during floods and fires was challenging due to displacement, property loss, and disrupted access to medicines and basic needs. People living with HIV and TB faced disclosure concerns and respiratory complications. Drought exacerbated ART adherence issues through water and food scarcity, which also increased diarrheal disease.

CHWs described acted as the "eyes" of their communities, linking clients to essential resources (food, blankets, documents) and leveraging networks for continuity of care. They also provided health education and used WhatsApp for early warnings.

While CHWs described floods and fires as frequent, seasonal occurrences, they lacked involvement in advance planning. Social issues like crime and poverty were also framed as disasters requiring urgent attention.

Discussion:
CHWs play a vital role in disaster response, mobilizing resources and sustaining care. They often act as frontline responders, emphasizing flexibility, improvisation and rapid adaptation to maintain HIV care during disasters. Yet proactive disaster planning among CHWs is limited. Furthermore, CHWs conceptualise crime and poverty as disasters. Together, these findings underscore the need for more inclusive, integrated and proactive approaches to disaster preparedness to ensure continuity of HIV care.

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Abstract #136

Learning, Creating, Connecting: Indigenous Cultural Group Programming at Nine Circles Community Health Centre

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Introduction: In the context of culture is healing, we discuss wellness through a community program of gathering to engage in traditional activities.

Background: In August, 2024 Nine Circles' Indigenous Cultural Support Worker (ICSW) launched a series of group programming at Nine Circles: Beading, Drumming Circle, Mending Mondays, Ribbon Skirt/Shirt Making, and Sewing Class. The ICSW leads a program of accessible, low-barrier, inviting cultural activities. Open to community members that access our walk-in harm reduction services (The Pit Stop) and Nine Circles clinic clients, groups are drop-in, all ages, beginner-friendly with tools and materials being provided.

Methods: Using a post-session evaluation questionnaire with closed and open-ended questions, participants were asked to indicate whether they enjoyed the session, their connection with others, improvements and future directions, as well as the opportunity for feedback on the benefits of attending the group.

Results: As of November 2025, 147 sessions were held with an average of 7 attendees per session. Outcomes include: the majority of respondents (99%) indicated they enjoyed the group and 98% indicating they were able to make social connection/s during the group (n = 447). Additional results will be presented as groups are regularly scheduled and ongoing. Qualitative feedback includes themes of gratitude, feeling welcomed, receiving teachings and mentorship, being creative, joy and laughter, as well as quotes reflecting insights on the impact the programming has had on individuals. To also be presented are visuals of creations by participants and physical examples for viewing at the conference poster site.

Conclusions: Participants have been able to make connections with fellow community members, learn new skills and traditional techniques, and create meaningful items as part of their wellness journey. In addition to their one-to-one support work the ICSW will continue to facilitate group programming and grow and adapt content as informed by community needs.

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Abstract #141

Navigating and Negotiating Sexual Identity and Attraction: A Queer Analysis of Heterosexual-Identified Men Who Have Sex with Men

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Background: Heterosexual-identified men who have sex with men (H-MSM) challenge dominant assumptions that sexual identity, attraction, and behaviour neatly align. Stage-based models of sexual identity, which presume linear progression toward a fixed endpoint, may not adequately reflect how H-MSM experience and make meaning of their sexuality. This study moves away from developmental frameworks that assume fixed, linear, or teleological trajectories and instead foregrounds sexuality as flexible, shifting, and at times contradictory. Drawing on queer theory and Interpretative Phenomenological Analysis (IPA), we examine how H-MSM navigate and negotiate sexual identity and attraction.

Methods: Ten heterosexual-identified men who reported sex with men participated in semi-structured Zoom interviews. Interviews averaged 65 minutes. Nine coders trained in interpretive phenomenological analysis conducted multimodal coding to capture emotional nuance and meaning-making. Analysis followed an interpretivist-constructivist paradigm informed by queer theory, emphasizing flexibility, context, and resistance to normative categorization.

Results: Two overarching themes were identified, each with accompanying subthemes. Theme 1, Situating Same-Sex Attraction, described how participants understood same-sex attraction as physical, exploratory, and often context-driven, shaped by gender and relational scripts that distinguished encounters with men from those with women. Theme 2, Sustaining Heterosexual Identity reflected how participants maintained a heterosexual self-concept while making space for same-sex attraction, achieved through decoupling identity from attraction and privileging heteroromantic desire as central to identity. Together, findings highlight flexibility, compartmentalization, and parallel meaning-making within H-MSM sexual identity and attraction.

Conclusions: The present study contributes to knowledge on sexual identity by showing how H-MSM sustain heterosexual identities while continuing to engage in same-sex desire. Participants grounded identity in heterosexual romantic commitment while positioning same-sex attraction as separate from its emotional weight. By showing how individuals weigh and assign meaning to sexuality, this study broadens understandings of sexual identity and supports queer perspectives that view sexuality as flexible, non-linear, and context-dependent.

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Abstract #143

The State of HIV in Canada: Rights, Progress, and Unfinished Work

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Background
Canada's commitments to ending HIV — at home and internationally — include a United Nations target to ensure that 95% of people living with HIV in Canada know their status, 95% of people who are diagnosed access treatment, and 95% of people on treatment achieve an undetectable viral load. Reaching that target requires creating the conditions for effective, equitable, and sustainable access to prevention and treatment, and creating an enabling legal and policy environment that reduces barriers to services for people most at risk of HIV.

Method
On World AIDS Day 2025, the HIV Legal Network released an inaugural report on the state of the HIV response in Canada. It includes an assessment of the situation in each province and territory based on six metrics developed in consultation with community, research, laboratory, and clinician partners. Metrics consider access to prevention tools and treatment, legal and policy barriers to access, and reporting and evaluation to ensure the fullest picture is known.

Results
Canada has made considerable progress toward addressing HIV, but new infections are on the rise. No province or territory has met all the 95-95-95 targets — although British Columbia is closest. Major disparities exist between provinces and territories, with Manitoba and Saskatchewan leading by far in terms of new diagnoses. Punitive laws and policies undermine the HIV response and human rights, with instances of increased repression against key populations and new obstacles to harm reduction access, including in prison.

Conclusion
Our report presents a unique opportunity for renewed dialogue and action at all levels of government. Ending HIV as a public health threat in Canada is achievable with the right mix of political will and legal and policy change to ensure supports and services that respect the dignity and rights of people living with and affected by HIV.

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Abstract #147

Increasing PrEP and PEP Knowledge Amongst People Who Use Drugs in Regina, Saskatchewan

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Background:
People who use drugs (PWUD) continue to face disproportionate risk for HIV infection yet are often excluded from HIV prevention and education. We are a community-based team conducting implementation science research, housed at a needle exchange program in Regina, Saskatchewan. We hypothesized that knowledge of pre-exposure and post-exposure prophylaxis (PrEP and PEP) amongst PWUD in Regina is low and that pop-up educational events could improve PrEP and PEP knowledge amongst PWUD.

Methods:
Data was collected through 147 participants who identify as using injectable drugs in Regina, Saskatchewan. Participants completed adapted items from Shreshta et al's (2017) PrEP/PEP Knowledge Subscale before and after a peer-led, pop-up education session. Items assessed general knowledge about PrEP/PEP (e.g., I know about PrEP, I know about PEP, I know where to access PrEP/PEP) and were rated on a 5-point, Likert-style scale ranging from 0 (strongly disagree) to 4 (strongly agree), with higher scales indicating higher knowledge of PrEP/PEP.

Results:
A paired-samples t-test examined changes in PrEP/PEP knowledge before and after the education session. Participants' knowledge increased substantially following the session. Before the session, scores were relatively low (M = 0.52, SD = 0.79). After,scores were much higher (M = 2.03, SD = 0.44). This difference was statistically significant, t(146) = –21.11, p < .001. The mean increase of 1.50 points (95% CI [–1.64, –1.36]) reflects a very large effect (Cohen's d = 1.74), indicating that the education sessions had a strong impact on PrEP/PEP knowledge.

Conclusion:
Embedding peer-based PrEP and PEP education into community-led HIV/STBBI prevention and harm reduction education sessions effectively increases awareness among populations facing systemic barriers. Person-centered care may strengthen PrEP and PEP knowledge. This presentation will discuss how to effectively provide PrEP and PEP education, and the forms of PrEP and PEP that may be most accessible to PWUD.

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Abstract #166

Supporting Frontline Organizations Within the Changing Political Determinants of Health in Canada

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In Canada, services anchored in harm reduction principles are undergoing significant shifts due to political, legislative, and policy changes at both the federal, provincial, and municipal levels. These changes impact how frontline organizations operate and highlight the need for updated training materials that reflect the current realities of harm reduction service delivery.

Since 2018, the Dr. Peter Centre's Frontline Solutions team has been building organizational capacity across Canada to establish and deliver services anchored in harm reduction principles that prioritize safety, site compliance, and responsiveness. During this session, we will share key strategies for integrating harm reduction, trauma-informed approaches, mental health support, housing stability and peer-led initiatives to create a seamless network of services. We will also discuss the impact of political determinants of health, considering strategies for fostering collaboration across organizations and sectors.

Social and health organizations need to understand the shifting health risks and health service priorities in order to support their staff to provide the most effective services. We have found that certain materials, such as mentorship programs and trauma-informed practice, are more effective in in-person settings, where experiential learning and direct engagement are possible. Toolkits can be effectively delivered in virtual learning environments to increase accessibility. Training programs must be adaptable to local realities, cultural considerations, and specific service models to be truly effective.

Developing customized training modules that address an organization's specific challenges—whether it be responding to ever-shifting toxic drug supply, engaging in cultural safety, navigating municipal restrictions or building relationships with law enforcement—will ensure that frontline workers are better equipped to provide responsive and effective care. By fostering flexibility and co-development in training approaches, organizations can enhance their capacity to meet the needs of the people they serve.

Abstract #167

Identifying Priorities for HIV Prevention for Northern Indigenous Adolescents in the Northwest Territories, Canada

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Background: In the Northwest Territories (NWT), Canada, Indigenous youth face historical and current structural inequities linked with sexual health disparities and social inequities. We examined temporal trends in social (food insecurity, substance use), sexual health (sexual activity, condom use self-efficacy [CUSE]), and resilience outcomes among Indigenous and non-Indigenous youth in the NWT.

Methods: Data were collected from repeated cross-sectional surveys of adolescents participating in Northern Indigenous sexual health school-based workshops across the NWT between 2018–2025. Mixed-effects regression models estimated adjusted associations between self-reported Indigenous identity and CUSE, sexual activity, food insecurity, resilience, and recent (past-3 month) substance use, accounting for sociodemographic factors and time. Time-by-Indigenous identity interactions were examined.

Results: Among n=1853 youth across seven school years, 70.05% (N=1298) identified as Indigenous youth. Indigenous adolescents experienced significantly higher social and HIV vulnerabilities compared to non-Indigenous peers. Adjusted models showed higher food insecurity (Acoef: 0.17; 95% CI: 0.07, 0.26; $p<0.001$), recent drug use (Acoef: 0.28; 95% CI: 0.19, 0.36; $p<0.001$), and sexual activity (Acoef: 0.15; 95% CI: 0.08, 0.22; $p<0.001$) among Indigenous vs. non-Indigenous youth. CUSE did not differ by Indigenous identity. Significant interactions between time and Indigenous identity were observed for food insecurity which increased over time (Acoef: 0.05; 95% CI: 0.01, 0.10; $p<0.05$) and recent substance use which decreased over time (Acoef: −0.02; 95% CI: −0.04, −0.01; $p<0.05$). Indigenous adolescents reported lower resilience scores overall compared to non-Indigenous peers (Acoef: −5.13; 95% CI: -9.20, -1.07; $p<0.05$); this disparity remaining stable over time.

Conclusions: Persistent inequities in food insecurity, substance use, and resilience among Indigenous adolescents in the NWT highlight the need for HIV prevention strategies that expand beyond individual practices to address structural and social determinants of health. School-based sexual health programs in the NWT can integrate strengths-based, culturally grounded approaches to advance Northern Indigenous youth health and wellbeing.

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Abstract #175

The Cedar Project: Exploring Factors Associated with Increased Resilience Among Young Indigenous People Who Use Drugs in British Columbia, Canada

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Introduction: Previous Cedar findings indicate that traditional language enhances participants wellness and supports strong HIV outcomes. A closer examination of what supports the resilience of young Indigenous people who use drugs is needed.

