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HIV occurrence over 12-year period in the Lisbon Cohort of MSM: prevalence at baseline and incidence rate

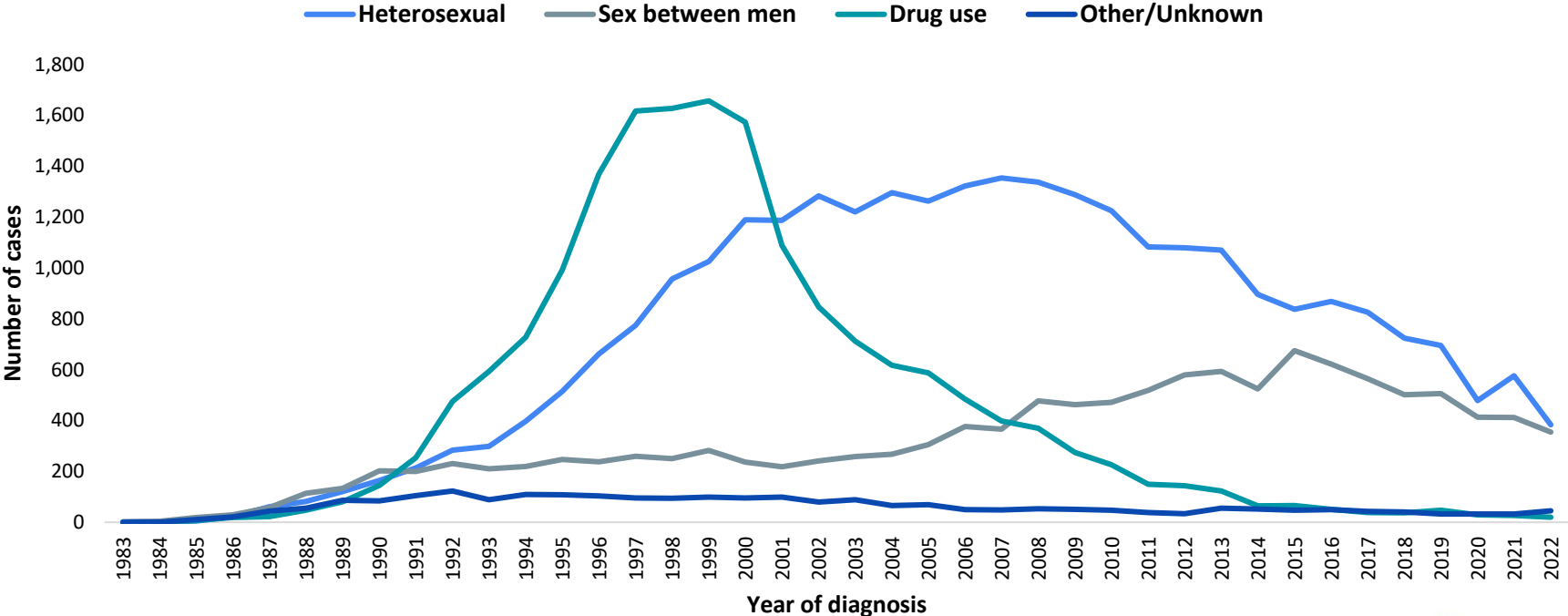
Paula Meireles, Miguel Rocha, Maria João Novais, Ana Rita Dias, Márcio Silva, Carla Moreira, Luís Veríssimo, Milton Severo, Henrique Barros



