PHF Science

SEXUALLY TRANSMITTED INFECTIONS IN NEW ZEALAND: SUPPLEMENTARY ANNUAL SURVEILLANCE REPORT 2024

PREPARED FOR: Ministry of Health

CLIENT REPORT No: FW25024

PREPARED BY: Health Intelligence Team, Health Group

PUBLISHED: 16 JULY 2025

This report is available on the internet at www.phfscience.nz

Published: 16 July 2025

Suggested citation:
The New Zealand Institute for Public Health and Forensic Science (PHF Science) Ltd.
Sexually Transmitted Infections in New Zealand: Supplementary Annual Surveillance Report 2024
Porirua, New Zealand

Client report: **FW25024**

Ad hoc requests regarding sexually transmitted infections may be emailed to survqueries@phfscience.nz

ACKNOWLEDGEMENTS

This report has been prepared by the Health Intelligence Team at the New Zealand Institute for Public Health and Forensic Science (PHF Science). Particular acknowledgements go to:

- Putu Duff who led the analyses and drafted the report;
- Julia Scott for drafting, review and revision;
- Pauline Quinn for the collation and processing of data;
- Andrea McNeill and Callum Thirkell for peer review; and
- Callum Thirkell for supplying code and assisting with some of the analyses.

The authors would like to acknowledge that this report could not have been produced without the continuing support of clinical and laboratory staff throughout New Zealand.

Disclaimer

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Description
AMR	Antimicrobial resistance
HIV	Human immunodeficiency viruses
LGV	Lymphogranuloma venereum
MELAA	Middle Eastern, Latin American, and African
MSM	Men who have sex with men
MSW	Men who have sex with women
NHI	National Health Index
PrEP	Pre-Exposure Prophylaxis
STIs	Sexually transmitted infections
WSM	Women who have sex with men

INTRODUCTION

The 'Sexually transmitted infections in New Zealand: Supplementary Annual Surveillance Report' summarises additional epidemiology of sexually transmitted infections (STIs) for 2024 (the reporting period) not shown on the dashboard, with findings from 2020 to 2023 included for comparison and context, where possible. This report presents findings from clinical notifications for syphilis and gonorrhoea, with a summary table for each disease followed by further detail on notifications by sexual behaviour, and for certain populations. It presents laboratory surveillance data for perinatal gonorrhoea and chlamydia infections. Additional clinical details for syphilis and gonorrhoea are presented in Appendix 1. For other key trends in syphilis, gonorrhoea, and chlamydia, please refer to the annual dashboard.

Sentinel clinic surveillance data for first presentation genital warts and lymphogranuloma venereum (LGV) are also described in this report.

The COVID-19 pandemic response affected behavioural patterns, access to healthcare, and availability of testing in 2020 and 2021, therefore all data from 2020–2021 should be interpreted with caution.

A full description of methodology can be found in Appendix 2.

TERMINOLOGY AND INTERPRETATION

Sex:

This refers to sex assigned at birth (male, female and unknown where this information is not available in surveillance data). Laboratory data are provided with sex only, rather than gender identity.

Gender identity:

This refers to a person's social and personal identity as male, female or another gender such as non-binary. Cisgender refers to a person whose gender/identity is the same as the sex recorded at their birth. Transgender refers to a person whose gender is different from the sex recorded at their birth. In this report transgender people (male, female and transgender not specified), and non-binary people are reported together due to small numbers.

Age-group:

Based on age at diagnosis and rounded to the nearest year using normal rounding practices.

Geographic region:

Generally reported by district except for Auckland which is reported as a region (combining Auckland, Waitemata and Counties Manukau districts) and Wellington which is reported as a region (combining Capital & Coast, Hutt Valley and Wairarapa districts).

Ethnicity:

Generally reported using prioritised ethnicity including Māori, Pacific, Asian, MELAA (Middle Eastern, Latin American, and African), and European/Other. Clinic data does not specify Asian or MELAA ethnicity which are both reported as 'Other' for historical data capture reasons.

Reporting years:

This report is a 2024 supplementary annual report with data from 2020 to 2023 generally reported to provide context and trends.

Surveillance data sources:

Three primary sources of data are used for surveillance; these include laboratory data, sentinel aggregate clinic data, and clinical notification data.

Laboratory data includes all laboratory results for gonorrhoea and chlamydia alongside demographic information.

Sentinel, aggregate data is received from sentinel Sexual Health clinics for first presentation genital warts and lymphogranuloma venereum (LGV).

Clinical notifications are received for gonorrhoea and syphilis directly from clinicians.

For further information on surveillance data sources and methodology please refer to the methods section.

Decimal place reporting

In-text data is reported to one decimal place. Tables report to one decimal place for percentages <10%; decimal places not reported for percentages 10% and higher.

Sexual Behaviour

Self-reported sexual behaviour of case as reported to the treating clinician at the time of diagnosis.