Methods: Cedar is a longitudinal Indigenous-governed cohort study that explores factors associated with health outcomes among young Indigenous people who use drugs in Vancouver and Prince George, BC. Between August 2020 and September 2025, 310 participants were enrolled and completed baseline interviews assessing their mental, emotional, spiritual, and physical health. Participants were tested for HIV via dry blood spot. The primary outcome was resilience measured by the 25-item Connor-Davidson Resilience Scale. Multivariable linear regression was used to examine factors associated with increased resilience scores. Results were adjusted for location, age, and sex.

Results: HIV prevalence was 14.6% (15.4% among women, 13.8% among men). The mean resilience score was 65.7 (95%CI: 63.7-67.8). Two themes emerged, cultural connection and housing significantly supported participants resilience. Feeding the birds weekly or daily was associated with a mean increase in resilience score of 6.94 (95%CI: 1.20-12.68), knowing how to speak their traditional language resulted in a mean increase of 7.22 (95%CI: 1.60-12.84), learning more about traditional culture was associated with a mean increase of 7.90 (95%CI: 1.57-14.24), and viewing laughter as medicine was associated with a 9.88 (95%CI: 0.67-19.08) increase. Living in the same place for the last six months was associated with a 10.68 (95%CI: 3.60-17.76) mean increase in resilience and feeling safe where they live resulted in a mean increase of 9.05 (95%CI: 4.26-13.83).

Conclusion: These findings underscore the importance of safe and reliable housing, and the power that land and culture has to keep our people strong. Wholistic programming that leverages cultural strengths in partnership with safe, stable, community living models is urgently needed.

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Abstract #184

Regina Area Network of Drug Users (RANDU): Reflections of an Indigenous Interpretation of Harm Reduction

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Indigenous peoples represented 18.2% of all new HIV infections in 2020. This had increased since 2018, when 14.7% of new infections were estimated to be among Indigenous peoples (SPHB, 2018; PHAC, 2020). Males self-identifying as Indigenous comprised two-thirds or 67% of all male cases in 2018, and females selfidentifying as Indigenous comprised 87% of all female cases for 2018 (SPHB, 2018).

Following the 2009 Saskatchewan HIV Strategy, the Ministry of Health and the SK HIV Collaborative have worked toward reducing HIV rates, addressing risk factors, and improving the quality of life for those living with HIV/AIDS. Of these funded programs, the Regina Area Network of Drug Users (RANDU) is a network of active drug users that strives to improve the lives of people who use drugs (PWUD) in Regina. Operating out of All Nations Hope Network (ANHN) in Regina, RANDU is informed by Indigenous teachings and Indigenous principles of noninterference.

In addition to providing harm reduction workshops and materials to RANDU community members, we interviewed several Indigenous people living with HIV in the Regina, SK area. Recruited via ANHN, participants identified as Indigenous and living with HIV or other STBBIs. Sharing Circles were conducted in Regina, where RANDU and the community connections are housed. We are also interviewed service providers. The literature, sharing circles, and interviews will be analyzed using a community led qualitative framework. A literature review is also ongoing to provide context to the data collected.

This research project aims to understand the social impact that RANDU has provided that may not be recognized within academic metrics. Through qualitative analysis of quantities of supplies distributed and regions of the city visited by RANDU peer support workers, along with lived experiences of Indigenous community members and service workers, we gain insight into priority health concerns in Regina.

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Abstract #188

Development & Outcomes of a Community-Academic Partnership to Reduce Health Inequities for Black Communities in Canada: A Case Study of the African, Caribbean, and Black Steering Committee & REACH Nexus

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Background: Community engagement and involvement are essential for the successful implementation of interventions to improve population health amongst Black communities, a group that has historically been made marginalized. Engagement/involvement of communities most impacted by a health problem must span across the various phases of the development, implementation, and sustainment of an intervention. The ensuing describes the academic-community partnership, and outcomes between the African, Caribbean, and Black (ACB) Steering Committee (SC) (a community implementation group) and REACH Nexus (an implementation-science research group).

Methods: Guided by Black centered epistemologies, the ACB SC is a pan-Canadian community implementation group composed of Black-led and Black-serving community-based organizations, researchers and trainees, policymakers, people living with HIV, and Black Canadians with lived experience. The ACB SC was created in response to the need to ensure that Black community leadership meaningfully shaped REACH Nexus' HIV prevention and treatment strategies. The initial partnership began with collaboration on the development and implementation of a national HIV self-testing program - the I'm Ready program. However, the Committee's work has now progressed from process-focused engagement to defining outcomes in eight key areas: knowledge synthesis to identify community needs, co-designing evidence-based strategies, resource mobilization, capacity building, expanding networks, project implementation and evaluation, and knowledge translation.

Results: In the last seven years, the partnership has delivered meaningful impact to Black communities in Canada, including reaching the undiagnosed through the successful implementation of HIV self-testing programs, tailoring knowledge translation to inform policy decisions on HIV prevention, and mobilizing funding for the sustainment of HIV testing programs in Black communities

Conclusion: The ACB SC and REACH Nexus partnership demonstrates how sustained, ground-up community leadership can translate research into measurable impact and inform future priorities. This model offers a replicable approach for advancing equitable, community-driven HIV prevention and care for other key communities in Canada.

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Abstract #191

Talking Circles as a methodology: Reflections from a strengths-led study on Indigenous experiences and insights on HIV care pathways

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Introduction: Talking circles are an inclusive way of communicating that honours Indigenous cultural safety and prioritizes holistic connection. Within research, talking circles as a methodology offer a fundamentally relational approach that can maintain safety, trust, and cultural significance for communities. This project reflects on the application of talking circles within a research study assessing HIV care and treatment.

Methods/Methodologies: Within the CARE (Community, Aboriginal, Relationships, Experiences) Study, an evaluation of HIV care engagement pathways for Indigenous Peoples living across British Columbia, talking circles were selected as the methodology. We have started facilitating talking circles with Indigenous People Living with HIV across all health authorities in BC. The talking circles are facilitated by two research team members, a community researcher, and an Elder from the region. Our results outline the reflections on the project to date.

Results: Incorporating talking circles has yielded several important reflections. First, talking circles create a relational environment where participants can find comfort, common ground, and community support as they share their stories. However, in some communities, concerns around HIV disclosure may create barriers to participating, requiring consideration in selecting locations that balance representation of diverse experiences with meaningful participation. Secondly, the team reflects on that the nature of these talking circles may over-generalize the diversity of Indigenous experiences. Finally, reflections are offered on analysis. Rather than reducing stories to codes, analysis emphasizes making sense of experiences through storytelling and Indigenous ways of understanding, with Western analytic tools used only to support structure, not define, interpretation.

Conclusion: This study demonstrates that talking circles can be well-suited for conducting HIV research with Indigenous communities and peoples. Lessons from this project may help inform future studies seeking to safely and respectfully engage and include Indigenous communities in their work, in ways that honour their knowledge and ways of knowing.

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Abstract #192

Kiskinowâphkewin Manitou Isîhcikêwin (imitating Creator's way of being and doing): Restoring Urban Indigenous Men's Rites, Roles, and Responsibilities

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All Nations Hope Network (ANHN) is in the process of developing, implementing, and assessing the impact of land and gender-based cultural interventions among urban Indigenous men in Regina, SK. ANHN responds to community needs while creating health-related evidence that serves Indigenous peoples,honours Indigenous knowledges, and integrates Indigenous concepts of health and healing.

Indigenous men's lives intersect with poverty, homelessness, ill-health, addiction, trauma, child welfare, dislocation from lands, and violence due to settler colonialism. ANHN is
applying past research learnings to develop evidence informed, culturally responsive interventions that address both the origin and impact of imposed inequities.

This project's aim is to evaluate Indigenous men's programming of cultural intervention practices (CIPs) informed by Indigenous knowledges of the Treaty territories near Regina, SK. Guided by principles of community-based research and Etuaptmumk/Two-Eyed Seeing, qualitative methods (e.g., story-telling, sharing circles) are used to assess program impact for 36-months. Weaving men's seasonal responsibilities into a program of teachings and practices, the project evaluation activities are integrated with the research approach to ensure iterative program development. Research questions are framed by Indigenous concepts of health as both a social and individual experience and explore men's experiences with cultural intervention practices (CIPs) and how these experiences impact participants' identities and wellbeing.

The project will contribute evidence about culturally responsive programming for and by urban Indigenous men and will inform the design, implementation, and improvement of future programs in diverse settings. Iterative data collection/analysis informs program development and assesses the impact ongoing and long-term. This study innovates beyond one-off, short-term intervention research and adds to discourses about cultural responsiveness for Indigenous men.

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Abstract #199

The Impact of COVID-19 on Nonfatal Overdose Among People Living With and Without HIV in British Columbia: Community Identified Needs

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Background: Drug toxicity and overdose remain critical public health challenges in British Columbia (BC). The COVID-19 pandemic exacerbated these issues by disrupting drug markets and limiting access to care and harm reduction services, leading to increased overdose rates. These disruptions produced structural changes in systems of care that continue to shape overdose risk and access to support. This study examines perceptions of the lasting impacts of the pandemic among People Who Use Drugs (PWUD) in Vancouver, and explores community-identified priorities for changes and interventions aimed at reducing overdose risk.

Methods: Across 13 semi-structured, in-person focus groups, a total of 74 PWUD, including 38 individuals living with HIV, and 10 individuals who identify as Indigenous (First Nations, Inuit, and/or Métis) participated. Recruitment was facilitated in collaboration with community service and support organizations. Transcripts were coded using NVivo 14.0. We conducted an inductive thematic analysis of all transcripts.

Findings: Participants emphasized the importance of comprehensive support and training to strengthen overdose prevention and care (e.g., independent-living skill development, naloxone administration, and cultural sensitivity and anti-stigma training for healthcare providers). Priorities included food programs and housing initiatives; expanding harm reduction services with diverse modes of delivery (e.g., mobile health vans); increasing access to peer support and on-demand mental health and detox services; and creating gathering spaces that promote a sense of safety and community.

Conclusion: Insights from this study highlight gaps and opportunities for improving care for PWUD to better support overdose prevention and recovery. Participants' recommendations point to the importance of culturally safe, trauma-informed, and peer-led programs during public health emergencies. These community-identified priorities can inform the development of more resilient, equitable, and responsive overdose prevention strategies in BC.

Abstract #203

From theory to practice: Implementing community-based research principles to conduct a community-led data analysis project on barriers to survey completion among women living with and without HIV in British Columbia

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Introduction: Community-based research (CBR) approaches are becoming increasingly visible, and many HIV researchers are looking to utilize these methodologies. We share a model of community and academic collaboration to co-develop a community-led quantitative analysis from hypothesis generation through manuscript development, situated within a basic and clinical sciences research team.

Approach: This project is embedded within the BC CARMA-CHIWOS Collaboration (BCC3), a community-based, cell-to-society study examining healthy aging among women living with and without HIV through biomedical/clinical and community visits. We created a mentorship team composed of: a community-based research mentor (academic research coordinator), a statistics mentor (post-doc with basic science and statistics expertise), and 3 community learners (women living with HIV employed as community research associates, with previous study-led introductory quantitative data training). This team pursued a research question identified by the community learners: what barriers do BCC3 participants face in completing the community visit?
The process involved a 5-part series of training sessions and participatory workshops from July 2025 to January 2026, focused on each stage of the research process: 1) hypothesis generation (one hour virtual, three hours in-person), 2) identifying and defining variables within the BCC3 study for our exploratory analysis (three hours virtual), 3) training on data cleaning followed by instruction on how survey data is prepared for statistical analysis (one hour virtual), 4) data interpretation of the univariate model presented by the statistics lead and key decision-making for developing a multivariable model (four hours virtual), and 5) abstract development and submission (two hours virtual).

Conclusion: This collaborative approach offers an opportunity to promote bi-directional learning between academic researchers and community learners to advance good practices in data management, analysis, and presentation. Our next steps involve development of a multivariate model, and preparing knowledge mobilization outputs to share findings with community and academic audiences.