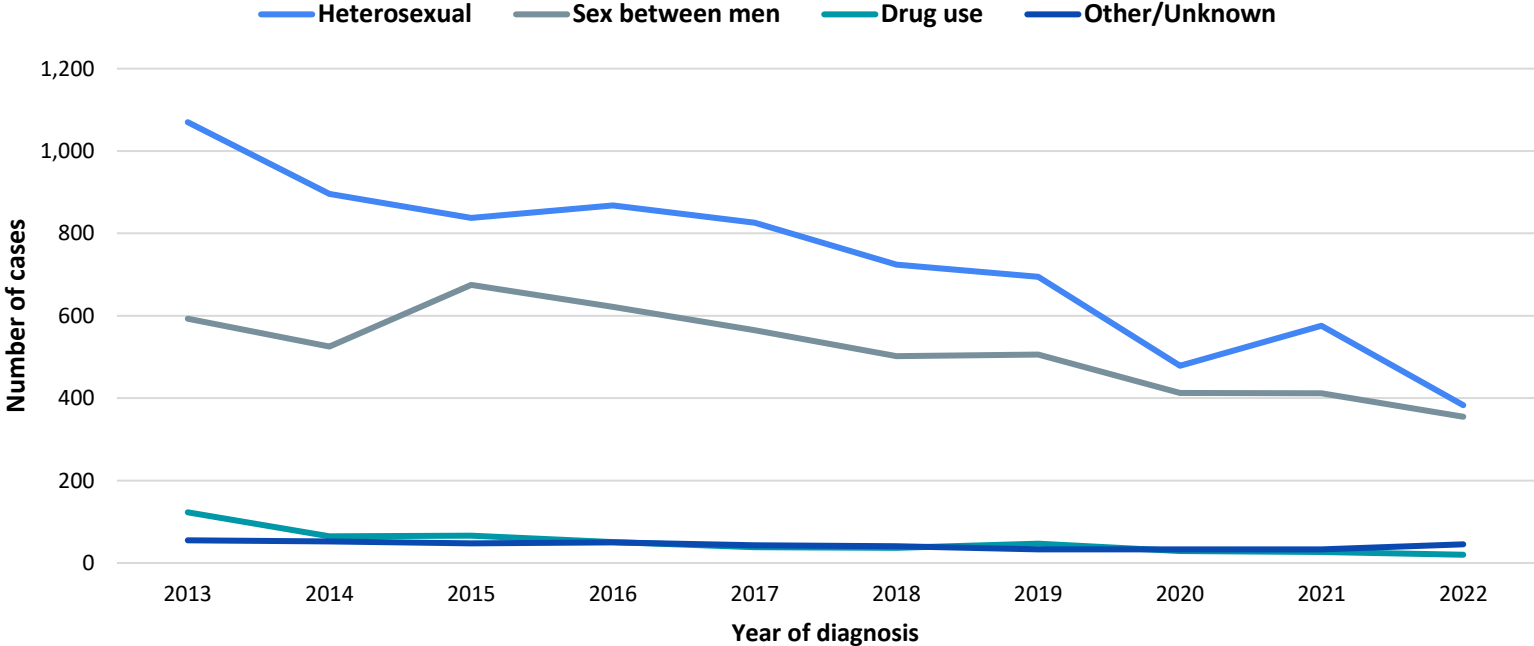
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World Congress of Epidemiology
Cape Town. 27 September 2024

Number of HIV cases by transmission mode by year of diagnosis in Portugal (1983-2022)



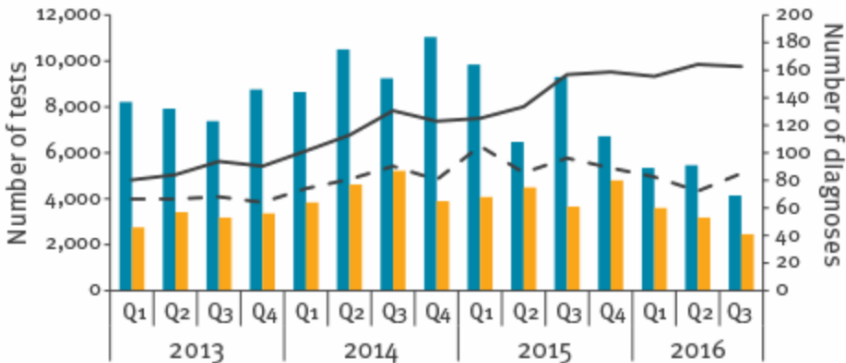
Number of HIV cases by transmission mode by year of diagnosis in Portugal (2013-2022)



