



Public Health
England

Suicide among people diagnosed with HIV in England and Wales compared to the general population

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Depression and anxiety

- Evidence from the United Kingdom (UK) suggests high rates of depression and suicidal ideation among people with HIV.
- **Positive Voices Survey (2014)¹**
 - **30%** self-reported depression/anxiety; 17% in the general population
 - **32%** among men and **25%** among women
- **ASTRA Study (2011-2012)²**
 - **50%** self-reported anxiety/depression; **10%** severe
 - Significantly higher than in the general population (27%)



Suicidal ideation

- **Stigma Survey (2015)³**
 - **50%** people reported feeling shame, guilt, low self-esteem and/or self-blame in relation to their HIV status in the last year
 - **53%** of those diagnosed in the last year had a negative self-image; **34%** of those diagnosed more than 5 years ago
 - **18%** suicidal ideation; **28%** among those diagnosed in the last year
- **HIV clinic attendees (2005-2006)⁴**
 - **31%** prevalence of suicidal ideation in the last week
 - Factors independently associated with suicidal ideation: being a heterosexual man, black ethnicity, physical and psychological symptoms, not disclosing HIV status and poorer quality of life



Suicide deaths

- **Adults diagnosed with HIV (1997-2008)⁵**
 - **0.9%** of deaths due to suicide; **5.5%** due to possible suicide
 - Possible suicide was significantly higher among adults acquiring HIV through injecting drug use (**20.8%**) compared to sex between men (**6.4%**) or heterosexual transmission (**2.2%**).
- **Aim of this study**
 - We investigate deaths attributable to suicide in England & Wales among people diagnosed with HIV in the era of HAART and compare to the general population



Methods (1)

- **Study design:** Retrospective cohort study
- **Data sources:**
 - 1) National HIV surveillance data reported to PHE linked to death data from the Office of National Statistics (ONS)
 - 2) ONS population data by sex, five-year age bands and cause of death
- **Population:** Adults (aged ≥ 15 years) diagnosed with HIV between 1997 and 2012 in England and Wales



Methods (2)

- **Death categorisation:** Deaths to the end of 2012 were categorised using a modified CoDe Protocol⁶
- **Cumulative mortality:** Kaplan-Meier time-to-event analysis
 - Entry on diagnosis date
 - Censorship at death or last clinic visit
- **Comparison to the general population:** Standardised mortality ratios (SMRs) were calculated, stratifying by sex and five-year age bands, using ONS population denominator data