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Abstract #204

Advancing HIV/STBBI Prevention and Care in Migrant and Racialized Communities in Saskatchewan

Geoffrey Maina[1], Abukari Kwame[1], Dasha Guliak[1], Isfar Chowdhury[1], Deborah Louise Sinclair[1], Stéphanie Caron-Roy[1], Nnamdi Ndubuka[2], Sithokizile Maposa[2], Rejina Kamrul[2], Cara Spence[2], Jacelyn Hanson[3], Ana Luisa Alvarez[4], Nuru Nyoni[5], Ashfaque Ahmed[6], Natalya Mason[2], Josephine Etowa[7], Vera Caine[8]
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Migrant and racialized communities (MRCs) face compounded vulnerabilities to sexually transmitted and blood-borne infections (STBBI), including HIV, due to stigma, cultural taboos, systemic racism, and limited access to culturally safe services. As the number of MRCs continues to increase, access to sexual health services remain inadequate. We present results of a recent study where we explored MRCs' perspectives on strategies and solutions to promote sexual health, HIV and STBBI prevention and care in Saskatchewan. Guided by the socio-ecological model, we conducted fourteen semi-structured interviews and three focus groups with community members, sexual minority groups, and sexual health service users. Data were collected to explore experiences related to sexual health, HIV/STBBI risk, and access to sexual health services. Participants were recruited using purposive sampling supplemented by snowball sampling. Data were analyzed using thematic analysis, incorporating both inductive and deductive coding. Trustworthiness was enhanced through member checking and peer debriefing. Four interrelated themes emerged across socio-ecological levels. At the individual level, personal responsibility, including sexual health knowledge and proactive HIV/STBBI prevention, was emphasized. At the interpersonal level, family systems, encompassing extended and chosen peer networks, shaped sexual health attitudes and behaviours across generations. At the community level, community-based organizations serving MRCs played a key role in delivering culturally responsive sexual health education through trusted social, religious, and cultural spaces. At the structural level, government and institutional action was identified as critical to reducing HIV/STBBI-related stigma and advancing equitable prevention and care within immigration and settlement systems. There is a need for multi-level, equity-oriented HIV/STBBI prevention strategies that integrate individual agency, family and peer networks, community-based leadership, and action aimed at structural change. Strengthening culturally responsive, community-engaged approaches within immigration and settlement systems is essential to reducing stigma and improving sexual health outcomes among MRCs.

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Abstract #205

Dépistage évènementiel du VIH en été/automne 2025 au Québec: bilan et limitations d'activités organisés par huit organismes communautaires

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Contexte :
Le nombre de nouveaux cas de VIH augmente au Québec, et le taux de dépistages tardifs (CD4<350) reste très élevé (50% des nouveaux cas en 2022). Le dépistage est un acte médical réservé au Québec et les intervenant·es communautaires ne peuvent que distribuer et expliquer l'utilisation des autotests. Des collaborations avec des ressources infirmières de la santé publique sont possibles, mais limitées.
L'objectif de ce projet était de sensibiliser le public à l'importance du dépistage et de démontrer le rôle que les organismes communautaires peuvent jouer pour le rendre plus accessible.

Methodes :
Huit organismes membres de la COCQ-SIDA ont participé au projet pendant deux périodes d'activités de dépistage: été/septembre et novembre. Chaque organisme a ciblé individuellement ses populations prioritaires et mobilisé ses partenaires locaux. Le financement du projet et des kits de dépistage a été assuré par Gilead avec un soutien de Biolytical.

Résultats :
Trois types d'activités ont été réalisés: (1) participation à des kiosques lors de grands événements organisés par d'autres structures, (2) organisation de foires de santé, (3) activités focus dépistage avec ou sans présence d'infirmier·es.
Les grandes activités publiques ont attiré un grand nombre de personnes, permettant une large diffusion de l'information et la distribution de nombreux autotests. Les activités plus restreintes ont permis des interventions plus approfondies avec un nombre plus réduit de personnes, avec un dépistage ou un accompagnement à l'autotest sur place.
Ces deux types d'activités ont permis d'établir un lien entre l'organisme et le dépistage, et d'augmenter le nombre de consultations en dehors de ces événements.

Conclusion :
Le dépistage événementiel ne permet pas de trouver massivement les personnes vivant avec le VIH sans le savoir, mais il sert à démystifier le dépistage, à le promouvoir et à faire connaître les organismes communautaires VIH locaux.

Social Sciences - Poster Abstracts / Sciences sociales - Abrégés affiches

Abstract #209

Knowledge, Stigma, and Health Systems: Intersecting Barriers to HIV/STBBI Prevention and Care among Migrant and Racialized Communities

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Immigration is a significant determinant of health that predisposes individuals to risks of poor physical health, including unmet sexual reproductive health rights concerns such as sexually transmitted and blood borne infections (STBBI) and HIV. There is limited research addressing the sexual health risks experienced by migrants and racialized communities (MRCs) in Saskatchewan, who represent 12% of the population. Ethno-specific sexual reproductive health interventions to mitigating such risks remain scarce. Our purpose was to explore the perceived barriers to HIV/STBBI prevention and care faced by MRCs in Saskatchewan. Guided by the socio-ecological model, we conducted fourteen semi-structured interviews and three focus groups with community members, sexual minority groups, and sexual health service users to explore barriers to HIV/STBBI prevention and care. Participants were recruited using purposive and snowball sampling. Data were inductively and deductively coded and analyzed thematically using NVivo 14. Strategies to enhance rigour included member checking and peer debriefing. Three interrelated themes emerged, highlighting barriers to HIV/STBBI prevention and care across multiple socio-ecological levels. Individual-level barriers included limited awareness and knowledge of available sexual health services, myths and misconceptions of sexual health and HIV/STBBIs risks, and perceived stigma and hesitancy in seeking care due to fear and concerns about confidentiality. Sociocultural barriers, which were pervasive within MRCs, included stigma surrounding sexual health and HIV/STBBIs which lead to silence, fear of judgement, and reduced engagement with testing, treatment, and disclosure. Structural and institutional barriers included a lack of culturally informed and responsive services, language and communication challenges, difficulties navigating healthcare systems, and insufficient community outreach. Findings demonstrate multilevel, intersecting barriers that impact HIV/STBBI prevention and care. The implementation of culturally responsive and community-based approaches within health and immigration systems is crucial for mitigating stigma, enhancing prevention and care efforts, and promoting sexual health equity among MRCs.

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Abstracts #220

DRUM & SASH (D&S): Shining Mountains Living Community Services' community-led approach to health and well-being through a Métis-specific tool adapted for diverse contexts

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Background
Métis communities hold distinct cultural identities, histories, and ways of knowing, being, and doing that shape health and wellness. Despite this, Métis-specific perspectives are often overlooked, with interventions designed under a homogenized Indigenous framework.
This presentation will share lessons learned from the adaptation process, practical strategies for integrating cultural frameworks into HIV/STBBI programming, and implications for policy and practice. By centering Métis voices and knowledge systems, we offer a model for culturally responsive health interventions that honor identity, promote wellness, and strengthen resilience.

Methods
We partnered with DRUM & SASH (D&S), a CIHR-funded implementation science project, to develop a Métis cultural response to HIV, Hepatitis C (HCV), and related mental health and stigma. Central to this work was the creation of a Métis Assessment Tool grounded in a wholistic, strength-based, culturally safe approach. Métis consultations informed the original concept and language to align with Métis values. Our Métis Wellness Advisory Circle (MWAC), composed of six members with lived and living experience (PWLE) of HIV/HCV, provided ongoing guidance. Additional consultations included 20 PWLE in the justice system and 35 PWLE experiencing unstable housing, alongside feedback from Indigenous service providers in British Columbia and Alberta.

Results
Findings highlight the importance of Métis-specific tools that meet people where they are and resonate with personal wellness journeys. Incorporating Michif language and traditional icons into the tool and manual supported language revitalization and strengthened cultural connections. Relationship-building through this process fostered trust and increased willingness to access testing and treatment.

Conclusions
Culturally grounded, community-led approaches enhance engagement and outcomes in diverse settings. We will continue refining the tool to expand its application within a wholistic framework, ensuring Métis voices remain central in shaping health and wellness strategies.
Keywords: Métis, HIV, Hepatitis C, stigma, cultural safety, implementation science, language revitalization

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Abstract #222

HIV Stigma in Harm Reduction Services; Stigma Positive Action Project Workshop Kit

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Background
HIV-related stigma within harm reduction services represents a persistent barrier to HIV prevention, care engagement, and health equity, particularly in small, urban, rural, and remote (SURR) communities. Enacted, internalized, and structural forms of stigma intersect within service environments, shaping service delivery, trust, and health outcomes. This project aimed to develop, pilot, and evaluate a stigma-reduction workshop and accompanying online toolkit tailored for harm reduction services in SURR communities.

Methods
A community-based, participatory action approach was employed, guided by a steering committee comprising people living with HIV (PLHIV) and harm reduction leaders from SURR communities. Project activities included an environmental scan of existing stigma-reduction resources, iterative workshop content development, and pilot delivery of in-person and virtual workshops. A mixed-methods evaluation was conducted using a survey and project-specific questions to assess participants' learning, satisfaction, and self-reported confidence in addressing HIV stigma within service organizations.

Results
Workshop participants demonstrated increased understanding of the mechanisms and impacts of HIV stigma within harm reduction services and identified context-specific strategies for stigma reduction. Steering committee members reported increased confidence in their capacity to reduce HIV stigma in their professional roles. Leadership from PLHIV was integral to project implementation, with peers leading project coordination, content development, and facilitation. Key findings emphasized the importance of adaptive implementation, tailoring stigma-reduction strategies to specific service contexts, and centring lived and living experience to enhance relevance, credibility, and engagement.

Conclusion
This initiative enhanced individual and organizational capacity to address HIV-related stigma within harm reduction services, particularly in SURR communities. By centring participatory, peer-led approaches and emphasizing flexible, context-responsive implementation, the project contributed practical tools and evidence-informed strategies to address HIV-related stigma. These findings highlight the importance of PLHIV leadership and community-engaged interventions in advancing equitable, stigma-free HIV prevention and care within harm reduction settings.

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Abstract #224

Implementing an Organizational Tool for HIV-Related Stigma Reduction in Community-Based Settings

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Introduction
HIV-related stigma remains a persistent barrier to equitable access, quality of care, and service engagement within community-based settings. While stigma reduction efforts often focus on individual attitudes or behaviours, organizational policies, practices, and environments play a critical role in shaping experiences of HIV-related stigma. The Organizational Stigma Assessment Cycle (OSAC) is a structured, capacity-building tool designed to support organizations in identifying and addressing organizational and structural drivers of HIV-related stigma. Grounded in an intersectional framework, OSAC recognizes the compounding effects of stigma alongside racism, colonialism, gender identity, sexual orientation, and/or substance use.

Methods
OSAC was implemented using a developmental evaluation approach to pilot the cycle across five sites within two CBO's in BC. A mixed-methods design was employed, using surveys and focus groups completed by staff and people with lived/living experience of HIV-related stigma, with one organization conducting the cycle twice. Peer reviewers with community practice expertise supported organizations throughout implementation, contributing to iterative refinement of the tool and its application.

Results
Implementation findings identified organizational strengths and areas for improvement related to HIV-related stigma across key domains including: governance, programs and services, human resources, professional development, communication, finances, and physical space. OSAC supported organizations in increasing awareness of how HIV-related stigma operates structurally and developing context-specific strategies for stigma reduction. Meaningful involvement of people with lived/living experience highlighted nuances that may have otherwise been overlooked, while enhancing the relevance, acceptability, and uptake of stigma-reduction actions.

Conclusion
Findings demonstrate that OSAC is a feasible and acceptable organizational tool for HIV-related stigma reduction in community-based settings. By supporting structured reflection, intersectional analysis, and participatory engagement, OSAC facilitates movement from stigma identification to action. This work contributes to the growing evidence base of organizational-level HIV stigma interventions and informs future implementation and scale-up opportunities in community organizations and other diverse contexts.