INFECTIOUS SYPHILIS

CHARACTERISTICS OF ALL SYPHILIS CASES

Table 1: Infectious syphilis cases by year and sexual behaviour, gender, age-group, ethnicity, and region: 2020–2024

Year	2020 N = 514[1]	2021 N = 448[1]	2022 N = 510[1]	2023 N = 739[1]	2024 N =774 [1]
Sexual behaviour					
MSM	289 (56%)	228 (51%)	229 (45%)	439 (60%)	433 (56%)
MSW	115 (22%)	98 (22%)	145 (28%)	154 (21%)	186 (24%)
WSM	89 (17%)	94 (21%)	108 (21%)	104 (14%)	121 (16%)
WSW	2 (0.4%)	1 (0.2%)	3 (0.6%)	3 (0.4%)	4 (0.5%)
Unknown	19 (3.7%)	27 (6.0%)	25 (4.9%)	39 (5.3%)	30 (3.9%)
Gender Identity					
Cisgender women	97 (19%)	101 (23%)	127 (25%)	121 (16%)	138 (18%)
Cisgender men	409 (80%)	325 (73%)	368 (72%)	606 (82%)	612 (79%)
Transgender & non-binary	8 (1.6%)	22 (4.9%)	15 (2.9%)	12 (1.6%)	23 (3.0%)
Unknown	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.1%)
Age Group (years)					
0–14	0 (0.0%)	0 (0.0%)	1 (0.2%)	0 (0.0%)	0 (0.0%)
15–19	19 (3.7%)	13 (2.9%)	25 (4.9%)	16 (2.2%)	26 (3.4%)
20–24	79 (15%)	73 (16%)	100 (20%)	98 (13%)	77 (9.9%)
25–29	111 (22%)	83 (19%)	84 (17%)	139 (19%)	143 (19%)
30–39	162 (32%)	147 (33%)	142 (28%)	247 (33%)	268 (35%)
40+	143 (28%)	132 (30%)	158 (31%)	239 (32%)	256 (33%)
Ethnicity					
European/Other	240 (47%)	186 (42%)	189 (37%)	306 (41%)	312 (40%)
Māori	118 (23%)	142 (32%)	176 (35%)	172 (23%)	188 (24%)
Pacific	50 (9.7%)	51 (11%)	69 (14%)	72 (9.7%)	88 (11%)
Asian	63 (12%)	53 (12%)	57 (11%)	126 (17%)	118 (15%)
MELAA	31 (6.0%)	14 (3.1%)	14 (2.7%)	49 (6.6%)	61 (7.9%)
Unknown	12 (2.3%)	2 (0.4%)	5 (1.0%)	14 (1.9%)	7 (0.9%)

Year	2020 N = 514[1]	2021 N = 448[1]	2022 N = 510[1]	2023 N = 739[1]	2024 N =774 [1]
District/Region					
Auckland	128(25%)	110(25%)	173(34%)	245(33%)	187(24%)
Bay of Plenty	24(4.7%)	21(4.7%)	20(3.9%)	24(3.2%)	29(3.7%)
Canterbury	53(10%)	30(6.7%)	13(2.5%)	68(9.2%)	102(13%)
Capital & Coast	63(12%)	45(10%)	28(5.5%)	53(7.2%)	89(12%)
Counties Manukau	56(11%)	54(12%)	76(15%)	96(13%)	94(12%)
Hawkes Bay	6(1.2%)	4(0.9%)	12(2.4%)	8(1.1%)	8(1.0%)
Hutt Valley	13(2.5%)	18(4.0%)	9(1.8%)	8(1.1%)	2(0.3%)
Lakes	18(3.5%)	9(2.0%)	3(0.6%)	9(1.2%)	27(3.5%)
MidCentral	10(1.9%)	16(3.6%)	14(2.7%)	5(0.7%)	17(2.2%)
Nelson Marlborough	5(1.0%)	5(1.1%)	4(0.8%)	5(0.7%)	3(0.4%)
Northland	6(1.2%)	19(4.2%)	15(2.9%)	18(2.4%)	12(1.5%)
South Canterbury	2(0.4%)	2(0.4%)	1(0.2%)	2(0.3%)	2(0.3%)
Southern	32(6.2%)	13(2.9%)	6(1.2%)	11(1.5%)	30(3.9%)
Tairawhiti	4(0.8%)	0(0.0%)	0(0.0%)	2(0.3%)	3(0.4%)
Taranaki	5(1.0%)	3(0.7%)	4(0.8%)	5(0.7%)	5(0.6%)
Waikato	46(8.9%)	40(8.9%)	57(11%)	98(13%)	91(12%)
Wairarapa	4(0.8%)	1(0.2%)	1(0.2%)	1(0.1%)	6(0.8%)
Waitemata	32(6.2%)	52(12%)	66(13%)	79(11%)	62(8.0%)
West Coast	1(0.2%)	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)
Whanganui	6(1.2%)	6(1.3%)	8(1.6%)	3(0.4%)	6(0.8%)

