Temporal trends from HIV diagnosis to ART initiation among adults living with HIV in the Asia-Pacific (2013-2023)

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TREAT ASIA amfAR

UNSW Kirby Institute

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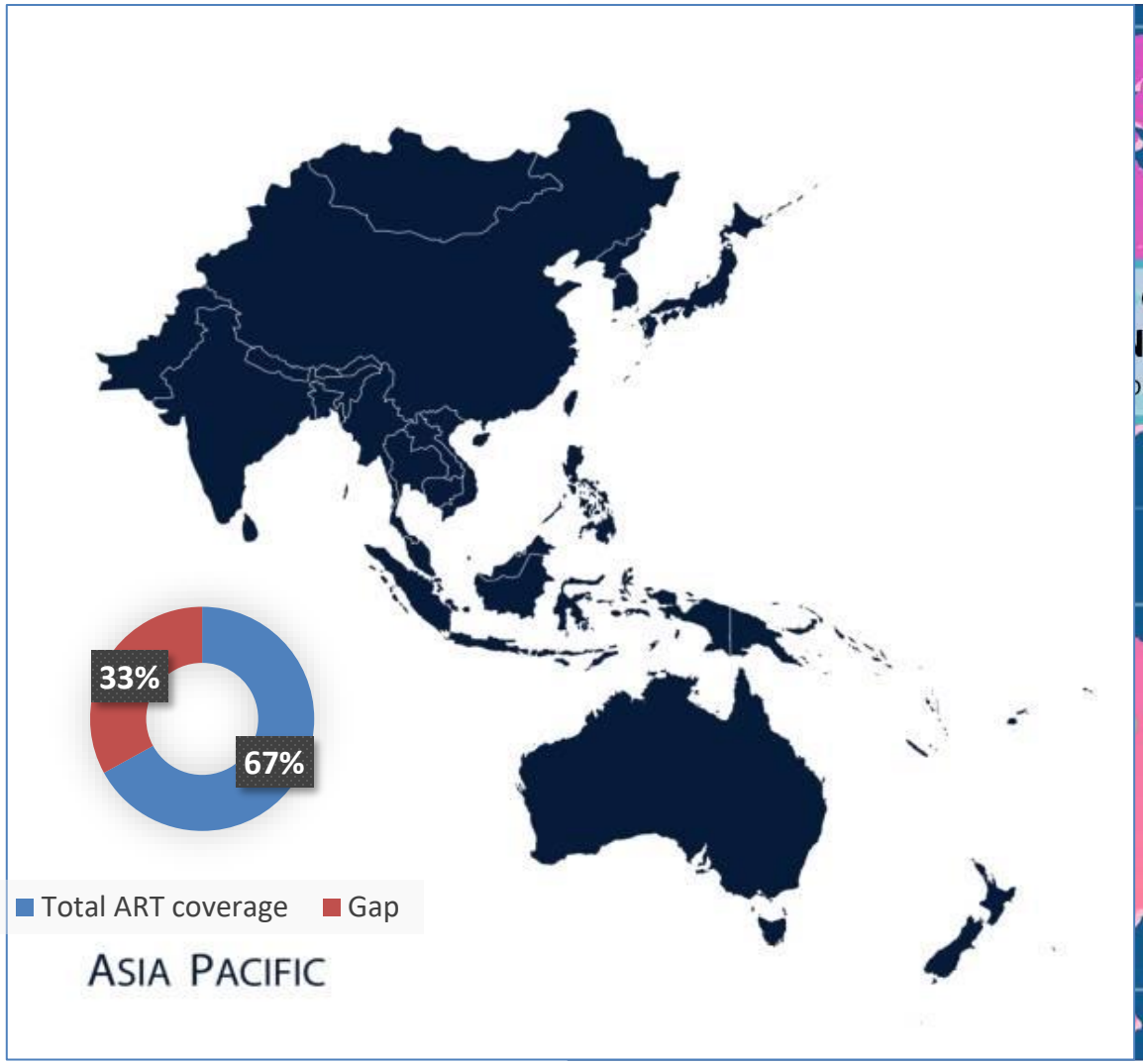
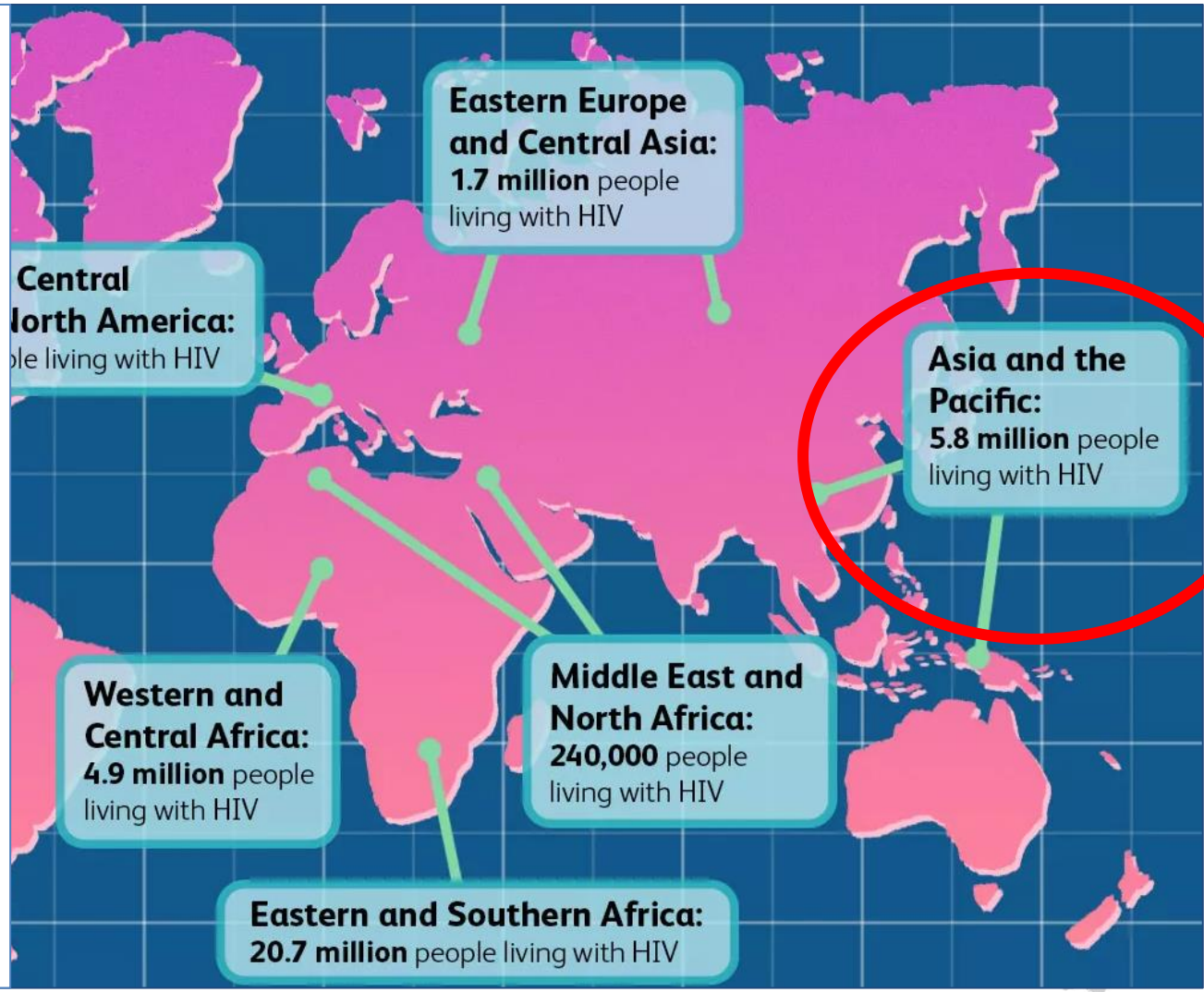
Background

