

Factors for delayed linkage to care following HIV diagnosis in the WHO European Region



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BACKGROUND

Linking people who test HIV-positive to accessible and culturally appropriate care and support services is a crucial step in the HIV continuum of care.

Delayed linkage to HIV care is associated with delayed receipt of antiretroviral medications, faster disease progression and increased mortality.¹⁻⁴

Little comparable data are available on linkage to care in Europe.⁵

The objectives of this study were to utilise an existing surveillance dataset with a standardised definition to: i) describe linkage to HIV care following diagnosis in the World Health Organization (WHO) European Region and ii) to identify factors associated with delayed linkage.

METHODS

Analyses were carried out using data on new HIV diagnoses reported to the European Centre for Disease Prevention and Control (ECDC) and the WHO Regional Office for Europe in 2014. Data were included for countries that reported using the revised submission template (n=33/53).

Analyses were restricted to adults (aged ≥ 15 years) diagnosed from 2010-2014. Individuals were excluded if they had been previously diagnosed or in care, died within 3 months of diagnosis and/or had missing diagnosis/CD4 information.

All partial diagnosis, CD4 and death dates where only the month/quarter and year were reported, were defaulted to the middle of the month/quarter.

Logistic regression was used to determine factors for delayed linkage, adjusting for sex, age at diagnosis, diagnosis year, probable exposure, region of diagnosis, region of origin and first CD4 count after diagnosis.

Definitions

Linkage to care: patient seen for specialist HIV care after diagnosis (measured as the time between the HIV diagnosis date and first CD4 count date). The CD4 count date was used as a proxy for date of entry into HIV care.

Prompt linkage to care: patient seen for HIV care (CD4 count taken) in the 3 months (≤ 91 days) following diagnosis

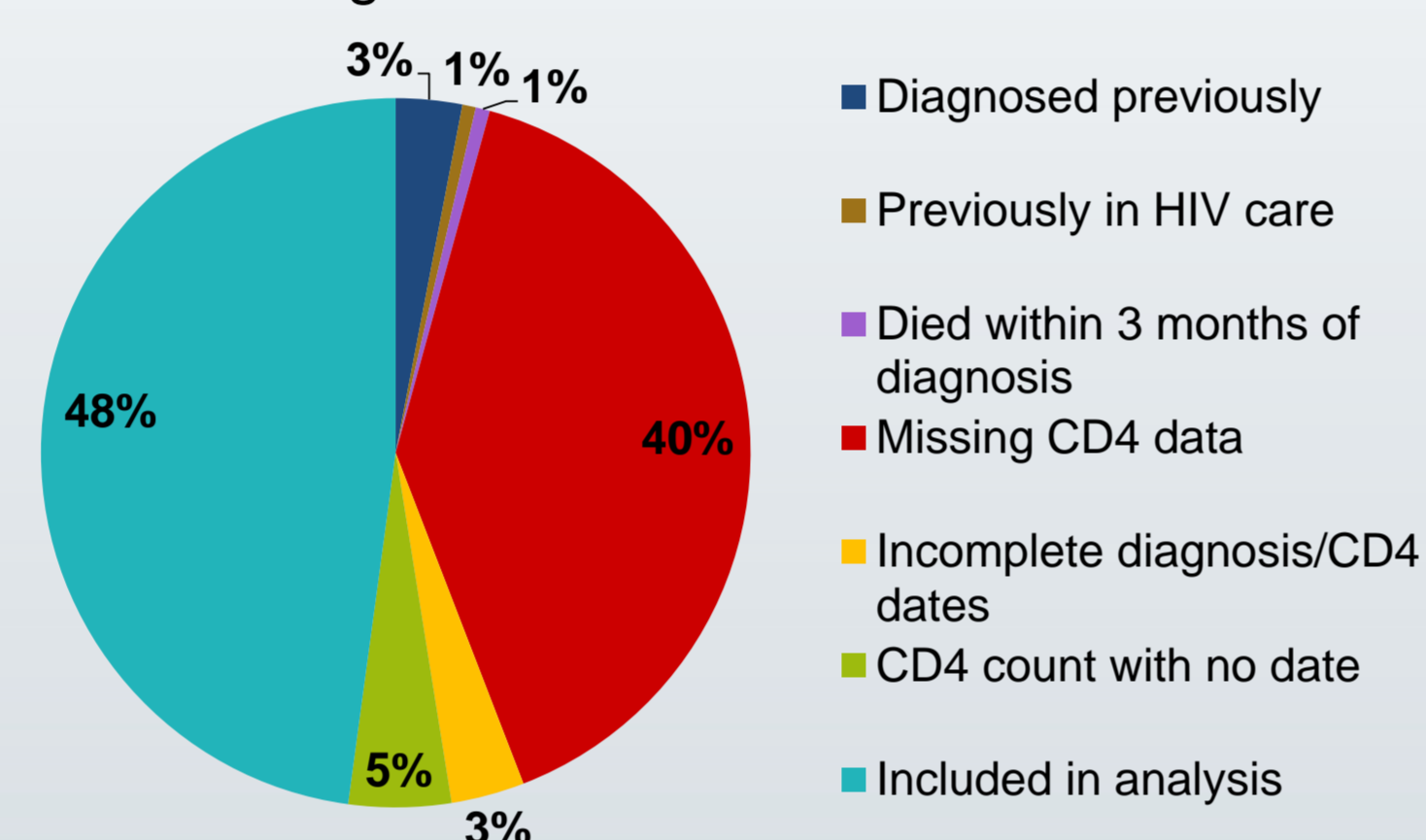
Delayed linkage to care: patient seen for HIV care (CD4 count taken) more than 3 months (>91 days) after diagnosis