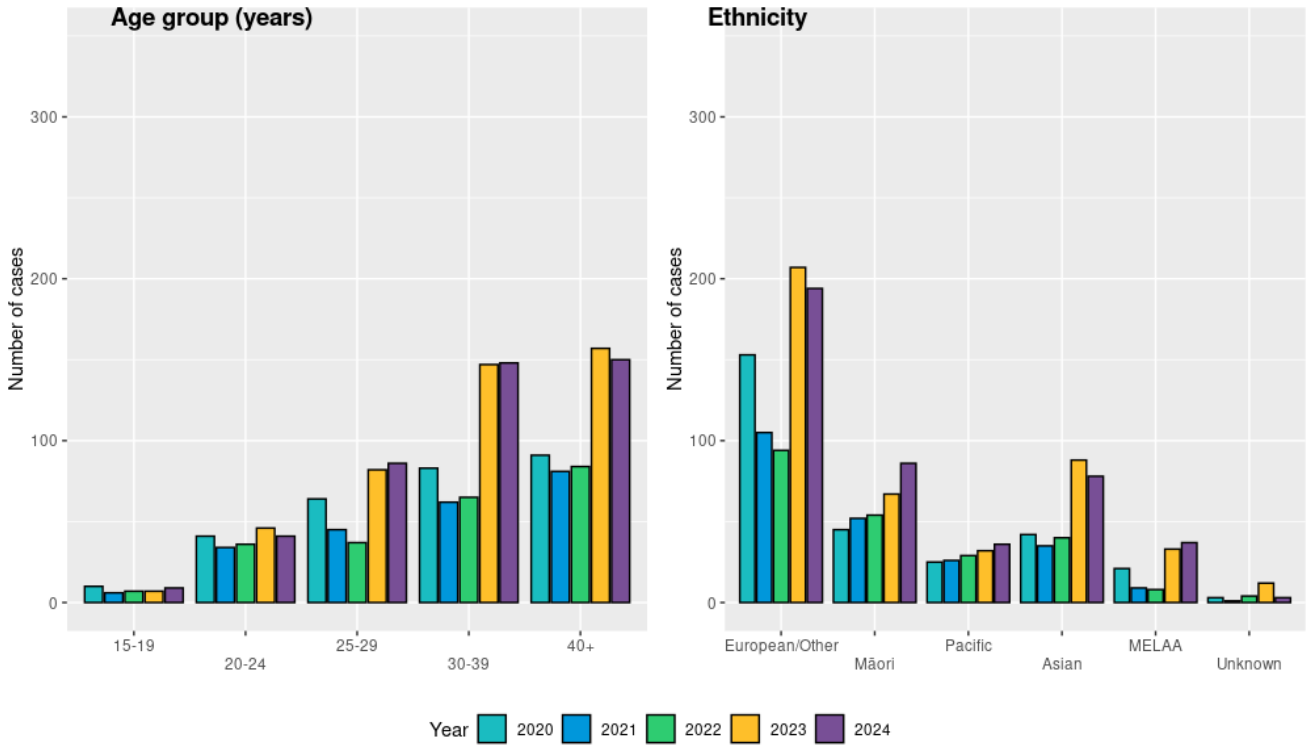
[1] n (%)
[2] Individuals with unknown ages were excluded from the denominator when calculating the proportion of syphilis cases.
[3] Percentages may not total 100% due to rounding infectious syphilis cases in different risk groups.

Infectious syphilis among MSM by age-group & ethnicity

Key findings (Table 1) (Figure 1)

- Of all infectious syphilis cases among men who have sex with men (MSM) in 2024, 194 cases (45%) were European/Other, 78 (18%) were Asian, 86 (20%) were Māori, 36 (8%) were Pacific, 36 (8%) were MELAA, and three cases were of unknown ethnicity.
- Infectious syphilis cases among MSM increased between 2023 and 2024 for Māori: 67 to 86 cases, Pacific peoples: 32 to 36, and MELAA: 33 to 36. Cases decreased among European/Other: 207 to 194, and Asian: 88 to 78.
- Cases remained relatively stable across most age-groups of MSM between 2023 and 2024, with cases increasing slightly among 15–19-year-olds, and 25–29-year-olds, decreasing slightly among 20–24-year-olds and 40+ year-olds, and were unchanged for those aged 30–39. The majority (69%) of MSM cases continue to be seen in the 30–39 and 40+ age groups.
- The highest number of cases among MSM by ethnicity and age group in 2024 were reported amongst those of European/Other ethnicity aged 40+ years (93/433 cases). A high number of cases were also reported for European/Other aged 30–39 (51/433) and Asian aged 30–39 years (37/433 cases).
- Between 2023 and 2024, minor changes in the number of reported infectious syphilis cases among MSM were seen across districts. Between 2023 and 2024, the largest increases were seen in Wellington (41 to 65 cases), Canterbury (53 to 61 cases), Southern (5 to 20 cases), and Lakes (5 to 14 cases). Auckland saw a notable decrease in cases between 2023 and 2024 (257 to 189 cases).
- Of infectious syphilis cases in 2024 among MSM, 44% were reported in the Auckland region (189 cases), 15% (65 cases) in Wellington, 14% in Canterbury (61 cases), and 10% in Southern (20 cases). This represents 83% of all cases reported as MSM nationally from these four districts.

