Time until initiation of HIV care after an HIV+ test result recorded from 1997 to 2016 in British Columbia, Canada

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Providence HEALTH CARE
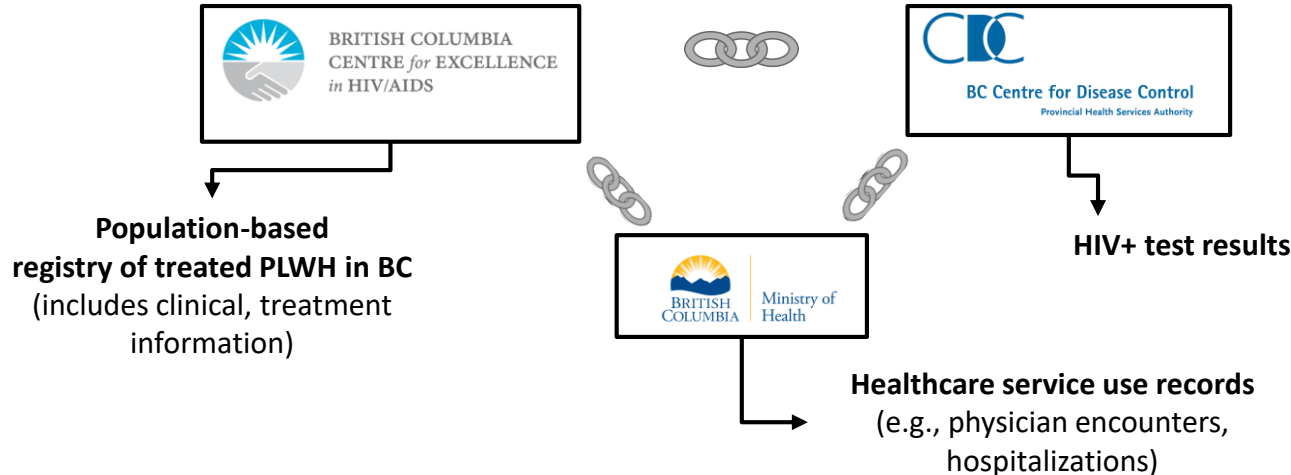How you want to be treated.

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- Given changes in guidelines, practice, and other factors related to HIV care, understanding patterns in healthcare use after an HIV+ test result – a crucial period of care – is important
  - We examine trends in days until first HIV-related care events after an HIV+ test result.

- The Seek and Treat for Optimal Prevention of HIV/AIDS (STOP) Study [1] includes population-based linkages of clinical/treatment data from the BC Centre for Excellence in HIV/AIDS [2-3], HIV testing data from the BC Centre for Disease Control [4], and healthcare records from the BC Ministry of Health [5-9]:

The STOP Study Linkage

Population-based registry of treated PLWH in BC (includes clinical, treatment information)