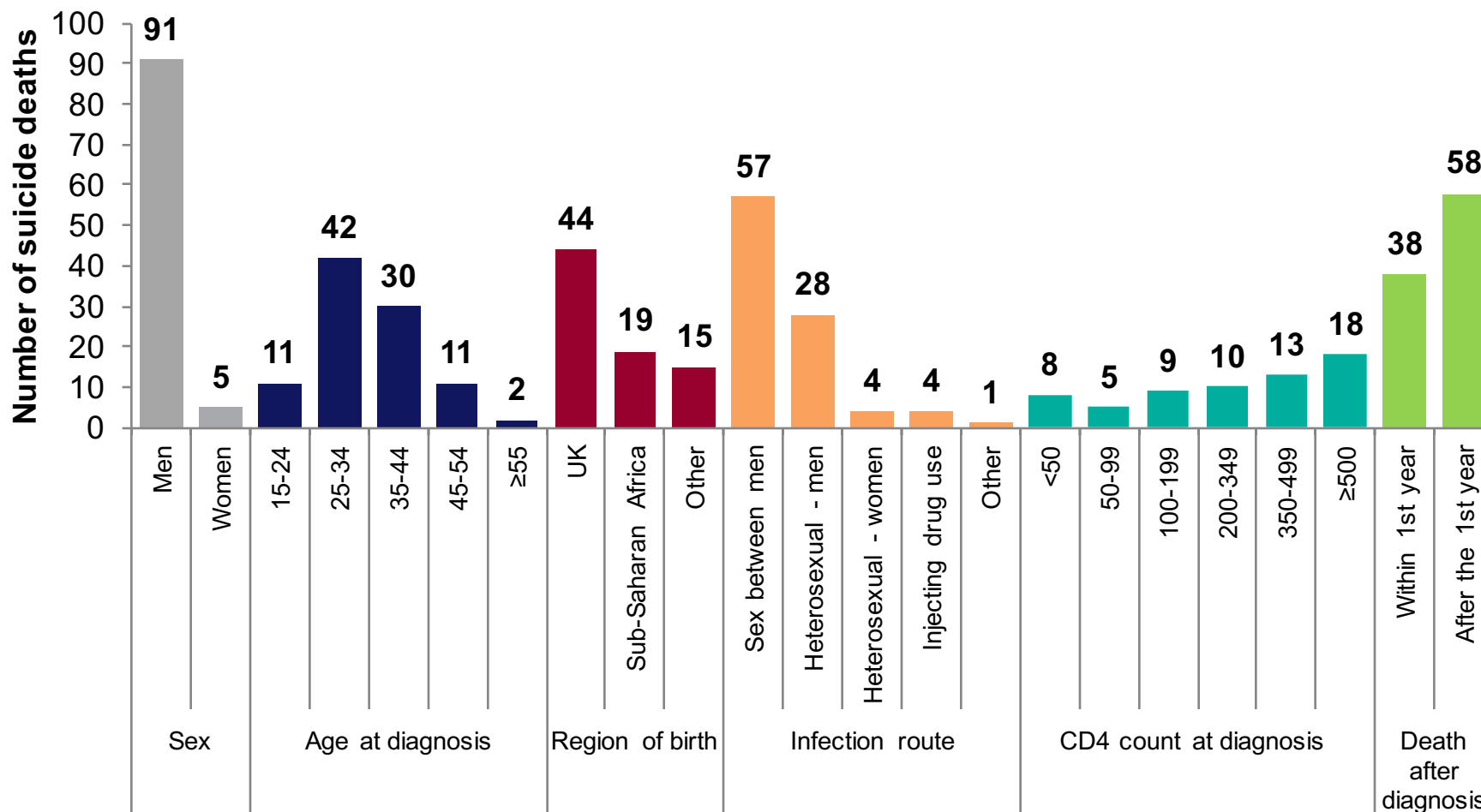


Results

- **88,994** adults newly diagnosed with HIV between 1997 and 2012 in England and Wales contributing 448,839 person years (pys) of follow-up
- By the end of 2012, **5,302** people had died
- Mortality rate: **118 per 10,000 pys** (95% CI: 115-121)
- Where cause of death known (91%):
 - AIDS (58%)
 - Non-AIDS conditions (42%)
- **Suicide** (**2.0%; 96**): **2.1 per 10,000 pys** (95%CI: 1.8-2.6)



