NSW SEXUALLY TRANSMISSIBLE INFECTIONS STRATEGY 2021–2025

January to June 2021 Data Report

Key Data

Surveillance data for the time period January to June 2021 should be interpreted with caution. Factors influencing data from this period include the effects of COVID-19 restrictions, altered health-seeking behaviour, lower levels of casual sex activity and testing, as well as altered service provision and access. Additionally, data requiring clinical information from the diagnosing doctor may not be complete during this period due to reallocation of resources during 2021. Testing data are not currently available to determine whether changes in notification trends observed in the first half of 2021 reflect a change in transmission levels, a change in testing uptake, or a combination of both.

Notifications and rates per 100,000 population

Sexually Transmissible Infection	Jan – Jun 2021	Jan – Jun 2020	% Difference
Chlamydia	14,621 352 per 100,000	13,993 342 per 100,000	+4.5% +3%
Gonorrhoea	4,579 110 per 100,000	5,099 125 per 100,000	-10% -11%
Infectious Syphilis	914 22.0 per 100,000	893 21.8 per 100,000	+2.5% +1%
Lymphogranuloma venereum (LGV)	18 0.9 per 100,000	31 1.5 per 100,000	-42% -43%

Key Messages

Executive Summary

The **NSW STI Strategy 2021–2025** is near completion and is expected to be launched early 2022. With the new Strategy, there will be changes to the reporting within these data reports. New targets will mean new data to evaluate the progress of the Strategy. This data report follows the formatting and reporting of the previous Strategy 2016–2020 for the interim before the new Strategy is finalised.

The notification rate of **Gonorrhoea** in the first half of 2021 was 110.3 notifications per 100,000 population, 11% lower than the rate in January to June 2020 (6.5% lower than the rate of all of 2020). This likely continues to be affected by changes to health seeking behaviours due to the COVID-19 pandemic. There were 4,578 notifications, which was relatively stable from the previous six months. Males accounted for 81% of new infections and remained highest for those aged 25 to 29 years, while females aged 20 to 24 years were most affected.

The notification rate of **Infectious Syphilis** in January to June 2021 was 22 notifications per 100,000 population, an increase of 6.4% from the rate in 2020, and nearly double the rate since 2016. The increase during this period was largely driven by an increase among males (increase of 7% since 2020). The female sex-specific rate decreased from 3.3 notifications per 100,000 females in 2020 to 3.0 notifications per 100,000. The proportion of infectious syphilis notifications by Aboriginal status remained stable, with 4% of notifications being in Aboriginal and/or Torres Strait Islander people.

There were zero cases of **Congenital Syphilis** reported in January to June 2021. Pregnant women accounted for 18% of infectious syphilis notifications among women of reproductive age (14 to 45 years), with an additional 5% having an unknown or missing pregnancy status.

The notification rate of **Chlamydia** in January to June 2021 was 352 notifications per 100,000 population, 7% higher than it was in 2020 yet still lower than the rates between 2017 and 2019. Like notifications of gonorrhoea, this likely is affected by changes to health seeking behaviours due to the COVID-19 pandemic. The notification rate was 20% higher in males than in females (383 per 100,000 males compared to 319 per 100,000 females).

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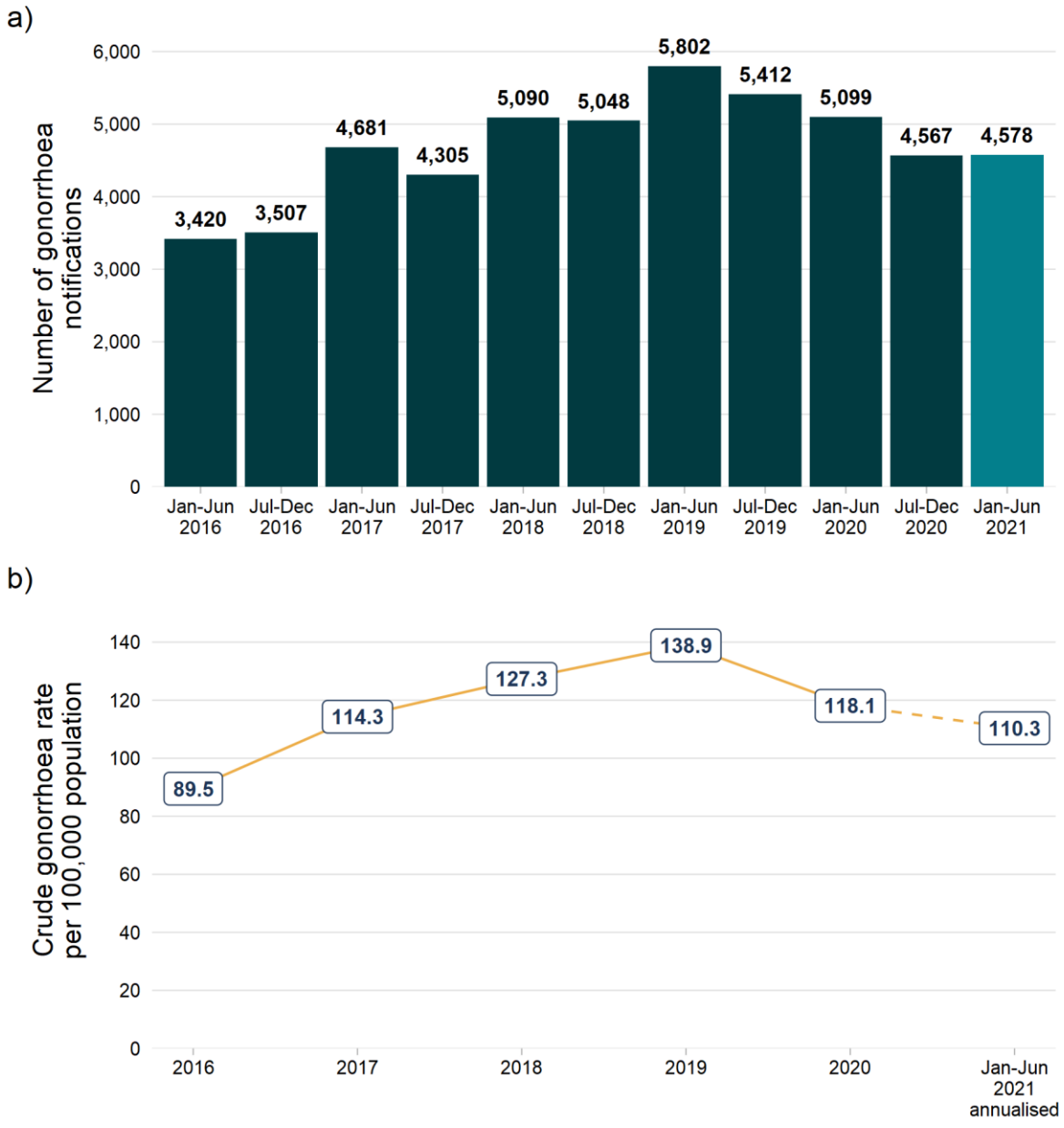
Glossary of Terms

ABS	Australian Bureau of Statistics
ART	Antiretroviral therapy
CDR	Communicable Diseases Register
GBM	Gay and bisexual men
GU	Genitourinary tract
HIV	Human immunodeficiency virus
LHD	Local Health District
MHCL	Medium to high caseload
MSM	Men who have sex with men
NAAT	Nucleic acid amplification testing
NAT	Nucleic acid testing
NCIMS	Notifiable Conditions Information Management System
NSW	New South Wales
PFSHSs	Publicly funded sexual health services
PID	Pelvic inflammatory disease
SAPHaRI	Secure Analytics for Population Health Research and Intelligence

1. Reduce gonorrhoea infections

From January to June 2021 the annualised gonorrhoea notification rate was 110 notifications per 100,000 population. This is 6.5% lower compared to 2020 when the annual rate was 118 per 100,000 population). The notification rate has continued to decline from its peak in 2019. However, the current annualised rate is 23% higher than the 2016 annual rate (89.5 per 100,000 population).

