

Decline in HIV-related deaths in Australia: A 23-year national cohort study

Authors:

McGregor S¹, McManus H¹, Naruka E¹, Miller A¹, Amin J^{2,3}, Gray RT¹, Ward J⁴, Giele C⁵, Guy R¹ on behalf of the Australian National HIV Data Linkage Study

¹The Kirby Institute, UNSW Sydney; ²NSW Ministry of Health; ³Macquarie University;

⁴Poche Institute, University of Queensland; ⁵Department of Health Western Australia

Background:

Global targets to eliminate HIV as a public health threat include a 90% reduction in HIV/AIDS-related deaths by 2030, from a 2010 baseline. Understanding patterns of mortality is crucial to understanding the impact of HIV clinical and public health management. We linked national data sources to determine changes in causes of death over time, in the Australian population of people with HIV.

Methods:

Using data linkage, a national cohort of people diagnosed with HIV between 1 January 1997 and 31 December 2020 was created, from the National HIV Registry (NHR) and National Death Index (NDI). Cause of death was determined using ICD-10 codes recorded in the NDI, and cause of death recorded in the NHR, and described over time. The probability of HIV-related versus non-HIV-related death by time-period of diagnosis was estimated using a Kaplan-Meier with log-rank test analysis.

Results:

The study included 24,270 persons aged ≥ 20 years; most persons were male (88%), with 50% born in Australia. There were a total of 1750 deaths recorded. Over the study period, 61% of all deaths were attributed to HIV-related causes, declining from 64% for people diagnosed in 1997-2002 to 57% in 2015-2020. Between 2010 and 2020, the number of HIV-related deaths declined by 90%. The Kaplan-Meier analysis demonstrated that earlier diagnosis had a higher probability of HIV-related death, than diagnosis in later time-periods (1997-2002 vs 2003-2008, 2009-2014, 2015-2020). The probability of HIV-related deaths in the first three years of diagnosis was >3 times in earlier periods. There was no difference in probability of non-HIV-related deaths by time-period.

Conclusion:

The highest proportion of deaths were HIV-related deaths but that declined over time and the global target of 90% reduction was met. Australia should be aiming for zero HIV-related deaths, which will require enhanced and equitable access to HIV treatment and care.

Disclosure of interest statement:

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