



Early Infectious Syphilis (EIS) Annual Report 2023

October 2024





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 - GPs
 - Health Advisors
 - All other clinical staff involved

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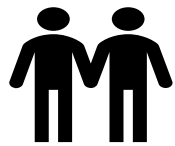
Key Points, EIS in Ireland 2023



- Notification rate increased by 3% in 2023



- 93% males, 7% females
- Highest rate in males in those aged 30-34 years
- Highest rate in females in those aged 25-29 years



- gbMSM¹ remain the group most affected
- Rate of notification in gbMSM remains stable but high
- 26% of notifications were reinfections



- Where HIV status was known:
- 30% of notifications in people living with HIV
 - 57% reinfections in people living with HIV



- Where HIV PrEP² status was known:
- 45% of HIV negative males were on PrEP
 - 41% reinfections in those on PrEP
 - 17% reinfections in those not on PrEP



- Where country of birth was known:
 - 46% born in Ireland
 - 31% born in Latin America and Caribbean



- Where known 20% of notifications were acquired abroad



- Antenatal syphilis and notified cases of congenital syphilis remain low in Ireland in 2023
- Ireland has met the WHO 2030 target for congenital syphilis cases



- Considerable efforts will be needed in Ireland and globally if the WHO 2025 target of 20% reduction in EIS notifications in those aged 15-49 years is to be achieved

¹ gay bisexual and other men who have sex with men. ² Pre-exposure Prophylaxis

Public health implications and key recommendations

- Ireland has reached the WHO target for congenital syphilis of ≤ 10 cases/100,00 population per year, no congenital syphilis cases were reported in 2023
- However, Ireland is not in line to reach WHO targets for EIS in 15-49 years olds
 - 20% reduction in the number of EIS by 2025
 - 90% reduction by 2030

The recommendations are:

- Maximise efforts to raise awareness of syphilis, its symptoms, and how to prevent it
 - <https://www.sexualwellbeing.ie/sexual-health/sexually-transmitted-infections/types-of-stis/syphilis.html>
 - <https://sexualwellbeing.ie/freecondoms/>
 - <https://man2man.ie/syphilis/>
 - <https://man2man.ie/free-condoms-lube/>
- Ensure ready access to regular testing for those who are having condomless sex with new and casual partners in order to detect cases early and prevent further spread. Key populations include, gbMSM, people living with HIV, transgender people and those on HIV PrEP
 - [HSE Free Home sampling kit](#)
 - [HSE STI services](#)
 - [Gay Men's Health Service Dublin](#)
- Support the development of sexual health services that are appropriately funded and resourced to meet EIS and other emergent sexual health needs
- Improve epidemiological data quality, focusing on improving data quality in key variables including; Gender identity, HIV status, PrEP status, Country of birth and Country of infection is required for future surveillance

HF Introduction

- Syphilis is an infectious disease caused by the bacterium *Treponema pallidum*
- Syphilis is usually transmitted by sexual contact and can also be transmitted from mother to child *in utero*
- Syphilis can be treated. Left untreated, syphilis infection can cause severe health outcomes
- Syphilis infection is divided into stages;
 - primary, secondary, and early latent syphilis are known as early infectious syphilis (EIS). EIS requires treatment and is a notifiable disease in Ireland
 - late syphilis includes late latent and tertiary syphilis, also requires treatment and is not notified
- Past infection does not confer complete immunity to reinfection

Surveillance Process –Early Infectious Syphilis (EIS)

- Laboratories notify all EIS cases that meet laboratory criteria specified in the [case definition](#) to the Computerised Infectious Disease Reporting (CIDR) system. New infections and reinfections are notified. These cases are classified as confirmed cases
- A clinician working in a specialised STI clinical service can notify public health directly, if a symptomatic person meets the clinical criteria for EIS but does not meet the laboratory criteria. This case will be classified as a probable case
- Once a case has been notified to Public Health via CIDR, Public Health liaise with clinicians to complete enhanced syphilis surveillance forms (ESF)
- Public Health will denotify a case of syphilis, if the clinician informs them that the clinical picture is not consistent with acute infectious syphilis
- Public Health enter the data from the ESF on to CIDR
- HPSC monitor trends and provide information that can be used to plan sexual health services and public health response



EIS: Trend in notification rate by gender, 2013-2023

- EIS notification rates in the total population increased by 3% in 2023 when compared to 2022.

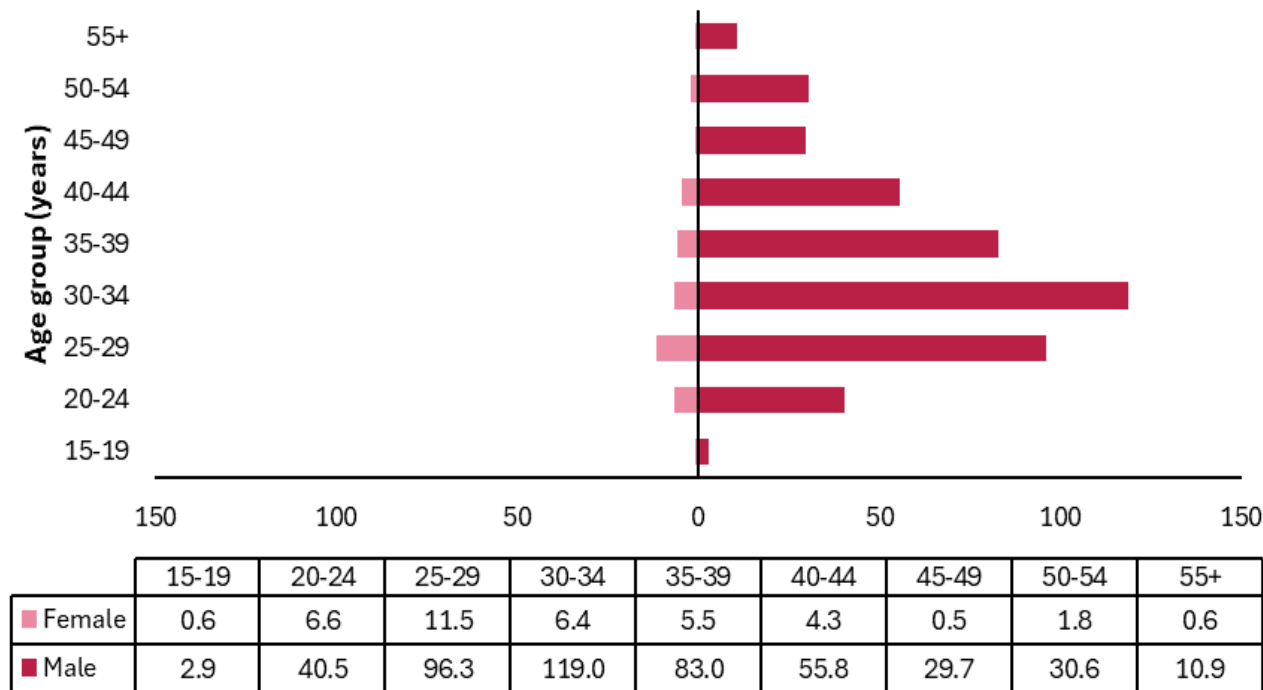


Figure 1. Early Infectious Syphilis notification rate by gender, 2013 to 2023



Notification rate, and number of EIS notifications by gender and age group, 2023

- The highest rate of notification was recorded in males aged 30-34 years in 2023



Early Infectious Syphilis Notification rate per 100,000 population



Figure 2. Notification rates by Age and Gender for Early Infectious Syphilis, 2023



Male EIS notification rate trend by age group 2019-2023

- Highest rate in males in 2023 was in those aged 30-34 years (119.0 per 100,000 population)