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Abstract #225

Implementing a Guidebook to Support Culturally Safer, Harm Reduction–Oriented Services: Findings from the Making It Work Study

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Background
People living with HIV often face intersecting vulnerabilities, including hepatitis C, mental health challenges, and substance use, which can create barriers to accessing equitable health and social services. Indigenous peoples in BC are disproportionately affected by HIV, underscoring the need for culturally safer, community-led programs. Making It Work was a community-based research study which used an Indigenized, realist evaluation approach to program theory development to examine how, when, and for whom community-based HIV services are effective, particularly in case management and community development programs using Indigenous service delivery models and harm reduction approaches.

Methods
To translate the program theory into practical tools, a Guidebook was developed through a collaborative knowledge translation process. An advisory committee of people with lived and living experience and service providers guided content development and provided ongoing feedback. A research trainee contributed to iterative design, drafting, and feedback integration. Development occurred in three phases: preparatory engagement with the team to shape content; iterative drafting incorporating advisory committee input; and dissemination through hard copies at case study sites, a PAN Knowledge Connect webinar, and broader sharing via community networks.

Results
The Guidebook synthesizes complex research findings into accessible, actionable resources that integrates organizational assessments, reflective exercises, and practical guidance to support service delivery. It emphasizes culturally safer spaces, trust and relationship building, meeting clients where they are, and meaningful peer inclusion. Advisory committee feedback and trainee involvement ensured content reflected diverse perspectives and was applicable across community-based organizations.

Conclusion
The Making It Work Guidebook demonstrates the value of participatory, community-engaged approaches in translating research into practice. Equipping organizations with structured frameworks and tools, supports the implementation of culturally safer, harm reduction–oriented services and fosters improved accessibility and health outcomes for people living with HIV, hepatitis C, and co-occurring mental health and/or substance use challenges in BC.

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Abstract #250

A Scoping Review of STBBI Partner Notification Practices in Canada: A Socio-Legal Perspective

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Introduction: Through a governance lens, we approach STBBIs as not only a health matter, but also as something that gets framed as a social problem that state actors and institutions aim to manage. One such governance practice includes partner notification (PN), a common public health practice for attempting to identify and contact the sexual partner(s) of a person who received an STBBI diagnosis. We ask: Is PN an ethical and effective governance model for upholding well-being and for responding to the challenges of STBBIs?

Methods: Applying a critical socio-legal lens, we conducted a scoping review of the social science and public health/social well-being literature where PN practices have been evaluated in Canada, in English language academic and grey literature. A total of 19 sources published between 2014 and the summer of 2025 made up the core scoping review. A supplementary scoping review of the older literature evaluating PN in Canada from 2003 up to 2014 (11 sources total) was also conducted to better understand the recent research. A modest purposive review of select international literature was also done to speak to gaps in the Canadian research.

Findings: The core scoping review evaluated PN in the context of various STBBIs. The literature primarily evaluates whether PN is effective in identifying cases, and the social complexities of healthcare-patient interactions and of patient referral are under-examined. Ethics, law, policy, and governance are under-analyzed. Key populations, such as Indigenous people, are regularly overlooked.

Conclusion: While broadly on STBBIs, our findings are of relevance to HIV scholars. There is a need for interdisciplinary research and for social science perspectives to be included in evaluations of PN, given how PN is shaped by law and governance, by social interactions between healthcare and partners, and by power relations that can intersect with different forms of STBBI stigma.

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Abstract #254

Childhood Abuse has a Direct Effect on Adulthood Mental Health and is Mediated by Socio behavioural Exposures and Sexual Wellbeing for Women with HIV in Canada: Structural Equation Modelling

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Background: Women living with HIV experience high rates of childhood and adulthood abuse. Pathways affecting health-related quality of life (HRQoL) have been demonstrated, however, interactions with sexual wellbeing and its impact on HRQoL remain unclear. These connections are vital as sexual wellbeing is theoretically affected by abuse, understudied, and important to humans. We examined the effects of childhood abuse on HRQoL, directly and mediated by sociobehavioural exposures, adulthood abuse, and sexual wellbeing across three timepoints (T1–T3).

Methods: Longitudinal data of women living with HIV (n=1422) from Ontario, British Columbia, and Québec were collected from the Canadian HIV Women's Sexual and Reproductive Health Cohort Study. Childhood abuse was measured through surveys. Structural equation modelling with maximum likelihood estimation assessed the direct effects of childhood abuse history (sexual, physical, verbal) at T1 on HRQoL (mental, physical) at T3. Indirect effects were tested through sociobehavioural exposures (drug use, incarceration, sex work) at T1 and adulthood abuse and sexual wellbeing at T2. Covariates included age, education, immigration, and marital status.

Results: Among participants (mean age: 43, SD=10.6; ethnicity: 22% Indigenous, 29% Black, 41% white, 7% other), 68.7% experienced ≥1 form of childhood abuse. Their mean mental-HRQoL (41.8, SD=14.3) and physical-HRQoL (44.1, SD=14.3) were lower than established general population norms (50.0, SD=10). Childhood abuse was directly associated with mental-HRQoL (β=-0.17, p<0.001), as were sociobehavioural exposures (β=-0.097, p<0.05) and sexual wellbeing (β=-0.097, p=0.001). The total effect of childhood abuse on mental-HRQoL (β=-0.19, p<0.01) combined direct with indirect effects via sociobehavioural exposures and sexual wellbeing (β=-0.01, p=0.03). No significant pathways included physical-HRQoL. Childhood abuse was associated directly with sociobehavioural exposures (β=-0.0.414, p<0.001) and adulthood abuse (β=0.223, p<0.001).

Conclusions: Childhood abuse history was associated with poorer mental-HRQoL directly and through sociobehavioural and sexual wellbeing pathways. Considering these pathways could provide avenues for trauma healing and sexual wellbeing interventions.

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Abstract #259

Social-structural factors supportive of women living with HIV in Metro Vancouver against suicide ideation/attempt

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Background: Suicidal thoughts and attempts are markers of extreme psychological distress and substantial unmet mental health needs. Key social-structural determinants of health, including stable housing, reliable food security, and broader systemic supports, are associated with mental health indicators and, in turn, improved HIV care outcomes. Given the relevance of social-structural factors for understanding psychological distress, we aimed to investigate associations between housing, food security, and engagement in HIV community-based organizations (CBOs) and suicide thoughts/attempts.

Methods: Data were drawn from the Sexual Health and HIV/AIDS: Women's Longitudinal Needs Assessment Project, a longitudinal, community-based study among women living with HIV in Metro Vancouver (N= 389, 2014–2025), with interviews at baseline and at six-month intervals. The outcome was self-reported suicidal thoughts/attempts (last six months, yes vs no). Main social-structural factors measured in the last six months included housing (supportive housing only; independent housing[apartment/house] vs insecure[unsheltered/unstable]), food security (modified Radimer–Cornell Food Security Scale [scores 1-3]), and HIV CBO use (any vs. none). Generalized linear mixed models with random intercepts further controlled for age, race, sexual/gender identities, mental health histories, and COVID-19 period.

Results: The analysis included 366 women (2,924 observations) between September/2014-February/2024. At baseline, 12% women (n=42) reported suicide thoughts/attempts, 67% (n=244) housing insecurity, 75% (n=274) food insecurity, and 57% (n=210) HIV CBO use in the last 6 months. 33% (n=122) reported suicidal thoughts/attempts during follow-up. Higher average Food Security score (Adjusted Odds Ratio [AOR]=0.54; 95% Confidence Interval [CI]: 0.40-0.73) and supportive housing (AOR=0.63; 95% CI: 0.44-0.99, vs unstable/unsheltered housing) were associated with lower odds of suicidal thoughts/attempts. Independent housing and HIV CBO use were not statistically significant.

Conclusion: Structural supports are critical among women living with HIV, particularly food security and supportive housing, and should be included as part of broader, multi-level approaches to mental health and suicide prevention.

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Abstract #261

Care engagement among migrant women living with HIV in the context of healthcare coverage uncertainties and interruptions

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The Canadian government states that migrant women experience particular intersecting oppressions that increase their vulnerability to HIV and impact their access and engagement with HIV care, if diagnosed. Migrant women living with HIV (mWLWH) experience significant barriers to care, resulting in delays to accessing care upon arriving in Canada. While previous studies have identified these barriers, there is a need to understand these barriers within the context of existing structural processes, policies, and practices. In this interpretive description study, we examined mWLWH's healthcare experiences and the structural and institutional factors shaping their experiences. Drawing on data from 24 semi-structured interviews with mWLWH (n=10) and service providers (n=14), as well as select federal and provincial policies, we examined how migration status influences mWLWH's access to healthcare coverage and, subsequently, HIV care. Our findings show how delays and interruptions in healthcare coverage structurally marginalize migrant WLWH, impacting their ability to access timely HIV care. Two specific policy issues were identified: the initial 3-month wait period and interruptions in healthcare coverage occurring alongside visa expiration. In response to these structural constraints, mWLWH, HIV-serving organizations, and HIV clinics employ various strategies. For example, mWLWH may travel to their home country to access HIV care and medication. Organizations implement peer advocacy and support, and clinics/clinicians may do pro-bono work or establish alternative clinic payment structures to allow patients without healthcare coverage to access care. However, laboratory or diagnostic tests costs continue to be a challenge. Lastly, we also found that mWLWH experienced policing of their migration status in ways that sowed distrust in the healthcare system and further discouraged care engagement. Ultimately, these findings highlight the ongoing need to examine intersecting barriers to HIV care within Canada's complex policy landscape and the importance of considering migration status as a key determinant of health.

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Abstract #276

Racially and Culturally Informed Intensive Case Management Techniques Targeting the Adherence of HIV-Treatment for Black Communities in North America: A Systematic Review

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Background: In Canada, Black communities are disproportionately impacted by HIV, yet access to racially and culturally appropriate services remains limited. Intensive case management (ICM) has been identified as a promising approach to supporting people living with HIV, however, evidence specific to Black populations in Canada remains largely absent.

Objectives: To identify and synthesize the empirical evidence on ICM approaches for Black populations living with HIV in Canada and the United States, to inform healthcare practices and treatment models for Black communities in Canada.

Methods: A systematic review was conducted in accordance with PRISMA guidelines. Comprehensive searches were completed in Embase, MEDLINE, Web of Science, CINAHL, PsycINFO, Social Service Abstracts/Sociological Abstracts, and Social Work Abstracts for studies published between 2000 and 2025. Eligible studies examined ICM interventions among Black communities in North America. Eight reviewers independently screened studies and extracted data. Findings were synthesized thematically.

Results: The search yielded 21,350 records, and 22 studies met inclusion criteria. Most studies were conducted in the United States, with a concentration in New York and southern states. Sample sizes ranged from 54 to 6,408 participants. Key themes across studies included the co-location of services, community-based and co-designed interventions, and the importance of wraparound supports to address intersecting complexities and social determinants of health such as housing, employment, and transportation. Common barriers included HIV-related stigma, complex healthcare system navigation, and challenges with outreach and treatment initiation.

Conclusions: This review highlights the potential of culturally responsive ICM approaches for Black populations living with HIV, while underscoring significant gaps in Canada-specific evaluations. Findings support the need for community-driven, integrated service models and further research to inform equitable responses to HIV care for Black populations in Canada.

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Abstract #296

Immigration Status and HIV Disclosure Worries Among Women Living with HIV in Canada: Findings from the Canadian HIV Women's Sexual and Reproductive Health Cohort Study (CHIWOS)

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Background: Previous literature reported that immigrant women living with HIV have higher disclosure worries than non-immigrant women. Reducing HIV disclosure worries among immigrant women may affect their healthcare utilization, treatment adherence and subsequent HIV transmission. Psychosocial factors such as trauma, family/community disruption, and limited social support may underlie this disparity. This study examined the association between immigration status and HIV disclosure worries among women living with HIV in Canada, which has not previously been studied.

Methods: We analyzed data from a longitudinal cross-sectional cohort survey in three Canadian provinces (CHIWOS). HIV disclosure worries were measured using the HIV/AIDS-Targeted Quality of Life (HAT-QoL) scale. We assessed descriptive statistics, including associations between sociodemographic and health variables with immigration status (Canadian-born citizen, foreign-born citizen, permanent resident, refugee). Multivariable logistic regression was used to adjust for sociodemographic and health-related variables that may affect the relationship between immigration status and HIV disclosure worries.

