High mortality among women living with HIV enrolled in Canada’s largest community-based cohort-study

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METHODS (CONTINUED)

Death & cause of death were determined via study notification and follow-up procedures, and confirmation via Vital Statistics (in BC; Sensitivity of 64% and Specificity of 99%).

Time at risk of death was calculated for each participant by summing months between study start date (baseline) and end date (death, withdrawal, completed Wave 3, LTFU/Declined Wave 3, Dec 1st, 2017). Total cohort “Time at risk” was summed across all participants and expressed as “woman-years treated”. Loss-to-follow-up (LTFU) was defined as having no research team contact with the participant for at least 18 months. Between Waves 1 and 2, 6.9% (n=98) were considered LTFU and 1.7% (n=24) declined to complete Wave 2. All 122 were retained in the study and considered eligible for Wave 3 and attempts to contact continue. To compare the age-standardized mortality ratio with mortality among women living with HIV, we used competing risk analyses to retain in this analysis as participants who are “at risk of dying” rather than censoring them at the last point of contact.

Age-standardized mortality ratio was computed using the Canadian female reference population data from Statistics Canada (age 15+ years).

RESULTS (CONTINUED)

• 54 women died of 1,422 enrolled (3.8%) as of Dec 2017
• Crude mortality rate = 11.8 per 1,000 woman-years; 95% CI: 9.0-13.5 Mortality rate over time.

Figure 2. Age-standardized mortality ratio comparing CHIWOS to the Canadian female population (2011, age 15+ years).

Table 2. Proportional sub-distribution hazards model of mortality among CHIWOS participants, with LTFU as a competing risk (n=1,422).

Table 3. Median Age (n=1,422)

Characteristics | Median Age (n=1,422) | 95% CI (n=1,422)
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Median | 50.0 | 45.1-55.1
Trans gender identity | 63 | 4-4.6
Ethnicity: | 63 | 22.9-65.6
- Indigenous | 318 | 22.9-40.9
- African/ Caribbean/ Black | 418 | 29.4-54.0
- White | 584 | 41.1-75.8
- Other ethnicity | 102 | 7.2-78.6
Personal yearly income (<$20,000) | 998 | 70.2-80.2
Drug use (current or previous) | 643 | 45.1-73.7
Received HIV medical care in past year | 1385 | 97.4-99.9
Currently on ART | 1137 | 82.0-96.1
Undetectable viral load (<50 copies/mL) | 1007 | 77.1-92.4

Table 4. Cumulative incidence plot of mortality by probable depression (CES-D score >10 vs <10)

Figure 3. Cause of death among women living with HIV enrolled in CHIWOS with follow-up until December 1st, 2017 (n=54)

RESULTS

• We found an alarming level of mortality among a community-based cohort of women with HIV in Canada, a majority of whom were engaged in HIV care.
• Sensitivity analyses indicate that reported rates likely underestimate true mortality by 36%. Thus, at the time of analysis (i.e., Dec 1, 2017), we estimated 69 CHIWOS women have likely died, n=13 more than reported.
• As of July 11, 2018, there were 65 reported deaths.
• No HIV-related clinical factors predicted mortality. Instead, co-morbidities, substance use (alcohol use), and mental health present greater risks to survival.

To prevent premature mortality among women living with HIV, good HIV care is necessary, but it is not sufficient. There is an urgent need for women-centred HIV community outreach, social care services, and policy changes that address social disparities and mental health needs, and integrate harm reduction services, inclusive of tobacco and hazardous alcohol use. We must prioritize peer support and leadership in these services.

ACKNOWLEDGMENTS

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We honour and remember the 65 women living with HIV who participated in CHIWOS across Canada who have passed away, including a cherished Peer Research Associate, Maried Duhoux.

CONCLUSIONS

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