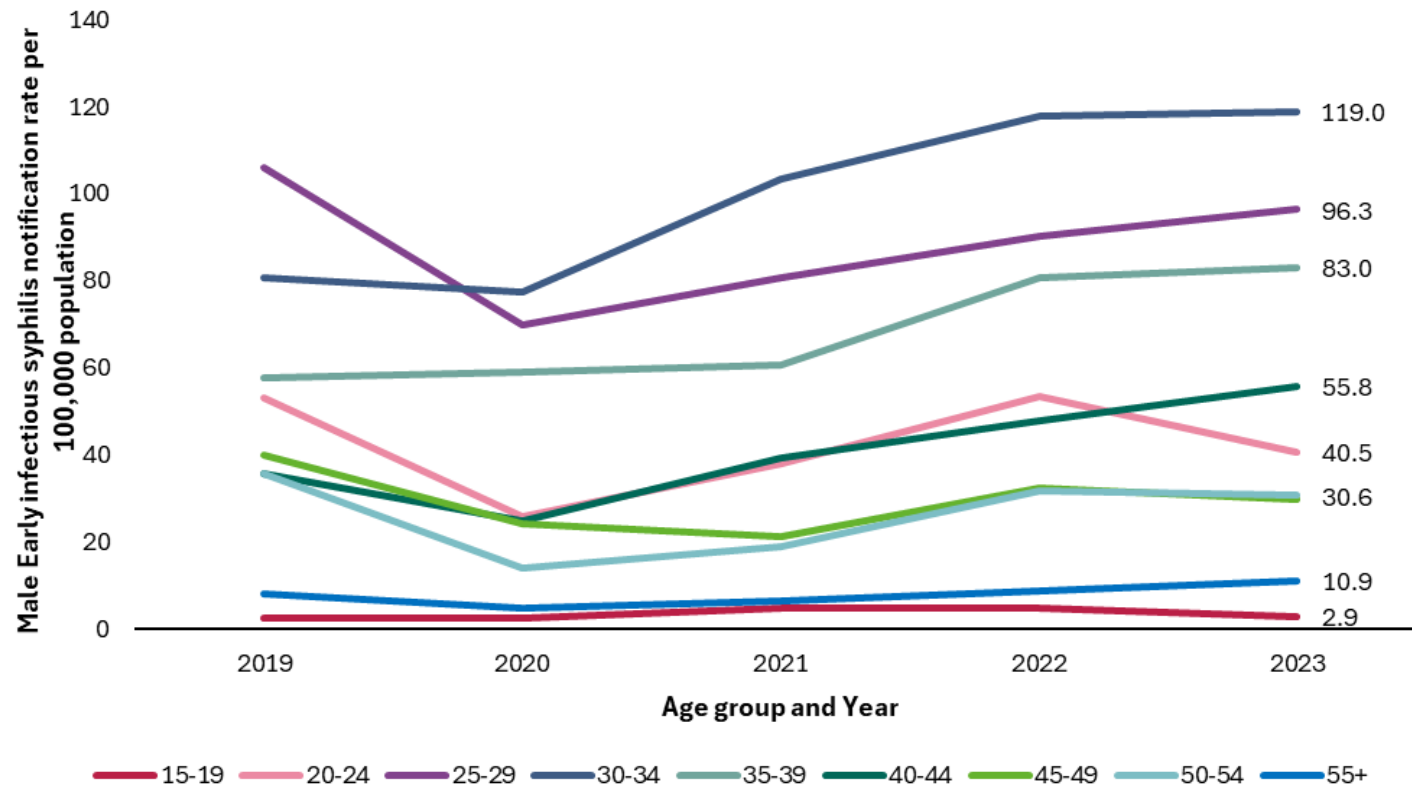


Figure 3. Early Infectious Syphilis notification rates in males by age group, 2019-2023



Female EIS notification rate trend by age group 2019-2023

- Highest rate in females in 2023 was in those aged 25-29 years (11.5 per 100,000 population)

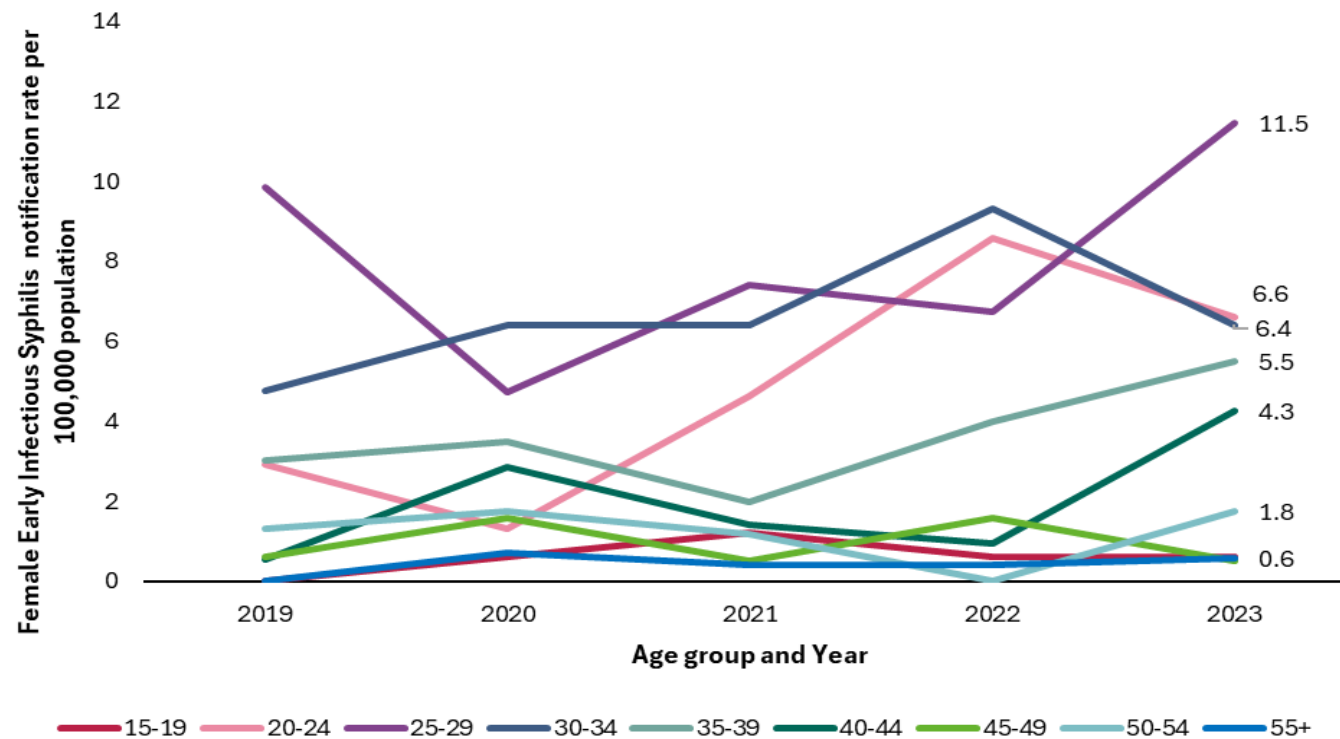


Figure 4. Early Infectious Syphilis notification rates in females by age group, 2019-2023



Antenatal Syphilis and Congenital Syphilis

Antenatal Syphilis

All pregnant women in Ireland are offered antenatal screening for syphilis. Information on the number who are screened is not available. Data cannot be reported as a notification rate per 100,000 pregnancies and is reported as notification rate per 100,000 live births*

The rate of notification of antenatal cases per 100,000 live births in 2023 remains low (3.7 per 100,000 live births)

	2019	2020	2021	2022	2023
Cis-female EIS notifications	39	48	45	53	68
EIS notifications in pregnancy	7	2	5	4	2
Number of births per year	59294	55959	58443	57540	54678
Notification Rate per 100,000 live births	11.8	3.5	8.6	7.0	3.7

Congenital Syphilis

Confirmed congenital syphilis rates remain low in Ireland. Notified cases comply with the [case definition](#).

	2019	2020	2021	2022	2023
Confirmed congenital syphilis	1	0	0	1	0
Number of births per year	59294	55959	58443	57540	54678
Notification Rate per 100,000 live births	1.7	0.0	0.0	1.7	0.0



*CSO [Home, Births Deaths and Marriages VSA03 - Total Births and Deaths Registered](#)

HE Trend in EIS notification rates in those 18 years and older (males, females and gbMSM*), 2019-2023

- gbMSM remain the group most affected by EIS with a notification rate of 438.1 per 100,000 population in 2023
- The rate of notification remains stable when compared to 2022 (439.0 per 100,000 population)

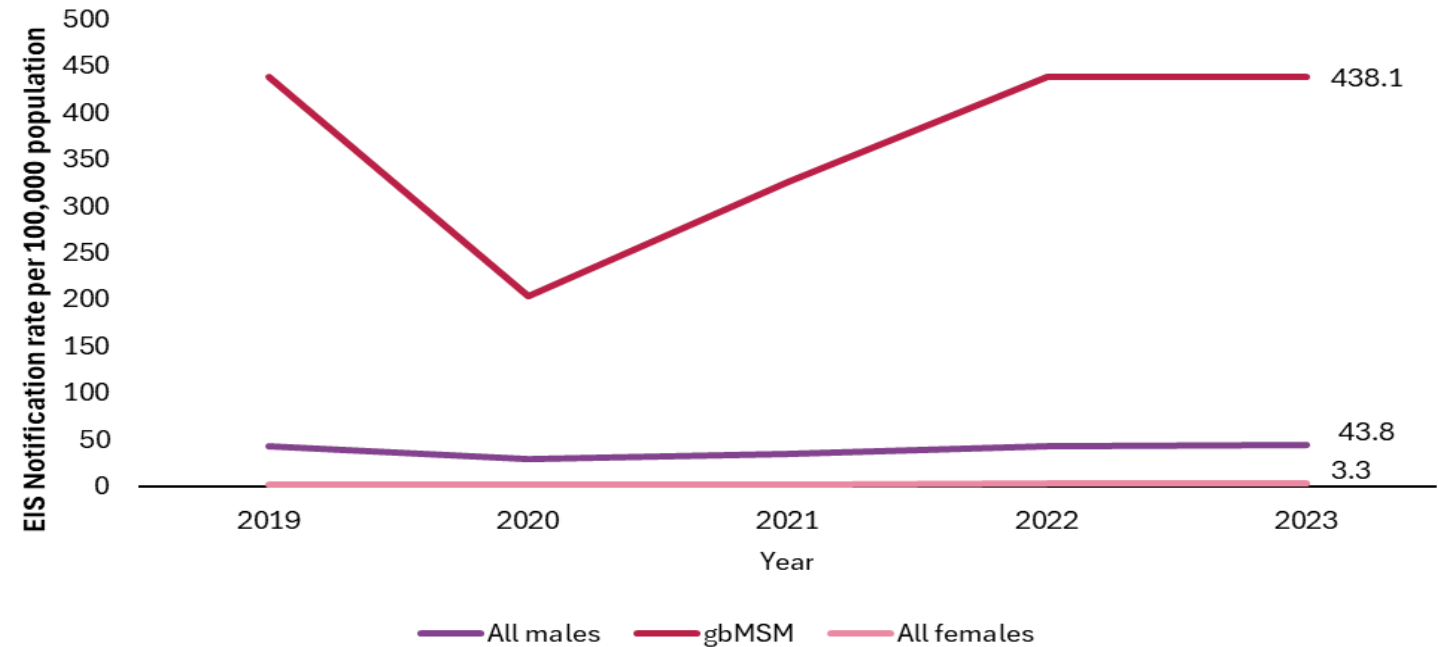


Figure 5. Early Infectious Syphilis notification rates in those aged 18 years and older (males, females and gbMSM 2019-2023)



*gay bisexual and other men who have sex with men.

