

Annual Epidemiological Report

September, 2019

Herpes simplex (genital) in Ireland, 2018

Key Facts

- There were 1,591 cases of herpes simplex (genital) notified in 2018
- The notification rate was 33.4 per 100,000 population in 2018; a 2% increase since 2017 (32.6/100,000) and continues the trend of an increasing notification rate since 2013
- 72% of cases were among females
- The highest age-specific rate was among females aged 20-24 years (266.8/100,000 population)
- The median age was 27 years (range: 14-84 years)
- 63% of cases were laboratory confirmed as herpes simplex virus type 1 and 36% as herpes simplex virus type 2; virus type was unknown for 1% of cases

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Introduction

Herpes simplex (genital), or genital herpes, is a viral infection caused by the herpes simplex virus (HSV). HSV is common throughout the world, and is categorised into two types; HSV1 and HSV2. HSV1 is mainly transmitted by oral-to-oral contact causing oral herpes ('cold sores'), but it can also be transmitted sexually. HSV2 is almost exclusively sexually transmitted [1].

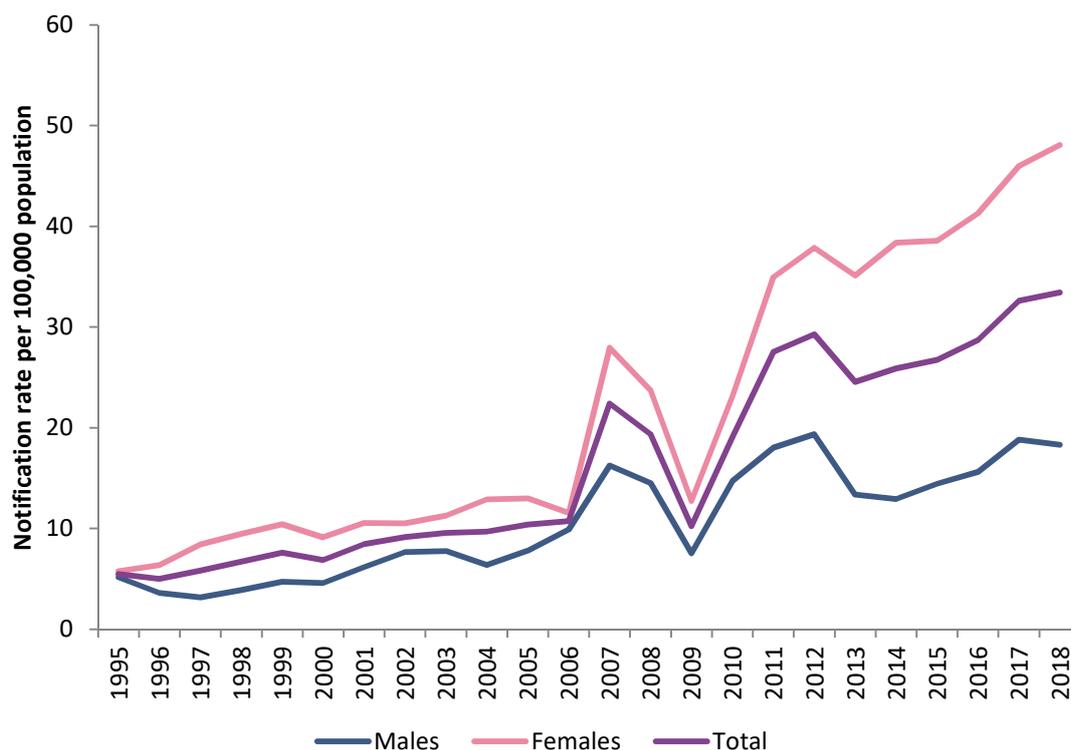
HSV1 and HSV2 infections are lifelong; the dormant virus remains in the body and can reactivate to cause recurrences. Infections can be asymptomatic or symptomatic, symptoms include painful blisters or ulcers at the site of infection. In immunocompromised people, symptoms can be more severe and recurrences more frequent. Additionally, infection with HSV2 increases the risk of acquiring and transmitting HIV [1].