39.9 million PLHIV



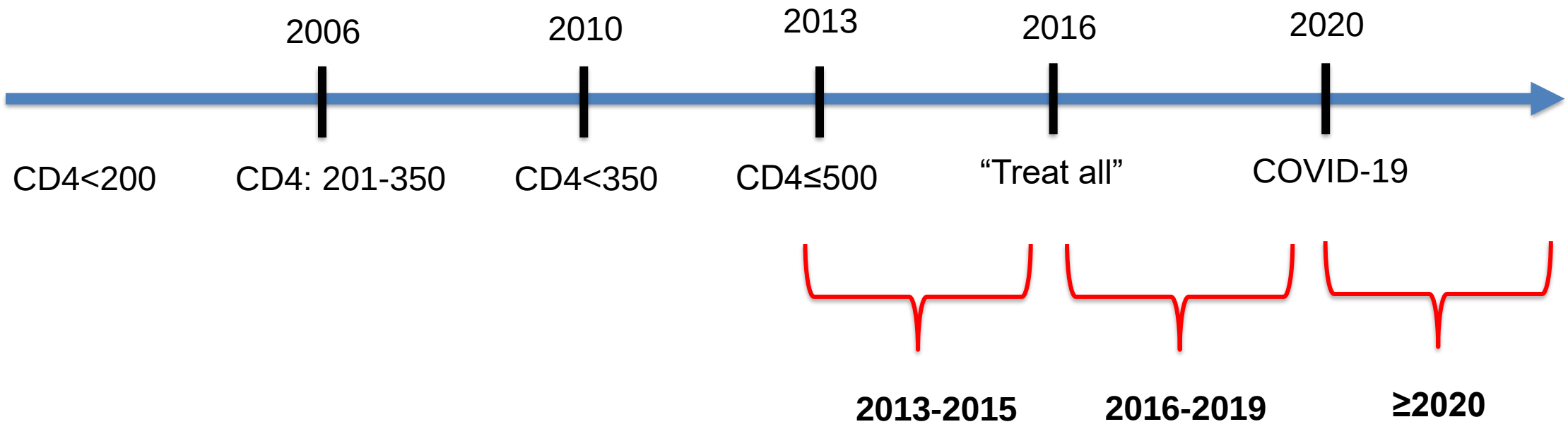


Source: [UNAIDS]

