

## CHARACTERIZING THE HEPATITIS C VIRUS CASCADE OF CARE FOR FIRST NATIONS INDIVIDUALS IN ONTARIO, CANADA

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### Background:

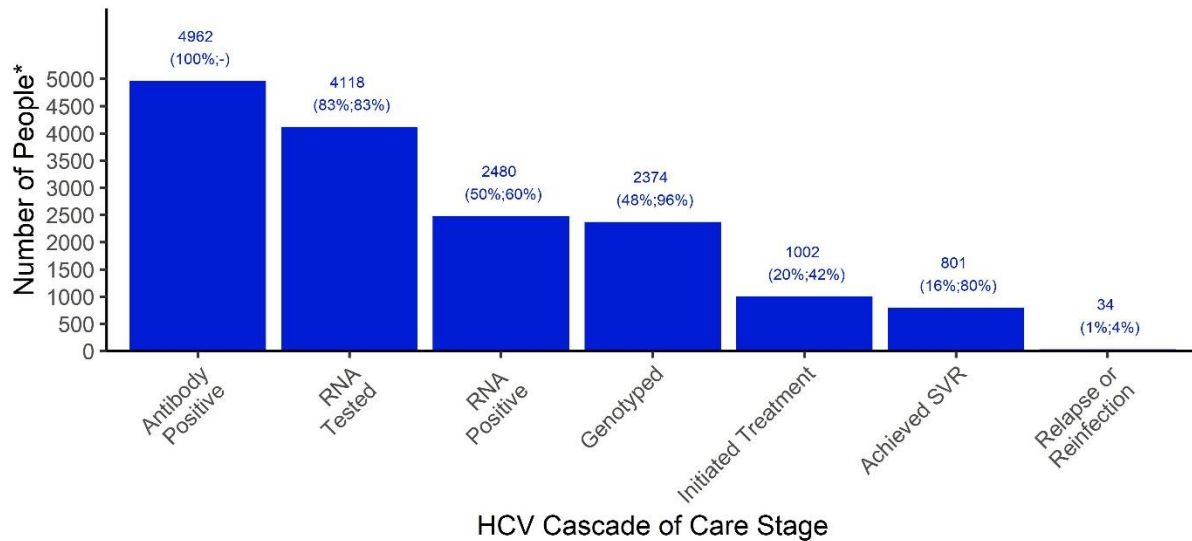
First Nations populations are a priority focus in Canada's commitment to eliminating hepatitis C virus (HCV). Understanding where to target efforts requires data on how individuals progress from testing and diagnosis to treatment and cure. In partnership with the Ontario First Nations HIV/AIDS Education Circle, we characterized the HCV care cascade for First Nations people in Ontario.

### Methods:

This retrospective cohort study linked individuals with First Nations status to HCV testing records from 1999 to 2018. Care stages spanned testing and diagnosis to treatment and sustained viral response (SVR) (Figure). We mapped the cascade of care to December 31, 2018 and determined the proportion of individuals at each stage and their characteristics, including sex, diagnosis date, region, advanced liver disease, and mental health diagnoses. Cox regression models were used to identify associations between characteristics and testing and treatment uptake.

### Results:

Overall, 4,962 individuals (mean age 35 years, 53%(2,614) male) tested antibody positive. Before HCV diagnosis, 3,728(75%) had a diagnosis code related to substance use. Among antibody positive individuals, 4,118(83%) were RNA tested, with 60%(2,480) positivity; and 2,374(96%) were genotyped. Treatment was initiated in 1,002(42%), of whom 801(80%) achieved SVR. Following SVR, 34(4%) had reinfection or relapse (Figure). Individuals of older age, residing in a rural area, and/or with a later year of diagnosis were more likely to undergo RNA testing, while individuals born before 1975 were less likely ( $p<0.0001$ ). Initiating treatment was more likely among individuals of older age and/or with a later year of diagnosis, while less likely among individuals born before 1975 (all  $p<0.0001$ ).



\*Annotation above each bar describes the number of individuals and percentages of antibody positive and previous stage, respectively.

**Conclusion:**

Although there have been increases in HCV testing and diagnosis among First Nations populations in Ontario, findings suggest that a substantial gap exists in treatment initiation. Efforts should prioritize linkage to care and consider integration with harm reduction and substance use programming.

**Disclosure of Interest Statement:** This study was funded by a project grant from the Canadian Institute of Health Research (CIHR). WW and MK have received research support from the Canadian Liver Foundation. JF has received research support and/or consulting fees from Abbvie, Enanta, Gilead, GSK, Janssen and Roche.