In Ireland, genital herpes is notifiable under the Infectious Disease Regulations [2]. Since 2013, all cases have been reported via the Computerised Infectious Disease Reporting (CIDR) system. Prior to 2013, notifications from STI clinics and primary care were collated by Departments of Public Health and notified in aggregate format to the Health Protection Surveillance Centre (HPSC) on a quarterly basis.

Epidemiology

Cases and notification rates

There were 1,591 cases of herpes simplex (genital) notified in Ireland during 2018, corresponding to a notification rate (NR) of 33.4 per 100,000 population. This is a 2% increase compared to 2017, when 1,553 cases were notified (NR 32.6/100,000), and continues the trend of an increasing notification rate since 2013 (Figure 1).

Figure 1: Notification rate of herpes simplex (genital) in Ireland by sex, 1995-2018

HSE Area

Cases were reported from all HSE areas with the majority (58%) reported in HSE East. The age-standardised notification rate (ASNR) was highest in HSE East (50.4/100,000), a 6% increase from 2017, and significantly higher than the national rate of 33.4 per 100,000 (figure 2). The ASNRs in all other HSE areas, except HSE West (W), were significantly lower than the national rate (figure 3).

Data on HSE area should be interpreted with caution. HSE area is based on the clinic and not the patient's address for the vast majority of cases. Consequently, rates and numbers of cases by HSE area reflect the location of STI services as well as differences in reporting practices by clinics and clinicians from one area to another. A list of STI clinics is available at <https://www.sexualwellbeing.ie/>.

Figure 2: Age-standardised notification rate of herpes simplex (genital) by HSE area compared with national rate, 2018*