The [2015 Healthy Ireland survey](#) was used to calculate notification rates in gbMSM



Trend in EIS Mode of Transmission 2019- 2023

- Where mode of transmission is known, gbMSM account for 91% of all male EIS cases in 2023

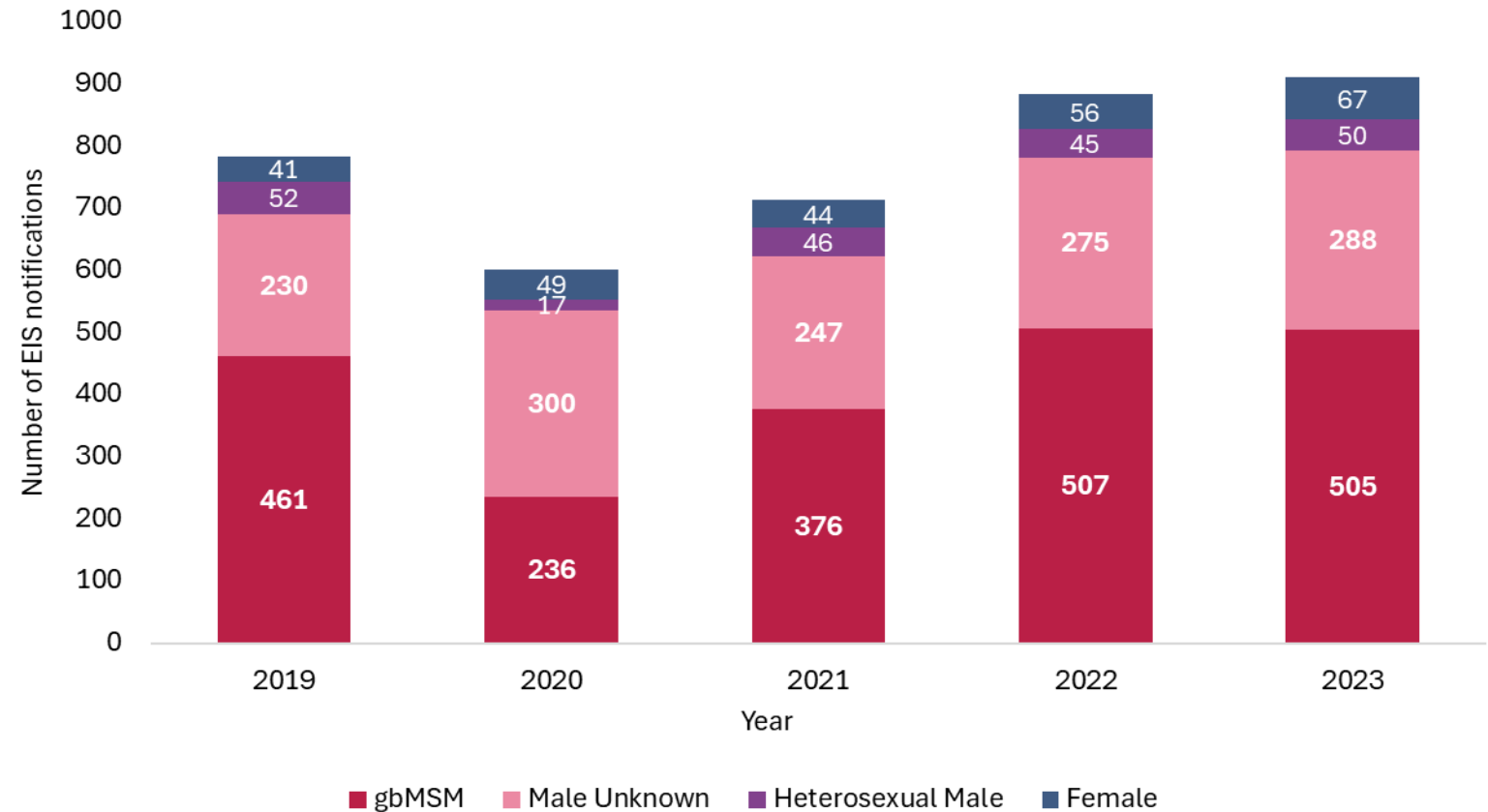


Figure 6. Early Infectious Syphilis notifications by mode of transmission. Excludes notifications where gender is unknown

HE Trend in HIV status (where known) of EIS cases 2019-2023

- In 2023, 30% of EIS notifications were in people living with HIV (where known) compared to 31% in 2022. The number of cases where HIV status was unknown decreased from 44% in 2022 to 36% in 2023

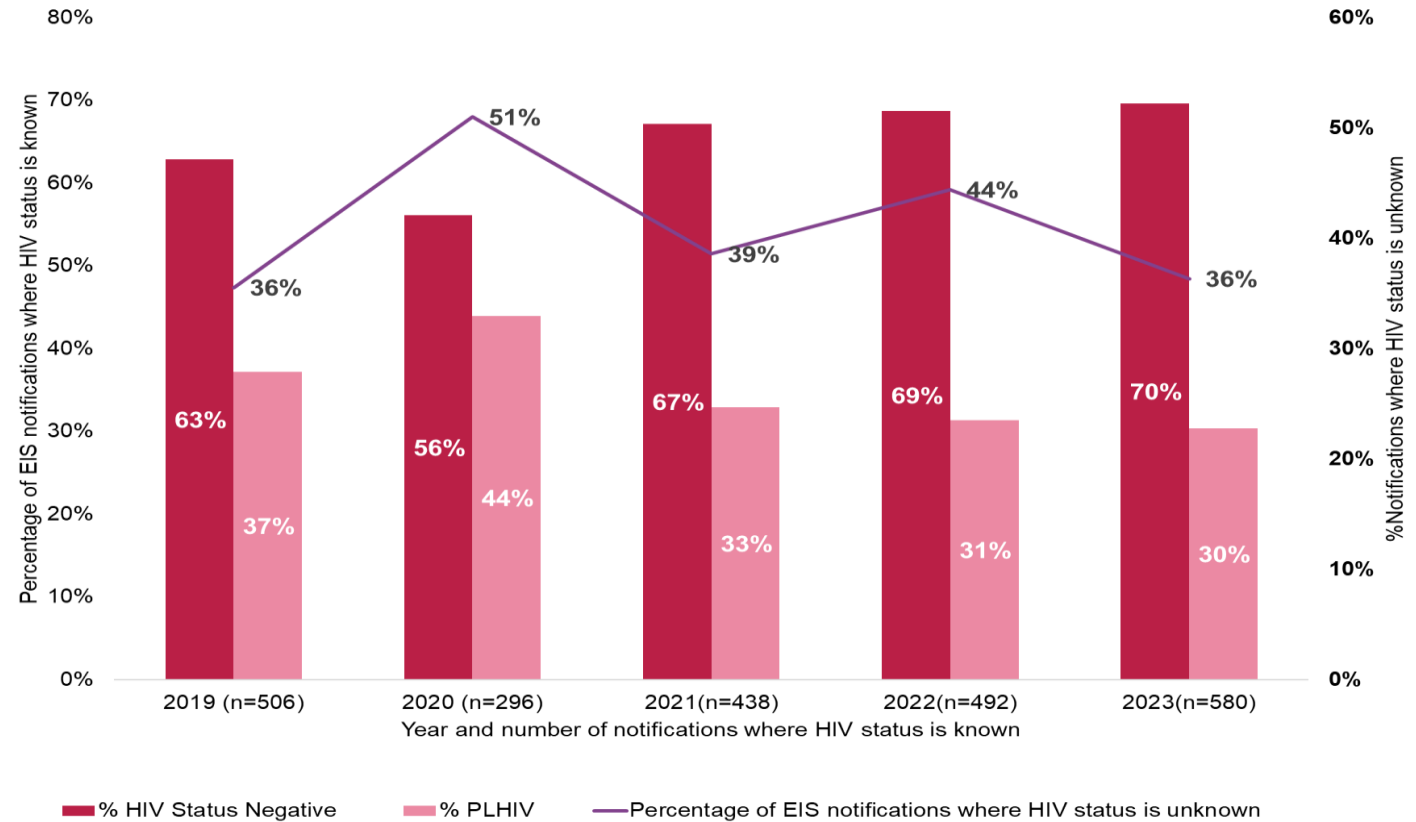


Figure 7. Early Infectious Syphilis notifications by HIV status.