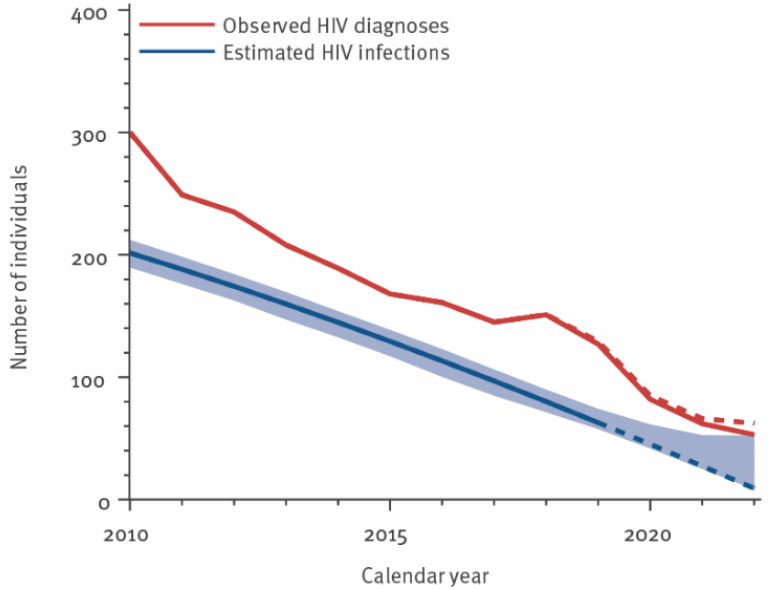
HIV epidemic declines in European cities

London

A. London large-fall sexual health clinics (n=5)



Amsterdam



HIV incidence among MSM in the Lisbon Cohort of MSM (2011-2014)

RESEARCH ARTICLES

Incident risk factors as predictors of HIV seroconversion in the Lisbon cohort of men who have sex with men: first results, 2011–2014

P Meireles (paula.meireles@ispup.up.pt)¹, R Lucas^{1,2}, C Carvalho^{1,2}, R Furtado³, J Brito³, M J Campos³, L Mendão³, H Barros^{1,3}

HIV incidence rate: 2.80 per 100 person-years (95% CI: 1.89–4.14)

- newly-adopted CAI with a steady partner (aIRR=3.85; 95%CI 1.26–11.78)
- newly-disclosed HIV-positive partner (aIRR=5.25; 95% CI 1.60–17.24)
- newly-diagnosed syphilis (aIRR=4.71; 95%CI 1.07–20.71)
- history of serodiscordant steady relationships (aIRR=3.28; 95%CI 1.24–8.68)
- persistently reporting CAI with occasional partners (aIRR=3.63; 95%CI 1.38–9.58)

Objective

- Assess trends in HIV occurrence in a cohort of HIV-negative MSM testing at GAT CheckpointLX in Lisbon from 2011 to 2022

Study setting – the Lisbon Cohort of MSM

- Observational study – open, prospective, non-interval cohort
- Set up and conducted at **GAT CheckpointLX**
- Ongoing recruitment since April 2011
- **Eligibility criteria for follow-up:**
 - Cisgender men;
 - Aged 18 or older;
 - Having (or having had) sex with men;
 - HIV test result negative at baseline (those with an HIV reactive test at baseline also answer to the questionnaire but are no longer eligible for follow-up).