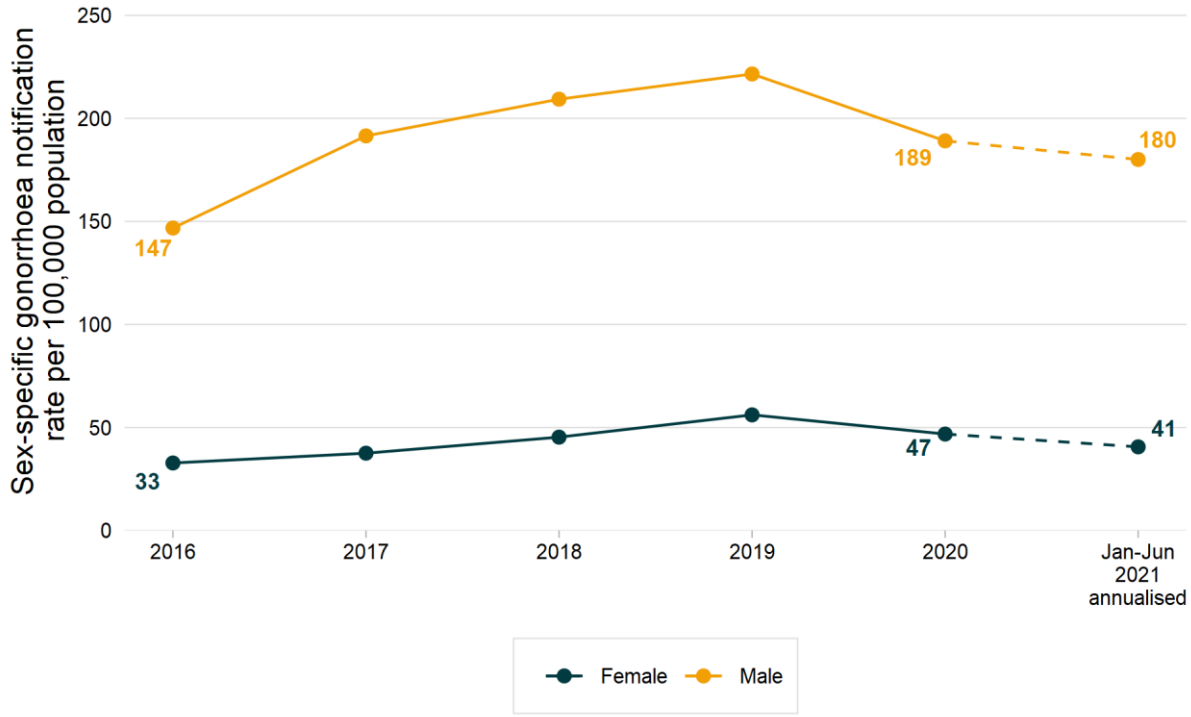
Figure 1: Number and crude rate of gonorrhoea notifications, NSW, 1 January 2016 – 30 June 2021



Data source: NCIMS and ABS population estimates (via SAPHaRI), NSW Health; data extracted 11 Jan 2022.
The rate is based on six months of data between January –June 2021 adjusted to an annual rate and is subject to change once data from July to December 2021 becomes available. Excludes non-NSW residents and persons whose residential postcode was not known.

The majority of the 4,578 gonorrhoea notifications from January to June 2021 were reported in males (3,712, 81%), which is consistent with previous years. Females represented only 18.5% (848) of total notifications during this period and the annualised crude gonorrhoea notification rate in males (180 notifications per 100,000 males) was 4.4 times higher than that for females (41 notifications per 100,000 females).

Figure 2: Sex specific gonorrhoea notification rates, NSW, 1 January 2016 – 30 June 2021



Data source: NCIMS and ABS population estimates (via SAPHaRI), NSW Health; data extracted 11 Jan 2022. The rate is based on six months of data between January –June 2021 adjusted to an annual rate and is subject to change once data from July to December 2021 becomes available. Excludes persons reported as transgender (due to small numbers), and persons whose age or sex was not reported. Excludes non-NSW residents and persons whose residential postcode was not known.

In both females and males, the highest gonorrhoea notification rates continue to occur in the 20–24 years and 25–29-year age groups.

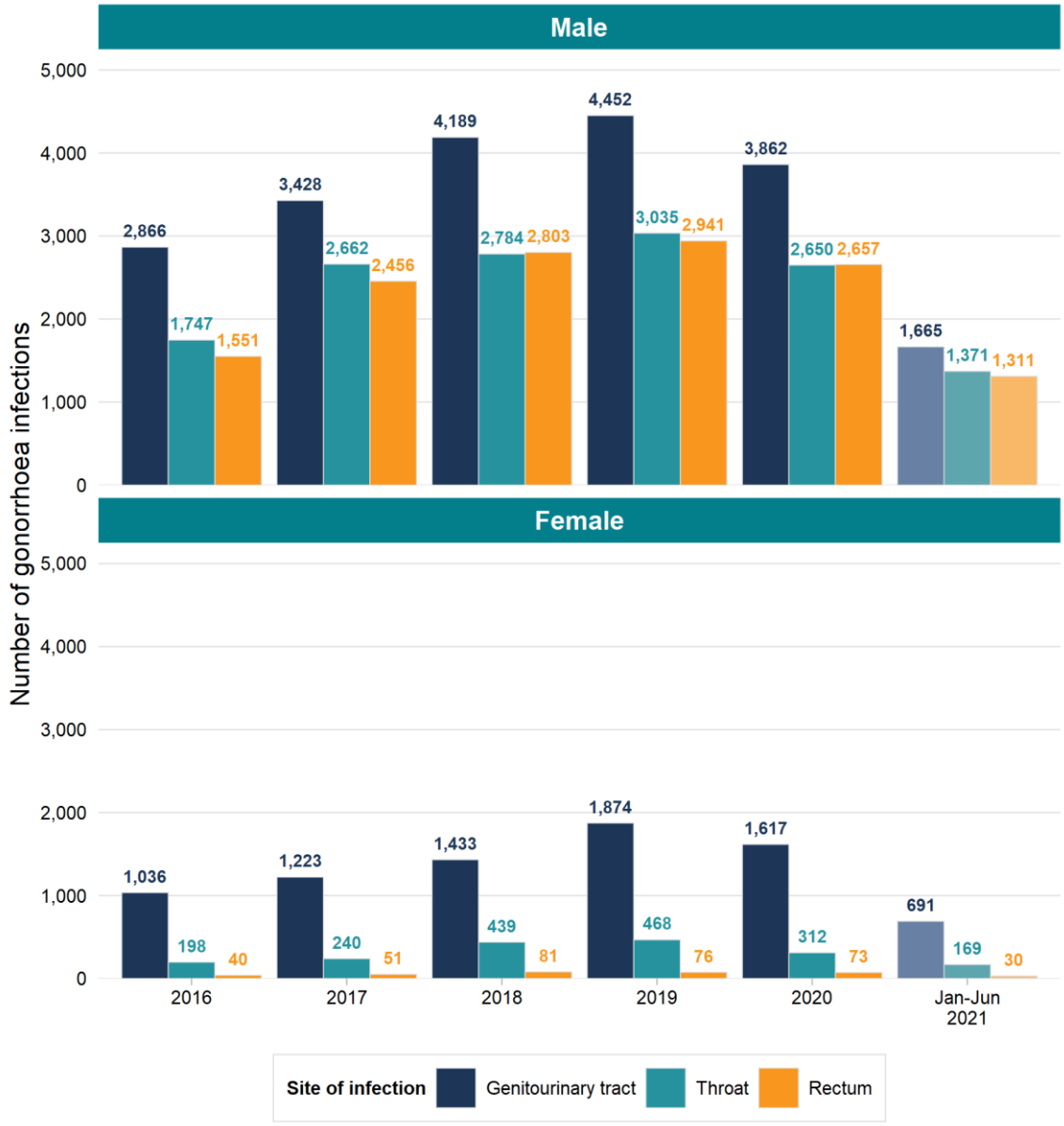
Figure 3: Age and sex specific gonorrhoea notification rates in people aged 15 years and over, NSW, 1 January 2016 – 30 June 2021