Trend in EIS Notifications in people living with HIV 2019-2023

- In 2023, 99% of EIS notifications in people living with HIV were male
- 57% (n=101/176) of EIS notifications in people living with HIV were reinfections in 2023 this compares to 56% in 2022

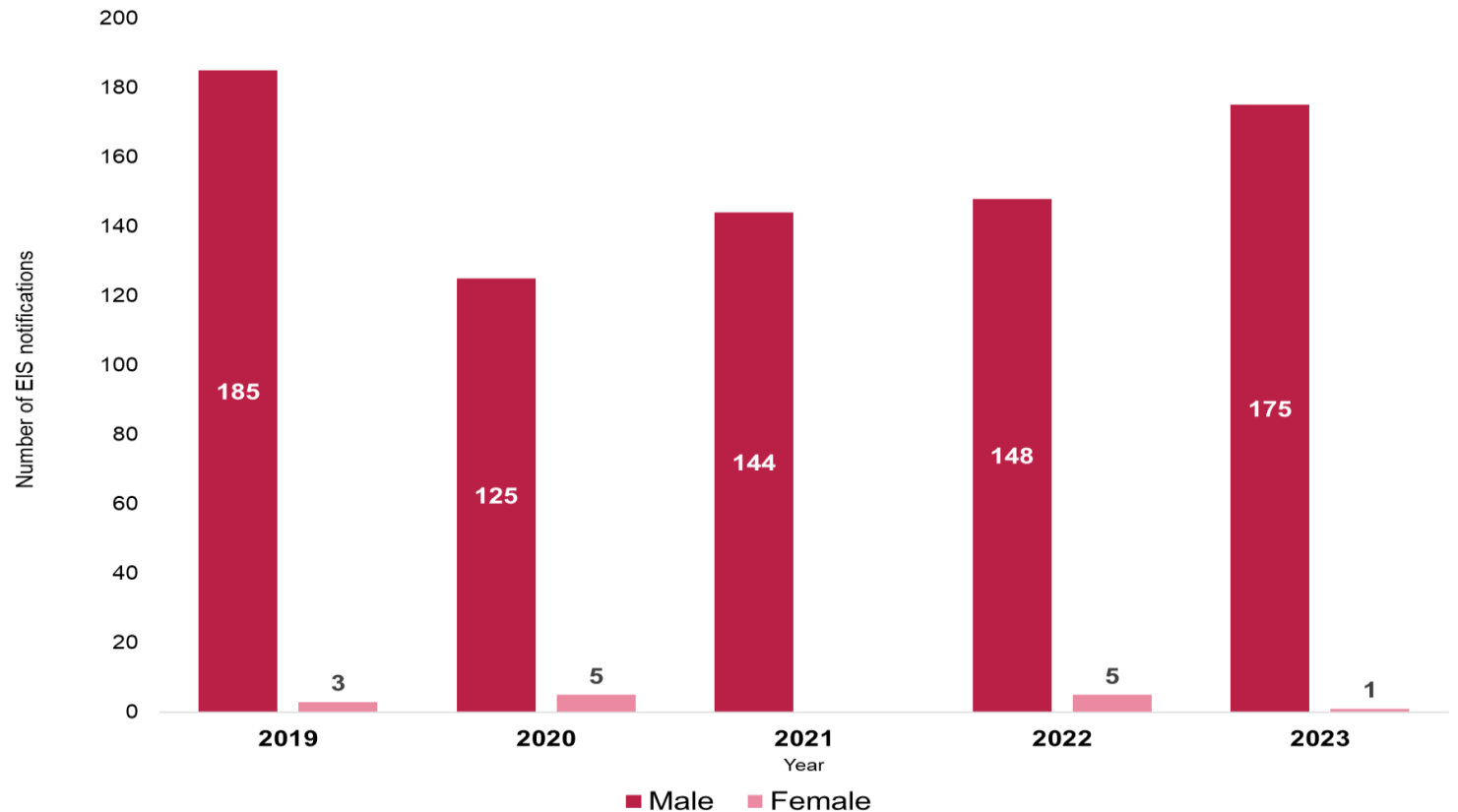


Figure 8. Early Infectious Syphilis notifications in people living HIV

HE Trend in EIS Notifications in those known to be HIV Negative by gender 2019-2023

- 92% of EIS notifications in those known to be HIV negative were male compared to 94% in 2022
- 24% (n=97/404) of those known to be HIV negative had evidence of reinfection up from 17% in 2022

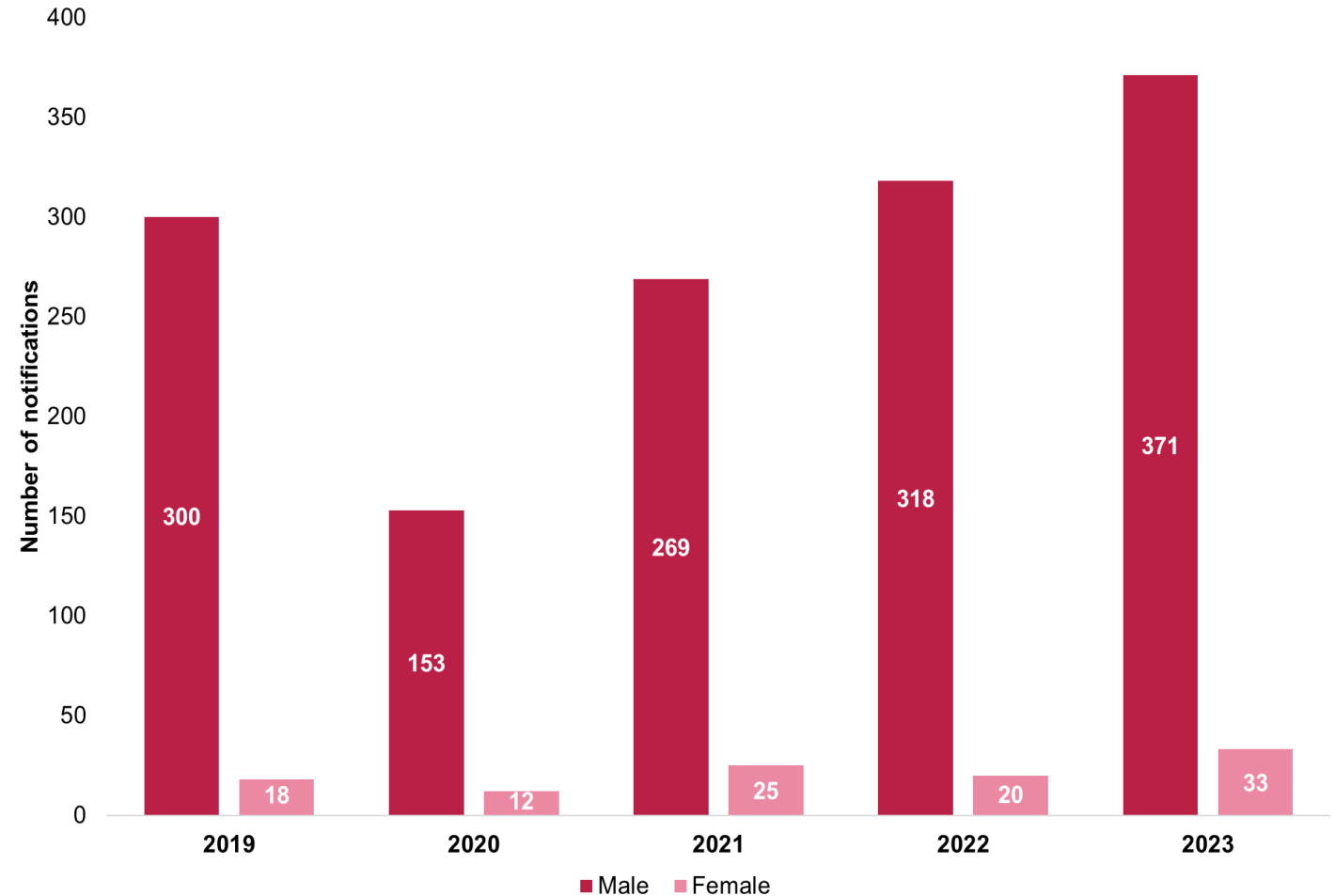


Figure 9 Early infectious syphilis in HIV negative people by gender

HE EIS notifications in HIV negative males on HIV PrEP 2021*-2023

In 2023 among HIV negative males with EIS

- 45% were on HIV PrEP (up from 30% in 2022)
 - 41% had evidence of reinfection
- 55% were not on HIV PrEP
 - 17% had evidence of reinfection

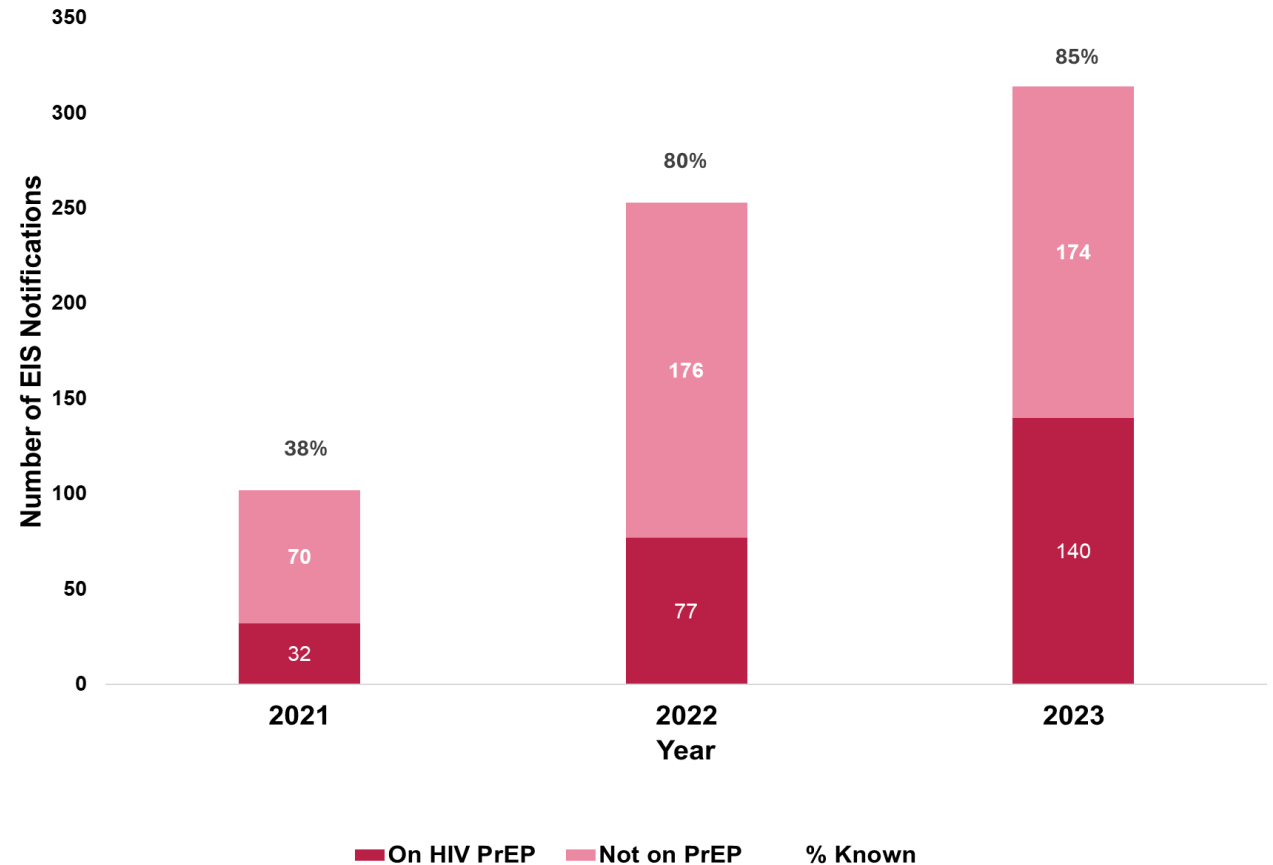


Figure 10 Early infectious syphilis in HIV negative males on HIV PrEP

*The national HIV PrEP programme started in November 2019. Limited data were available in 2020 likely due to the COVID 19 pandemic.