GAT CheckpointLX – community partner

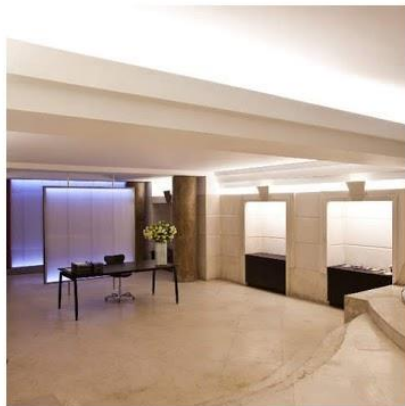


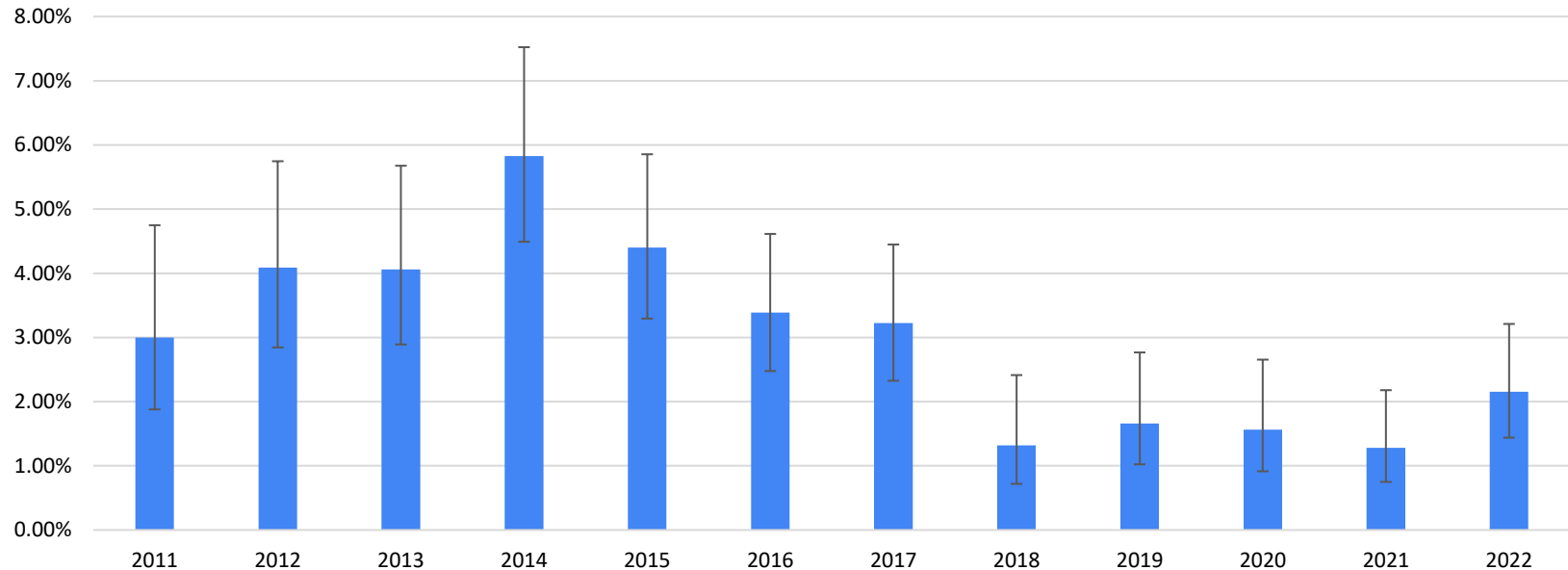
Foto por Luis Costa dezanove.pt

Measures of HIV occurrence

- Prevalence at baseline
 - % of MSM with a reactive result at their first visit per year;
- Incidence rate
 - number of incident cases by person-year at risk at each year.
 - Incident case: a reactive HIV test after a previous non-reactive
 - Time of infection: midpoint between the last non-reactive test and the date of reactive test result.
- From Apr 2011 (cohort inception) to Dec 2022

HIV prevalence at baseline per year (2012-2022)