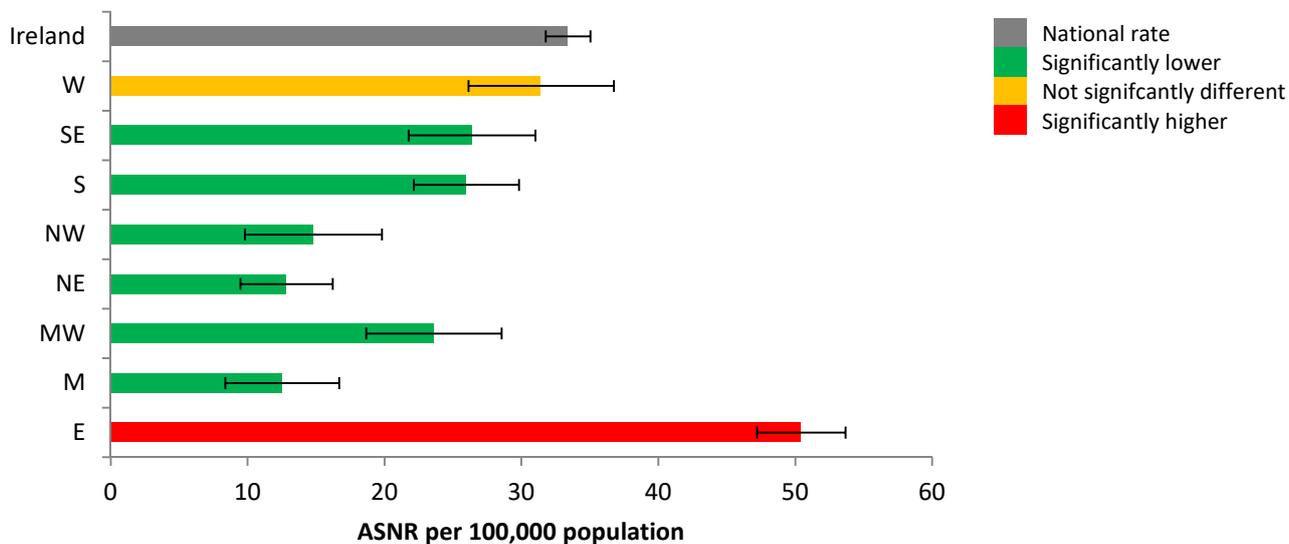
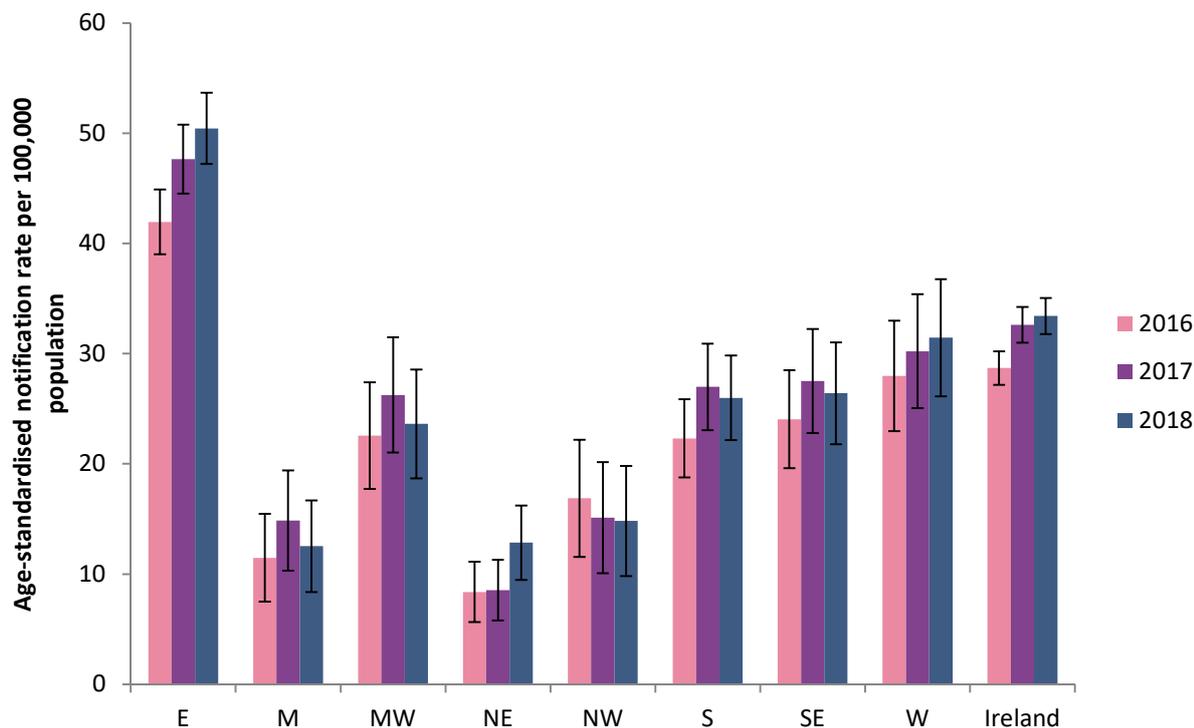


Figure 3: Age-standardised notification rate of herpes simplex (genital) in Ireland by HSE area, 2016- 2018*



* See technical note 3 and 4 for details on the counties covered by each HSE area and ASNR calculation methodology.

