

FACT SHEET

What is COAST?

The **Comparative Outcomes And Service Utilization Trends (COAST) study** is a population-based study that aims to examine the health outcomes and health service use of people living with HIV, including both those who are accessing and not accessing antiretroviral therapy, as compared to a random ten percent sample of the total population of British Columbia (BC). The study comprises two defined cohorts of adults (≥ 19 years) differentiated by their HIV status and with de-identified health-related data on antiretroviral and health service use from the BC Centre for Excellence in HIV/AIDS (BC-CfE) and Population Data BC, respectively. The study currently has linked data from April 1, 1992 to March 31, 2020. COAST is uniquely positioned to assess health outcomes and resource utilization because it is the only study that allows a comparison between individuals living with HIV and the general population of British Columbia, on a population-wide basis. The COAST study is funded by the Canadian Institutes of Health Research with support from the BC-CfE.

Major Aims

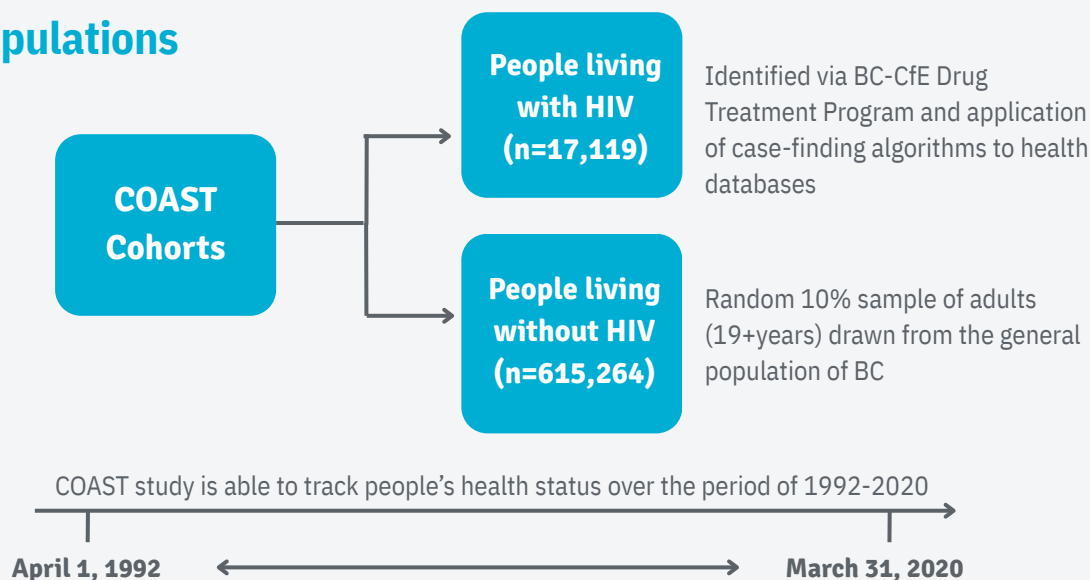
To evaluate health outcomes related to antiretroviral and health care services use among adults living with HIV.

1

To assess how these health outcomes differ from those observed in a random sample of the total population of BC.

2

Observed Populations



Highlighted Findings from COAST

COAST has contributed to our understanding of combination antiretroviral therapy (ART) use, health service utilization, chronic diseases, mental health and substance use disorders, and mortality among People Living With HIV (PLWH) in BC.¹ Since the creation of the original cohort, we have had over 30 publications. Key findings include earlier age at diagnosis of certain chronic conditions, a higher incidence of mood disorders among PLWH, and noteworthy shifts in causes of death among PLWH on ART.

1 Healthy life expectancy is increasing over time among people with HIV

In a retrospective population-based cohort study with all known PLWH identified in COAST between April 1, 1996 and March 31, 2020, 2511 (17.8%) females and 11 624 (82.2%) males met inclusion criteria of age ≥ 20 years with ≥ 1 day of follow-up.² We found that all healthy life expectancy measures — age-related condition-free life expectancy, multimorbidity-free (≥ 3 conditions) life expectancy and mental health condition-free life expectancy — increased over time, with females experiencing fewer healthy years than males. These findings reflecting the substantial gains achieved through universal healthcare access and widespread ART availability. However, there remains a concurrent increase in chronic and mental comorbidities as individuals age and the persistence of sex differences underscores an opportunity to strengthen equity-focused approaches. Advancing sex-responsive strategies to prevent and manage chronic and mental health conditions can build on existing progress and further enhance healthy aging among women living with HIV.

2 Nonfatal overdose rates are higher among people with HIV compared to people without HIV

Using data from COAST, this cohort study investigated age-adjusted incidence rates of non-fatal overdoses by HIV status and sex, and examined trends between April 1, 2012 and March 31, 2020.³ We identified non-fatal overdose events from psychoactive substances, including opioids and stimulants, that resulted in a healthcare practitioner encounter, emergency department visit or hospitalizations. Non-fatal overdose rates, including opioid- and stimulant-related overdoses, were higher among both males and females with HIV compared with people without HIV. Yet between 2013 and 2019, age-adjusted non-fatal overdose rates rose significantly among people without HIV, while remaining stable among people with HIV, reflecting important progress in HIV-related care and harm-reduction supports. Among people with HIV, females experienced the highest non-fatal overdose rates. This pattern differs from the general population, where males typically have higher overdose rates, and highlights the unique strengths and challenges within communities of women living with HIV.

3 People living with HIV experience an increased prevalence of most comorbidities

This retrospective, matched cohort study followed people with HIV and people without HIV between January 1, 2001 and December 31, 2019 in BC.⁴ Researchers assessed 16 physical and mental comorbidities determined with BC Ministry of Health case-finding algorithms or other validated case-finding algorithms applied to administrative health databases available with COAST. People living with HIV were found to experience a higher age-sex- standardized prevalence of various comorbidities measured. The two most common comorbidities among people with HIV were mood/anxiety disorders (40%) and substance use disorder (38%) compared to 24% and 6% among people without HIV, respectively. Some disparities between people with and without HIV have improved, namely liver and kidney diseases, reflecting meaningful gains in HIV care, treatment access, and chronic disease management. Although healthcare costs remain higher for people living with HIV and multimorbidity is more common, these findings highlight the growing effectiveness of HIV care while underscoring an opportunity to strengthen integrated, holistic models that support healthy ageing.

Learn more about : <https://doi.org/10.23889/ijpds.v10i1.2496>

References

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