Source: [Very well health]

Background

- WHO guidelines on ART



Source: *Ford, N., et al.; Esber, A.L., et al.; World Health Organization 2013 and 2016*

Objective

- To investigate temporal trends in the timing of ART initiation from the date of HIV diagnosis among PLHIV in the Asia-Pacific
- To identify factors associated with time to ART initiation in the context of WHO guideline changes and COVID-19 impacts

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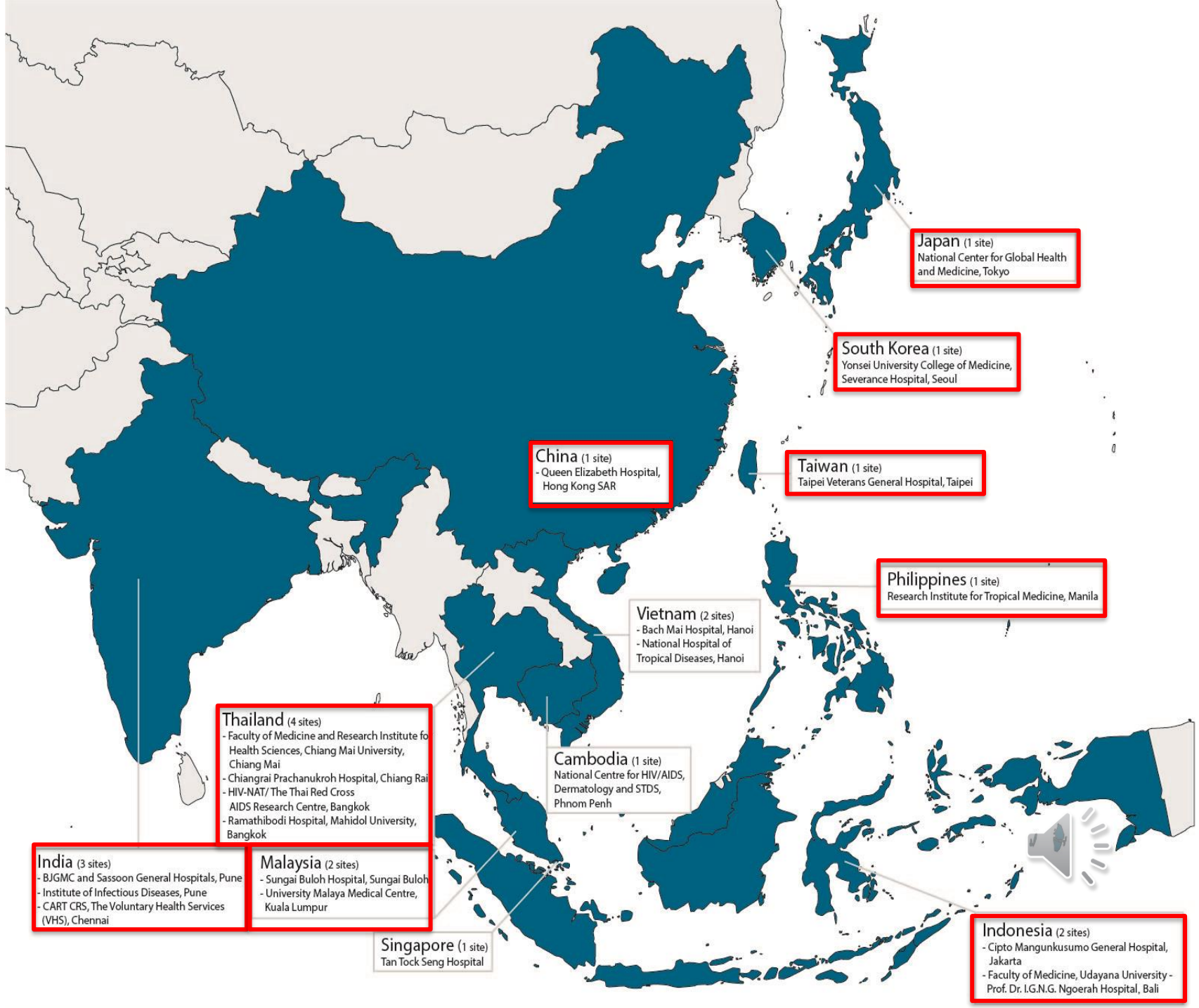
Methods

Data source: The TREAT Asia Adult HIV Observational Database Continuum of Care study (TAHOD-CC), an observational cohort study encompassing more than 60,000 adult PLHIV (aged 18 and older)



