A growing body of evidence suggests that injection drug use is associated with significant morbidity and mortality among persons living with HIV.

We sought to understand the impact of cancers, heart, respiratory, liver, lung and renal diseases and history of injection drug use on health adjusted life expectancy (HALE) among persons living with HIV (PLHIV).

This analysis was based on a cohort of PLHIV aged ≥20 years who had a record of at least one detectable HIV plasma viral load, AIDS defining illness, or CD4 cell count; and who initiated highly active antiretroviral therapy (HAART) in BC between 25 June 1996 and 31 December 2012.

Prevalence of cancers, heart, respiratory, liver, lung and renal diseases was determined based on a set of validated International Classification of Diseases, version 9 and 10 codes.

All deaths were obtained from the vital event registry in BC.

We estimated HALE using Sullivan’s method (Sullivan DF. HSMHA Metrics, 2006).

A healthy state was defined as the proportion of life expectancy comorbid free.

We also examined the sensitivity of our HALE estimates for dependency (Mathers CD et al. Population Health Metrics, 2006).

Our study consisted of 7,594 persons aged ≥20 years on HAART, of whom 43.6% had a history of injection drug use.

Persons who inject drugs (PWID) were more likely to be women, to be Indigenous and to have initiated HAART at CD4 counts below 200 (all p-values <0.001).

PWID exhibited higher prevalence for renal and liver diseases. Hepatitis C accounted for 42.4% (2,618 out of 6,179) of person years lived with liver disease in PWID and 9.3% (283 out of 3,036) among other PLHIV.

Life expectancy at 20 years was 29.09 (SE: 0.29) and 48.05 (SE:0.60) years for PWID and other PLHIV, respectively.

There was considerable difference between adjusted and unadjusted measures of HALE for both groups. Even after adjustment, PWID spent a lesser proportion of time in a healthy state – 26.68 (SE:0.16) versus 45.22 (SE: 0.37) years.

Among PWID individual comorbidities were more likely to be paired with liver and renal diseases, while among PLHIV they were more likely to be paired with liver, renal and cardiovascular diseases (see Table 2).

While HAART has substantially improved the life expectancy for many PLHIV, PWID have not benefitted to the same degree and spend significantly less time in a healthy state due to the fact that they are more impacted by liver and renal-related conditions.

Expanded service delivery interventions to address complex care needs of aging PLHIV, especially PWID, are critical to addressing shorter life expectancies, and improving their healthy states.

The study was funded by the Canadian Institutes of Health Research through a Foundation Award to Dr. Hogg.

The BC-CfE, BC Ministry of Health and BC Cancer Agency provided and approved access to and use of the data facilitated by Population Data BC for this study.

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