Data source: NCIMS and ABS population estimates (via SAPHaRI), NSW Health; data extracted 11 Jan 2022. The rate is based on six months of data between January –June 2021 adjusted to an annual rate and is subject to change once data from July to December 2021 becomes available. Excludes persons reported as transgender (due to small numbers), and persons whose age or sex was not reported. Excludes non-NSW residents and persons whose residential postcode was not known.

The site of infection can give some indication of trends in transmission and screening, noting that one notification often includes infections at several sites. In males, genitourinary infections are usually symptomatic, which means the majority are likely to be diagnosed. Therefore, the notification rate of male genitourinary gonorrhoea may be used as a broad indicator of gonorrhoea transmission. Male rectal and throat infections are usually asymptomatic and so trends in the notification rate of these infections is likely to reflect screening trends as well as disease transmission.

In females, up to 80% of genitourinary infections are asymptomatic and notifications of infection at any site likely reflect a combination of screening trends and disease transmission.

Figure 3: Number of gonorrhoea infections by site of infection and sex, NSW, 1 January 2016 – 30 June 2021



Data source: NCIMS, NSW Health; data extracted 11 Jan 2022. Note: Does not include 'other' (including conjunctiva and joints) site of infection or missing/unknown site of infection; number of infections may exceed number of notifications due to infection at multiple sites. Excludes persons reported as transgender and persons whose gender was not reported

From January to June 2021 genitourinary infections remained the most frequently reported site of infection, followed by throat infections. Compared to previous years, there were relatively fewer genitourinary infections reported in males, as compared to throat or rectal infections. Whilst this potentially indicates a reduction in transmission in males, this should be interpreted with caution due to the potential impacts of the COVID-19 pandemic. The ratio of genitourinary infections to throat or rectal infections in females remained consistent to the trends of previous years.

Table 1: Number of gonorrhoea infections by site, NSW, 1 January – 30 June 2021

Site of infection	Number of infections		
	Male	Female	Total[1]
Genitourinary tract (GU) only	1,367	625	2,000
Throat only	841	105	952
Rectum only	750	11	764
Rectum and throat	338	6	345
GU and rectum	105	8	113
GU and throat	76	53	129
GU, rectum, and throat	115	5	121
Other (joints/conjunctiva/nasopharynx) only	19	4	23
Other (joints/conjunctiva/nasopharynx) and either GU/throat/rectum	5	-	5

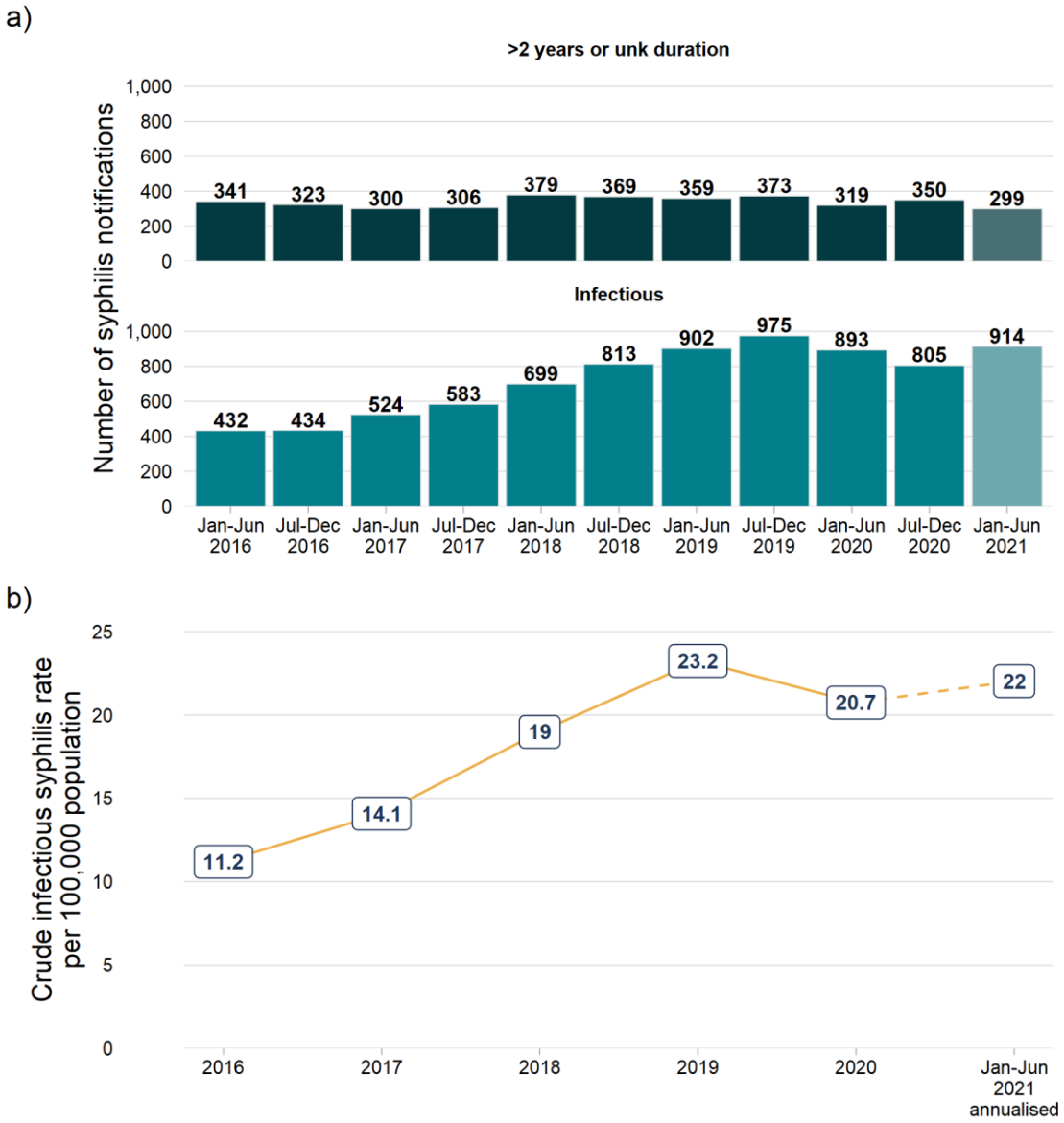
[1]The total includes transgender people and people whose gender was not stated/inadequately described.

2. Reduce infectious syphilis infections

The classification of syphilis results against the surveillance case definition often requires clinical information from the diagnosing doctor. Due to the reallocation of resources during the COVID-19 pandemic, classification of some cases during this period have been delayed.