Methods

- **Measurements**
  - ART initiation: first date that individuals received three or more ARV medications
  - Risk time: interval of time from the date of the HIV diagnosis to the date of ART initiation
  - Censored: those in active follow-up or transferred out without evidence of ART initiation
  - Competing risks:
    - LTFU was defined as not being seen at the clinic for more than 12 months excluding deaths or transfers
    - Death prior to ART initiation

Methods

- **Data analysis**
  - Survival analysis
    - Stratified by time periods of WHO treatment guideline and COVID-19 (2013-2015; 2016-2019, vs. ≥2020)
    - Log-rank test
  - Fine and Gray competing risk regression
    - Backward stepwise selection

Results

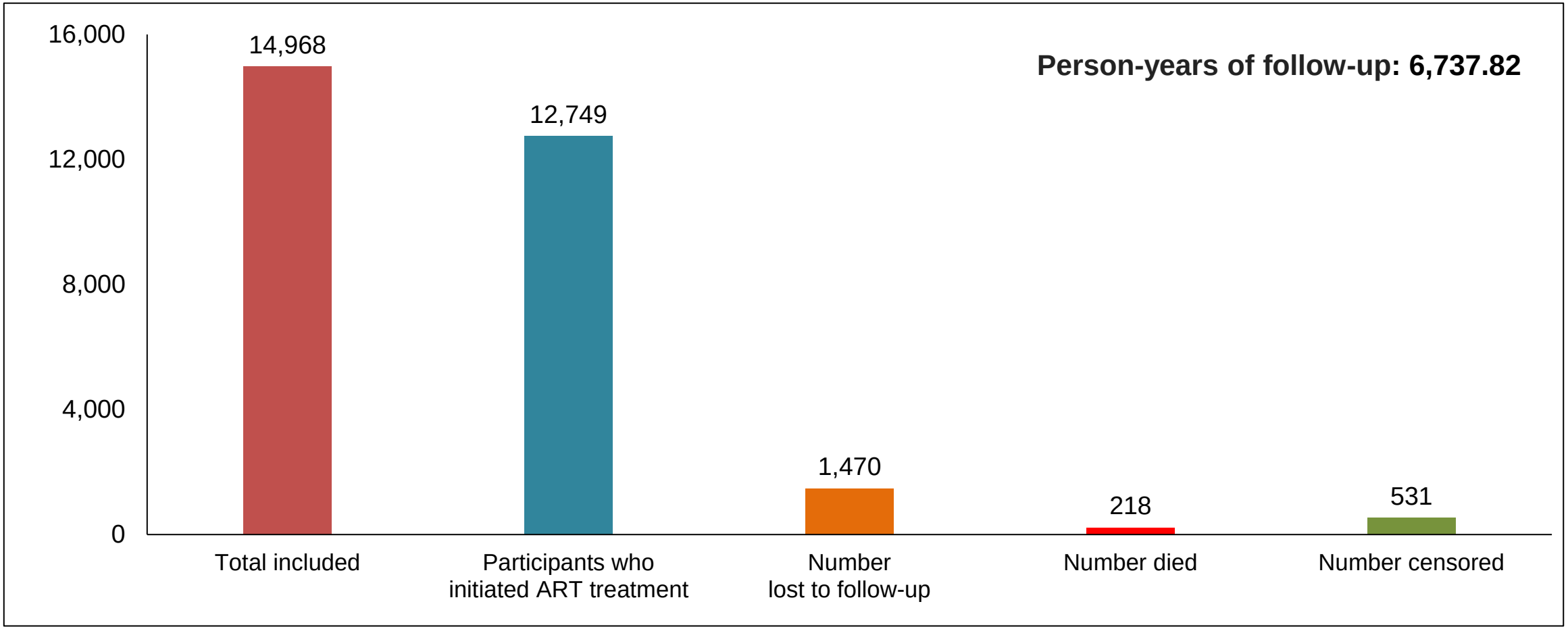


Figure 1. Sample size distribution

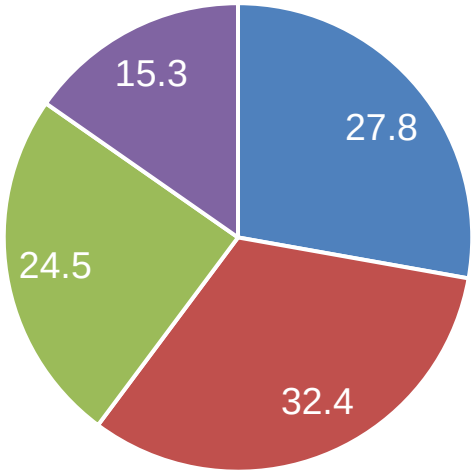
Results

Demographic characteristics at HIV diagnosis

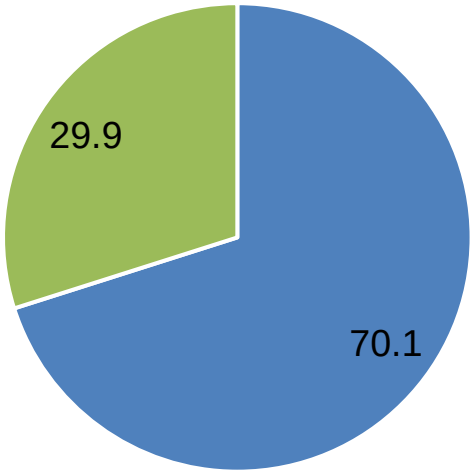
Median age

36 (28-44) years

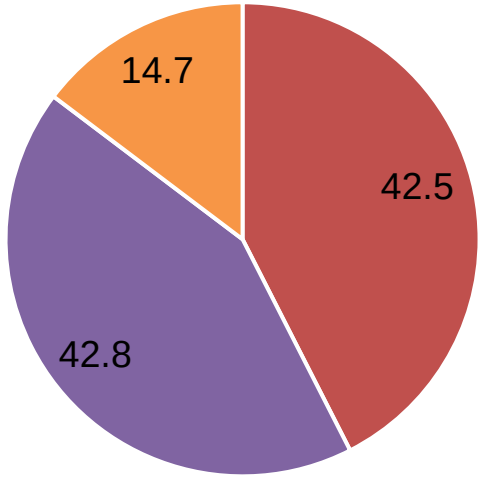
Age



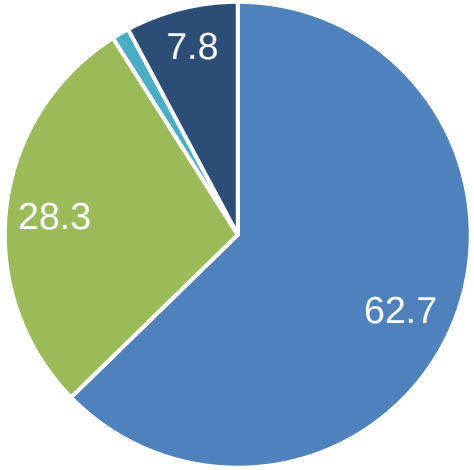
Sex



Country income level



Transmission mode



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Results

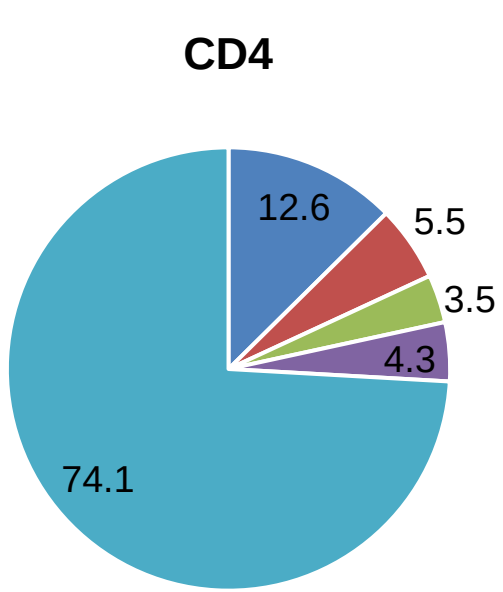
Clinical characteristics at HIV diagnosis