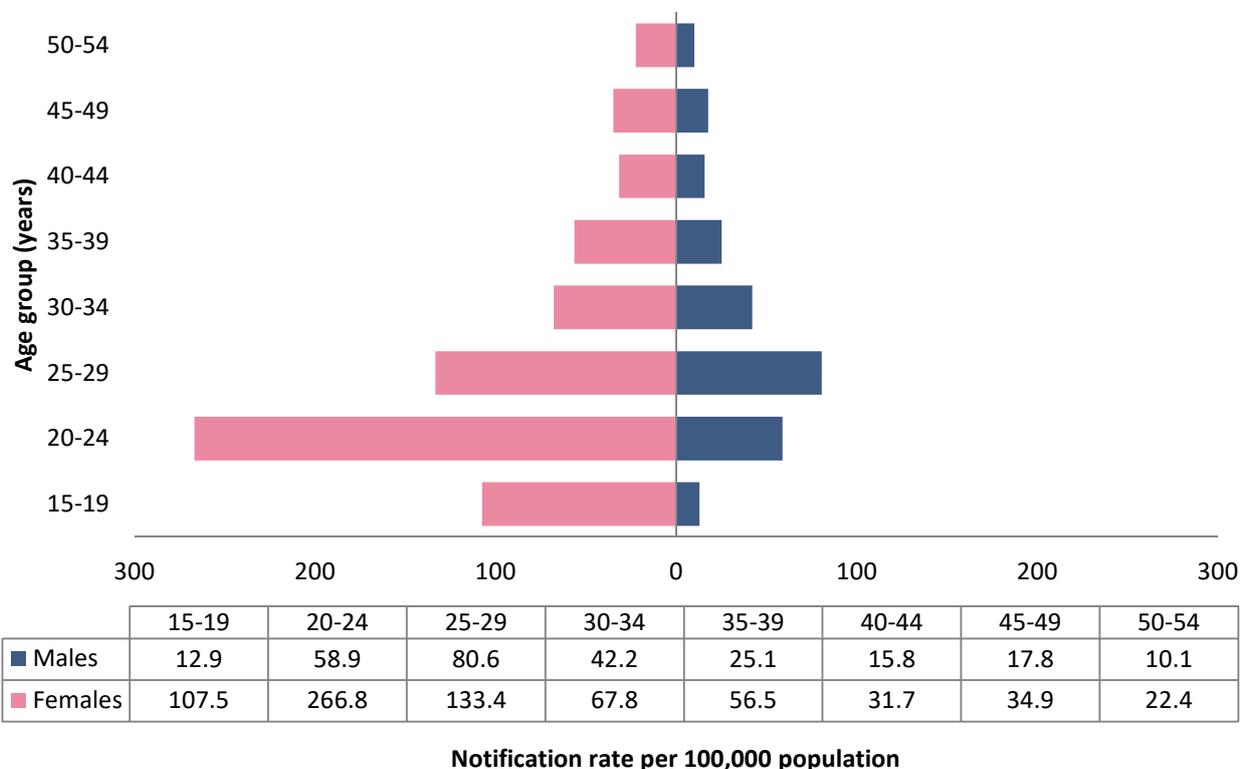
Age and sex

Seventy-three percent of cases were among females and 27% were among males, sex was unknown for three cases (<1%). The NR increased for females, from 46.0/100,000 females in 2017 to 48.1/100,000 females in 2018, and decreased slightly among males from 18.8/100,000 males in 2017 to 18.3/100,000 males in 2018.

The median age was 27 years (range: 14-84 years); 26 years among females (range: 14-84 years) and 29 years among males (range: 17-72 years). The highest age-specific rate among females was in 20-24 year olds (266.8/100,000) and among males was in 25-29 year olds (80.6/100,000) (Figure 4).

For the second year in a row, the NR of HSV among males aged 25-29 years was higher than among males ages 20-24 years (figure 5). Among females, rates have consistently been highest among 20-24 year olds since 2013 (figure 6).

Figure 4: Age and sex-specific rates of herpes simplex (genital) in Ireland, 2018[†]



[†]Excludes three cases where sex was unknown. Also excludes cases for individuals aged 0-14 years (n=1) and those over the age of 55 (n=63).

