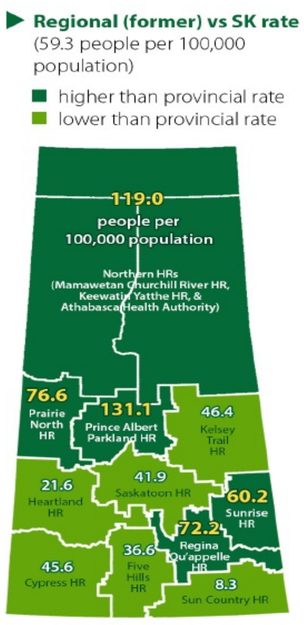
THE EFFICACY OF VIRTUAL CARE FOR HCV ELIMINATION IN ON-RESERVE INDIGENOUS COMMUNITIES IN SASKATCHEWAN,CANADA

Spence C[1,2], Skinner S[1,2], Allan C[2], Rampersad V[3], Zettl M[1], Folk M[2], Klein M[4]

1. University of Saskatchewan; 2. Wellness Wheel 3. Indigenous Services Canada; 4. McGill University

BACKGROUND

The Canadian province of Saskatchewan (SK) has had the highest provincial HIV and hepatitis C (HCV) rates in the country for the past decade. Fueling these trends is epidemic rates of intravenous drug use (IVDU) across SK, particularly among Indigenous communities. Accounting for **15% of the SK population, Indigenous people are 7x more likely to be diagnosed with HCV** compared to that of the general population. Further, Indigenous people living on-reserve account for 4x more of the new diagnoses compared to the general population (SK Ministry of Health, 2021), while an estimated 21-44% chronically infected with HCV are not aware (Skinner, 2018). Rural Indigenous communities are disproportionately impacted by the epidemic with limited access to care and treatment. To address access gaps, a community-responsive care model was implemented in on-reserve communities.



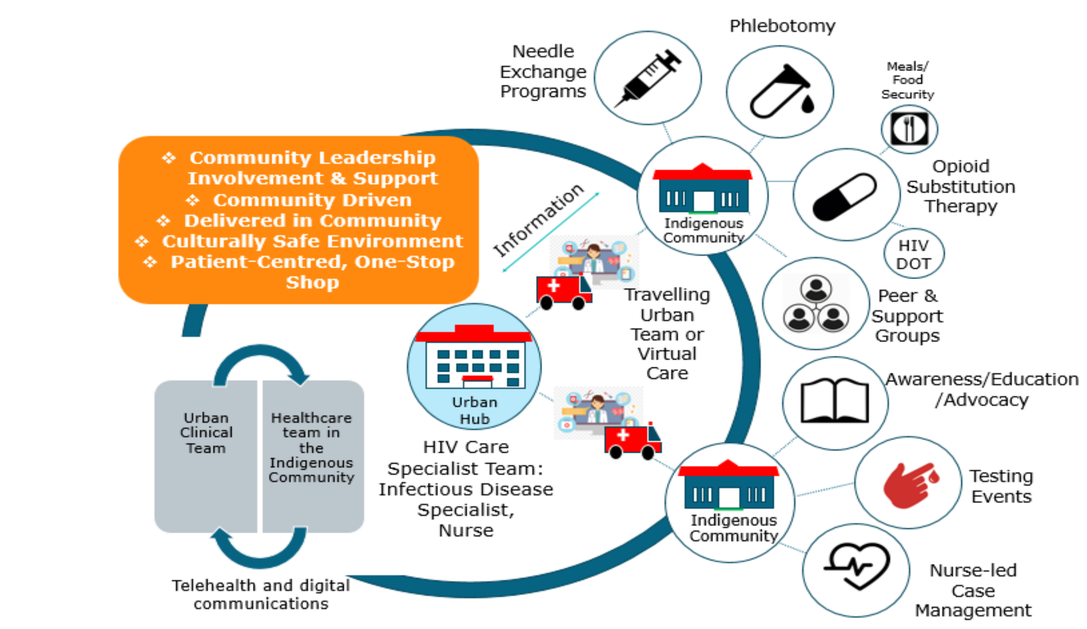
(Source: Saskatchewan Ministry of Health, 2021)

Wellness Wheel (WW) is a mobile medical clinic that delivers health care specifically to on-reserve Indigenous communities across SK. As a community-directed model of care, WW provides nurse-led HCV care, supported by peer support mentorship across the continuum of care, with demonstrated success in providing culturally responsive care. As a community-led model, testing, care, and treatment are provided by community nurses and supported by an urban-based specialist care team.