Trend in EIS notifications with evidence of reinfection 2019- 2023

- There is evidence of reinfection in 26% (n=233/911) of notifications in 2023, an increase from 21% in 2022
- 99%(n=231/233) of reinfections were in males

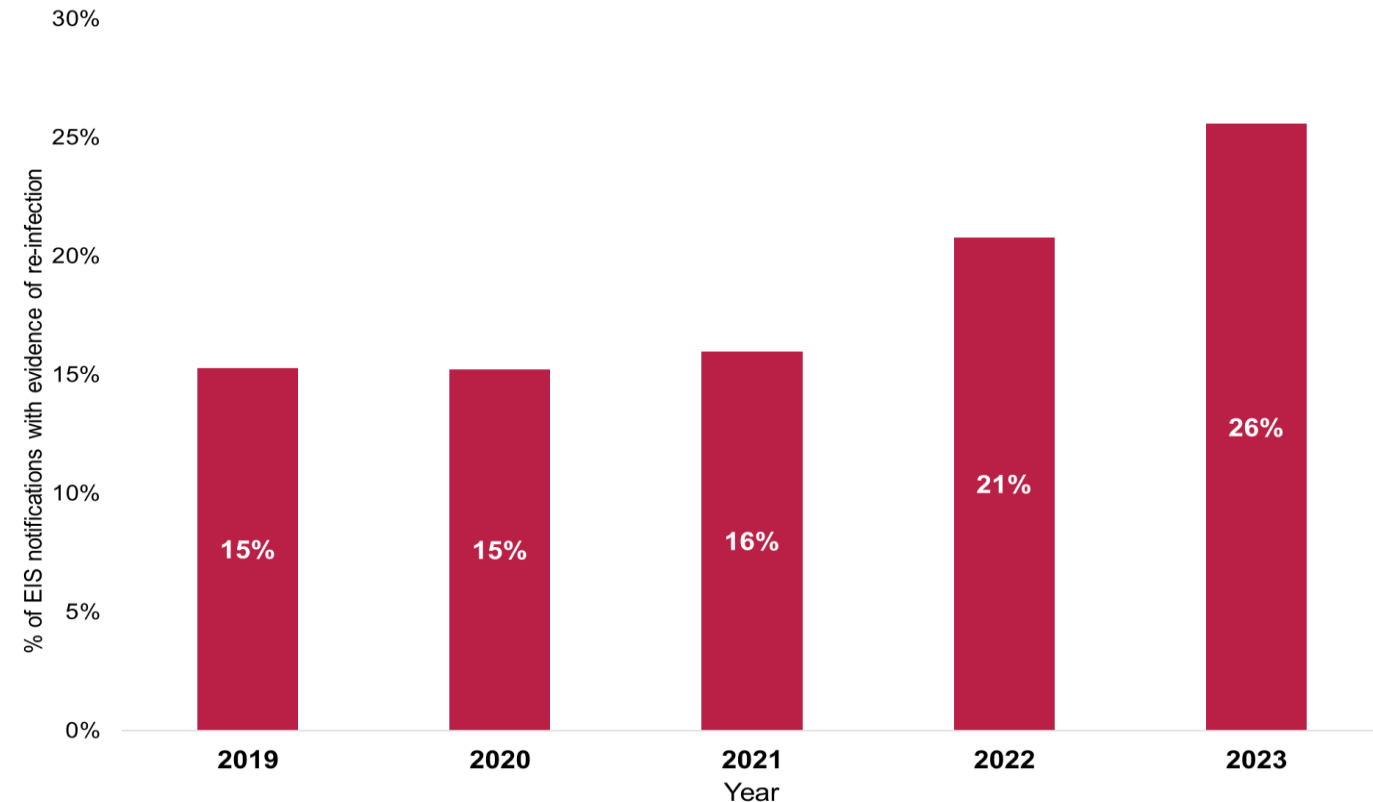


Figure 11 Early infectious syphilis notifications with evidence of re-infection

EIS notifications with a second STI notified in the same person in 2023

Where a second or multiple episodes of STIs were detected:

- 99% (n=431/436) were in males

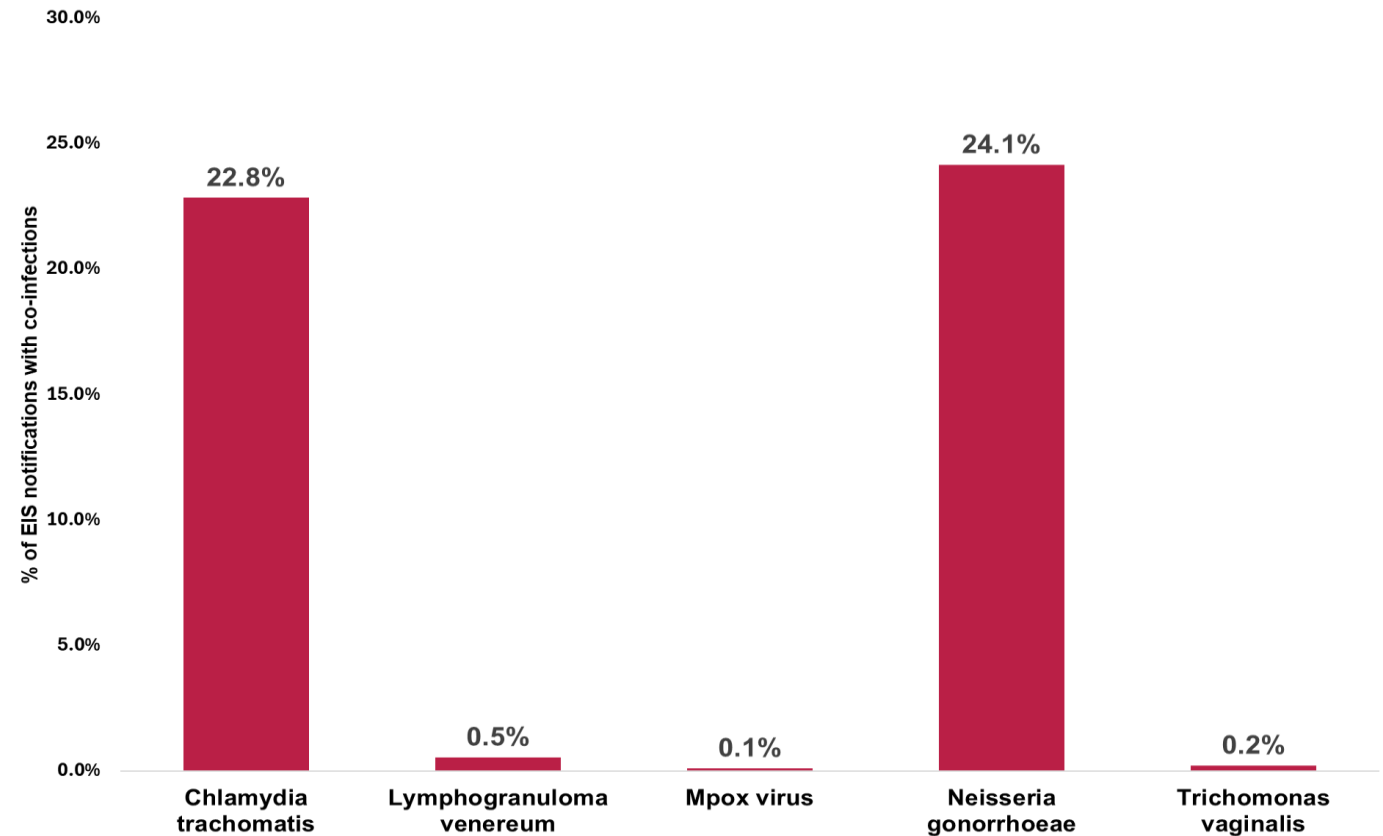


Figure 12 Early infectious syphilis notifications with a second STI notified in the same person in 2023

Trend in EIS notifications in transgender people 2019-2023

- Reporting of data on gender identity began in mid-2018
- In 2023 11 EIS notifications are recorded on CIDR as having occurred in trans people