There were 914 infectious syphilis notifications between January and June 2021. The annualised infectious syphilis notification rate increased from the 2020 annual rate by 6.2% and was almost double the 2016 rate. A small part of the increase in infectious syphilis notifications observed from 2016–2021 is due to a change in the case definition in August 2016, resulting in improved reporting of infectious syphilis cases. See **Appendix C** for links to the full case definitions for syphilis.

Figure 4: Number and crude rate of syphilis notifications, NSW, 1 January 2016 – 30 June 2021

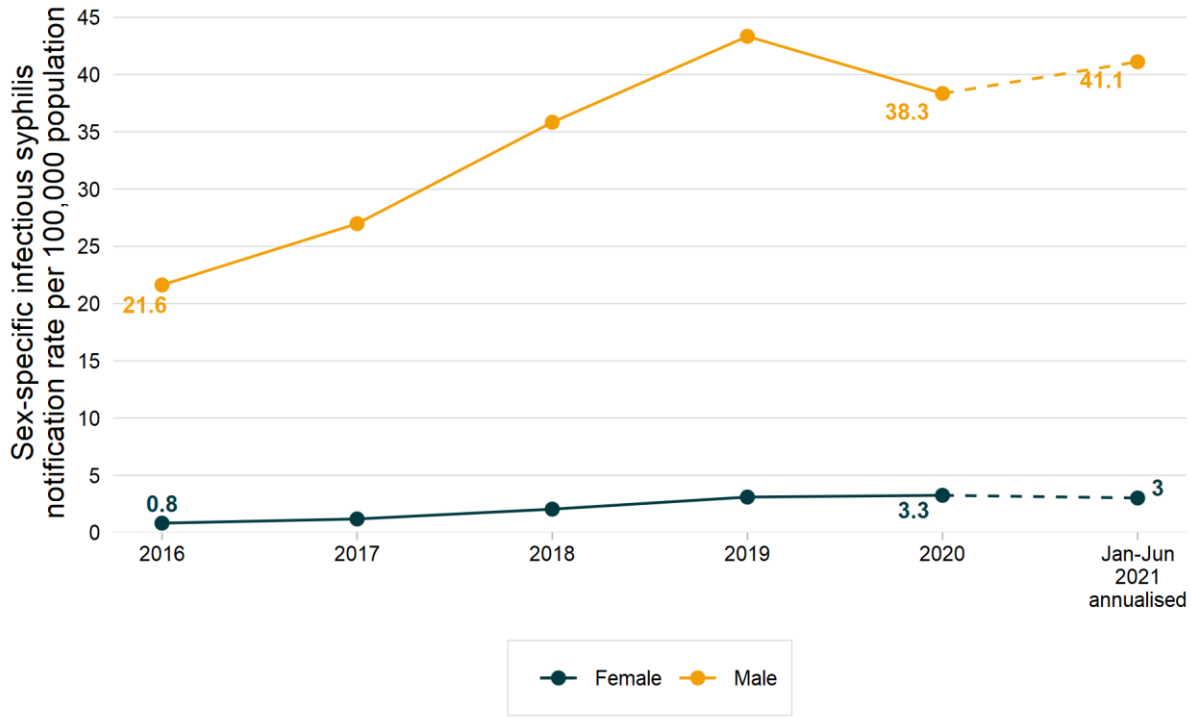


Data source: NCIMS and ABS population estimates (via SAPHaRI), NSW Health; data extracted 20 Jan 2022. The rate is based on six months of data between January -June 2021 adjusted to an annual rate and is subject to change once data from July to December 2021 becomes available.

The increase during this time period was largely driven by an increase in the male infectious syphilis rate (7% from 38 notifications per 100,000 males to 41 notifications per 100,000 males). In contrast the female sex-specific rate decreased from 3.3 notifications per 100,000 females to 3 notifications per 100,000.

Despite the slight decrease in this time period, the female infectious syphilis rate remains 3.6 times higher than 2016 rate. The ratio of male to female rates has continued to narrow since 2016 when it was 26 notifications per 100,000 males received for each notification per 100,000 females. Currently, the ratio is 14 notifications per 100,000 males received for each notification per 100,000 females.

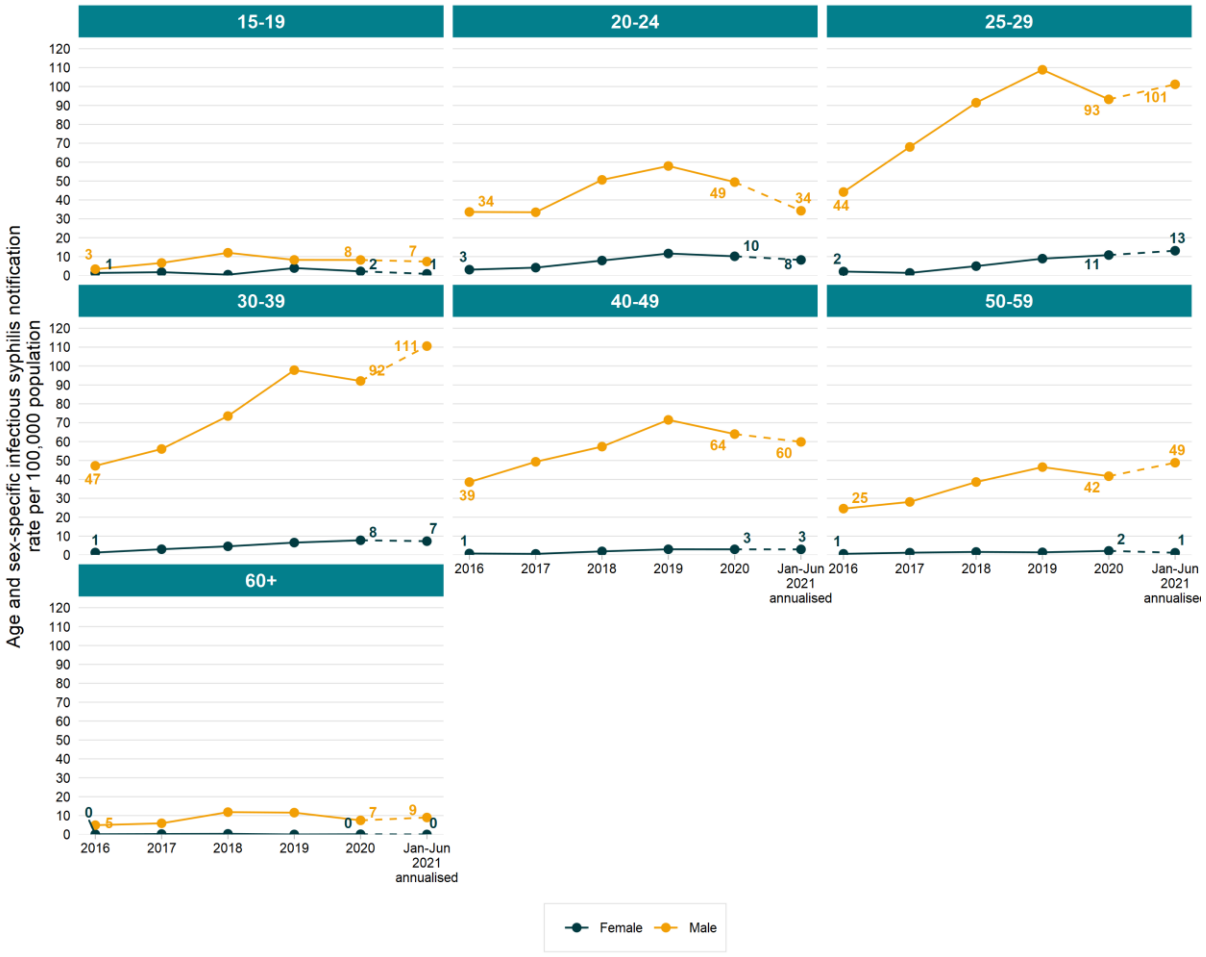
Figure 4: Sex specific infectious syphilis notification rates, NSW, 1 January 2016 – 30 June 2021



Data source: NCIMS (via SAPHaRI), NSW Health; data extracted 20 Jan 2022. The rate is based on six months of data between January -June 2021 adjusted to an annual rate and is subject to change once data from July to December 2021 becomes available. Excludes persons reported as transgender (due to small numbers), and persons whose age or sex was not reported. Excludes non-NSW residents and persons whose residential postcode was not known.