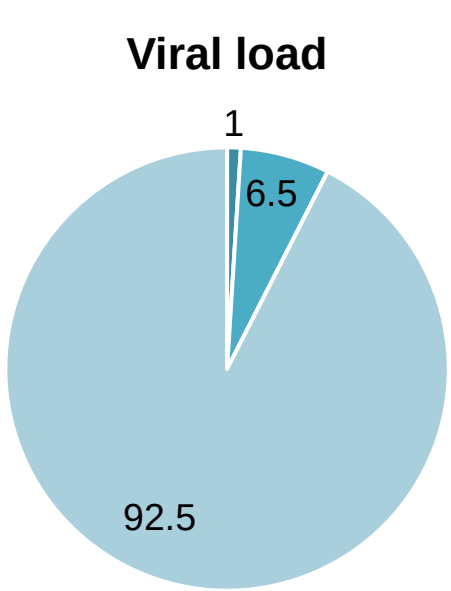
Median CD4

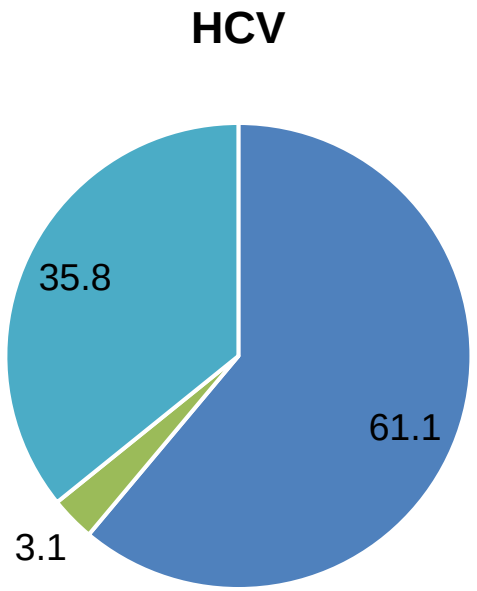
208 cells/µL

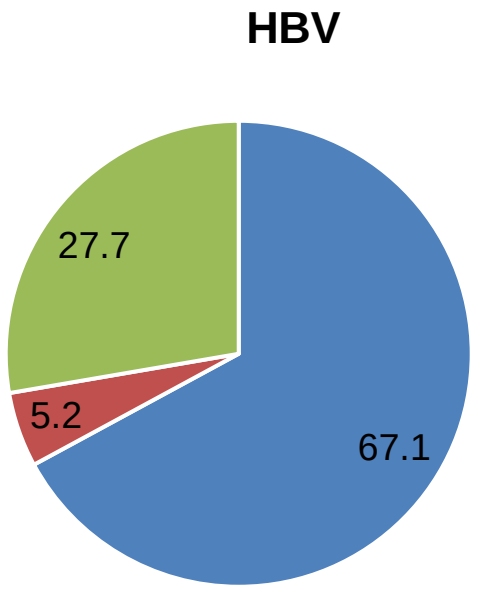
Median VL

86,296 copies/mL









NR: Not reported

Results

Median CD4 and viral load over time

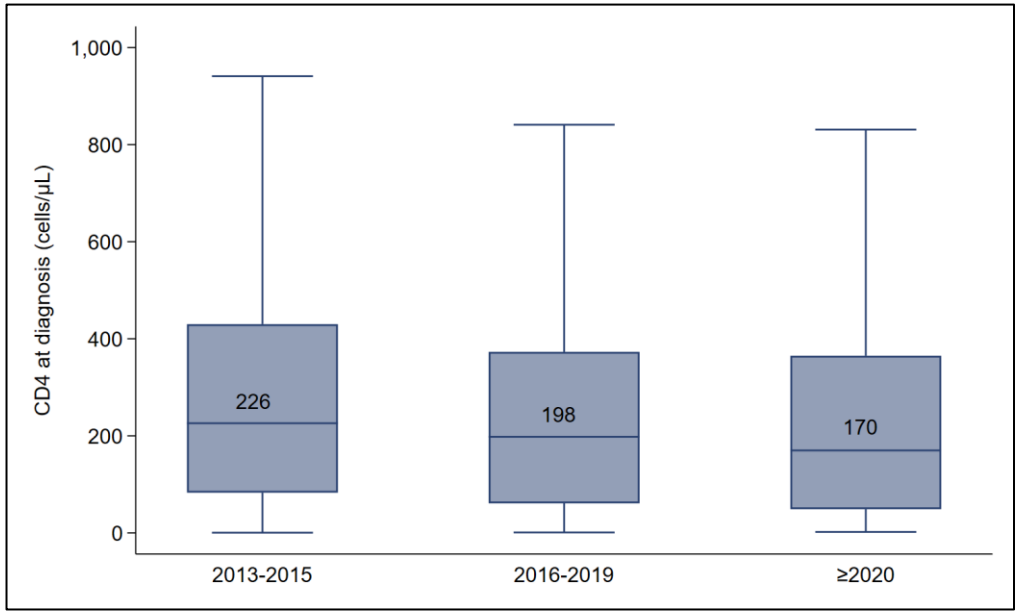


Figure 2a. Median CD4 (cells/µL) at HIV diagnosis