Figure 1: Infectious syphilis cases amongst MSM by age group and ethnicity: 2020–2024

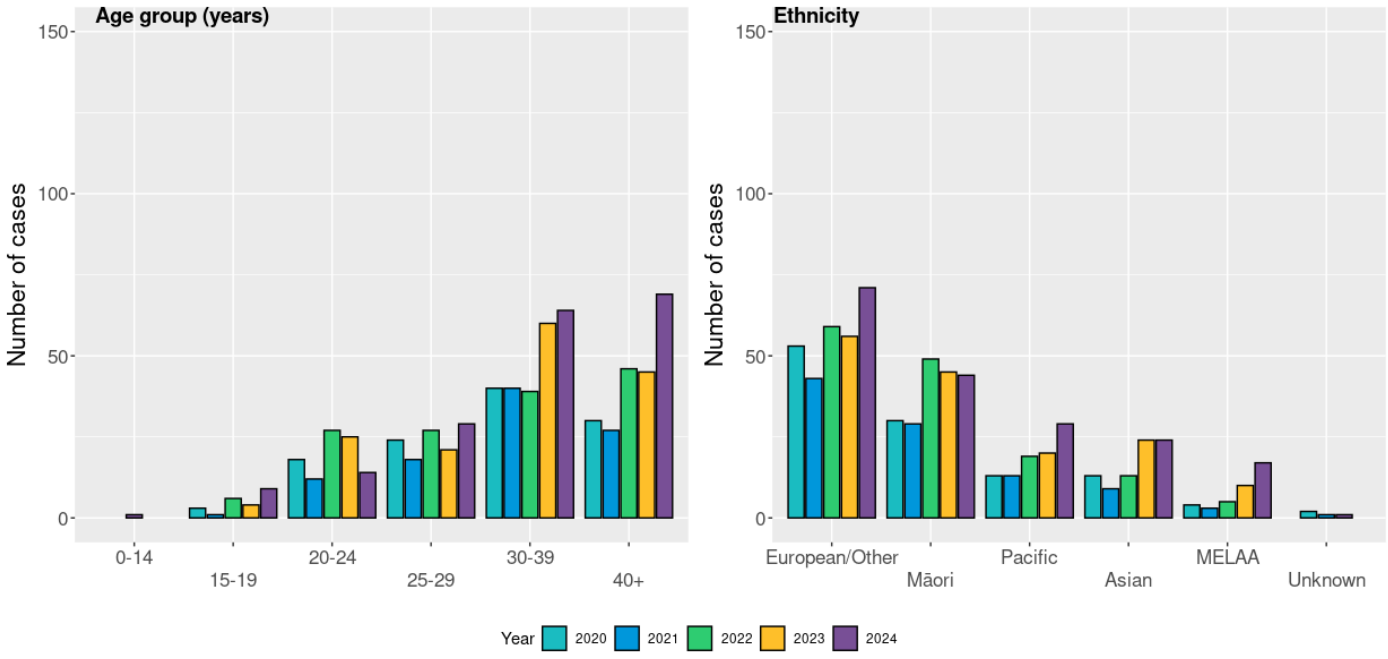


Infectious syphilis among MSW by age-group & ethnicity

Key findings (Figure 2)

- The number of infectious syphilis cases among men who have sex with women (MSW) increased between 2023 (154 cases) and 2024 (186 cases).
- In 2024 the number of infectious syphilis cases among MSW increased for the European/Other ethnic group (56 to 71 cases), Pacific peoples (20 to 29 cases) and MELAA ethnicities (10 to 17 cases), and remained the same for Māori (44 cases) and Asian (24 cases) compared to 2023.
- In 2024, the proportion of infectious syphilis cases among MSW by ethnicity increased among European/Other (36% to 38%), Pacific peoples (13% to 16%) and MELAA (7% to 9%), and decreased among Māori (29% to 24%) and Asians (16% to 13%) compared with 2023.
- In 2024, cases among MSW were highest in the 30–39 (64 cases) and 40+ year age-groups (69 cases).
- MSW aged 40+ had the largest increase in cases by age group between 2023 and 2024 (45 to 69 cases). Reported cases increased slightly among all other age groups except among those aged 20–24 years in whom cases decreased (25 to 14 cases).
- The highest number of cases by ethnicity and age-group in 2024 were reported among those of European/other ethnicity aged 30–39 years and 40+ years (22 and 36 of 186 cases) followed by those of Māori ethnicity aged 25–29 years and 30–39 years (13 and 12 out of 186 cases), and Pacific peoples aged 30–39 years (12 of 186 cases).
- By district the largest increase in cases numbers among MSW from 2023 to 2024 was in Canterbury (9 to 24 cases), followed by Wellington (6 to 14 cases). The largest decrease was seen in Northland (7 to 4 cases). Auckland cases remained stable between 2023 and 2024.
- 60% (112 of 186 cases) of MSW cases were reported in Auckland and Waikato. Canterbury reported 12% (24 cases) of MSW cases in 2024.