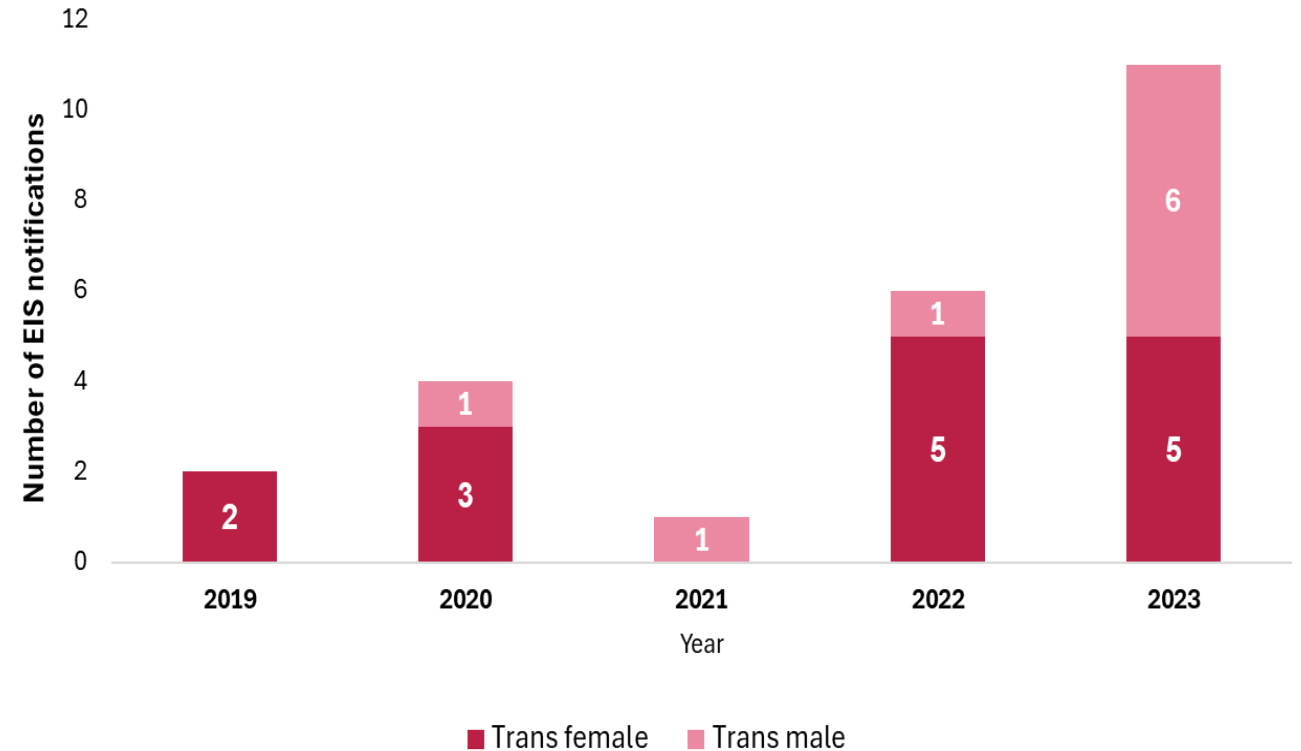


Figure 12 Early infectious syphilis notifications in trans people.

HE Trend in EIS notifications by country of birth 2019-2023

Where known:

- 46% of those notified with EIS in 2023 were born in Ireland compared with 49% in 2022
- 31% were born in Latin America and Caribbean compared to 28% in 2022

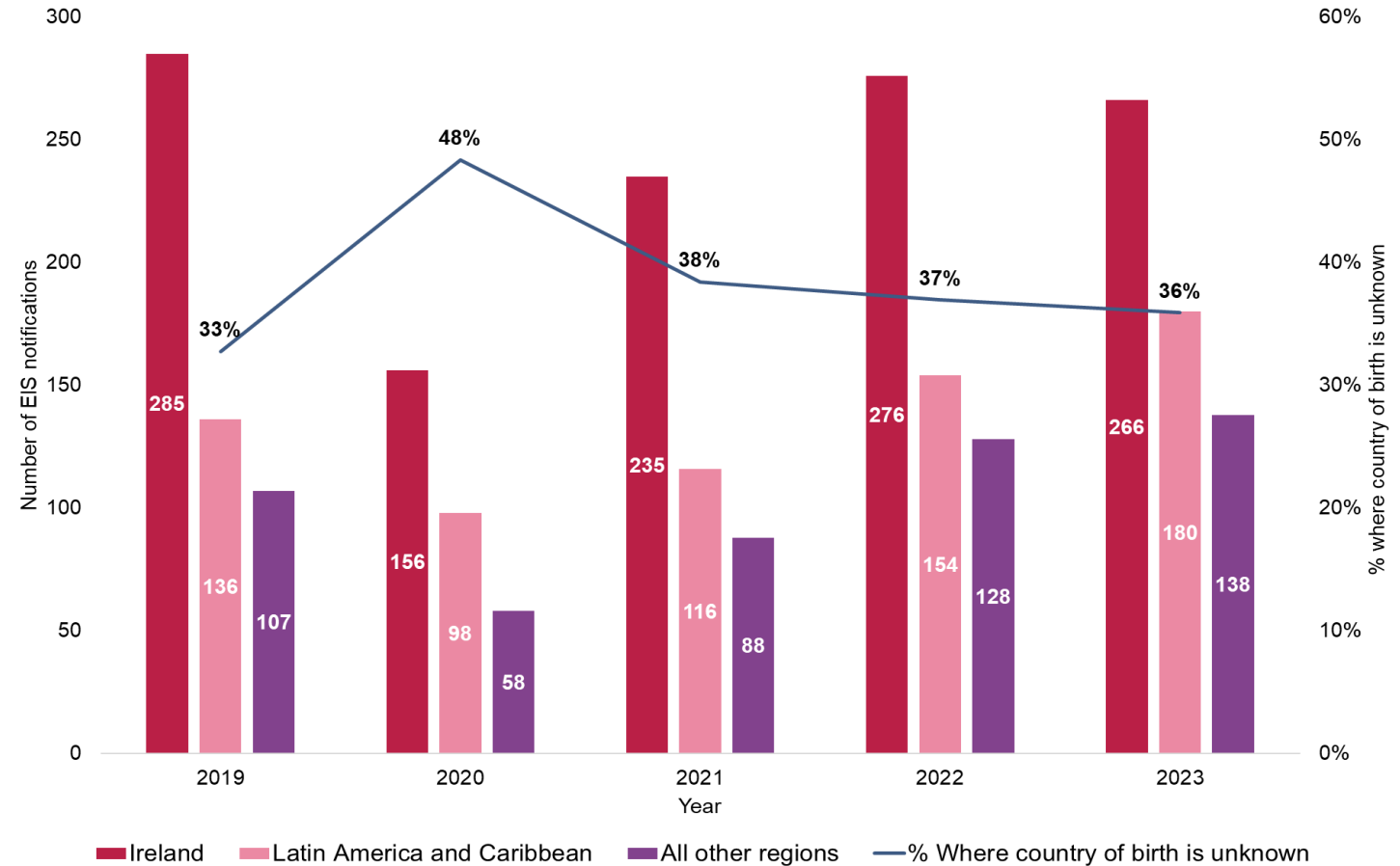


Figure 13 Early infectious syphilis notifications by country of birth.

HE Trend in EIS notifications by country of infection 2019-2023

Where known:

- In 2023, 20% of people with notified EIS acquired EIS abroad, compared to 13% in 2022