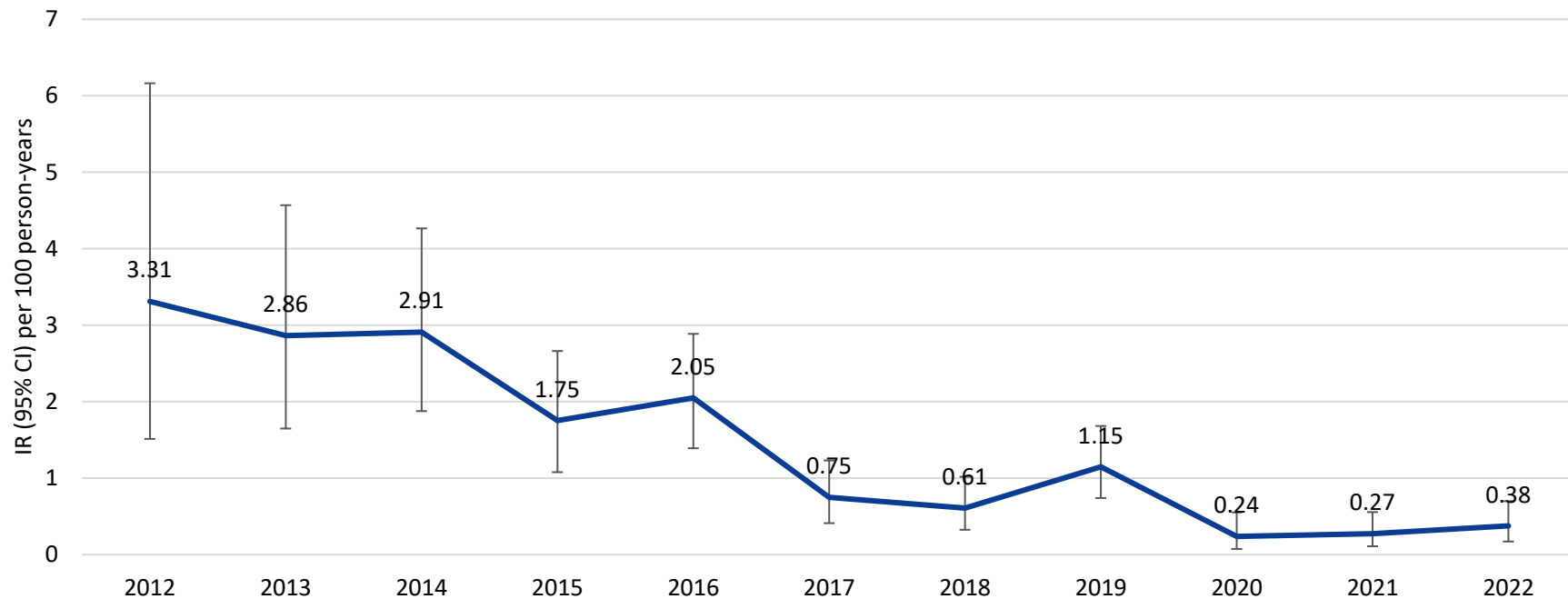
In total, 10,885 MSM were tested of whom 326 (3.0%) had a reactive result at baseline.