Figure 2: Infectious syphilis cases amongst MSW by age-group and ethnicity: 2020–2024

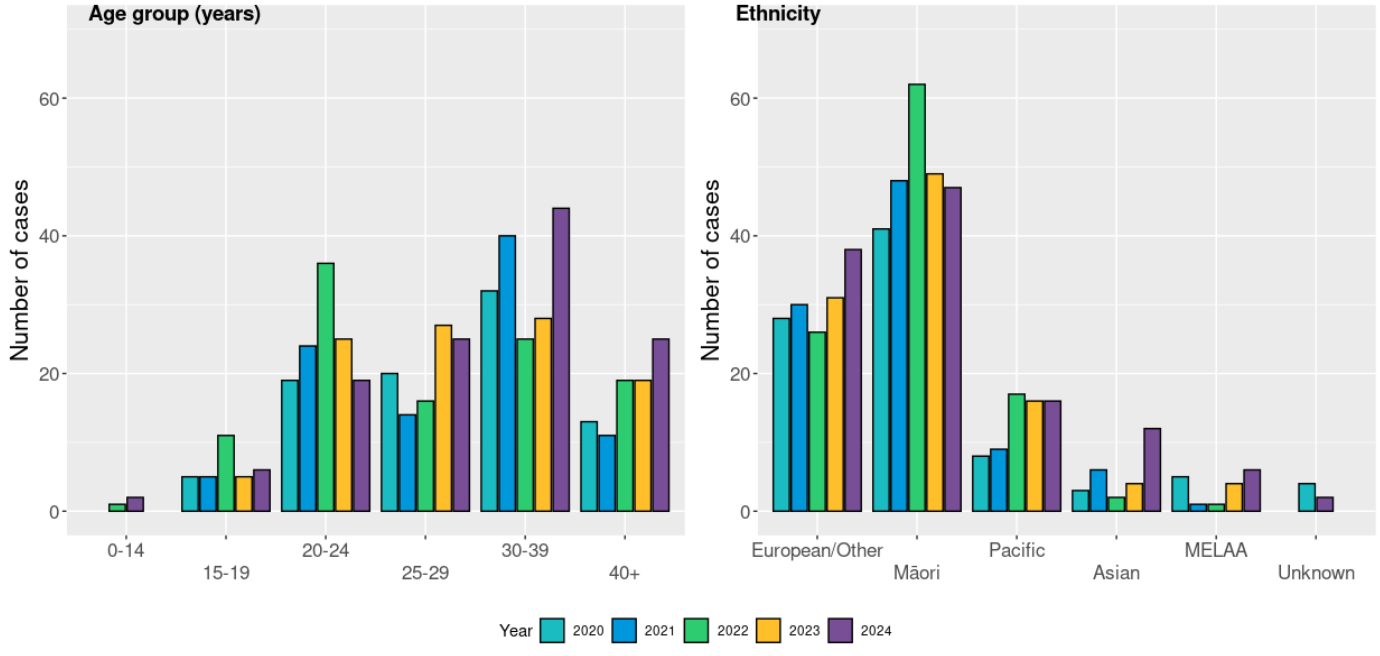


Infectious syphilis among WSM by age-group & ethnicity

Key findings (Figure 3)

- The total number of cases of infectious syphilis among women who have sex with men (WSM) in 2024 was slightly higher compared with 2023 (121 and 104, respectively).
- Among WSM case numbers are highest for Māori (39%) followed by European/other (31%) and then Pacific and Asian people. Cases among Māori WSM have decreased since 2022 with 62 cases in 2022, 49 in 2023, and 47 in 2024. Compared with 2023, case numbers in 2024 increased for European/Other (31 to 38 cases) and Asians (4 to 12 cases), remained stable for Pacific peoples (16 cases each year), and remained low for MELAA (4 to 6 cases).
- The vast majority of infectious syphilis cases (88%) among WSM were of reproductive age (defined by the Ministry of Health as aged 15–44 years (Ministry of Health, 2021).
- The highest number of cases by ethnicity and age-group in 2024 were reported among those of Māori ethnicity aged 30–39 (16/121 cases) and European/Other aged 30–39 (15/121 cases).
- In 2024, 59 of 121 cases (49%) among WSM were reported in Auckland. Canterbury and Wellington reported 14 cases each (12% each), and Waikato reported 12 cases (10%). All other Districts reported between zero and six cases.
- Cases remained stable between 2023 and 2024 for Auckland (from 58 to 59 cases) and Waikato (11 to 12 cases), while cases increased in Canterbury (6 to 14 cases), Wellington (8 to 14 cases), and Lakes (0 to 5 cases). The remaining districts had low numbers with cases stable or decreasing compared with 2023.
- Over half (53%) of Māori WSM cases in 2024 were reported in the Auckland region (25/47). Similarly, 34% of European/Other WSM cases were reported in Auckland (13/38), 75% of WSM cases among Pacific peoples (12/16), and 67% of Asian WSM cases (8/12) were in the Auckland region.