Results: Of the 1,389 women in our sample (mean age=43.0 years [SD: 10.6]), 911 (65.6%) were Canadian-born citizens, 238 (17.1%) foreign-born citizens, 166 (12.0%) permanent residents and 74 (5.3%) refugees. The proportion of women with high disclosure worries (HAT QoL ≥60) was highest for refugees (81.1%), followed by permanent residents (71.7%), foreign-born citizens (66.8%) and lowest for Canadian-born citizens (43.6%). In the adjusted logistic regression model, less secure immigration status, heterosexual sexual orientation, higher level of education, personal income ≥$20,000, unstable housing, never being on antiretroviral treatment, higher sexism scores, residing in Quebec, and higher HIV stigma were associated with high HIV disclosure worries ($p \leq 0.05$).

Conclusion: We found a clear association between immigration status and disclosure worries, where women with a more precarious immigration status reported higher disclosure worries. Our findings underscore the need for trauma-informed, community-based interventions that reduce disclosure worries for immigrant women living with HIV in Canada.

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Abstract #299

Learning From a Healing-Centred, Youth-Led HIV Forum: A Reflective Implementation Analysis With African, Caribbean, and Black Youth in Canada

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African, Caribbean, and Black (ACB) youth living with HIV face intersecting barriers related to stigma, racism, isolation, and fragmented access to care. While youth-focused HIV initiatives increasingly emphasize engagement and education, less attention has been paid to conditions of implementation that enable racialized youth to safely engage with systems of care. This abstract presents a reflective implementation analysis of HYPE Forum 2025: Equitable Futures, a youth-led, culturally grounded HIV convening designed with and for ACB youth living with HIV.

Drawing on program evaluation data collected for quality improvement, this analysis integrates matched pre–post evaluation findings (N = 36), anonymized aggregate participant feedback, and observations from program implementation. This work does not involve individual-level analysis or human subjects research. The forum combined HIV education and healthcare rights literacy with healing-centred, culturally grounded practices. Same-day access to health, legal, housing, and mental health services was also supported through an embedded resource fair.

Participants reported increased HIV knowledge, healthcare rights confidence, and system navigation, alongside strong psychosocial outcomes. Reduced isolation and new peer connections emerged as central outcomes, with over 90% of participants in the matched sample (n = 32) reporting increased connection and belonging. Aggregate qualitative feedback highlighted youth leadership, cultural grounding practices, and explicit engagement with anti-Black racism in healthcare as mechanisms that validated youths' experiences, shifted blame away from individual patients, and fostered emotional safety and trust. These conditions emerged as enablers of immediate service uptake and same-day referrals, based on participant feedback and implementation observations.

The analysis documents limitations, including persistent structural barriers including housing insecurity and HIV criminalization, underscoring limits of time-limited interventions. Reflecting on strengths and constraints, analysis of the HYPE Forum offers actionable guidance for HIV programs and funders seeking to operationalize equity, trauma-informed care, and youth leadership, with implications for program design and scale.

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Abstract #303

Population-Level Differences in U=U Outcomes among People Living with HIV and the General Population in Canada

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HIV stigma negatively affects the health and well-being of people living with HIV. Undetectable = Untransmittable (U=U) is a key public health message with potential to reduce stigma, showing that people living with HIV who maintain an undetectable viral load cannot sexually transmit HIV. This study examines differences in U=U outcomes between people living with HIV and the general population to quantify disparities among these outcomes.

A total of 3,439 Canadian participants were included with 1,438 people living with HIV from the People Living with HIV Stigma Index study (September 2018 – October 2024) and 2,001 people from a general population survey conducted by Ipsos on behalf of the Canadian Positive People Network (CPPN) in 2025. Demographic information, including age, gender, and race/ethnicity was collected alongside U=U-related outcomes. Multivariable logistic regression models examined differences in U=U outcomes between groups, adjusting for demographic covariates.

Compared to people living with HIV general population participants had lower odds of being aware of U=U (OR = 0.12, 95% CI: 0.09-0.14), believing in the science behind U=U (OR = 0.49, 95% CI: 0.39-0.62), accepting U=U (OR = 0.72, 95% CI: 0.59-0.87), and having discussed U=U with their healthcare provider (OR = 0.02, 95% CI: 0.02-0.03). In contrast, participants from the general population had higher odds of believing that promoting U=U could reduce HIV stigma (OR = 6.34, 95% CI: 4.99-8.10).
These findings indicate that general population Canadians were far less likely to be aware of or believe in U=U, likely reflecting limited promotion in civil society; however, they were more likely to believe U=U could reduce stigma, despite limited exposure to its broader social and emotional impacts. Overall, gaps in public knowledge highlight the need to improve awareness and acceptance of U=U to reduce HIV-related stigma and broaden its impact on people living with HIV.

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Abstract #312

Punishment over Prevention: Racialized Incarceration and HIV Vulnerability in Black and Indigenous Communities

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In Canada, incarcerated individuals retain the fundamental human right to healthcare equivalent to that available in the community; however, empirical evidence indicates that this right is inadequately realized in the context of HIV prevention, testing, and treatment within federal and provincial correctional institutions. Epidemiological data drawn from peer-reviewed studies, Correctional Service canal surveillance reports, and provincial correctional health records demonstrate that HIV prevalence in Canadian prisons is several times higher than in the general population, with Black and Indigenous peoples disproportionately affected due to systemic racism, colonial legacies, and socio-economic marginalization. Despite prisons being recognized as high-risk environments for HIV transmission and are frequently based on voluntary or at risk-based models rather than routine opt-out screening, resulting in delayed diagnosis and missed opportunities for early intervention. Evidence further reveals interruption in antiretroviral therapy, limited confidentiality, and inadequate access to culturally safe healthcare, particularly for Indigenous incarcerated populations. Legal and policy analysis of federal of federal legislation, Correctional Service Canada directives, Charter of Rights and freedoms jurisprudence, and international human rights instruments highlights a persistent gap between Canada's formal obligations to provide community-equivalent healthcare and the realities of care delivery in carceral settings. The convergence of public health data and legal analytics underscores systemic failures within Canadian prisons healthcare that exacerbate HIV related inequalities and violate the recognized human rights and incarcerated individuals. Through surveys and peer reviewed research, the purpose of this analysis is to identify gaps between evidence-based public health practices and the legal protections to incarcerated people. Based on the findings, recommended reforms include the implementation of standardized, routine opt-out HIV testing across all correctional facilities, guaranteed continuity of antiretroviral therapy during incarceration and post-reals, expansion of harm reduction and culturally safe healthcare and strengthened legal accountability mechanisms to ensure compliance with constitutional and international human rights obligations.

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Abstract #314

A Qualitative Study Exploring People Who Use Drugs' Understandings of Safety at the Intersection of Built Environments and the Toxic Drug Poisoning Crisis

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Background: The built environment often informs where people choose to use drugs and consequently impacts drug-related risks, such as overdose mortality. However, research on the relationship between overdose mortality and the built environment is limited. Perceptions of safety also impact how people who use drugs (PWUD) interact with built environments. In Canada, there is limited research outside of larger urban centres on drug use, overdose, and the built environment, despite differences existing across geographic settings. We sought to examine how PWUD perceive and navigate safety in the context of drug-related risks and the built environment. Methods: This study is embedded within a larger mixed-methods study. We conducted 26 semi-structured interviews with people with lived/living experience of drug use (PWLLE). Participants were recruited purposively through peer networks and harm reduction organizations across four communities in British Columbia, Canada (Surrey, Nelson, Prince George, Nanaimo). Spatial modelling guided community selection. The interview guide was informed by our scoping review on fatal overdose and the built environment, and was collaboratively developed with PWLLE. The data was coded inductively and thematically analyzed to identify patterns and develop themes. Results: We identified four ways that safety was conceptualized: 1) interpersonal (e.g., relationships with friends, service providers), (2) built environment (e.g., design of spaces, physical surroundings), (3) community and peer (e.g., peer outreach, knowledge sharing), and (4) communicative (e.g., word-of-mouth, smartphone applications). Conclusion: These themes emphasize the complex nature of safety, tensions within built environments, and challenge the 'safe' and 'unsafe' dichotomy of drug use and the environment (e.g., designated 'safe spaces' felt unsafe). Future research should continue to explore the multifaceted ways that safety is understood and navigated across settings, as this is crucial for the development of future place-based harm reduction interventions that aim to support PWUD and reduce drug-related harms.

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Abstract #319

Chronic Pain and Addiction Among Survival Sex Workers: A Scoping Review of Structural Health Barriers

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Survival sex workers experience intersecting health and social inequities shaped by chronic pain, substance use, trauma, and criminalization. While survival sex work has been extensively examined in relation to infectious disease risk and social vulnerability, the co-occurrence and interaction of chronic pain and addiction remain under explored determinants of health within this population. This scoping review aims to map existing literature on chronic pain and addiction among survival sex workers in North America and to examine how structural factors influence healthcare access, care experiences, and health outcomes, with relevance to health equity-oriented care in Canada.

A comprehensive search of MEDLINE, Embase, and relevant grey literature was conducted for studies published between 2012 and 2025. Eligible sources included qualitative, quantitative, and mixed-methods studies examining chronic pain, substance use, healthcare access, or related social and structural determinants among survival sex workers in North America. Data were extracted and synthesized using thematic analysis.

Preliminary findings suggest that chronic pain and addiction frequently co-occur among survival sex workers and are shaped by overlapping experiences of violence, economic precarity, and structural exclusion. Both pain and substance use influence healthcare engagement, often in the context of stigma, criminalization, fragmented services, and limited access to longitudinal pain or addiction care. These barriers contribute to delayed care-seeking, reliance on emergency services, and disrupted continuity of care.

This review identifies critical gaps in research and service delivery related to the integrated management of chronic pain and addiction among survival sex workers in Canada. Findings underscore the need for trauma-informed, structurally competent, and community-driven healthcare models that address pain and addiction concurrently, with implications for advancing equitable care for structurally marginalized populations.

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Abstract #322

Lessons Learned in Designing a Research Framework in a Community-Based Health Care Setting

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Background: The Dr. Peter Centre, an innovative HIV care facility in Vancouver, is undertaking a multi-methods study to examine how its integrated, person-centred model of care supports retention in HIV care and reduces experiences of stigma among LGBTQ+ Latino immigrants, migrants, and refugees living with HIV. Grounded in community-engaged research principles, the study centres lived and living experience while generating actionable insights for frontline practice, policy, and health-system change. This presentation describes the process of developing a community-based research study within a frontline clinical setting and reflects on key lessons learned during the research design phase.

Issue: A well-documented gap persists between the production of research knowledge and its integration into clinical and community practice. At the same time, community-based health and social service organizations often face barriers to having their priorities addressed through formal academic research. While these organizations are committed to evidence-informed care and possess deep frontline expertise and community trust, integrating research into non-profit clinical environments can be challenging due to resource constraints, competing mandates, and concerns about disrupting therapeutic relationships.

Lessons Learned: We share lessons from the study design phase, including: (1) developing research protocols within a clinical care setting without compromising trust or therapeutic relationships; (2) working within the operational realities of non-profit health organizations, including staffing capacity, funding limitations, and fidelity to organizational mandates; (3) the importance of strong, reciprocal relationships between academic and community partners, and ensuring appropriate representation in project governance; and (4) navigating funder expectations within the non-profit sector.

Conclusion: Lessons from this study highlight opportunities to strengthen collaboration between academic researchers and frontline organizations. Fostering mutual learning and shared accountability can support HIV research that is responsive to community contexts, enhances meaningful involvement of frontline providers, and improves the relevance and uptake of research in practice.

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Abstract #323

Association Between Supervised Consumption Site Closures and Opioid-Related Mortality and Emergency Department Visits in Alberta

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Supervised consumption sites (SCS) are evidence-based harm reduction interventions intended to reduce overdose-related morbidity and mortality and to improve healthcare access for people who use drugs. In recent years, various SCS in Alberta have closed or experienced service reductions, raising concerns about the potential population-level impacts of decreased access to supervised consumption services. This study examines the association between SCS closures and opioid-related mortality and emergency department (ED) visits in Alberta.

We are conducting a retrospective, population-level observational study using available administrative health data. Opioid-related deaths and ED visits will be examined before and after SCS closures using interrupted time-series and comparative trend analyses. Primary outcomes include monthly opioid-related mortality rates and associated outcomes. Analyses will explore temporal patterns associated with changes in supervised consumption service availability across affected regions.