For males, the largest increases in the annualised infectious syphilis rates were among those in the 25–29 years and 30–39 years age groups (8.5% and 20% increases, respectively). Contrary to the overall decreasing trend in the female annualised infectious syphilis notification during this time period, the rates for females 25–29 years age group also increased (21%). Although the number of female cases within these age groups are relatively small, the continued increase in infectious syphilis rates in this age group is particularly concerning due to the risk of mother to child transmission.

Figure 5: Age and sex specific infectious syphilis notification rates in people aged 15 years and over, NSW, 1 January 2016 – 30 June 2021

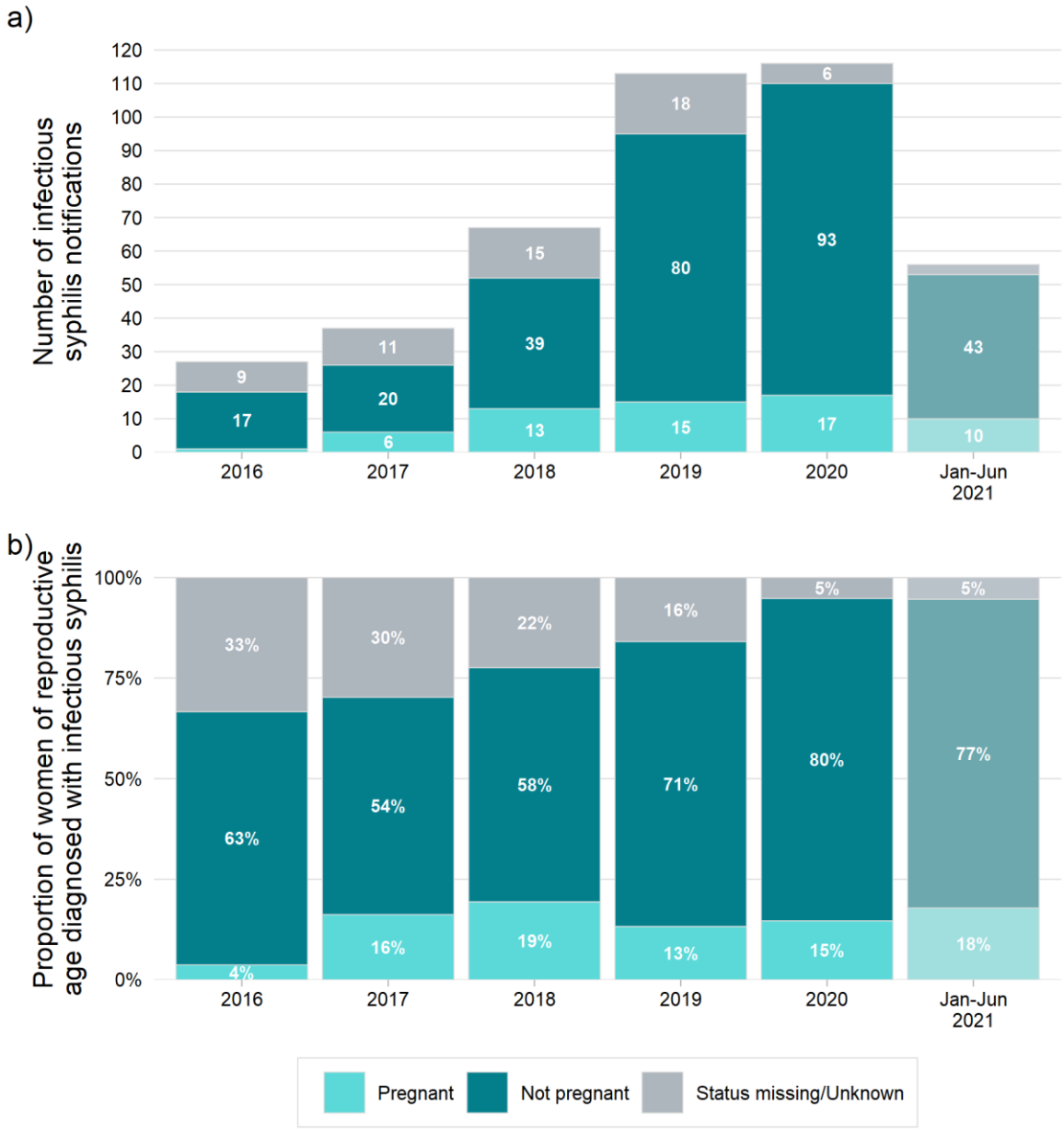


Data source: NCIMS (via SAPHaRI), NSW Health; data extracted 20 Jan 2022. The rate is based on six months of data between January -June 2021 adjusted to an annual rate and is subject to change once data from July to December 2021 becomes available. Excludes persons reported as transgender (due to small numbers), and persons whose age or sex was not reported. Excludes non-NSW residents and persons whose residential postcode was not known.

Although the relative number of infectious syphilis numbers are low, there has been a continued increase in the number of infectious syphilis notifications in women of reproductive age (15–45 years). From January to June 2021, 18% of women of reproductive age notified with infectious syphilis were pregnant, which is a slight increase from 15% of women of reproductive age with infectious syphilis in 2020. However, as the number of infectious syphilis notifications are small, trends should be interpreted with caution.

Note: Data from before 2020 should be interpreted with caution due to the higher proportion of women with unknown pregnancy status.

Figure 7: Number of infectious syphilis notifications in women of reproductive age by pregnancy status at the time of diagnosis, NSW, 1 January 2016 – 30 June 2021

