

## Mortality from suicide among people living with HIV and the general Swiss population: 1988-2017

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### INTRODUCTION

In many countries, mortality due to suicide is higher among people living with HIV than in the general population. We aimed to analyse trends in suicide mortality before and after the introduction of triple combination antiretroviral therapy (cART), and to identify risk factors associated with death from suicide in Switzerland.

### METHODS

We analysed data from the Swiss HIV Cohort Study from the pre-cART (1988-1995), earlier cART (1996-2008) and later cART (2009-2017) eras. We used multivariable Cox regression to assess risk factors for death due to suicide in the ART era and computed standardized mortality ratios (SMRs) to compare mortality rates due to suicide among persons living with HIV with the general population living in Switzerland, using data from the Swiss National Cohort.

### RESULTS AND DISCUSSION

We included 20,136 persons living with HIV, of whom 204 (1.0%) died by suicide. In men, SMRs for suicide declined from 12.9 (95% CI 10.4-16.0) in the pre-cART era to 2.4 (95% CI 1.2-5.1) in the earlier cART and 3.1 (95% CI 2.3-4.3) in the later cART era. In women, the corresponding ratios declined from 14.2 (95% CI 7.9-25.7) to 10.2 (3.8-27.1) and to 3.3 (95% CI 1.5-7.4). Factors associated with death due to suicide included gender (adjusted hazard ratio 0.58 (95% CI 0.38-0.87) comparing women with men), nationality (1.95 (95% CI 1.34-2.83) comparing Swiss with other), Centers for Disease Control and Prevention clinical stage (0.33 (95% CI 0.24-0.46) comparing stage A with C), transmission group (2.64 (95% CI 1.71-4.09) for injection drug use and 2.10 (95% CI 1.36-3.24) for sex between men compared to other), and mental health (2.32 (95% CI 1.71-3.14) for a history of psychiatric treatment vs. no history). There was no association with age.

### CONCLUSIONS

Suicide rates have decreased substantially among people living with HIV in the last three decades but have remained about three times higher than in the general population since the introduction of cART. Continued emphasis on suicide prevention among men and women living with HIV is important.

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