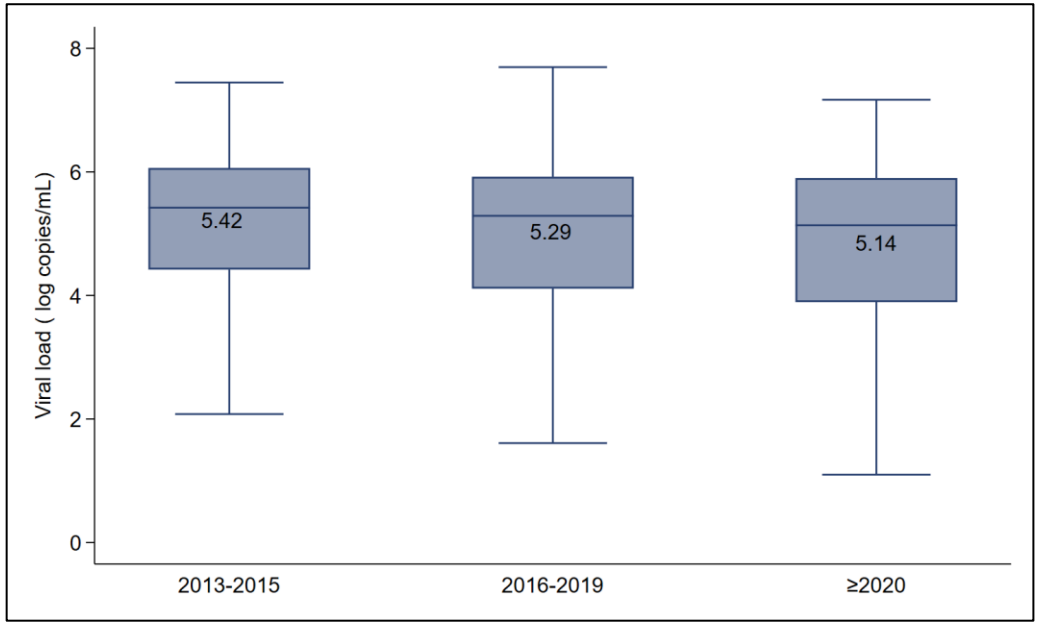
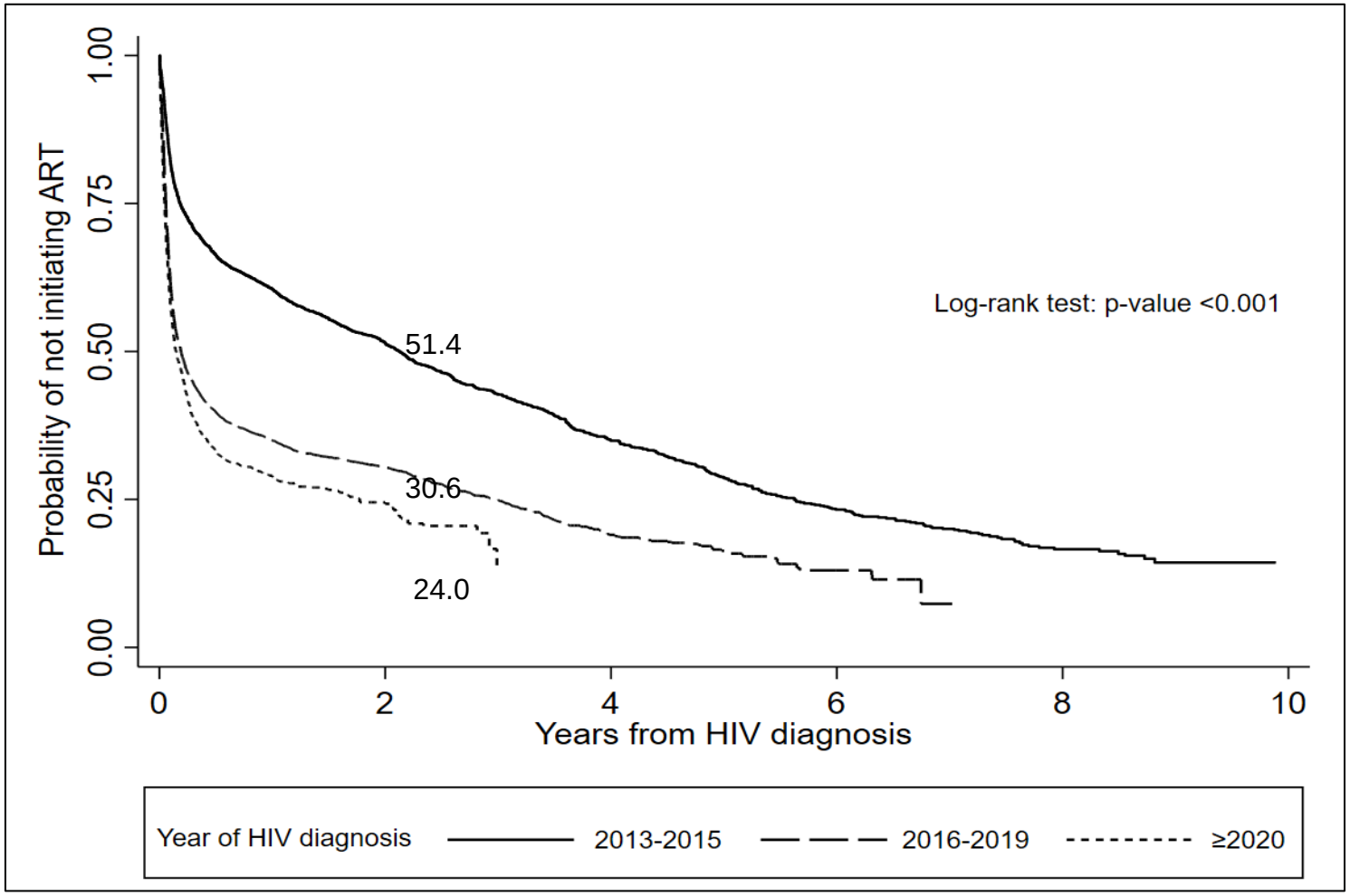


Figure 2b. Median viral load (log copies/mL) at HIV diagnosis

Results

Time to ART initiation from HIV diagnosis



Median time to ART initiation:

- 2013-2015: 2.12 years
- 2016-2019: 0.19 years (2.3 months)
- ≥2020: 0.15 years (1.8 months)