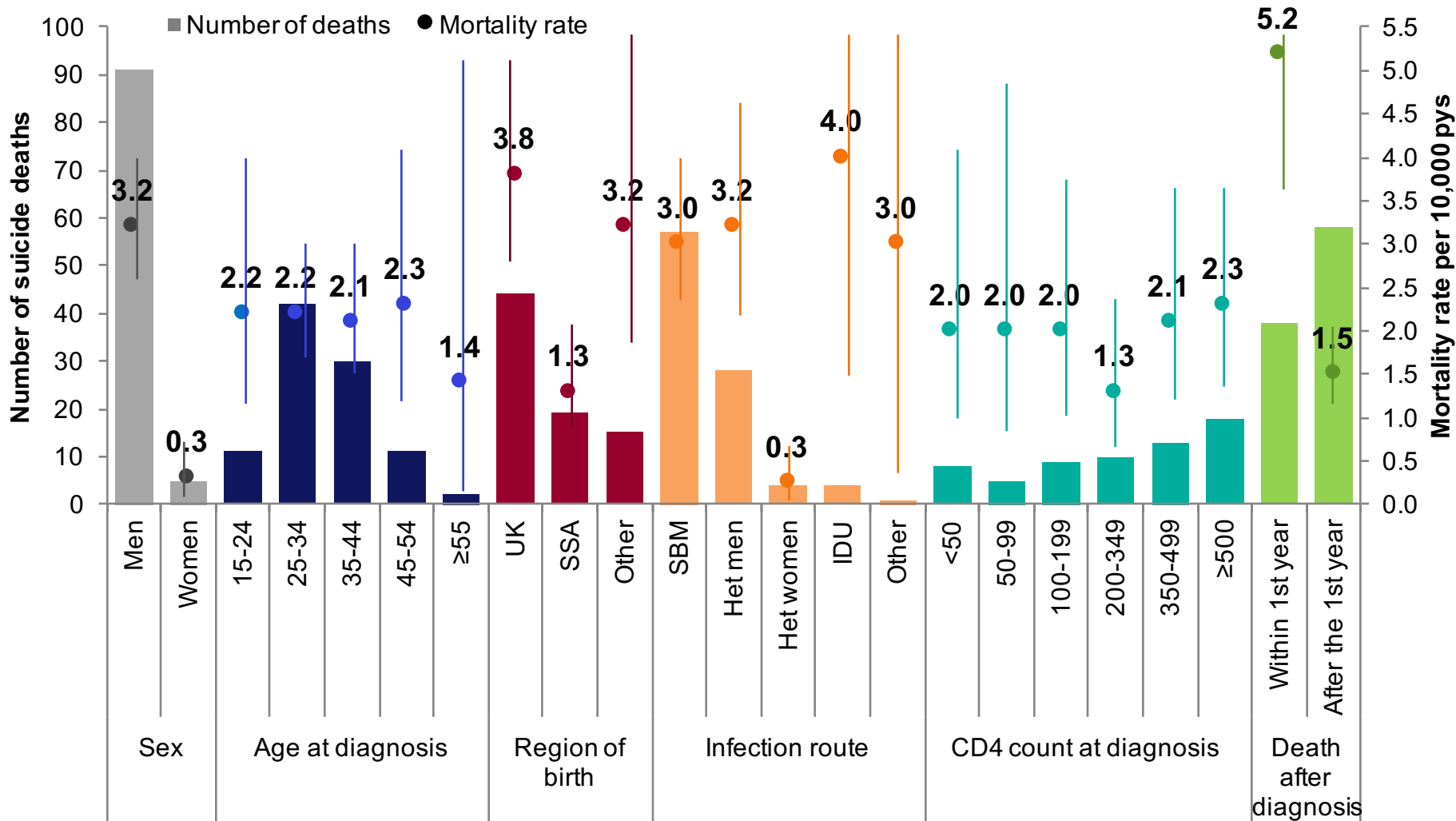
Characteristics of people who committed suicide (n=96)



Completeness: sex: 100%, age at diagnosis: 100%, region of birth: 81%, infection route: 97%, CD4 count at diagnosis: 65%