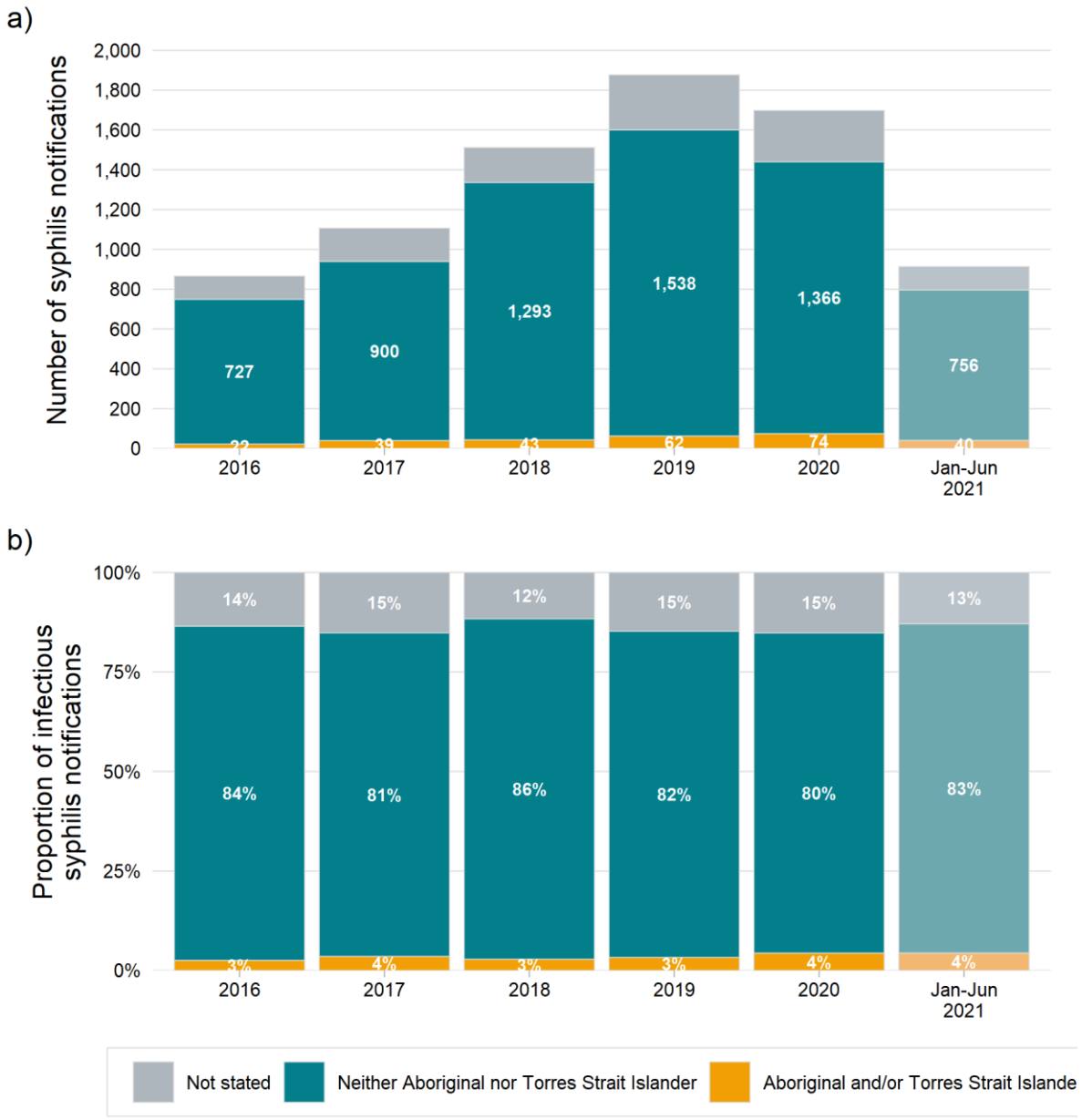


Data source: NCIMS (via SAPHaRI), NSW Health; data extracted 20 Jan 2022. Reproductive age is defined as 15–45 years. Excludes non-NSW residents and persons whose residential postcode was not known.

Of 914 infectious syphilis notifications, 40 (4.4%) were among Aboriginal and/or Torres Strait islander people. This proportion of infectious syphilis notifications is consistent with the full year of 2020 (4.4%). Of the 40 infectious syphilis notifications among Aboriginal and/or Torres Strait islander people, 26 (65%) were male and 14 (35%) were female.

Note: As the number of infectious syphilis notifications in the Aboriginal population is small, trends should be interpreted with caution.

Figure 8: Infectious syphilis notifications by Aboriginality, NSW, 1 January 2016 – 30 June 2021



Data source: NCIMS, NSW Health; data extracted 20 Jan 2022. Excludes non-NSW residents and persons whose residential postcode was not known.

Congenital syphilis notifications

Congenital syphilis is an entirely preventable disease and represents a failure of the health system. Its occurrence reflects a failure of delivery systems for antenatal care and for syphilis control programs. In NSW, all cases of congenital syphilis are investigated to identify and remedy gaps in service delivery.

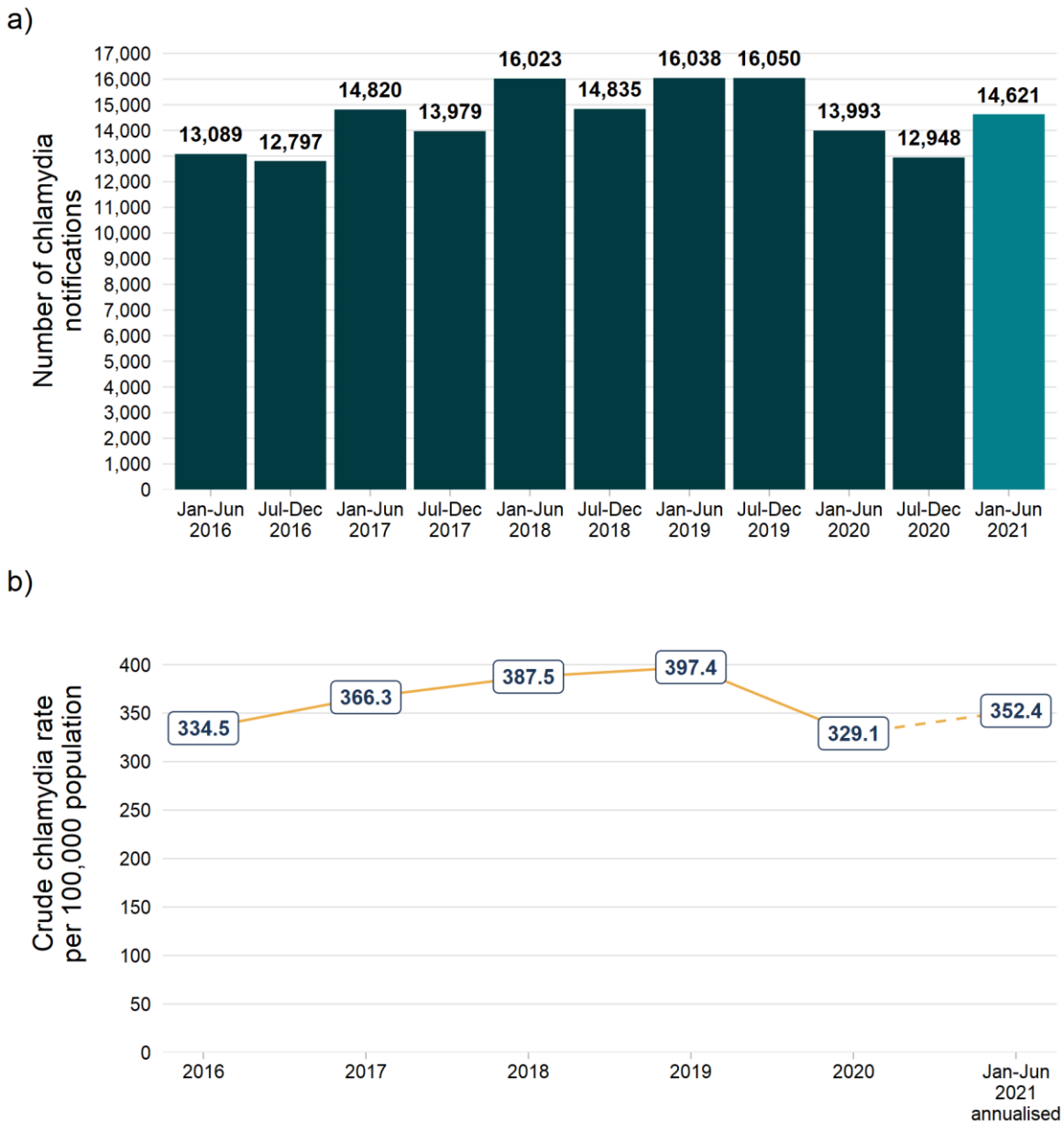
From January to June 2021 there were no congenital syphilis notifications in NSW. In 2020 there were four cases of congenital syphilis in NSW residents.