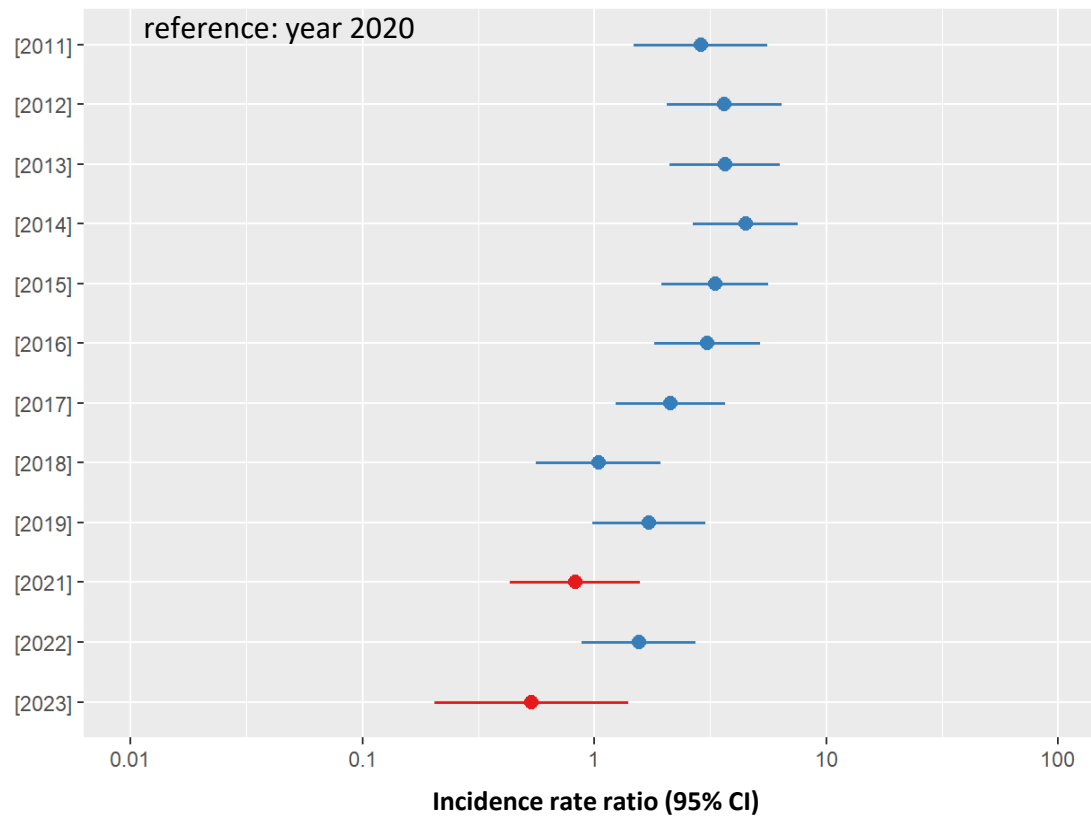
HIV incidence rate

- Among the remaining 10,559 MSM HIV-negative at baseline, 4979 were followed for a total of 15,799.19 person-years; 161 incident infections were recorded. The overall HIV incidence was 1.02/100 person-years (95% CI 0.87-1.20) from 2011 to 2022.