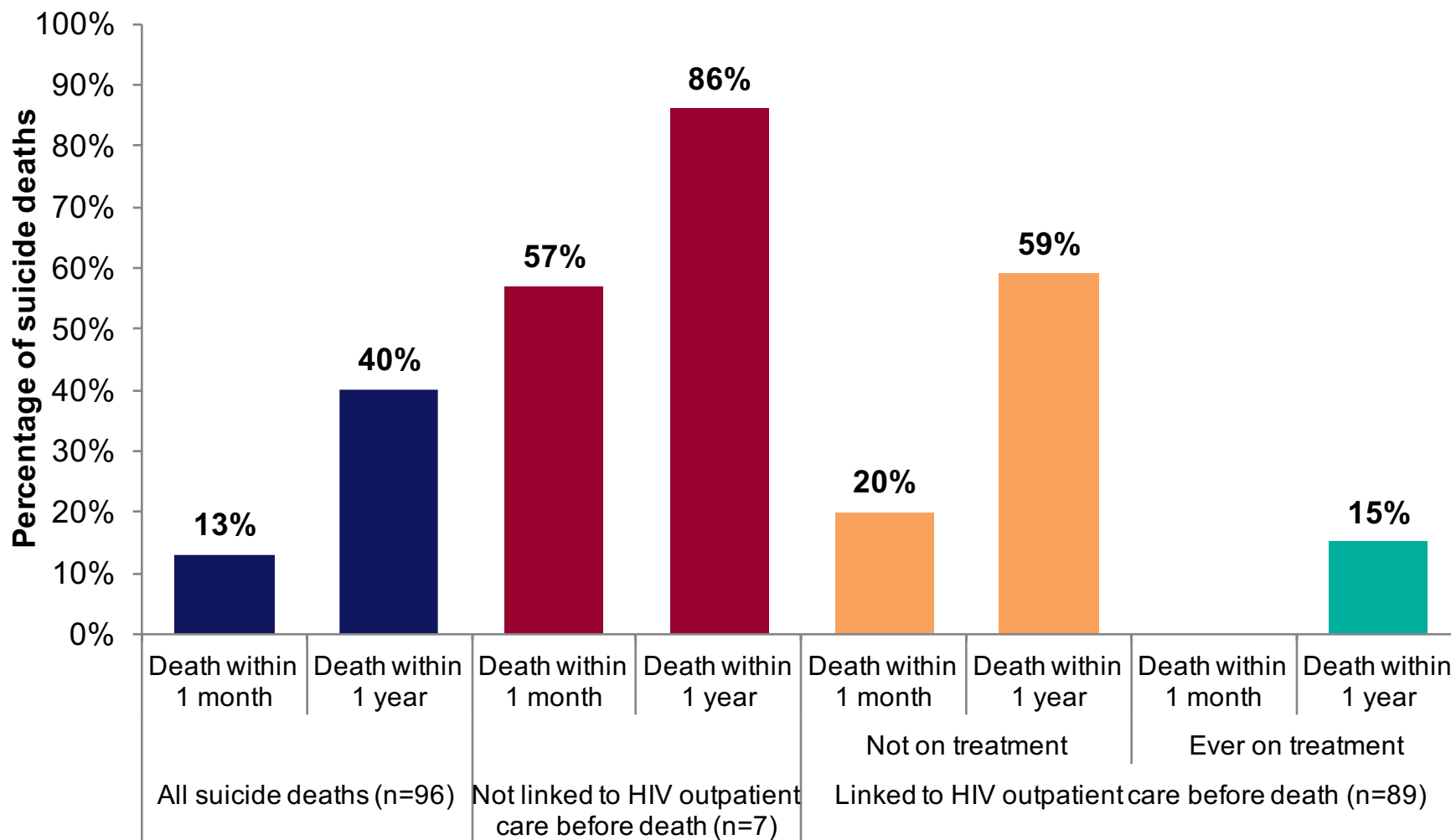


Characteristics of people who committed suicide (mortality rates)