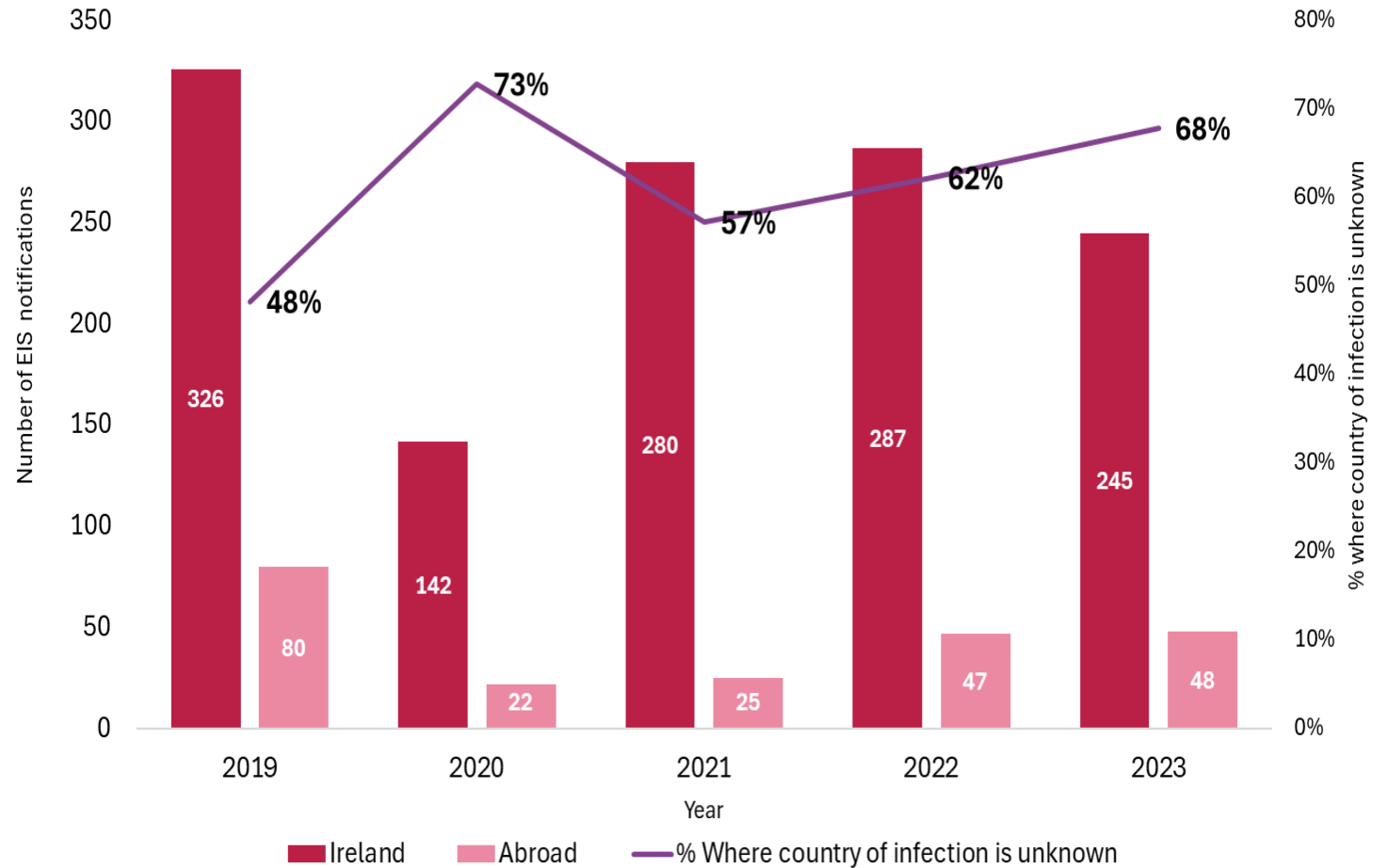
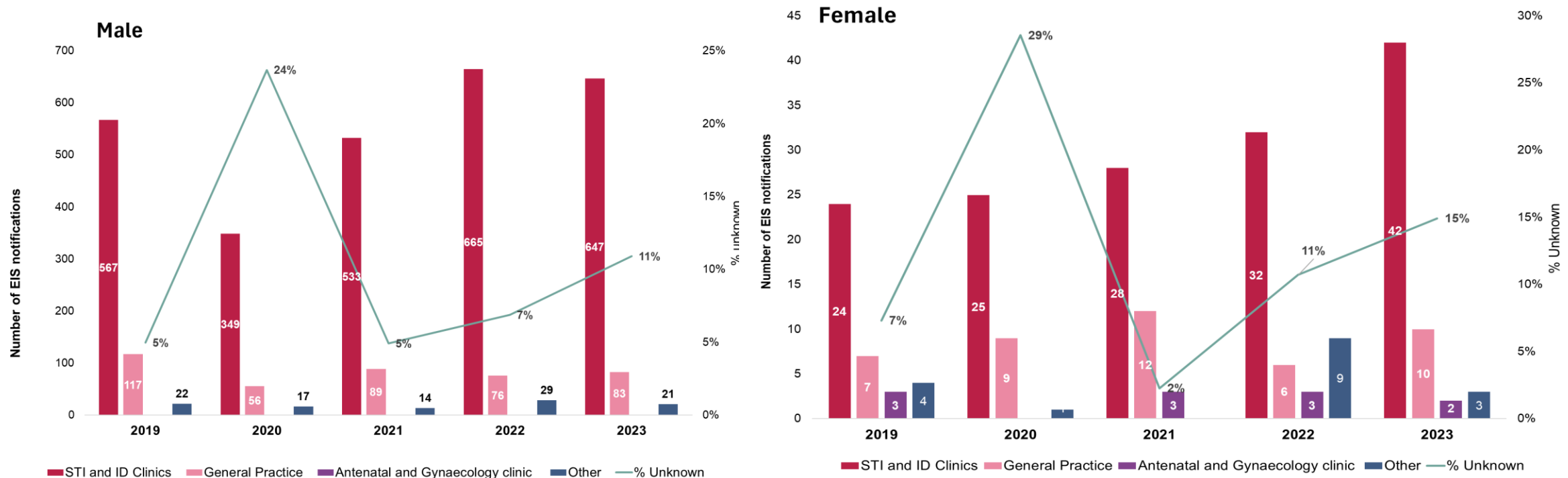


Figure 14 Early infectious syphilis notifications by country of infection.

Service where EIS was first identified: 2019-2023

Dedicated STI and ID clinics remain the most common service where EIS was first identified for both males and females in 2023. Antenatal and gynaecology clinics report a small but significant number of EIS notifications in females.



Figures 15 A & B Service where EIS was first identified.

Syphilis tests are available through the [free HSE home testing service](#), a reactive result is **not** notified to CIDR directly, the individual is referred to a public STI clinic for further testing and treatment.



EIS notification rates by HSE Health Regions, 2020-2023

- Highest notification rate for EIS in 2023 in HSEDM (HSE Dublin and Midlands) (36.9 per 100,000 population)

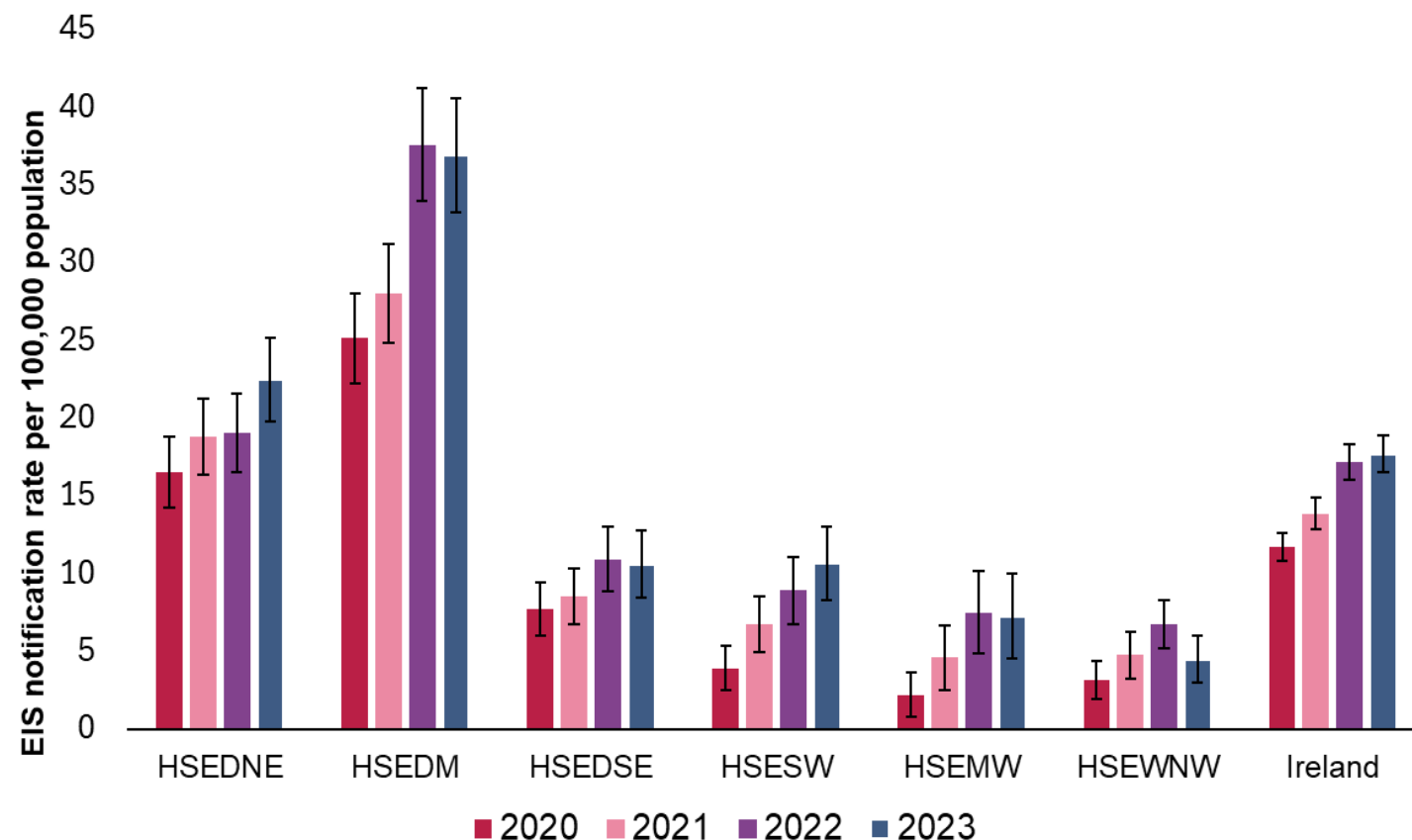


Figure 16 Early Infectious Syphilis notification rate by HSE health region, 2020-2023.

HE WHO Indicators for EIS

- WHO published Global health sector strategies which aims to reduce STIs in those aged 15-49 years by 2030
- 2025 targets reflect a 20% reduction in the number of new cases of syphilis (2019 baseline) whilst the 2030 targets reflect a target of 90% reduction in the number of new cases of EIS
- In 2023 cases in those aged 15-49 years increased by 1.4%. Ireland is not on target to meet the 20% reduction in EIS cases in those aged 15-49 years by 2025
- In 2023 Ireland had no congenital syphilis cases, Ireland has met the WHO 2030 target for congenital syphilis cases