Figure 3: Infectious Syphilis cases amongst WSM by age-group and ethnicity: 2020–2024



PARTICULAR POPULATIONS WITH INFECTIOUS SYPHILIS

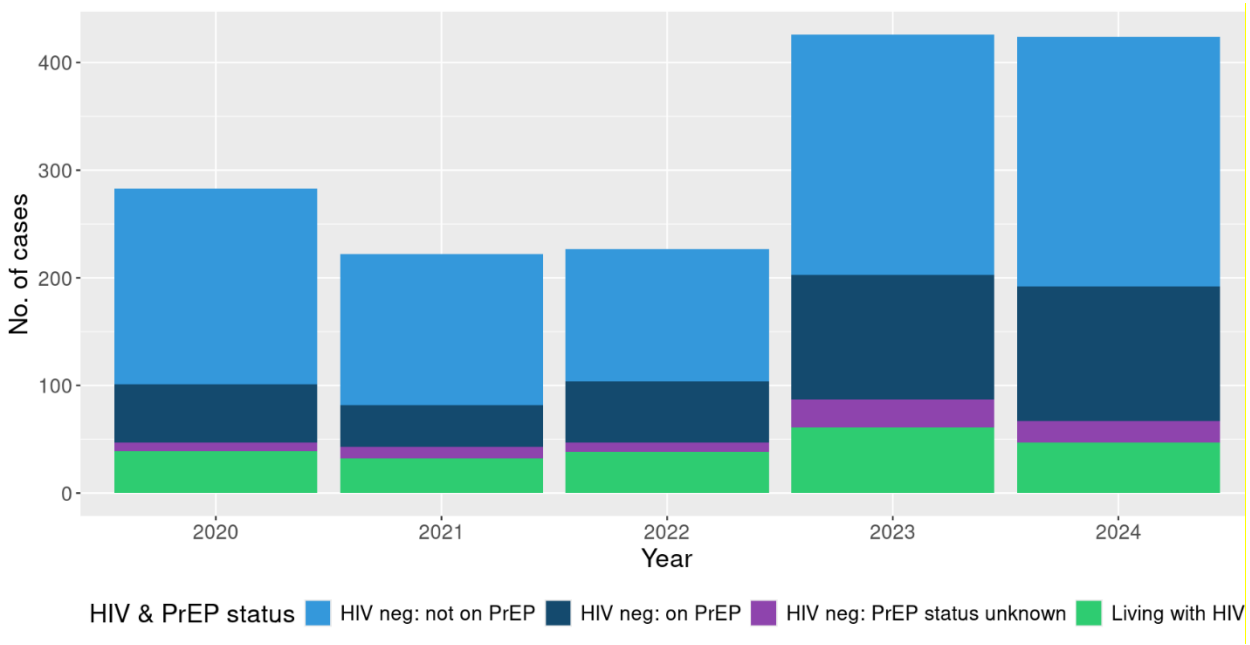
HIV and PrEP status amongst MSM

Pre-Exposure Prophylaxis (PrEP) is a medication for HIV-negative people which significantly reduces the chance of HIV acquisition. PrEP became available in New Zealand as part of a research trial and via importations in 2018, and since 2019 has been funded for those who meet special authority criteria (PHARMAC, 2018). Special authority criteria were expanded in 2022 (Pharmac Te Pātaka Whaioranga, 2022). PrEP users are primarily MSM.

Among the 433 MSM diagnosed with infectious syphilis in 2024, 47 were living with HIV (11%) (Figure 4). The number and proportion of MSM diagnosed with infectious syphilis and living with HIV decreased from 61/439 cases (14%) in 2023 to 47/433 cases (11%) in 2024.

Of the 433 MSM diagnosed with infectious syphilis, 377 had a known HIV negative status (9 cases had an unknown HIV status). Of these, 357 (95%) had a known PrEP status, with 125 (35%) reporting taking PrEP in 2024.