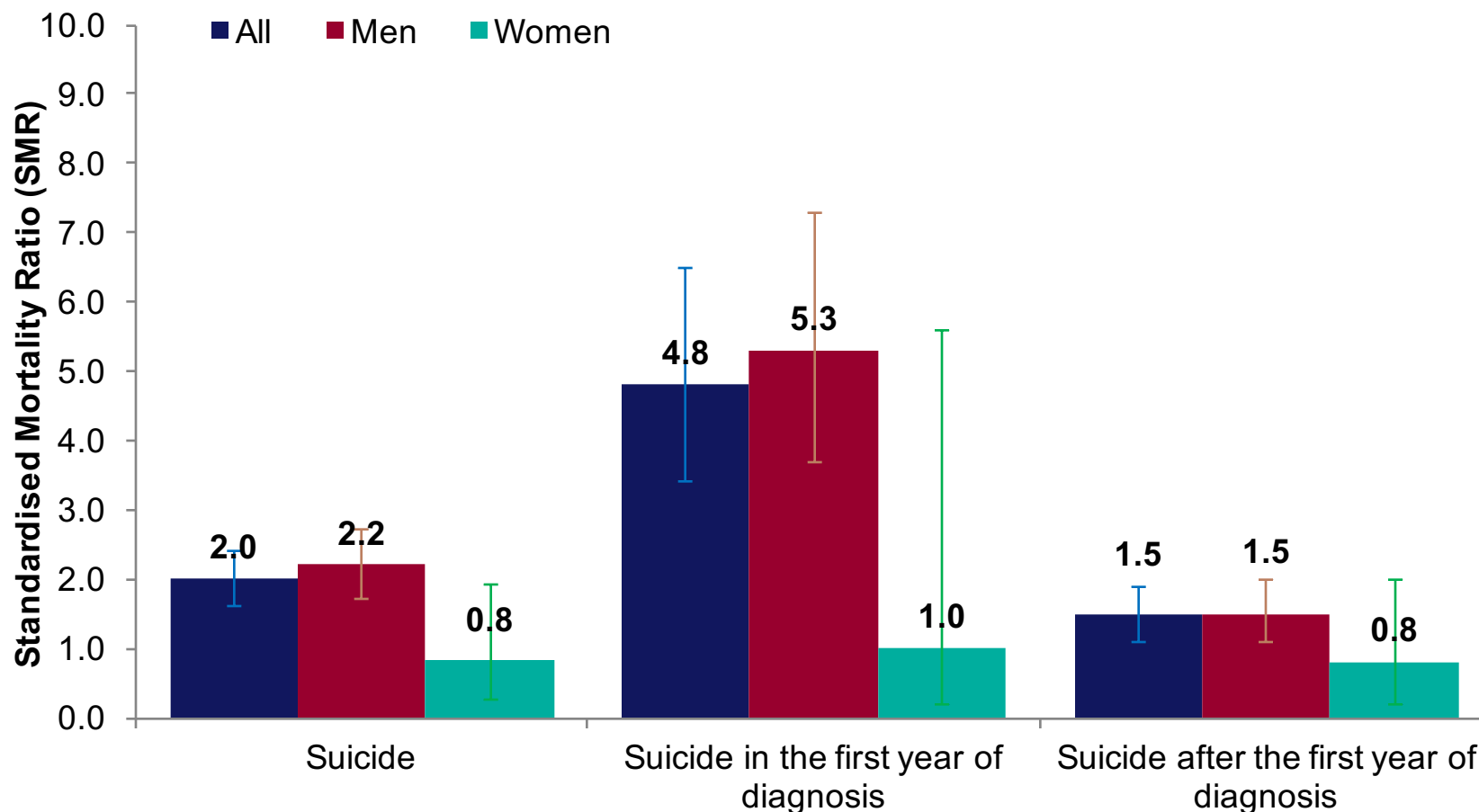


Time from diagnosis to suicide



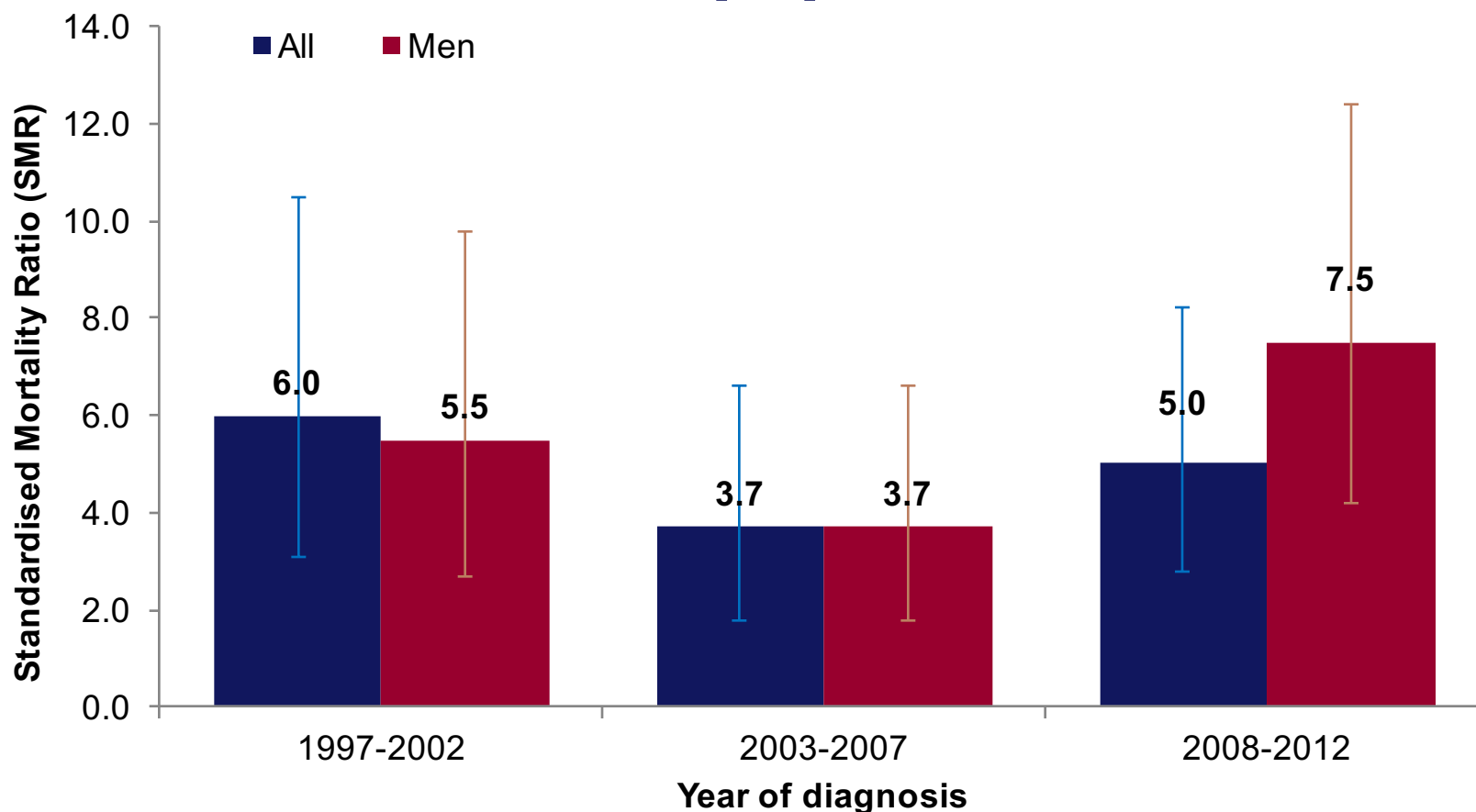


Suicide among people with HIV compared to the general population





Suicide within one year of HIV diagnosis compared to the general population





Strengths and limitations

- Large national comprehensive dataset of all people living with HIV from the time of diagnosis
- Linking HIV surveillance data to ONS death data
- Under-estimation of suicide burden
 - Reliance on reporting of intention on the death certificate
 - Deaths due to possible suicide not included (n=121)
 - Missing cause of death (9%; 494)
- Difficult to understand the complexity of the relationship between death and linkage to care
- No information on social or behavioural determinants



Conclusions

- Suicide rates among men diagnosed with HIV remain significantly higher than in the general population, particularly in the first year after diagnosis.
- Suicide deaths may be under-reported, as intention is not always known.
- Our findings highlight the need for a reduction in the stigma surrounding HIV, improvements in psychosocial support and routine screening for depression and drug and alcohol misuse, particularly at the time of HIV diagnosis.



[http://www.thelancet.com/journals/lanpub/article/PIIS2468-2667\(16\)30020-2/abstract](http://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(16)30020-2/abstract)

Mortality and causes of death in people diagnosed with HIV in the era of highly active antiretroviral therapy compared with the general population: an analysis of a national observational cohort



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Summary

Background Deaths in HIV-positive people have decreased since the introduction of highly active antiretroviral therapy (HAART) in 1996. Fewer AIDS-related deaths and an ageing cohort have resulted in an increase in the proportion of HIV patients dying from non-AIDS-related disorders. Here we describe mortality and causes of death in people diagnosed with HIV in the HAART era compared with the general population.

Methods In this observational analysis, we linked cohort data collected by Public Health England (PHE) for individuals aged 15 years and older, diagnosed with HIV in England and Wales from 1997 to 2012, to the Office for National Statistics (ONS) national mortality register. Cohort inclusion began at diagnosis with follow-up clinical information collected every year from all 220 National Health Service (NHS) HIV outpatient clinics nationwide. To classify causes of death we used a modified Coding Causes of Death in HIV (CoDe) protocol, which uses death certificate data and clinical markers. We applied Kaplan-Meier analysis for survival curves and mortality rate estimation and Cox regression to establish independent predictors of all-cause mortality, adjusting for sex, infection route, age at diagnosis, region of birth, year of diagnosis, late diagnosis, and history of HAART. We used standardised mortality ratios (SMRs) to make comparisons with the general population.

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