Figure 5: Trend in age-specific rates of herpes simplex (genital) among males in Ireland, 2013-2018[†]

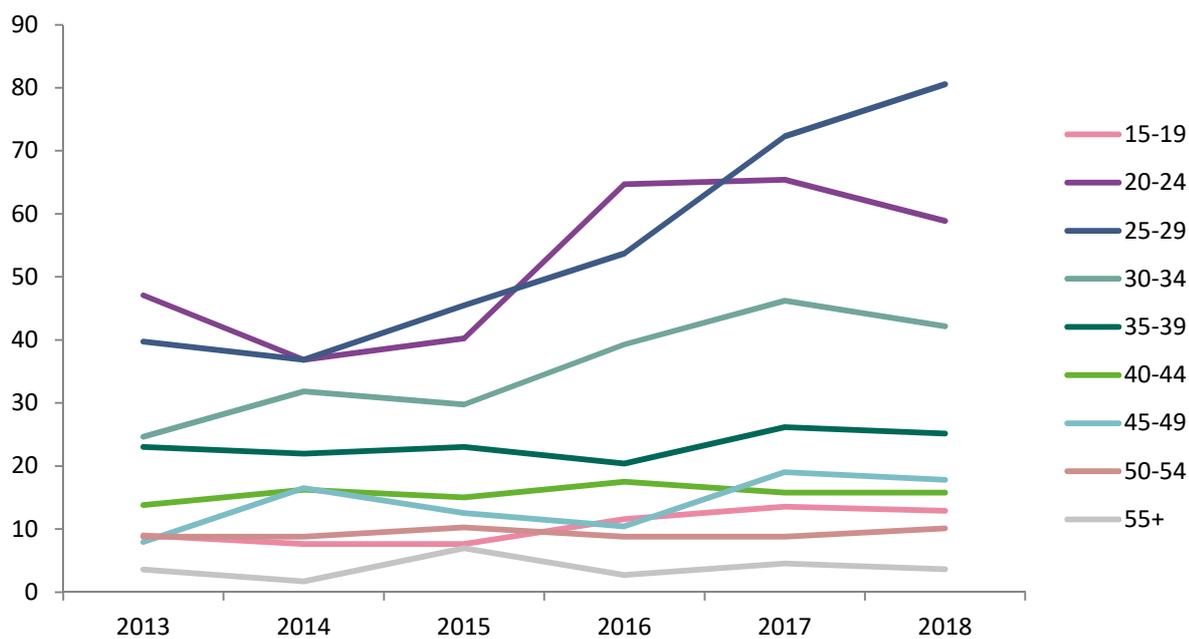
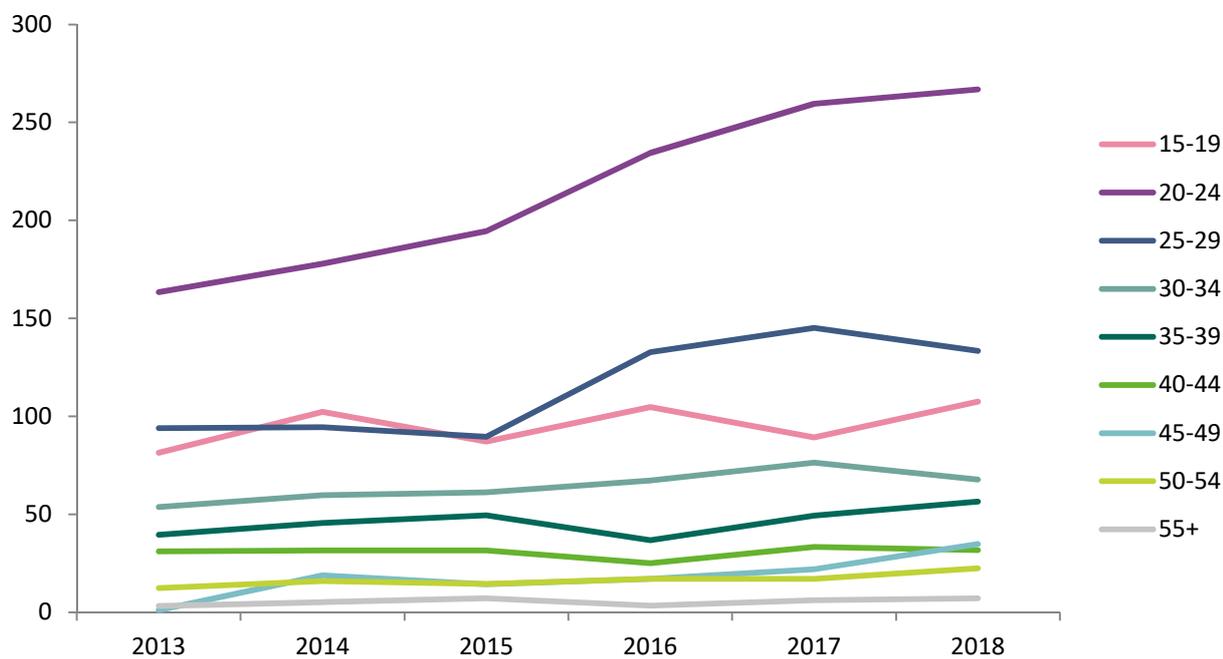