Figure 4: HIV and PrEP status amongst MSM with infectious syphilis: 2020–2024



Women of reproductive age and pregnant women

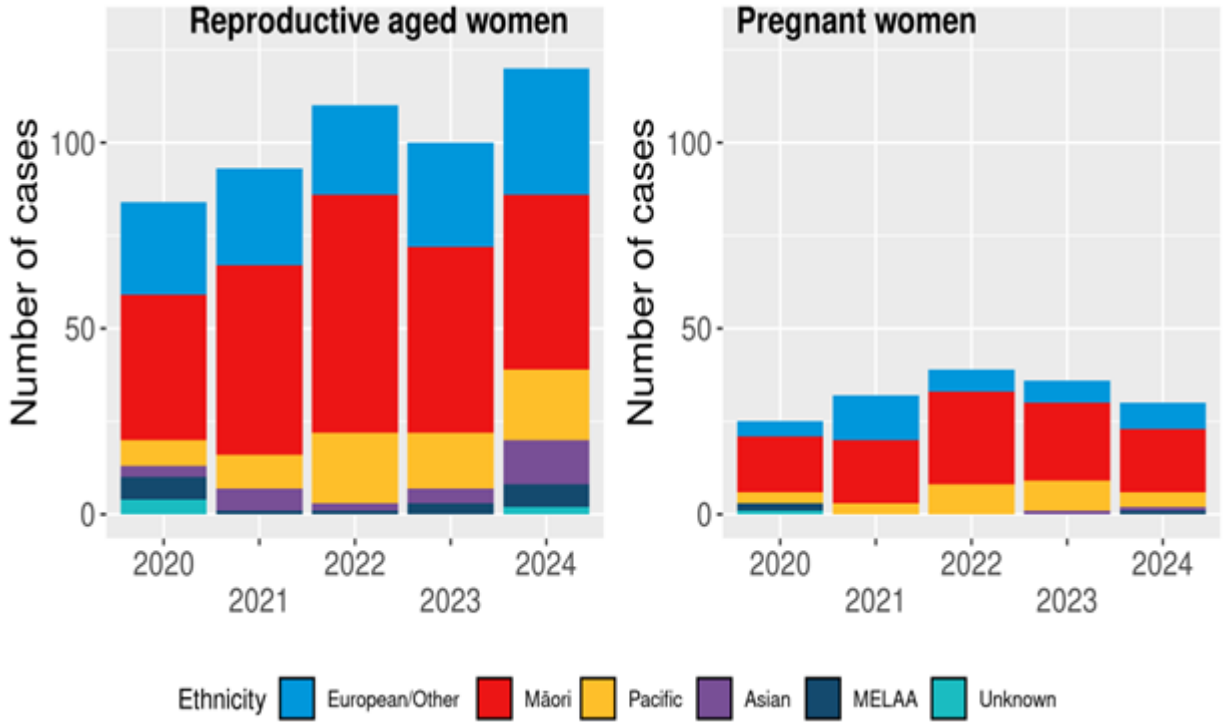
In 2024, (Figure 5) the total number of infectious syphilis cases among women of reproductive age (between 15–44 years) increased by 20 cases (100 to 120) compared to 2023. Cases among Māori women in this age group decreased slightly between 2023 and 2024 (50 to 47). In contrast, case numbers increased across all other ethnic groups including: European/Other (28 to 34 cases); Asians (4 to 12 cases), Pacific peoples (15 to 19 cases), and MELAA (3 to 6 cases).

The number of infectious syphilis cases among pregnant women decreased from 36 cases in 2023 to 30 cases in 2024. Case numbers decreased among Māori (21 to 17 cases) and Pacific peoples (8 to 4 cases) between 2023 and 2024 and remained relatively stable for all other ethnic groups.

Of the 120 infectious syphilis cases among women of reproductive age, 30 (25%) were pregnant. While the number of cases in 2024 is higher compared with 2023, the proportion of those pregnant has decreased (36% to 25%).

Most syphilis cases among pregnant women were in Auckland (16 cases, 53%).

Figure 5: Syphilis cases among women of reproductive age and pregnant women by ethnicity: 2020–2024