RESULTS

Of 125,665 adults diagnosed from 2010-2014, 3,794 were diagnosed previously, 769 were previously in HIV care and 810 died within three months of diagnosis.

A further 50,087 people had no CD4 data, 4,203 had incomplete CD4 or diagnosis dates (year only) and 5,863 had a CD4 count reported but no date (Figure 1).

Figure 1: Inclusion/exclusion criteria applied to calculate linkage to care



Among the 60,139 people included in these analyses, linkage to HIV care within 3 months of diagnosis was 95.5%. Prompt linkage by demographics and diagnosis characteristics can be seen in Figure 2.

In multivariable analysis, delayed linkage to care was associated with: being infected by injecting drug use or heterosexual transmission, being diagnosed in Central or Eastern Europe and having a first CD4 count >200 cells/mm³ (Figure 3).

Older age at diagnosis and being diagnosed after 2011 were associated with faster linkage to care. Sex and region of birth were not associated with linkage delays (Figure 3).

Figure 2: Prompt linkage to HIV care following diagnosis: Europe, 2010-2014

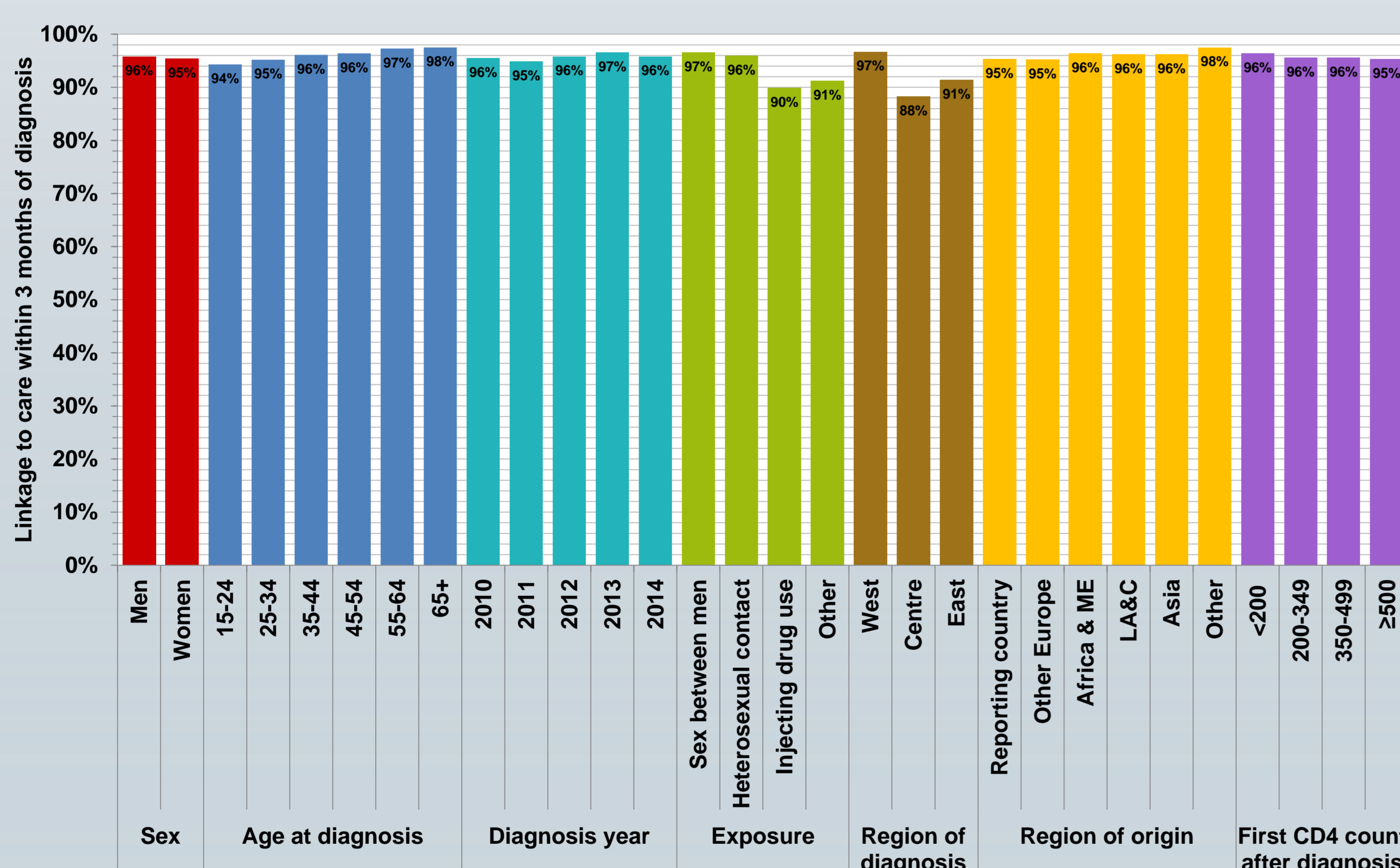
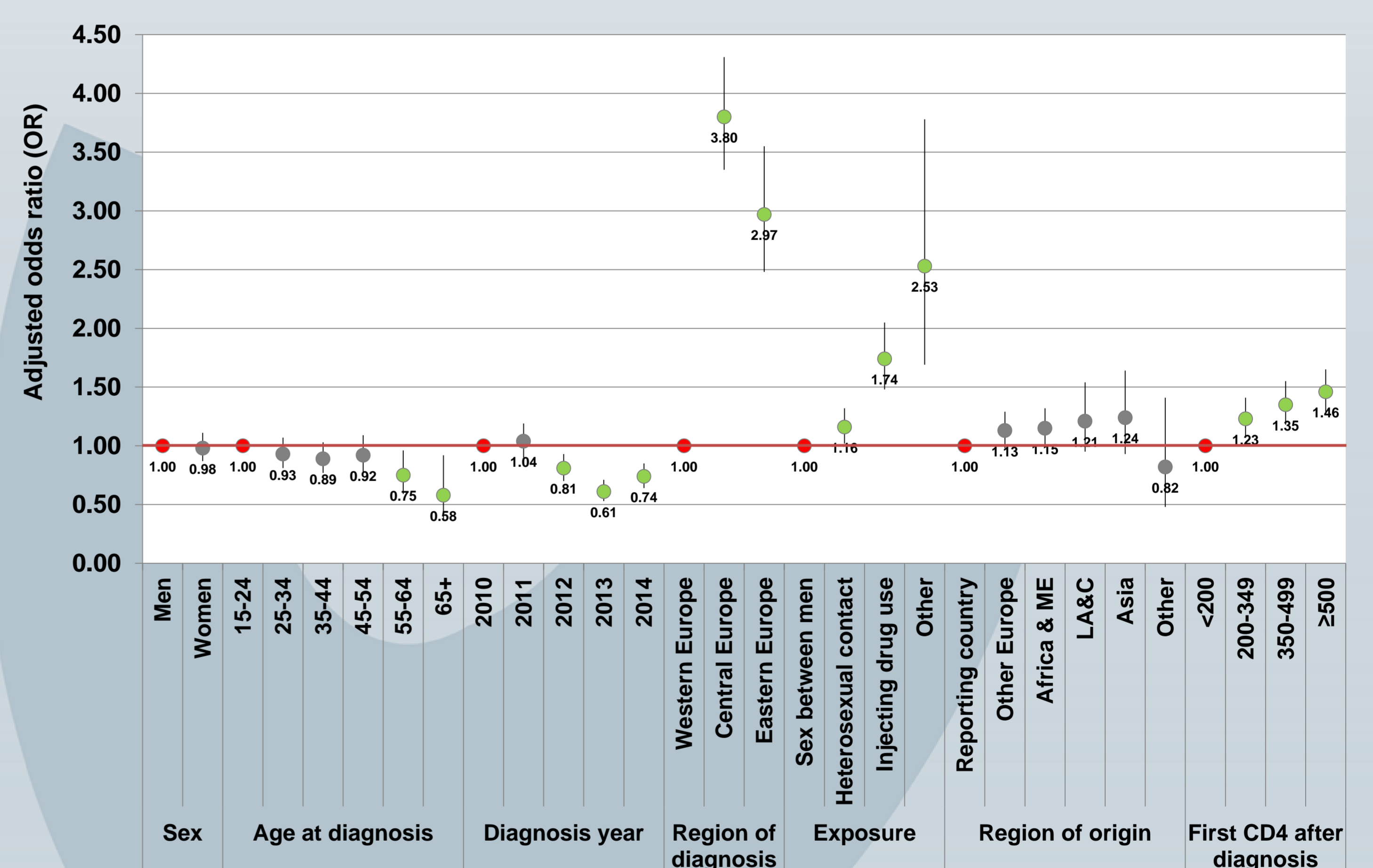


Figure 3: Multivariable analysis of factors associated with delayed linkage to care in Europe



CONCLUSIONS

Overall, linkage to care among adults diagnosed with HIV in Europe is prompt, with no difference in the timeliness of being linked by sex or region of birth.

However, given the high number of people with incomplete CD4 data, linkage estimates may be much lower than reported.

Our findings show improvements are needed in ensuring those diagnosed in Central and Eastern Europe and people infected through heterosexual contact and injecting drug use are promptly linked to care.

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