This study aims to generate Canadian evidence on the health system and population impacts of SCS closures within the context of the ongoing overdose crisis. Findings will contribute to public health and policy discussions regarding harm reduction service accessibility and its role in preventing overdose-related deaths and reducing acute care utilization.

By examining changes in opioid-related mortality and ED visits following SCS closures, this research seeks to inform evidence-based decision-making related to harm reduction infrastructure, overdose prevention strategies, and health equity for people who use drugs in Alberta and across Canada.

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Abstract #326

Navigating Healthcare: Experiences of African, Caribbean, and Black Migrants Living with HIV Across Canada

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Background: African, Caribbean, and Black migrants living with HIV (ACB-LHIV) in Canada experience intersecting systemic, social, and psychosocial barriers that shape their engagement with healthcare. These include anti-Black racism, HIV-related stigma, immigration status-related issues, economic insecurity, and limited cultural responsiveness within healthcare settings. Existing research on ACB migrants, though limited in number, has largely focused on HIV acquisition, while overlooking their healthcare experiences post-HIV diagnosis (Etowa et al., 2022; Fante-Coleman et al., 2022; Logie et al., 2013; Tharao et al., 2025). Additionally, these studies are overrepresented in a single province – Ontario, limiting the understanding of how ACB-LHIV navigate healthcare across provinces and constraining the development of culturally-tailored interventions.

Objective: This phenomenological study, guided by an intersectionality framework, seeks to understand the experiences of ACB-LHIV when engaging with the healthcare system across different provinces in Canada by exploring how intersecting identities, such as race, immigration status, gender, and HIV status, shape access to care, perceptions of safety and trust, and healthcare-seeking behaviors.

Methods: This qualitative study will use purposive sampling to recruit up to 30 ACB-LHIV aged 18 years and older from Ontario, Quebec, and Alberta. Data will be collected through in-depth, semi-structured interviews conducted in English or French, either in person or virtually, based on participant preference. Interviews will explore healthcare access and engagement, interactions with providers, experiences of stigma and discrimination, and the meanings participants attribute to their healthcare experiences. Transcripts will be analyzed iteratively using interpretive phenomenological analysis, with attention to intersecting systems of power shaping participants' experiences (Smith et al., 2009; Crenshaw, 1994).

Significance: Findings will generate in-depth, multi-provincial evidence on healthcare navigation among ACB-LHIV and inform the development of culturally responsive HIV care and support interventions for this population in Canada.

Keywords: ACB migrants living with HIV, Healthcare experiences, Intersectionality, Healthcare navigation

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Abstract #330

Development of the Canadian Calls to Action to Advance the Sexual and Reproductive Health and Rights of Women living with HIV

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Introduction:
In 2017, the World Health Organization released global consolidated guidelines on the sexual and reproductive health and rights of women living with HIV. Since then, a Canadian community-academic partnership of women living with HIV, researchers, clinicians, and community service providers engaged in extensive consultation to take up the consolidated guidelines nationally, resulting in a national webinar series and two publications. In 2024, an advisory committee was established with representatives from this partnership to draft a comprehensive set of calls to action to advance the sexual and reproductive health and rights of women living with HIV in Canada. Here we share our knowledge mobilization strategy to co-create these calls to action.

Approach:

We undertook the following activities from 2024-2026:

-Established the advisory committee and developed the project framework.
-Drafted goals based on a comprehensive review of previous research and findings from the partnership team.
-Held a focused session with Indigenous women on relevant strategies and actions.
-Refined actions at in-person CAHR 2025 session. Invited individuals unable to attend CAHR for further review.
-Conducted a close final review of each goal with experts and women living with HIV.
-Launched calls to action with a webinar supported by CATIE.

Five over-arching goals were identified, to be achieved through 12 strategies and 41 actions.

Discussion:

Next steps include further knowledge mobilization activities to increase reach of the calls across the country as well as a 5-year evaluation plan to understand how the calls impact women living with HIV and others.

Supporting Document

Goals of the Canadian Calls to Action to Advance the Sexual and Reproductive Health and Rights of Women Living with HIV
1. Meaningfully integrate women living with HIV across research, policy, practice, and programming to advance the sexual and reproductive health and rights by, with, and for all women living with HIV.
2. Centre Indigenous women's priorities, voices, and perspectives in all efforts to advance the sexual and reproductive health and rights of women living with HIV.
3. Strengthen knowledge creation and sharing to enhance awareness of issues experienced by women living with HIV.
4. Enhance care and the quality of sexual and reproductive health and rights service delivery for women living with HIV
5. Accelerate action to improve the quality of life for women living with HIV through cyclical relationships between evidence and action.

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Abstract #334

Finding the lost voices: Exploratory analysis of factors affecting completion of a community-based aging study among women living with and without HIV in British Columbia

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Background: In health research, exclusion of “hard-to-reach” communities erases lived experiences and contributes to policies and programs misaligned with community priorities. This analysis assessed the prevalence and determinants of delays and loss to follow-up completing the community-engaged British Columbia CARMA CHIWOS Collaboration (BCC3) study, which examines healthy aging among cis and trans women living with and without HIV.

Methods: Data collection involved two steps: a biospecimen collection and clinical survey, followed within 30 days by a community survey administered by a research associate living with HIV. Two community-led analyses examined factors associated with community survey completion, comparing (1) on-time (≤30 days) versus late (>30 days) or lost (never), and (2) on-time versus late completion. Significance was assessed using Kruskal–Wallis, Wilcoxon, chi-squared, and Fisher’s exact tests.

Results: Among 638 participants, 440 (69.3%) completed the community survey on time, 120 (18.8%) completed it late, and 72 (11.9%) were lost. Being lost was associated with living with HIV, Indigenous identity, living rurally, current substance use, and current smoking. Late completion (versus on-time) was associated with living with HIV, African, Caribbean, or Black ethnicity, and self-reported anxiety, PTSD, or depression. Trauma score was also significant, but with no clear driver. Higher burden of physical or mental health diagnoses, homelessness, social support, and resilience were not associated with survey completion.

Conclusion: Although current procedures successfully engage many women, Indigenous women, those living rurally, and individuals who use substances or smoke are disproportionately lost. These findings highlight opportunities to adapt research approaches to improve accessibility.

Supporting Document

Table 1: Prevalence and factors associated with completion of the community survey among BCC3 participants (n = 638)

Variable	Community survey completion time			P-value – On-time vs late vs lost	P- value – On-time vs late
	On time (≤ 30 days) n=442 (69.3%)	**Late** (>30 days) n=120 (18.8%)	**Lost** (Never) n=76 (11.9%)		
Age (years)	47.5 [37.2 to 56.8]	48.8 [41.0 to 58.0]	46.5 [38.3 to 50.3]	0.171§	0.504§
HIV status				**<0.001¶**	**0.001¶**
Living with HIV	180 (40.7)	**70 (58.3)**	**51 (67.1)**		

Without HIV	262 (59.3)	50 (41.7)	25 (32.9)		
Ethnicity				**<0.001#**	**0.041#**
White	162 (36.9)	50 (41.7)	25 (32.9)		
Indigenous	135 (30.8)	31 (25.8)	**31 (40.8)**		
ACB*	61 (13.9)	**26 (21.7)**	8 (10.5)		
Other ethnicity	81 (18.5)	13 (10.8)	6 (7.9)		
Missing†	0	0	6 (7.9)		
Residence				**0.004¶**	0.850¶
Urban	359 (82.9)	96 (84.2)	46 (66.7)		
Rural	74 (17.1)	18 (15.8)	**23 (33.3)**		
Substance use‡				**<0.001¶**	0.814¶
Current	125 (28.3)	32 (26.7)	**36 (47.4)**		
Past / never	317 (71.7)	88 (73.3)	31 (40.8)		
Missing†	0	0	9 (11.8)		
Smoking				**0.004¶**	0.277¶
Current	155 (35.1)	36 (30.0)	**37 (48.7)**		
Past	89 (20.1)	31 (25.8)	13 (17.1)		
Never	167 (37.8)	40 (33.3)	13 (17.1)		
Missing†	31 (7.0)	13 (10.8)	13 (17.1)		
Depression-PTSD-Anxiety Score‖,^				--	**0.033¶**
No	186 (42.1)	37 (30.8)	--		
Yes	256 (57.9)	**83 (69.2)**	--		
Trauma score^				--	**0.050¶**
High	93 (21.1)	17 (14.3)	--		
Moderate	194 (44.1)	47 (39.5)	--		
Low	194 (80.5)	47 (19.5)	--		

*African, Caribbean, or Black
†Missing includes respondents who selected “prefer not to answer” or did not complete this question
‡ Current substance use included cocaine, methamphetamine, benzodiazepine, or opioid use in the past 3 months
‖Participants are coded as “yes” where self-report for Centre for epidemiologic studies depression scale score >10, or 6-Item PTSD Checklist score >14 or Generalized Anxiety Disorder-7 score > 10
^Questions asked in the community survey, analysis only possible for those who completed community visit.
§Kruskal Wallis test, ¶ Chi-squared test, #Fisher’s exact test
Data presented as median [IQR] or n (%).

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Abstract #343

North American 2Spirit Gatherings: An Ongoing HIV Intervention for 38 years

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Background: 2Spirit people (Indigenous LGBTQI+) faced the challenge of the North American AIDS pandemic that began in the early 1980's. Indigenous gay men were experiencing the brunt of the AIDS pandemic at the time and a gathering of 2Spirit people was eventually organized in Minneapolis, Minnesota, in 1988. The event was called, Basket and the Bow, which describes a historical Indigenous ceremony about gender identities and choices. The gathering, now in its 39th year of being hosted in North America, represents a culturally safer Indigenous response to HIV/AIDS and other STBBI.

Approach: The International Council of 2Spirit Societies is composed of representatives of 2Spirit organizations and groups in Canada and the US. They oversee hosting bids for the annual gathering which is shared between Canada and the US on alternating years. Involvement in this cross-border network has enabled 2Spirit people to be leaders in the response to HIV/AIDS. They have collaborated with governmental health departments as advisors, participated in research development and studies, provided awareness, education, outreach, and advocacy regarding the HIV pandemic and created community organizations and services to support health and wellness.

Key Contributions: The 2Spirit re-emergence has reduced the stigma about talking about gender identity and expression, and sexual orientation and sexual health. Today there are nine nine 2Spirit non-profit organizations and five council in Canada.

Critical Reflections: More research is required to determine if the HIV rate of transmission has decreased because of the 2Spirit gathering intervention.

Implications: The Annual International 2Spirit Gathering represents an Indigenous intervention in the response to the HIV pandemic. It's cross-border scope and culturally safe activities can me modeled to other populations such as Indigenous women and youth.

