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Session: **EPH1**: Friday May 1 – 11:00:12:30 – HIV and HCV Surveillance

Track: Epidemiology and Public Health

Subject: Data and methodological science: use of administrative data, new tools and other novel data sources in HIV surveillance, prevention and control programs

Presentation Type: Oral

Title of Abstract: **Using administrative pharmaceutical prescription data to estimate the number of persons on HIV antiretroviral treatment, Canada, 2014-2018**

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Abstract

Introduction: The number of people on HIV antiretroviral treatment (ART) is a critical component to measuring the 2nd 90-90-90 target for eliminating HIV. Current national estimates combine data from various sources e.g. provincial clinical and prescription databases, since a comprehensive data source for all HIV positive persons on ART in Canada does not exist. The Public Health Agency of Canada (PHAC) purchased data from IQVIA to corroborate current estimates of the number of people on HIV ART.

Method: Annual estimates of persons on ART in Canada were generated for 2014-2018 from IQVIA's prescription database (data not available for Alberta, British Columbia and the Territories). An algorithm was used to distinguish users of ART for HIV treatment from those using it for pre or post-exposure prophylaxis or Hepatitis B treatment. We provide the estimated number of people on ART for HIV by sex, age group and prescriber specialty.

Results: The estimated number of people on HIV ART in 2016 (eight provinces) was 32,260 using IQVIA data and was 31,976 using provincially provided data. IQVIA data showed an increase in the number of persons on ART from 26,833 in 2014 to 35,092 in 2018. Over the five year period, the relative increase was greatest among males aged 18-24 years (310%) and females aged 15-17 years (278%). In 2018, approximately half of people (53.4%) on treatment were aged 36-55 years and males accounted for 79.3% of persons on treatment. In 2018, 50.2% of prescriptions were prescribed by primary care providers, followed by infectious disease specialists (23.0%).

Conclusion: IQVIA data corroborated the treatment data from provincial clinical or pharmacy databases. Administrative data is a useful validation tool that could also be used to develop 2nd 90 estimates where treatment data are not available and to estimate treatment targets for other diseases (e.g. HCV).