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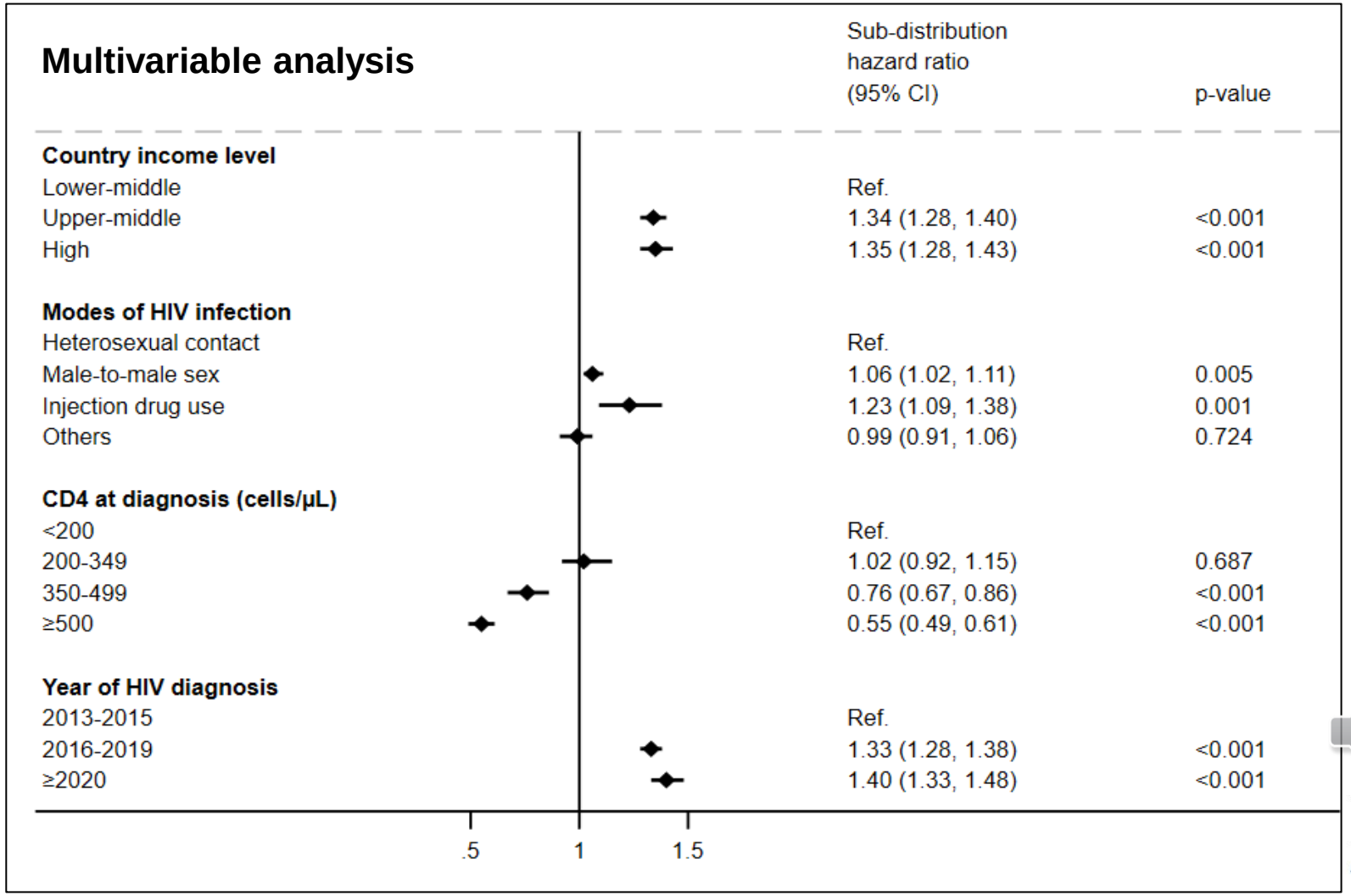
Results

Factors associated with time to ART initiation

Bivariate analysis:

- Demographics: Age, sex, country income level, mode of HIV transmission
- Clinical factors: CD4 and viral load at diagnosis, hepatitis B infection, and years of HIV diagnosis.



Limitations

- The dataset lacked details regarding the exact timing of the implementation of the treat-all strategies and the onset of the COVID-19 pandemic in each TAHOD-CC country
  - Further investigation into the impact of treat-all strategies on HIV management across diverse settings is needed

- As TAHOD-CC includes a limited and pre-specified scope of routinely collected data, there are aspects of HIV management practices and emerging epidemics that may not be captured

Conclusions

This study found that time to ART initiation from HIV diagnosis decreased after 2016, aligning with evolving WHO guidelines, and did not appear to be impacted by COVID-19

Socioeconomic factors, mode of HIV transmission, and guideline updates all play a role in ART initiation practices

Optimizing treatment initiation is crucial, including those with higher CD4 counts

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