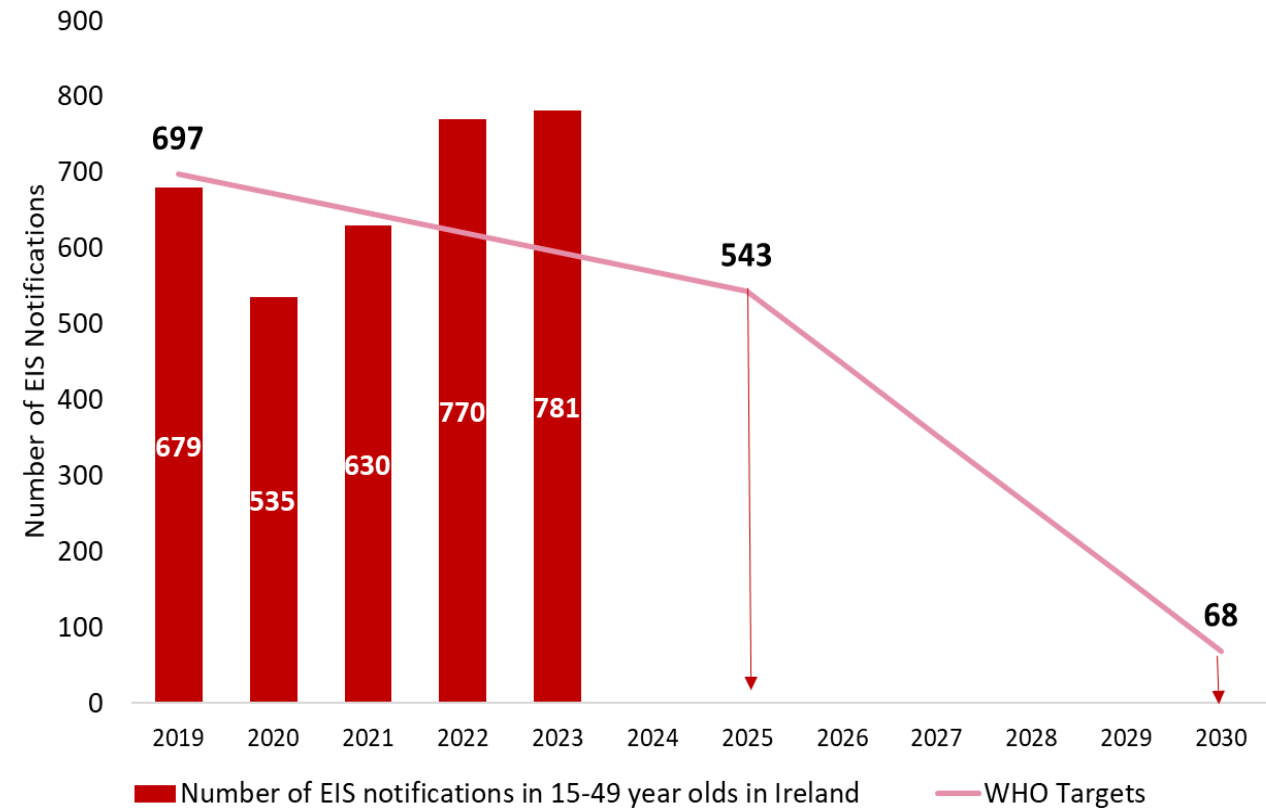


Figure 17 Number of notifications per year 2019-2023 syphilis in those aged 15-49 years and the WHO targets for 2025 and 2030

HE WHO Indicators for reduction in STIs (Chlamydia, Gonorrhoea, Syphilis and Trichomoniasis) in Ireland

- Ireland like other European countries is experiencing an increase in STIs and is not on target to meet the WHO 20% reduction in STIs in those aged 15-49 years by 2025

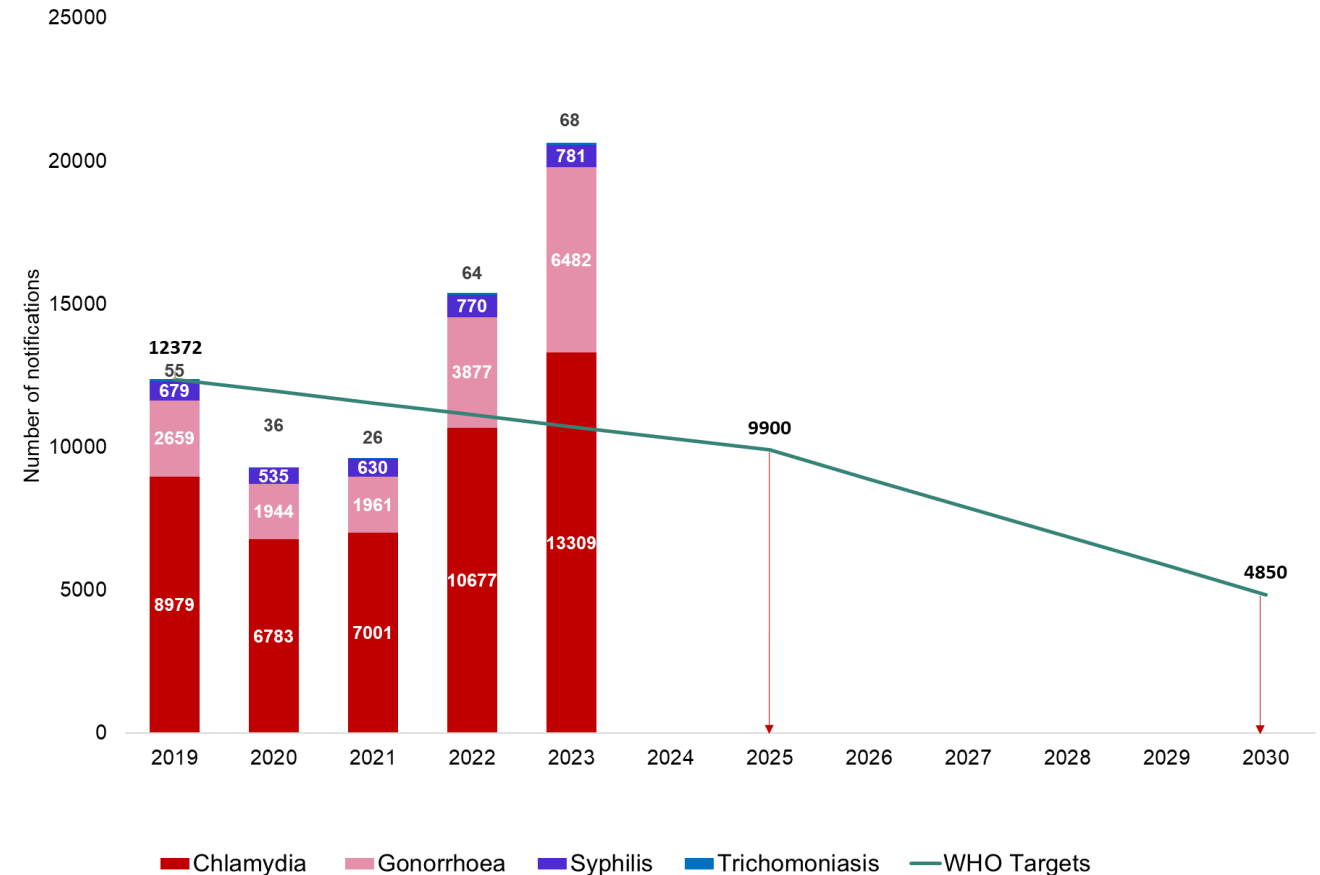


Figure 18. Number of notifications per year 2019-2023 for chlamydia, gonorrhoea, syphilis and trichomoniasis in those aged 15-49 years and the WHO targets for 2025 and 2030

Irish and International Trends in EIS

- In Ireland EIS notifications increased slightly in 2023
- Those most affected by EIS in Ireland continue to be gbMSM
- Antenatal and congenital syphilis rates in Ireland remain low

Internationally:

- In UK during [2023](#), diagnoses of infectious syphilis increased by 9.4% compared to 2022. Increases were seen in heterosexuals and in gbMSM. The number of EIS cases remains greatest in gbMSM, and people aged 25-34 years
- In New Zealand, like in Ireland the notification rate observed in [2023](#) is similar to the previous high rate observed in 2019
- In EU/EEA countries, the overall syphilis rate increased by 34% in [2022](#) when compared to 2021. The majority (74%) of syphilis cases with information on transmission category were reported in gbMSM. National congenital syphilis notification rates remained low in most EU/EEA countries that provided data in [2022](#)
- In United States, latest data for [2022](#) shows an increase in reported syphilis cases including congenital syphilis
- In Canada, the national rate of infectious syphilis increased to 36 per 100,000 in [2022](#) up 11% from 2021

Technical Notes

- Data are based on statutory notifications and were extracted from Computerised Infectious Disease Reporting (CIDR) system on 11th September 2024. Data are subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures
- STI data in this report are presented based on date of notification to the Health Protection Surveillance Centre (HPSC) unless otherwise stated
- Population data were taken from Census 2016 for the years 2014-2019 and from Census 2022 for the years 2020 to 2023 from the Central Statistics Office. Data were aggregated into the following age groups for analysis: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, ≥55 years
- Unless otherwise stated data are presented by gender. Gender is based on gender identity where it is provided, otherwise sex at birth is used. Gender identity refers to a person's internal sense of themselves (how they feel inside) as being male, female, transgender, non-binary or something else. This may be different or the same as a person's assigned sex at birth. All data presented by the gender male includes cis male and trans male and data presented by the gender female includes cis female and trans female
- When incidence rates by gender are reported the numerator is gender identity as recorded on CIDR and the denominator is population data from Census 2016 by sex (at birth) for the years 2014-2019, the denominator is population data from Census 2022 by sex (at birth) for the years 2020-2022

- To calculate rates among gbMSM, data from Healthy Ireland survey 2015 (for males, gender of last sexual partner male for 6%) was applied to the male population (aged 18 and over) from census data.
- The counties covered by each of the six HSE Health Regions are as follows:
 - HSEDNE: HSE Dublin and North-East - North Dublin, Meath, Louth, Cavan, and Monaghan
 - HSEDM: HSE Dublin and Midlands - Longford, Westmeath, Offaly, Laois, Kildare, West Wicklow, parts of South Dublin
 - HSEDSE: HSE Dublin and South-East - Tipperary South, Waterford, Kilkenny, Carlow, Wexford, East Wicklow, parts of South Dublin
 - HSEMW: HSE Mid-West - Limerick, Tipperary and Clare
 - HSESW: HSE South-West - Kerry and Cork
 - HSEWNW: HSE West and North-West - Donegal, Sligo, Leitrim, West Cavan, Roscommon, Mayo, and Galway