Figure 6: Trend in age-specific rates of herpes simplex (genital) among females in Ireland, 2013-2018[†]



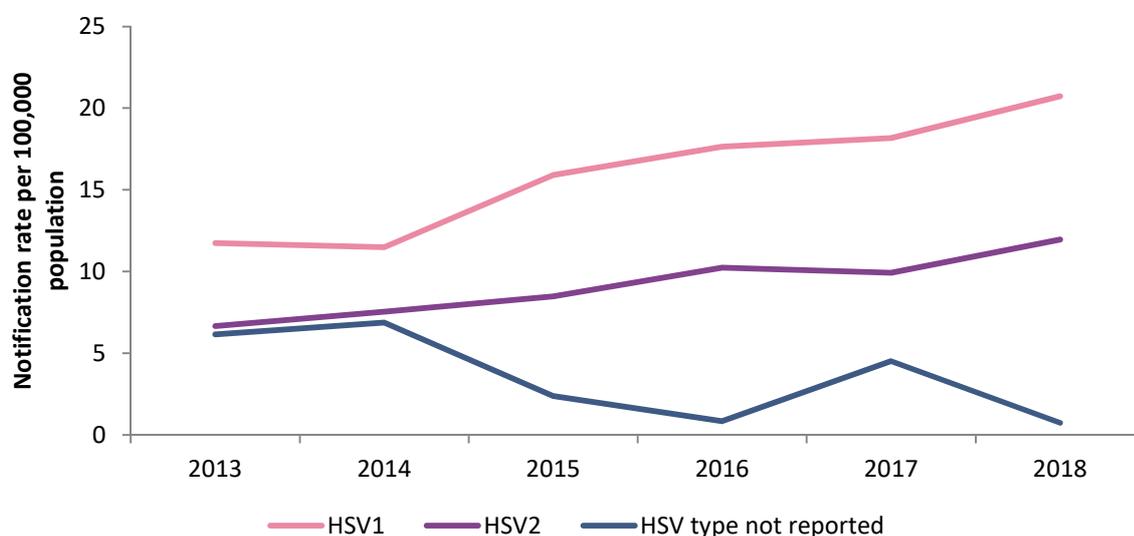
[†]Excludes cases where sex or age was unknown as well as individuals aged 0-14 years

HSV type

Ninety-nine percent of cases notified in 2018 were laboratory confirmed and 1% were probable (clinically compatible) cases. Among laboratory confirmed cases, 63% were reported as HSV1 and 36% as HSV2 in 2018; type was not reported for 1% of cases.

NR for both HSV1 and HSV2 have increased each year since 2015. This increase is driven by increasing numbers of cases as well as improvements in the completeness of these data reported in CIDR (figure 7).