Data source: NCIMS, NSW Health

3. Reduce chlamydia infection

From January to June 2021 the annualised chlamydia notification rate was 352 notifications per 100,000 population. This is 7% higher than the annual 2020 rate of 329 per 100,000 population. However, the annual 2020 rate was the lowest in the past 5 years. So, although there has been an increase in the notification rate since last year, the 2021 annualised rate remained comparatively low.

Figure 9: Number and crude rate of chlamydia notifications, NSW, 1 January 2016 – 30 June 2021.

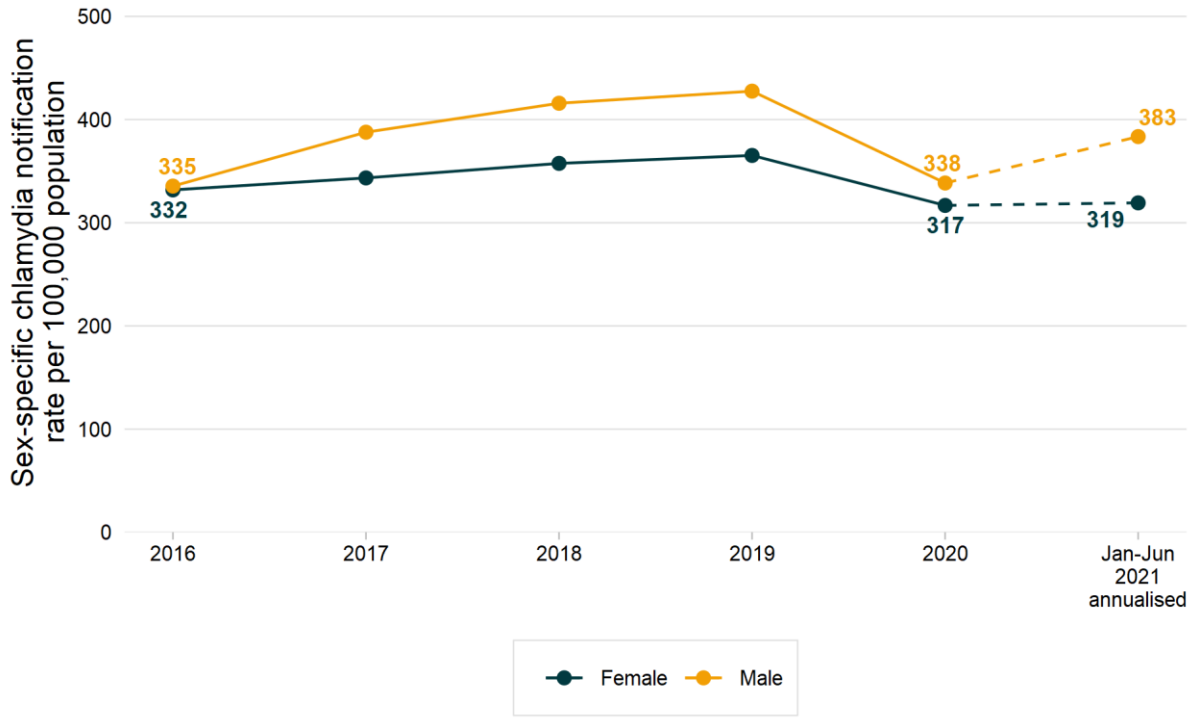


Data source: NCIMS and ABS (via SAPHaRI), NSW Health; data extracted 11 Jan 2022. The rate is based on six months of data between January-June 2021 adjusted to an annual rate and is subject to change once data from July to December 2021 becomes available. Excludes non-NSW residents and persons whose residential postcode was not known.

From January to June 2021 the male annualised sex-specific chlamydia notification rate increased from the 2020 annual rate (383 per 100,000 males for Jan-June 2021, compared to 338 per 100,00 males in 2020). Whilst for females the annualised sex-specific rate remained at the same level as 2020.

For this period, the chlamydia notification rate was 20% higher in males than in females (383 per 100,000 males compared to 319 per 100,000 females), which is a larger relative difference than is typically observed.

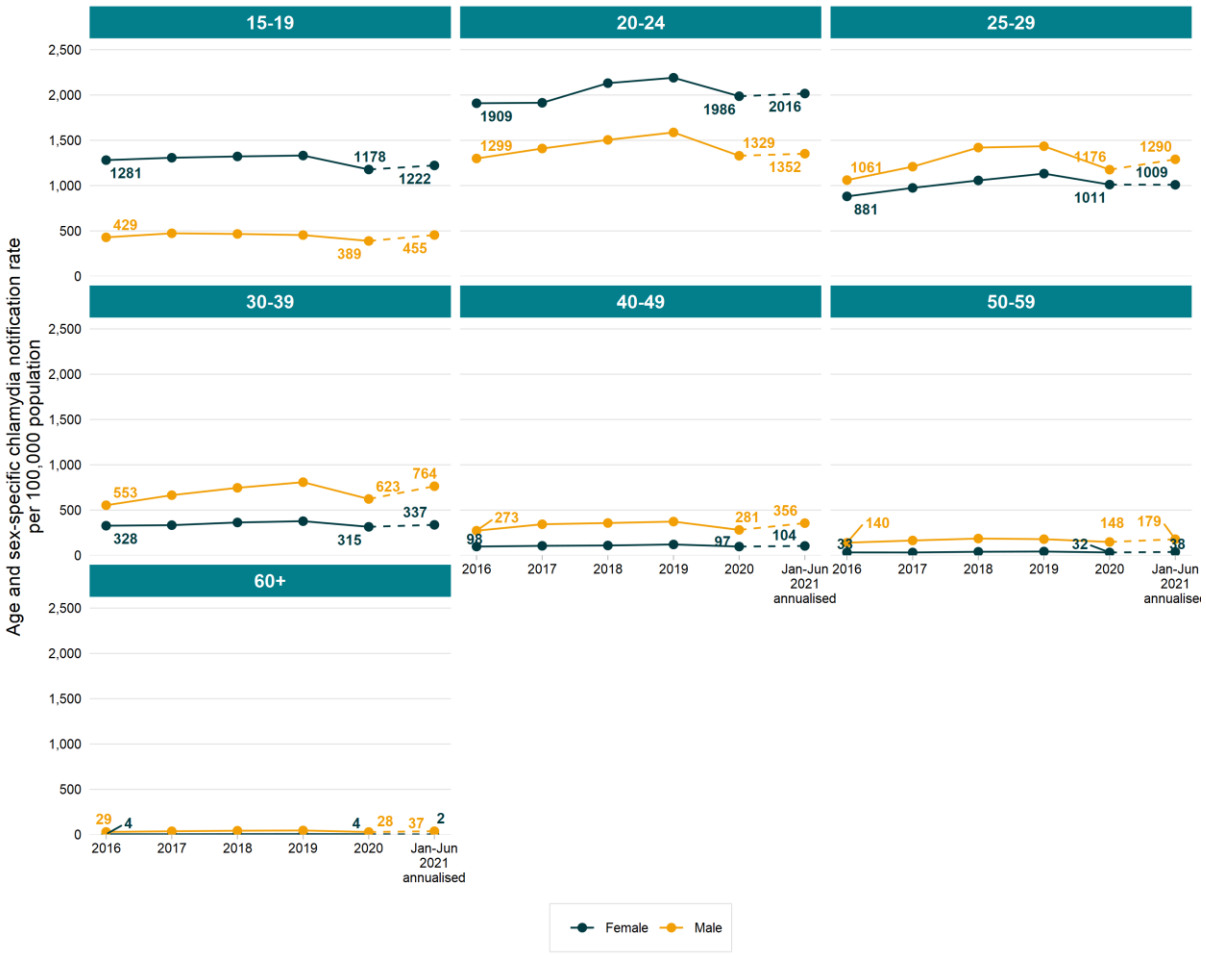
Figure 5: Sex specific chlamydia notification rates, NSW, 1 January 2016 – 30 June 2021



Data source: NCIMS (via SAPHaRI), NSW Health; data extracted 11 Jan 2022. The rate is based on six months of data between January-June 2021 adjusted to an annual rate and is subject to change once data from July to December 2021 becomes available. Excludes persons reported as transgender (due to small numbers), and persons whose sex was not reported. Excludes non-NSW residents and persons whose residential postcode was not known.