HIV+ test results

Healthcare service use records (e.g., physician encounters, hospitalizations)
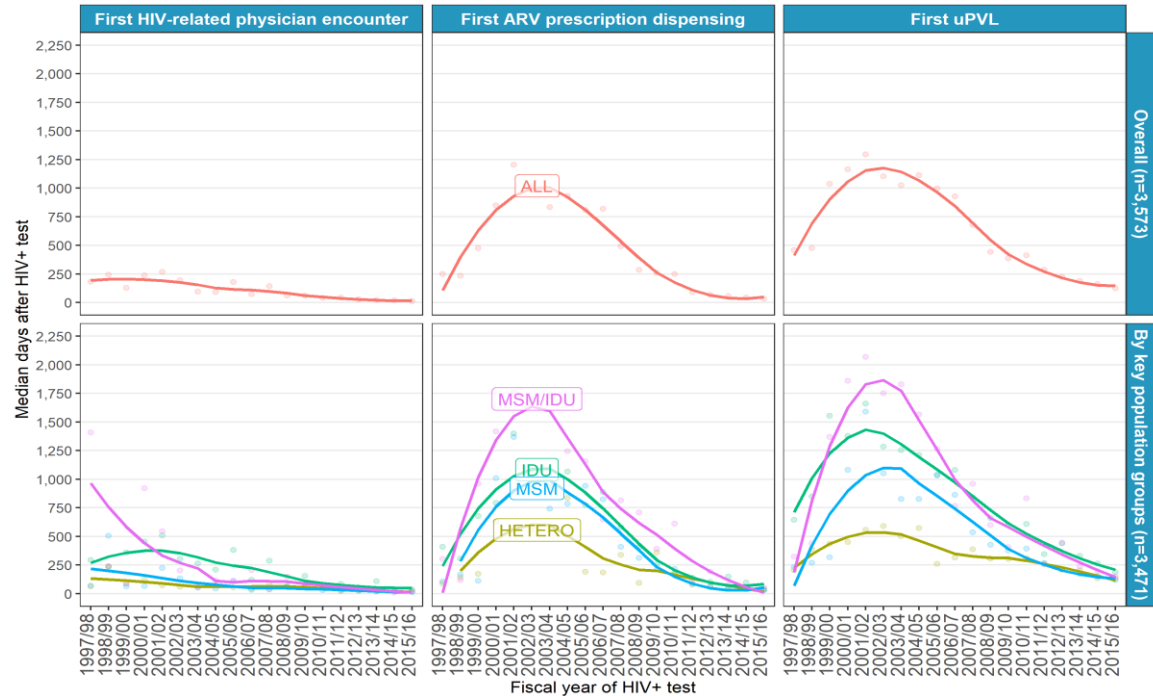
https://stophivaids.ca/

- We visualized longitudinal trends, overall and by key population group, in median days from positive HIV test until first recorded:

  - **HIV-related physician encounter**
    - Any encounter recorded in BC's Medical Services Plan (MSP) file
      With an HIV-related diagnostic code: ICD-9 code beginning with: 042, 043, 044, 795.8   _OR_
      ICD-9-CM code beginning with: 042, 043, 044, 795.71, V08

  - **Antiretroviral (ARV) prescription dispensing**
    - Date of any ARV prescription dispensing (for HIV treatment) as recorded in BC-CfE files

  - **Undetectable plasma viral load (uPVL)**
    - Based on laboratory measurements from BC-CfE files, using period-specific thresholds

Main findings

- For the period following an HIV+ test: median days (interquartile range, IQR) until first HIV-related physician encounter decreased steadily from 183 days (IQR=1,454) for those with an HIV+ test in the 1997/98 fiscal year to 13 days (IQR=27) for those with an HIV+ test in 2015/16

- Median days until first ARV prescription dispensing increased initially from 247.5 days (IQR=866) for those with an HIV+ test in 1997/98 up to 1204.5 days (IQR=1,866.5) for those with an HIV+ test in 2001/02, before steadily declining thereafter to 35 days (IQR=41) for those with an HIV+ test in 2015/16;
this is expected given changes in treatment guidelines/practices around that period

- Similarly, median days until first uPVL increased initially from 457 days (IQR=1,502) for those with an HIV+ test in 1997/98 up to 1,295.5 days (IQR=2,013) for those with an HIV+ test in 2001/02, before steadily declining thereafter to 126 days (IQR=125) for those with an HIV+ test in 2015/16

- All trends were generally comparable across key population groups

Median days after HIV+ test until first HIV-related care event

Abbreviations: ARV: Antiretroviral. HETERO = heterosexual. IDU = Injection drug use. MSM = Men who have sex with men. uPVL = undectable plasma viral load.
Note. Due to small counts, 'other' and missing key population group information (n=102) were not displayed among the key population group strata.
N varied slightly for each plot due to missing data on certain events; n=125 of the overall sample had none of the three events recorded.

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- Descriptive analyses of population-based linked datasets allowed us to further characterize HIV care trajectories among people who tested positive for HIV, across various treatment guideline eras

- Encouraging trends can be observed regarding reducing the time until initiation of HIV care, across various indicators and key population groups in BC

- Future work may consider HIV-related care provided by non-physicians (e.g., nurse practitioners, social workers) as well as additional time periods (i.e., beyond 2016)

Thank you!
Questions, comments, discussion:

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Disclaimer: all inferences, opinions, and conclusions drawn in this presentation are those of the authors and do not reflect the opinions or policies of the Data Steward(s).

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