Supporting Document

VERSION 4

List of Annual International 2Spirit Gatherings

	Location	State/Province	Year	Month	Sponsor
1.	American Indian Community House, Minneapolis	Minnesota	1988	Jun 18-19	
2.	Wisconsin Way	Wisconsin	1989		
3.	Sandy Saulteaux Spiritual Centre, Beausejour	Manitoba	1990		Nichiwakan Native Gay Society
4.	Eugene	Oregon	1991		
5.	Tyax Resort, Gold Bridge	British Columbia	1992		
6.	Tucson	Arizona	1993		
7.	Gaea Retreat Center, Lawrence	Kansas	1994		
8.	Do-Rey Chalets, Rexton	New Brunswick	1995		All Nations Hope AIDS Network
9.	Evergeen State College, Olympia	Washington	1996		
10.	Camp Onomia, Onamia	Minnesota	1997	Aug 27-31	
11.	Sandy Saulteaux Spiritual Centre, Beausejour	Manitoba	1998		Manitoba Aboriginal AIDS Task Force
12.	San Jose	California	1999		
13.	American Indian Community House, Minneapolis	Minnesota	2000		
14.	Chehalis	British Columbia	2001		
15.	Nakota Lodge, Morley Indian Reservation	Alberta	2002	Aug 12-15	Two Spirit Circle of Edmonton Society
16.	Geneva Park, Mnjikaning First Nation	Ontario	2003	July 20-25	2-Spirited People of the 1st Nations
17.	Butte	Montana	2004		
18.	Russian River	California	2005		
19.	Camp Kinkora	Quebec	2006		
20.	Treaty 4 Grounds, Fort Qu'Appelle	Saskatchewan	2007		All Nations Hope AIDS Network
21.	Audubon Center of the North, Sandstone	Minnesota	2008	Aug 28-Sep 1	
22.	Estes Park	Colorado	2009	Oct 7-9	Two Spirit Society of Denver
23.	Sandy Saulteaux Spiritual Centre, Beausejour	Manitoba	2010		2-Spirited People of Manitoba
24.	Camp Fircom, Gambier Island	British Columbia	2011		Healing Our Spirit BC Aboriginal AIDS Society
25.	Blacktail Ranch	Montana	2012		
26.	Long Island	New York	2013		East Coast Two Spirit Society
27.	Madawaska Maliseet First Nation	New Brunswick	2014		
28.	Back to Batoche Festival Site	Saskatchewan	2015	Aug 13-16	
29.	Pine Creek Country Inn, Nacogdoches	Texas	2016	May 20-23	
30.	Camp Allegany, Salamanca	New York	2017	Sept 21-24	
31.	Sandy Saulteaux Spiritual Centre, Beausejour	Manitoba	2018	Aug 3-6	2-Spirited People of Manitoba & Ka Ni Kanichihk
32.	Flathead Lake	Montana	2019	Aug 13-28	Montana Two Spirit Society
33.	Virtual Gathering (due to the COVID-19 pandemic)	Alberta	2020	Aug 28-30	Edmonton 2Spirit Society
34.	Metis Crossing	Alberta	2021	Aug 25-29	Edmonton 2Spirit Society
35.	United Methodist Camp, Flathead Lake	Montana	2022	Aug 17-21	Montana Two Spirit Society
36.	Oak Island Resort, Halifax	Nova Scotia	2023	Jul 23-27	Wabanaki 2Spirit Alliance
37.	Canyon Camp and Conference Centre, Hinton	Oklahoma	2024	Nov 13-17	All Nations Two-Spirit Society
38.	Diamond Hill Resort, North Battleford	Saskatchewan	2025	Aug 25-29	Battlefords Agency Tribal Chiefs Inc.

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Abstract #344

"People Around Them": The Social Relationships in Post-Migration HIV Acquisition and Coping among Caribbean and Sub-Saharan African diasporic communities in Canada

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Background:
African, Caribbean, and Black (ACB) migrants in Canada face unique social and structural challenges that shape their vulnerability to HIV after migration. Experiences of post-migration HIV acquisition occur within complex social environments that can provide critical emotional and practical support or, conversely, exacerbate isolation and stigma. Understanding how these dynamics affect coping is essential for designing culturally responsive interventions. This study draws on Social Support Theory to examine how formal and informal relationships influenced coping among ACB migrants following post-migration HIV acquisition.

Methods:
This qualitative study draws on the Msafiri Study, a mixed-methods investigation of post-migration HIV vulnerability among ACB migrants in Ontario. Forty-four in-depth semi-structured interviews were conducted with ACB individuals living with HIV who acquired the infection post-migration. Participants (61% male; 39% female) included diverse sexual orientations (MSM and heterosexual) and origins (Caribbean and Sub-Saharan Africa). Recruitment occurred through the Ontario HIV Treatment Network Cohort Study (OCS) between 2015 and 2017, using purposive sampling. Qualitative content analysis explored themes related to social support and coping.

Results:
Participants described diverse experiences:

(1) Positive family and peer relationships provided emotional stability and acceptance, buffering stigma and isolation.
(2) Unstable familial ties and migration-related separation limited kin support, increasing reliance on peers or partners.
(3) Community networks were ambivalent: while some offered belonging, others were perceived as judgmental, prompting withdrawal.
(4) Formal supports (healthcare providers, counselling, HIV peer groups) were pivotal in reducing anxiety and fostering resilience.
(5) Life stability factors (employment, education, immigration status) intersected with social support availability, shaping coping trajectories.

Conclusions:
Post-migration HIV acquisition among ACB migrants occurs within layered social contexts. Enhancing coping and well-being requires culturally safe formal supports, inclusive community networks, and stigma reduction within diaspora communities. Interventions should integrate family-based approaches and multiple forms of social support to strengthen resilience and long-term health.

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Abstract #347

"I Didn't Think HIV Was a Problem in Canada": How Risk Perception Shapes HIV Vulnerability in African, Caribbean, and Black Migrants in Ontario

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Background:
African, Caribbean, and Black (ACB) migrants in Canada experience HIV vulnerability shaped by migration-related transitions, relationship dynamics, and structural inequities. Post-migration HIV acquisition often occurs in contexts of trust, exclusivity, and limited perceived risk, where prevention practices may be inconsistent or deprioritized. Understanding how individuals interpret risk and make decisions about testing and protection is critical for effective interventions. This study uses the Health Belief Model (HBM) to examine how perceptions of susceptibility, severity, benefits, and barriers intersect with structural contexts to shape HIV vulnerability among ACB migrants.

Methods:
This analysis draws on the qualitative component of the Msafiri Study, a mixed-methods investigation of post-migration HIV vulnerability among ACB migrants in Ontario. Forty-four semi-structured interviews were conducted with ACB individuals living with HIV who acquired the infection post-migration. Participants (61% male; 39% female; diverse sexual orientations) were recruited through the Ontario HIV Treatment Network Cohort Study (OCS) between 2015–2017. Qualitative content analysis explored narratives related to perceived risk and prevention behaviours.

Results:
Perceived susceptibility was often low, shaped by trust in partners, assumptions of exclusivity, and beliefs that Canada was "safe." These perceptions intersected with structural barriers (stigma, gendered power dynamics, immigration stress, and limited access to culturally responsive prevention), reinforcing delayed health-seeking. Condom use declined in long-term relationships, reflecting perceived barriers (comfort, intimacy) and perceived benefits (pregnancy planning). Limited knowledge and underestimation of HIV severity contributed to inconsistent prevention and delayed testing. Substance use and "heat of the moment" contexts further reduced negotiation capacity. Conversely, some participants demonstrated proactive behaviours (routine testing, condom advocacy), indicating variability in perceived benefits and self-efficacy.

Conclusions:
HBM constructs reveal how low perceived susceptibility and structural narratives amplify HIV vulnerability post-migration. Interventions should recalibrate risk perception, normalize prevention in trusted relationships, and address systemic barriers through culturally tailored education and accessible testing.

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Abstract #349

ᑎᐟlᐁ Title: IndigenEyes: An Ethnographic, Land Based, and Arts-Guided Journey of Healing with a Cree Woman Living with HIV

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◁bᑫᐟr◁⁻ᐟ Background:
People Living with HIV (PLWH) continue to experience treatment changes and side effects related to antiretroviral therapy (ART). Indigenous PLWH face intersecting impacts of colonialism, disconnection from land, and biomedical approaches that often overlook holistic wellness. Indigenous, land-based, and arts-guided methodologies offer strength-based pathways for healing that honour Indigenous ways of knowing, being, and learning.

⊳bj∇⁻ᑎv∇ᑫ Objectives:
This project explores land-based learning and arts-based practices that support healing, knowledge transmission, and self-reflection related to ART side effects, guided by the lived experience of a Cree Woman Living with HIV as she returns to her homelands.

ᒣᐟᑊ⊳dᑫ Methods:
Using an ethnographic, Indigenous, arts-based approach, this work weaves together land-based harvesting experiences, Elder-led teachings, reflective journaling, and qualitative data from three previous community-engaged projects involving 27 PLWH. These projects included visual art creation, storytelling, and video methods that centered community voices around ART side effects and holistic wellness. Ethical practices included relational consent, accessibility-informed interviews, and Elder-guided learning on the land.

r∇ᑫulᐟᑫ Results:
Land-based harvesting of Sweetgrass, Horsetail Sage, and other medicines inspired my physical awareness, emotional grounding, and a spiritual connection. Hands-on learning with Elders strengthened confidence, reduced bodily stress, and supported cultural reconnection. Across arts-based projects, community described art as Power, Spirit, and Voice, contributing to feelings of empowerment, self-discovery, and balance while navigating ART side effects.

Jᑐ⁻luᐣ⊳ᑐᑫ Conclusions:
Indigenous land-based and arts-guided approaches offer culturally grounded, strength-based pathways for addressing ART side effects among Indigenous People Living With HIV. This work demonstrates that healing emerges through relationships with land, Elders, art, and spirit—supporting whole-being wellness beyond biomedical frameworks. These approaches have important implications for Indigenous-led HIV care, research, and policy in Canada and beyond.

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Abstract #352

Sound as medicine: An exploration of sound as a healing modality for urban Indigenous people in Vancouver's Downtown Eastside (DTES)

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Stamsh Slhanay Llawat II (SSLII), which roughly translates to English as Warrior Women Healing II, is a research initiative developed in collaboration with urban Indigenous community members in Vancouver's Downtown Eastside (DTES) to address the enduring impacts of coloniality. Historically and to this day, the DTES is characterized as a high-risk environment for HIV and other sexually transmitted and blood-borne infections (STBBI). In addition, community members experience disproportionate exposure to chronic environmental stressors, including acoustic trauma, intensified by limited access to green space and nature-based environments.

A year-long wellness program grounded in Indigenous knowledges and supported by Wise Ones, cultural facilitators and a licensed music therapist strengthened participants' connection to culture, self and land. The program centered culturally safe, trauma-informed and relational engagement. Participants created personal cultural bundles containing medicines, cultural teachings, a rattle, a hand drum and songs. A ceremony was led to awaken the spirits of the instruments. The music therapist facilitated playful sessions to create safety and (re)awaken the inner child. Cultural facilitators led song-learning circles. Through this process, the profound potential of sound emerged as a healing modality.
To further explore sound's therapeutic value, SSLII partnered with Lobe Spatial Sound, the first 4D immersive sound studios founded in North America. As the connection to the land, self and one another deepened, sound played a vital role in restoring balance and slowing the nervous system—inviting attentive listening and honouring relationality. In this way, sound became a bridge between place, community and ancestry, reminding us of its capacity to hold emotion, care and memory.

Initial findings from this study will be shared, highlighting how culturally grounded sound and music-based practices can counter chronic environmental and colonial stress, foster acoustic sovereignty and enhance wellness for urban Indigenous people living with or at risk of HIV and other STBBI.

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Abstract #353

Advancing the HIV Care Continuum for Newcomers, Racialized, and Marginalized Communities through a Culturally Responsive, Community-First Partnership in Toronto, Canada.

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Background

People living with HIV (PLHIV) in Canada face significant structural barriers to care, including health insurance status, immigration status, systemic racism, and stigma, leading to delayed treatment and gaps in the HIV care continuum. These inequities disproportionately affect racialized communities, particularly Black and Latinx populations, Indigenous peoples, and newcomers. Community-first care models, situated in trusted, non-clinical spaces, are theorized to mitigate these barriers but remain under-described within Canadian health services.

Methods

Freddie, in partnership with PWA Toronto, implemented a low-barrier, community-driven HIV care program running one half-day per week. The integrated model provides ongoing virtual and in-person HIV care, including same-day consultations and antiretroviral initiation, regardless of insurance or immigration status. Services are delivered within a community hub already accessed for social supports such as food programs, housing and immigration assistance.
A retrospective programmatic analysis was conducted on patients accessing care during the initial implementation period, examining demographic characteristics, insurance/residency status at entry, and engagement across the HIV care continuum.

Results

During the initial implementation, 114 unique patients booked an intake, and 66 initiated care. Thirty-three (50%) had precarious or non-permanent immigration status. Individuals primarily identified as Black and Latinx or Latin American. Many reported delayed or interrupted care, citing cost, stigma, and challenges navigating the fragmented health system. The low-barrier approach enabled timely initiation of antiretroviral therapy for 59 (89%) clients, supporting the achievement or maintenance of viral suppression for those with available lab data.

Conclusions

This small-volume, community-driven HIV clinic demonstrated feasibility and meaningful social impact by advancing the HIV care continuum for racialized, newcomer, and structurally marginalized populations. These findings underscore the critical role of culturally responsive, trust-based, and community-embedded models in addressing persistent inequities in Canada's HIV response and meeting national targets. Next steps involve expansion of this program to consolidate learnings for application elsewhere.