The age-sex specific notification rate for females 15 to 24 years of age continues to be substantially higher than males of those age groups. Notification rates increased in all age groups for both males and females, apart from females aged 25–29 years where the rate remained relatively consistent.

Figure 10: Age and sex specific chlamydia notification rates in people aged 15 years and over, NSW, 1 January 2014 - 30 June 2021

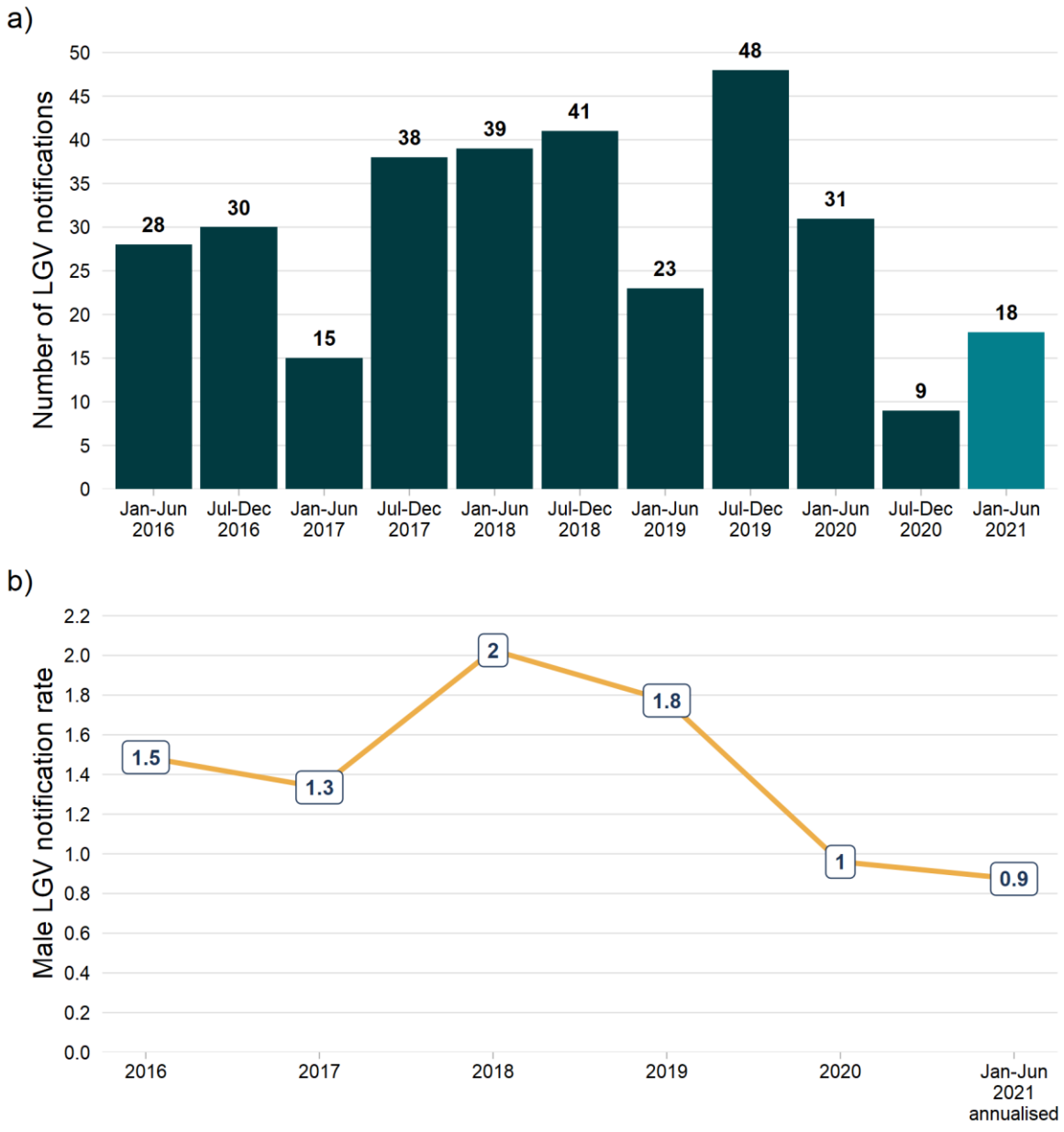


Data source: NCIMS (via SAPHaRI), NSW Health; data extracted 11 Jan 2022. The rate is based on six months of data between January-June 2021 adjusted to an annual rate and is subject to change once data from July to December 2021 becomes available. Excludes persons reported as transgender (due to small numbers), and persons whose sex was not reported. Excludes non-NSW residents and persons whose residential postcode was not known.

4. Monitor the epidemiology of lymphogranuloma venereum (LGV)

From January to June 2021 there were 18 cases of LGV notified. All 18 cases were male and the most notified age groups were those 30–39 (6, 33%) and 25–29 years (4, 22%). The notification rate continued to decrease from the peak of 2.0 cases per 100,000 males in 2018 and was at the lowest rate within the past six-years at 0.9 cases per 100,000 males.

Figure11: Number and male notification rate of LGV notifications, by year of onset, NSW, 1 January 2016 – 30 June 2021



Data source: Data source: NCIMS and ABS population estimates (via SAPHaRI), NSW Health; data extracted 12 Jan 2020. The rate is based on six months of data between January-June 2021 adjusted to an annual rate and is subject to change once data from July to December 2021 becomes available. Excludes non-NSW residents and persons whose residential postcode was not known.

Appendix A: Data sources

Table 6: Details on data sources included in this report

Name	Custodian	Description
NSW Notifiable Conditions Information Management System (NCIMS)	Health Protection NSW, NSW Health	The NSW Notifiable Conditions Information Management System (NCIMS) contains records of all people notified to NSW Health with a notifiable condition under the NSW *Public Health Act*. Notification data may not reflect the true incidence of notifiable sexually transmitted diseases as they only represent a proportion of notifiable diseases in the population, however they are useful for monitoring trends over time. Re-infection periods: A person is only re-notified with chlamydia, gonorrhoea or infectious syphilis if the infection is acquired outside of the re-infection period as follows: Chlamydia - 29 days Gonorrhoea- 29 days Infectious syphilis- 89 days Multiple sites: A person who is notified with more than one site of infection simultaneously is counted as one notification.

Appendix B: Case definitions

The STI notifications in this report meet the case definitions in the relevant Control Guideline for Public Health Units as listed below:

Gonorrhoea
http://www.health.nsw.gov.au/Infectious/controlguideline/Pages/gonorrhoea.aspx

Infectious syphilis – less than two years duration
http://www.health.nsw.gov.au/Infectious/controlguideline/Pages/syphilis.aspx

Syphilis - more than 2 years or unknown duration
http://www.health.nsw.gov.au/Infectious/controlguideline/Pages/syphilis.aspx

Chlamydia
http://www.health.nsw.gov.au/Infectious/controlguideline/Pages/chlamydia.aspx

LGV
https://www.health.nsw.gov.au/Infectious/controlguideline/Pages/lymphogranuloma.aspx