Yearly HIV incidence rate, 2012-2022

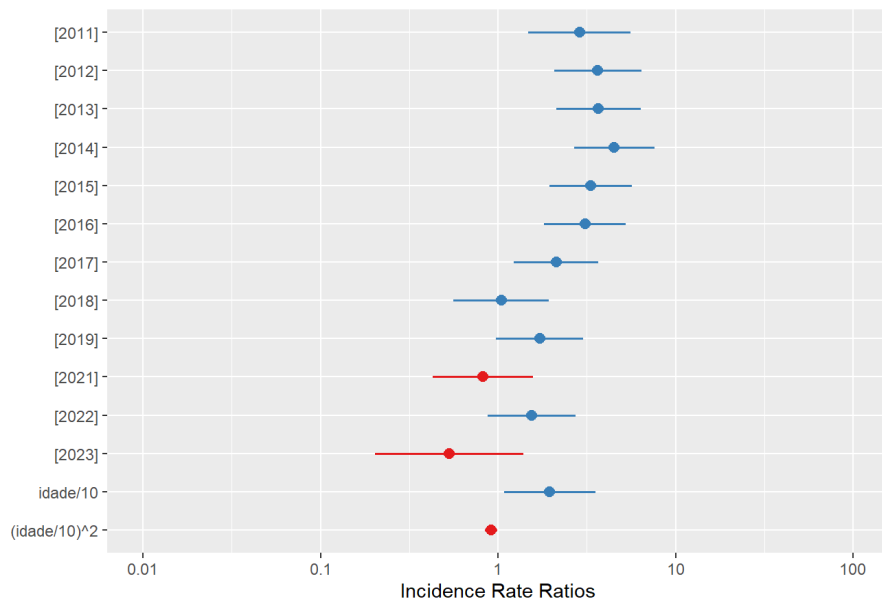


Preliminary results

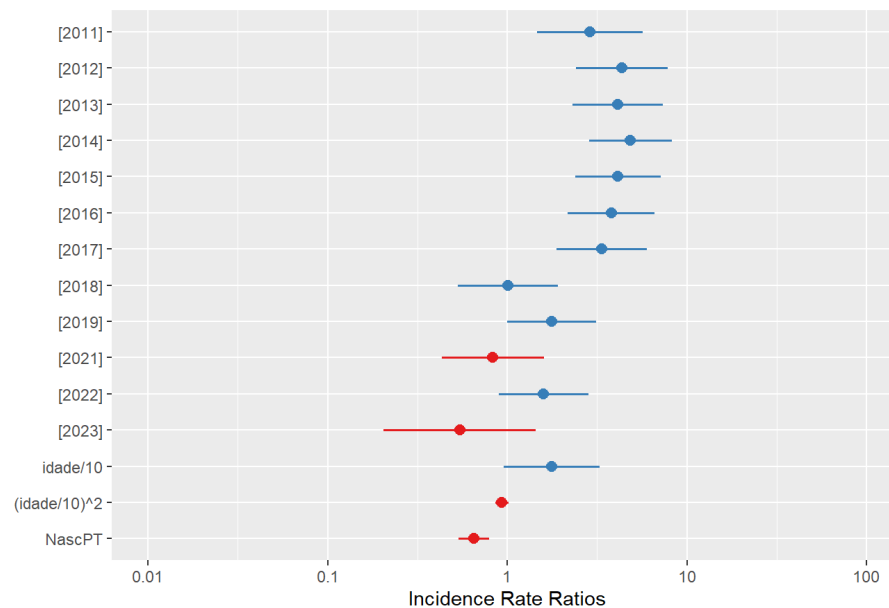


Preliminary results: effect of age and country of birth

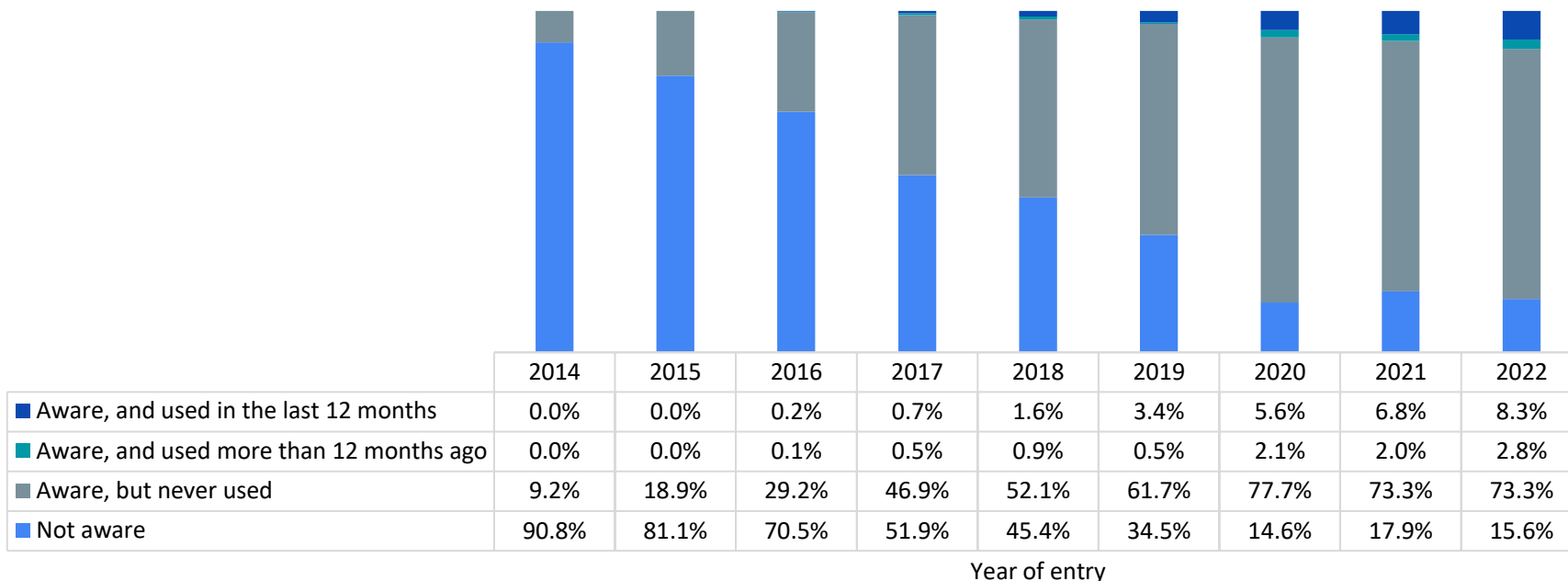
reference: year 2020



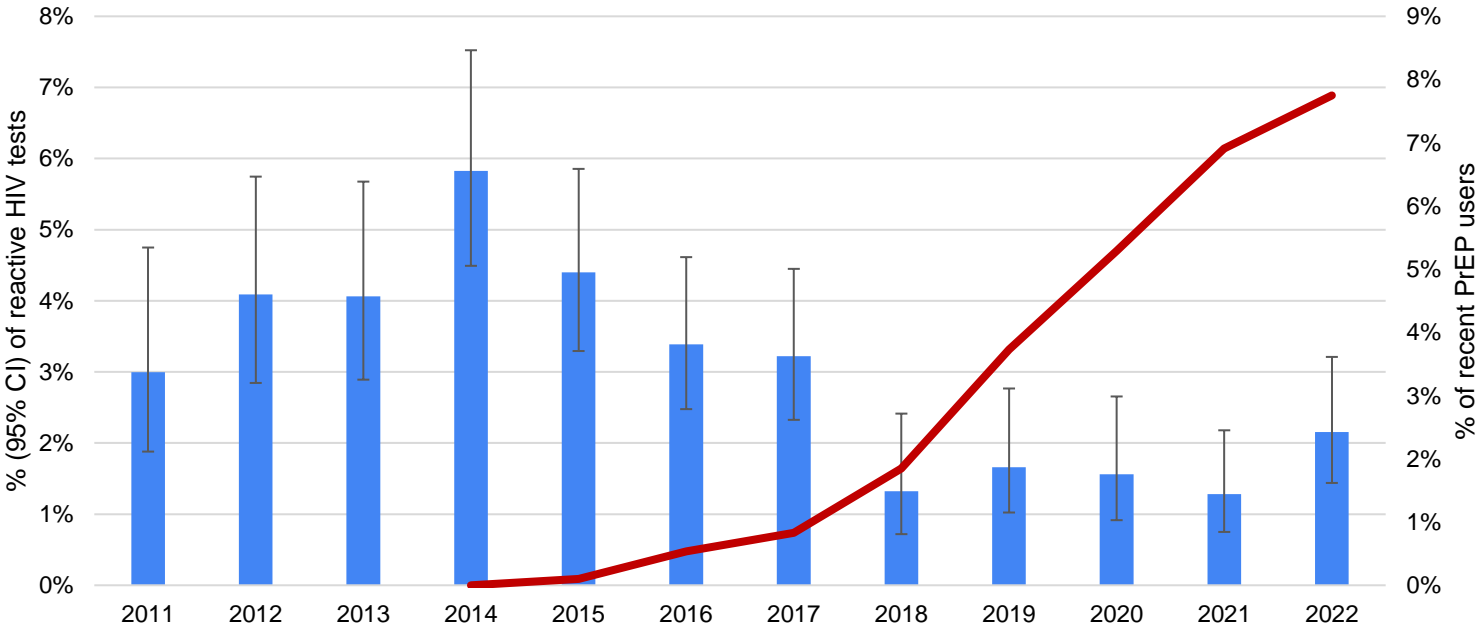
reference: year 2020



PrEP awareness and use at baseline (2014-2022)



HIV prevalence and recent (last 12 mo) PrEP use at baseline



Conclusions and next steps

- HIV frequency decreased over the 12 years in this cohort in Lisbon indicating a deaccelerating epidemic among MSM.

Next steps:

- Investigate the recent increase in prevalence at baseline and IR, *preliminary data from 2023 do not seem to confirm increasing trend.*
- Assess also trends (or changes) in drivers of HIV infection in this period.
- Explore the role of informative losses of follow-up.

Acknowledgements

- Participants of the Lisbon Cohort of MSM
- Staff and researchers at GAT and CheckpointLX
- Funds from FCT – Portuguese Foundation for Science and Technology, I.P. to my institution through the projects with references UIDB/04750/2020 (<https://doi.org/10.54499/UIDB/04750/2020>) and LA/P/0064/2020 (<https://doi.org/10.54499/LA/P/0064/2020>)





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