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Abstract #356

Rural–Urban Differences in HIV Prevention Priorities Among Adolescents in the Northwest Territories, Canada

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Background: Geographic context plays an important role in shaping HIV prevention–related needs, priorities and practices among adolescents. Youth living in rural and remote communities may face distinct social and structural conditions that influence sexual practices, condom use self-efficacy, substance use, and access to basic resources. Evidence on rural–urban differences in HIV prevention outcomes among Northern and Indigenous youth in Canada remains limited. This study examined rural–urban disparities and temporal trends in HIV prevention indicators among adolescents in the Northwest Territories (NWT), Canada.

Methods: We analyzed repeated cross-sectional survey data from 1,930 adolescents participating in FOXY and SMASH HIV and sexual health workshops across the NWT between 2018 and 2025. Rural youth comprised 68.1% of the sample (n = 1,315). Mixed-effects regression models were conducted to assess adjusted associations between rural residence and HIV prevention–related outcomes, including condom use self-efficacy, sexual activity, food insecurity, and drug use in the past three months. Time-by-residence interactions were examined.

Results: In adjusted analyses, adolescents living in rural communities reported higher sexual activity (Acoef: 0.18; 95% CI: 0.10, 0.24; $p < 0.001$), greater food insecurity (Acoef: 0.11; 95% CI: 0.02, 0.21; $p < 0.05$), and higher recent (past 3-month) drug use (Acoef: 0.20; 95% CI: 0.11, 0.28; $p < 0.001$) compared to urban youth. Condom use self-efficacy did not differ by residence overall; however, a significant time-by-rural interaction was observed (Acoef: −0.24; 95% CI: −0.44, −0.05; $p < 0.05$), indicating a steeper decline in CUSE over time among rural adolescents.

Conclusions: Findings underscore rural–urban inequities in HIV prevention–related needs among NWT youth while highlighting opportunities for strengthening place-based, equity-oriented HIV prevention strategies. Interventions that build on community strengths and address resource and service gaps may help support condom use self-efficacy and reduce HIV vulnerability among rural adolescents over time.

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Abstract #362

Bridging Gaps: Community-Based, Co-Located HIV Care for gbMSM Migrants in Peel Region

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Context:

Peel Region has experienced a rising number of HIV diagnoses, particularly among gay, bisexual, and other men who have sex with men (gbMSM) migrants from Sub-Saharan Africa. This population faces intersecting barriers to HIV prevention and care, including stigma, limited culturally appropriate services, and challenges navigating local health systems. In partnership with Gilead, this project aimed to address these gaps by introducing community-based, co-located HIV prevention and treatment services at Moyo Health and Community Services, a local HIV/AIDS Service Organization, in collaboration with the PrEP Clinic.

Objectives:
1. To connect 300 gbMSM migrants in Peel Region to culturally responsive, status-neutral HIV prevention and care services.
2. To link approximately 75 people living with HIV (PLWH) to HIV treatment and support their integration into long-term local care systems.

Methods:
A co-located, community-based model was implemented, integrating HIV testing, prevention, treatment linkage, and wraparound supports informed by a peer advisory committee and staffed by peers. Outreach was conducted through shelters, community events, and Pride initiatives to increase awareness and access. Clinic data and client surveys were reviewed for program evaluation.

Results:
A total of 685 individuals were engaged through the initiative. Approximately 325 migrants were connected to appropriate HIV care using a status-neutral approach, with nearly 90% identifying as gbMSM. Thirty-nine PLWH were successfully linked to HIV treatment, and 100% of individuals newly diagnosed with HIV initiated and remain engaged in treatment. Client surveys indicated 100% satisfaction, with participants describing the clinic as welcoming, professional, and supportive of privacy and individual needs. Collaboration with local clinical partners strengthened the regional HIV care continuum leading to expanded HIV clinical services.

Conclusion:
This project demonstrates the effectiveness of a co-located, community-based, status-neutral model in improving access to HIV prevention and treatment for gbMSM migrants, highlighting its potential for scalability in other underserved regions.

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Abstract #364

The Art of Wellness: A scoping review of arts-based STBBI prevention for youth

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Background: Arts-based approaches, including the use of filmmaking, drama, hip hop, graffiti, photography, and other visual arts, and culturally-grounded art forms, have recently been identified as engaging, empowering, holistic, and successful strategies for STBBI prevention with a variety of populations in Canada, including Indigenous youth and youth from African, Caribbean, and Black communities. Arts-based STBBI prevention programming is compatible with many best practices for STBBI interventions targeting diverse youth, including youth-led peer education strategies and strategies that address structural/systemic factors including the impact of colonialism, racism, homophobia and transphobia. While one of the strengths of arts-based HIV/STBBI prevention approaches is that they are often highly context specific and tailored to the communities in which they are implemented, the highly contextual nature of arts-based interventions can pose challenges for scaling or implementing interventions in new contexts, as well as the creation of community-oriented implementation guidance/guidelines. The objective of this study is to assess what is known within peer-reviewed literature about the use of the arts for HIV/STBBI prevention with youth in Canada, USA, New Zealand, Australia, and the United Kingdom.

Methods: A scoping review was conducted using the JBI Scoping Review protocol. A search was conducted in 4 databases to identify relevant literature. Title and abstracts and full text reviews were conducted by two independent researchers. Data relevant to our guiding question(s) will be abstracted, analyzed, and summarized.

Discussion: This scoping study will be the first study to systematically examine what is known about the use of the arts in STBBI prevention for youth. We anticipate that our findings will inform the development of future STBBI prevention programming, as well as the creation of community friendly arts-based programming implementation guidelines.

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Abstract #365

Gender-Based Violence and HIV Risk Among Women and Girls

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Gender-based violence (GBV) remains a significant driver of HIV vulnerability among women and girls, affecting autonomy, access to care, and risk reduction, especially amongst black communities. Despite recognition of this intersection, limited research explores women and girls' lived experiences using peer-led methodologies, and comparative insights across studies remain scarce. This study employs a peer research approach to examine the relationship between GBV and HIV risk, situating findings within the broader landscape of peer-led research in urban communities.

This focuses on young girls and women 16-25, data on experiences of violence, HIV knowledge, prevention practices, and access to services, alongside qualitative data on safety, disclosure, and barriers to care. Comparative analysis was conducted alongside previous peer-led studies on GBV and HIV in similar urban contexts, enabling identification of shared patterns, unique local challenges, and effective peer-driven strategies.

Findings reveal that participants experiencing GBV reported increased HIV risk due to limited ability to negotiate safer sex, fear of disclosure, and reduced engagement with prevention services. Stigma, normalization of violence, and mistrust of institutions emerged as persistent barriers. Comparative analysis shows consistent patterns across peer-led studies: peer-led approaches increase trust, engagement, and disclosure, and highlight the importance of culturally responsive, community-driven interventions.

Recommendations include integrating GBV prevention into HIV programming, expanding peer-led education and support, improving confidential access to HIV services, and strengthening institutional responses to address violence and HIV risk simultaneously. The study underscores the value of peer-led, comparative research in generating actionable insights and guiding evidence-based interventions to reduce HIV vulnerability among women and girls affected by GBV.

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Abstract #367

Barriers and facilitators to knowledge and awareness around sexually transmitted and blood-borne infections (STBBIs)-related preventive measures among Black populations across Canada: a systematic review

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Background: Despite preventative efforts to minimize rates of sexually transmitted and bloodborne infections (STBBIs), Canada continues to have an alarming increase in these rates, where Black populations account for the highest rates of STBBIs/HIV in Canada. The overall objective of this research study was to understand the factors affiliated with the increase of STBBI rates by focusing on the reach of preventative measures in the Black populations of Canada.

Objective: The objective of this systematic review was to identify and analyze the barriers and facilitators to knowledge and awareness of STBBIs among Black populations in Canada. This review specifically focused on three key areas: general awareness of STBBIs, knowledge of STBBI prevention, and knowledge of STBBI testing.

Methods: A comprehensive search was conducted using five databases: OVID Embase, OVID Medline, CINAHL, and Scopus. A total of 1261 studies were initially identified, with 24 meeting the eligibility criteria, limited to studies published between 1990 and 2023. All eligible studies included in the review underwent quality assessment.

Synthesis: The review identified 57 barriers and 12 facilitators to STBBI knowledge. Key barriers included stigma, cultural norms, inadequate healthcare resources, lack of cultural competence among healthcare providers, and limited access to information and services. Facilitators included access to AIDS Service Organizations, culturally informed dissemination strategies, supportive family and community networks, and effective communication between parents and children. The Social Cognitive Theory (SCT) was used to interpret these findings, focusing on the role of observational learning, self-efficacy, and social support in knowledge acquisition and health-seeking behaviours, and to guide recommendations for future actions.

Conclusion: The findings highlight significant barriers and facilitators to STBBI knowledge among Black populations in Canada. Addressing these barriers and leveraging the identified facilitators, through interventions informed by the SCT, are recommended to improve STBBI knowledge and health outcomes among these communities.

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Abstract #378

Culturally Responsive Sexual Health and Wellbeing Programming for Trans and Gender Diverse Middle Eastern and North African Newcomer Young Adults in Ontario: Community-Based Participatory Research through Arts-Based Approaches.

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Background: There is a dearth of research on the unique challenges trans and gender diverse (TGD) newcomers and immigrant young adults face when accessing health and social services in the Canadian context. TGD people have worse mental and physical health outcomes, such as depression and anxiety, compared to their cisgender peers. A highly under-researched community, Middle Eastern and North African (MENA) young adults, including TGD youth face unique challenges in navigating HIV and STBBIs even as the community grows rapidly due to high immigration rates. Objectives: this study used community-based participatory research methodology to: 1) examine barriers and facilitators in achieving positive sexual and mental health among trans, non-binary and gender-nonconforming MENA newcomers in Ontario; 2) catalyze community-led research planning and development activities that ensure the inclusion and meaningful representation of TGD MENA newcomers; 3) develop culturally responsive services that will address the sexual and mental health needs for TGD MENA newcomers; and 4) engage TGD MENA youth and service providers in strengthening capacity for knowledge mobilization. Methodology: The study engaged 21 TGD MENA newcomer young adults, ages 21-35 years in Toronto and Windsor, Ontario as participants and co-researchers in a participatory photovoice and visual arts research to co-create knowledge and understanding and engage in collective action. Stage 1: Co-Activation through Arts-Based Expressions. Stage 2: Interviews and Journal Reflections. Stage 3: Data Analysis. Knowledge Translation: 1) three (3) culturally responsive workshops for addressing sexual and mental health challenges and needs; 2) five (5) workshops for co-creating art content and products; and 3) exhibit. Team: TGD peer knowledge users, people living with HIV, and researchers from across Ontario. Our governance embraces GIPA and MIPA principles. Impact: Through participatory arts-based research processes, our project has the potential to generate culturally-responsive programming that will improve access to services for this highly underserved community.

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Abstract #382

Voices Across Canada: A Q-Sort Analysis of Chronic Pain Experiences Among Canadians Living with HIV

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Introduction: Chronic pain remains an under-recognized aspect of living with HIV in Canada. Community accounts point to significant impacts on daily functioning, mental health, and social participation,alongside limited access to coordinated pain care. This study sought to centre lived experience in understanding how people living with HIV navigate and make meaning of chronic pain.

Methodology: Using 248 bilingual survey responses, peer researchers and community partners refined 24 resonant statements capturing pain experiences, management strategies, communication barriers, and structural determinants. Seventy-one participants across Canada engaged in an adapted, hands-on Q-sorting activity, ranking statements from “most like me” to “least like me.” Sessions were photographed, accompanied by brief reflections, and followed by facilitated group discussion. Seven hours of audio were analyzed collaboratively using biopsychosocial and identity-based theories of pain, the social politics of discomfort, and candidacy theory.

Results: Participants described chronic pain as diffuse and difficult to articulate, exacerbated by limited inquiry from providers and the absence of guidance around medication complexity, substance use, and self-directed microdosing. Medical distrust and reliance on diverse, community-rooted self-management strategies were prominent. Pain care was often negotiated as a question of legitimacy.

Conclusions: Findings highlight the need for realistic, culturally grounded knowledge mobilization; provider training responsive to community realities; and low-cost, community-led supports. Equitable pain care requires centering experiential knowledge and strengthening partnerships among PLHIV, providers, and community organizations