Figure 7: Trend in herpes simplex (genital) by type in Ireland, 2013-2018



Patient type

Patient type (reflecting the service at which the patient was diagnosed) was recorded for 82% (n=1,309) of herpes simplex (genital) notifications in 2018. Where patient type was reported, 63% were diagnosed in general practice, 34% were diagnosed in STI clinics and 3% were diagnosed in emergency departments or other hospital settings.

Other STIs

A number of individuals diagnosed with genital herpes in 2018 were also diagnosed with other STIs during 2018: chlamydia (n=59), gonorrhoea (n=38), syphilis (n=14) and lymphogranuloma venereum (LGV) (n=1).

Discussion

The notification rate of HSV increased by 2% in 2018 to 33.4 per 100,000 population and continues the trend of an increasing notification rate since 2013. The majority of cases continue to be reported among women with increasing rates among younger women in 2018 (108 per 100,000 population and 267 per 100,000 population among 15-19 year olds and 20-24 year olds, respectively). There was a slight decrease in cases reported among men overall but cases among those aged 25-29 years increased (to 81 per 100,000 population).

Similar trends in HSV have been seen in other developed countries in recent years. In England in 2018 diagnoses of first episode genital herpes increased by 3% with increases of 2%-5% in all groups with the exception of people aged 65 years and older. The highest age-specific rate among both men and women was 20-24 year olds (3).

Herpes simplex virus can also be transmitted vertically from mother to baby. Babies can become infected with herpes simplex virus (HSV) in the womb (~5%) around the time of birth through contact with HSV infected sections in the birth canal (~85%) or by contact with the virus in the days after birth (10%). On 18th December, 2018, neonatal herpes simplex was added to the list of notifiable diseases. The purpose of this addition is to raise awareness and facilitate greater understanding of the burden of this rare but potentially devastating viral infection. Surveillance of herpes simplex (neonatal) will also be conducted using the national Computerised Infectious Disease Reporting (CIDR) system (4). The neonatal herpes simplex case definition and a frequently asked questions page have been added to the HPSC website (<https://www.hpsc.ie/a-z/other/neonatalherpes/>).

Technical notes

1. Data for this report were extracted from CIDR on 3rd July, 2019, and were correct at the time of publication. Information from previous years is updated on an ongoing basis in CIDR, therefore data in this report may be updated in future reports.
2. Percentages are rounded up in the text and provided to one decimal place in tables.
3. The counties covered by each HSE area are as follows: HSE East (E): Dublin, Kildare & Wicklow; HSE Midlands (M): Laois, Longford, Offaly & Westmeath; HSE Midwest (MW): Clare, Limerick & N. Tipperary; HSE Northeast (NE): Cavan, Louth, Meath & Monaghan; HSE Northwest (NW): Donegal, Leitrim & Sligo; HSE South (S): Kerry & Cork; HSE Southeast (SE): Carlow, Kilkenny, S. Tipperary, Waterford & Wexford; HSE West (W): Galway, Mayo & Roscommon.
4. Age-standardised notification rates were calculated using the direct method in which the national population was taken as the standard population. Population data were taken from Census 2016. Data were aggregated into the following age groups for the analysis: 0-4 years, 5-9 years, 10-14 years, 15-19 years, 20-24 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years and 65 years.
5. While efforts are made to remove duplicate records from these data, it is not always possible to link and remove all duplicate records and some patients or disease events may be counted more than once.

Further information available on HPSC website

- Previous years' reports are available at <http://www.hpsc.ie/a-z/hivstis/sexuallytransmittedinfections/genitalherpessimplex/surveillancereports/>, at <http://www.hpsc.ie/abouthpsc/annualreports/> and at <http://www.hpsc.ie/a-z/hivstis/sexuallytransmittedinfections/publications/stireports/>
- Keep up to date with HIV and STIs in Ireland at <http://www.hpsc.ie/a-z/hivstis/sexuallytransmittedinfections/publications/stireports/stiweeklyreports/>

Acknowledgements

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Report prepared by

Gillian Cullen and Derval Igoe, HPSC

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