Responding and adapting to care needs within rural on-reserve communities during the COVID-19 pandemic, the WW care team adopted a virtual care model, where in-community and nurse-led care continued through virtual care methods, including telehealth and virtual consultations. This study examines the HCV virtual care outcomes from 2020-2023 and describes the efficacy of the model during the COVID-19 period, and beyond

VIRTUAL CARE MODEL DESCRIPTION

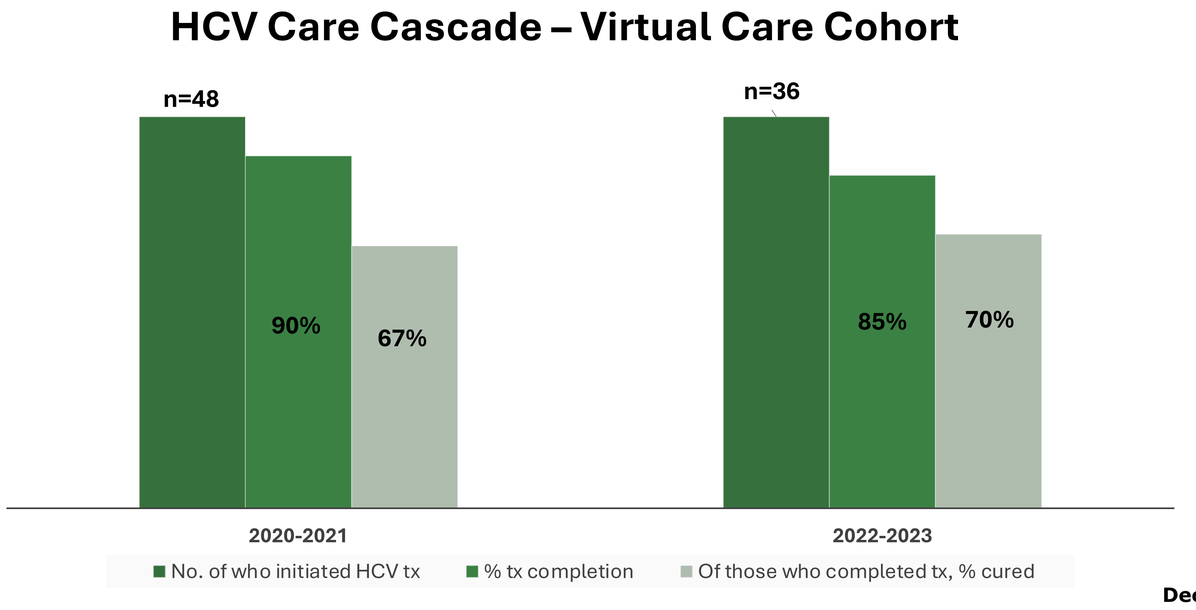
The restrictions of the COVID-19 pandemic forced the closure of community health centers, yet new incidents of HCV infection and risks of IVDU continued to rise in on-reserve communities. Through relationships with community leadership, nursing and outreach staff, an innovative model of care provided virtual care through telehealth, text messages, phone and secure Pexip calls. Care was provided **'where clients are at'.** Community nurses, outreach, and peer mentors engaged individuals in care wherever clients were encountered throughout the community, while the specialist care team remained available through virtual methods. The HCV cascade of care outcomes evaluated clients who initiated treatment for the first time via virtual supported methods and a documented sustained virologic response (SVR) (negative HCV RNA) at 10 weeks or longer, was defined as a cure.



EFFECTIVENESS

COVID-19 restrictions, initiated in March 2020, included isolation and significantly reduced laboratory, mental health, addiction services and on-site medical visits. A virtual care approach supplemented and maintained care provision. Between 2020-2023, there were a total of 156 HIV clients, of which 79% were HCV co-infected, and an additional 218 mono-infected HCV clients that accessed care from WW. The cohort that utilized only virtual care methods during 2020-2021 was n=48, while n=36 accessed virtual care during the 2022-2023 time period following the COVID-19 pandemic restrictions, demonstrating a sustainability and appropriateness of the approach.

Superior care cascade outcomes in the adapted model highlight the success of accessible community-responsive care model, emphasizing programs should be developed and adapted to local needs, strengths and resources. Increased offerings of virtual care methods compensated for significant service slowdown during COVID-19, yet provided successful patient HCV care outcomes. Of those using only virtual methods between January 1, 2020 – December 31, 2023 (65% male and 35% female; mean age 44.8) 85% completed treatment and 70% achieved sustained virological response within the reported time period. A reported 2% and 5% of the virtual care cohort became re-infected during the 2020-2021 and 2022-2023 time periods, respectively.



CONCLUSION AND NEXT STEPS

Supported by community leadership and peer-to-peer outreach networks, virtual care methods were demonstrated as an effective model of care for HCV treatment and elimination in on-reserve communities. Innovation in care delivery necessitated by the pandemic response established virtual care as an additional, alternative, accessible, and effective model of HCV care.

The COVID-19 pandemic required adaptive response measures to maintain a continuity of care for an ongoing epidemic of HIV and HCV across the province. However, virtual care remains a preferred and effective means to access culturally responsive and community-led care. The success of the model combines western medicine with Indigenous knowledge delivered through community-based clinics and supported by virtual telehealth methods to ensure ongoing care of culturally safe practices, despite disruptions in access to care. The addition of peer to peer outreach services provided ongoing engagement with clients throughout the community.

Creativity and innovation in models of care and community partnerships are key to reducing barriers, and enabling sustainable HIV and HCV care in and with Indigenous communities to improve client outcomes, particularly among those hardest to reach.

Acknowledgements

We acknowledge the incredible efforts and dedication of the health staff within the partnering on-reserve communities, the urban care team, and the local Indigenous Services Canada and Saskatchewan Health Authority public health teams for prioritizing HIV and HCV care despite the complication of the pandemic. We also respectfully acknowledge the clients who continued to engage with their care providers during this difficult time.

Declaration: The authors declare no conflicts of interest.