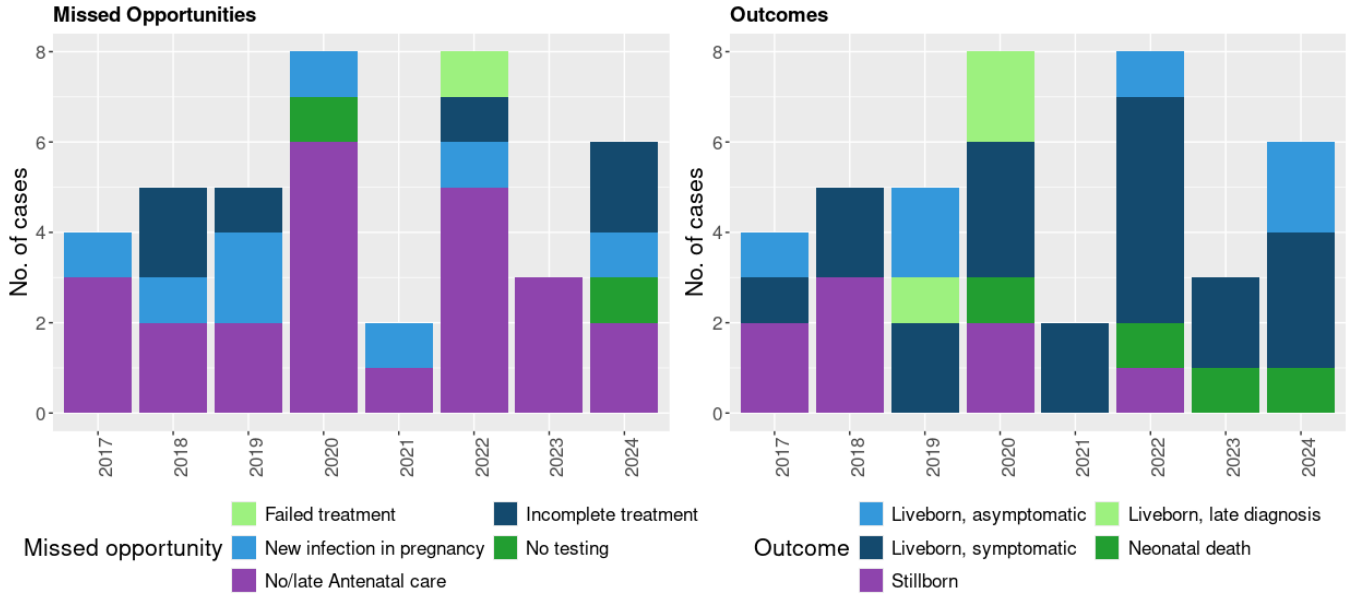


Congenital Syphilis

In order to prevent congenital syphilis, pregnant women must receive antenatal care, which includes first trimester screening for syphilis, then receive treatment appropriate for the stage of disease and pregnancy at least four weeks prior to delivery and remain syphilis free at delivery (New Zealand Sexual Health Society, 2020). Analysis of information on case report forms for infants with congenital syphilis and their mothers was undertaken to identify where in the antenatal care pathway the opportunity to prevent a case of congenital syphilis was missed.

There were six cases of congenital syphilis reported in 2024. Three were liveborn with symptoms and one was a neonatal death. Two of the mothers of these cases had incomplete treatment, two received no or late antenatal care, one was not tested despite receiving antenatal care, and one was a new infection in pregnancy after a negative first trimester test (Figure 6).

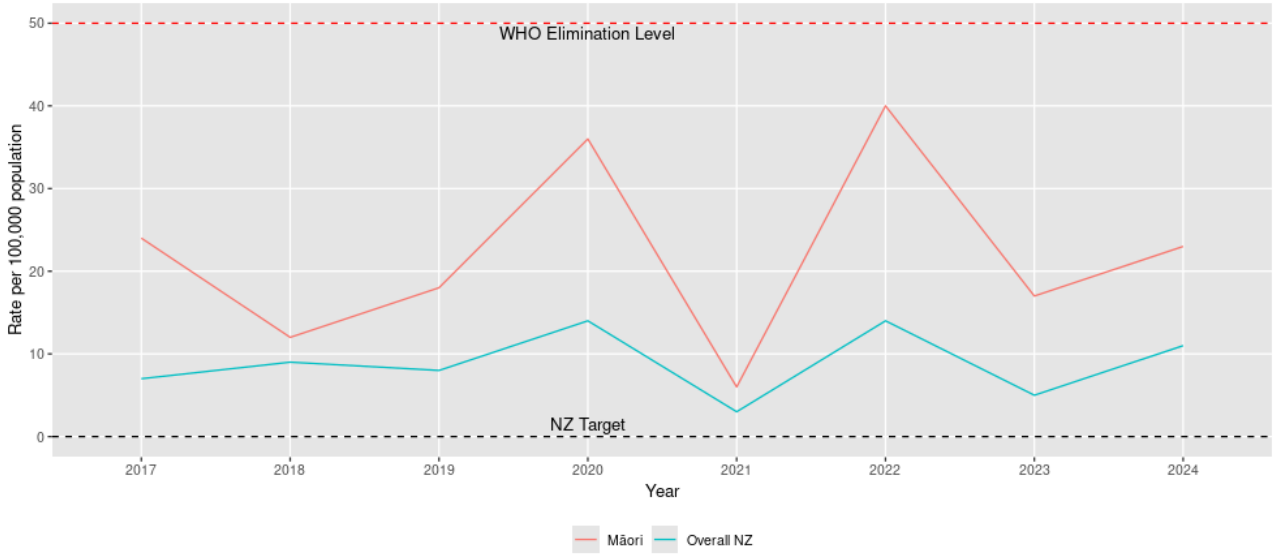
Figure 6: Congenital syphilis: missed opportunities to identify syphilis in pregnancy and outcomes of congenital syphilis cases: 2017–2024



The World Health Organization (WHO) defines the elimination of congenital syphilis as a rate of ≤50 per 100,000 live births and has set process and impact targets for high prevalence countries. (World Health Organization, 2021) One of the goals of Ngā Pokenga Paipai Me Ngā Pokenga Huaketo Mā Te Toto: Te Rautaki O Aotearoa, the Aotearoa New Zealand Sexually Transmitted and Blood Borne Infection Strategy 2024–2030 is the elimination of congenital syphilis in New Zealand, which is defined as zero cases. (Ministry of Health, 2023).

The rate of congenital syphilis in 2024, 11 per 100,000 live births, increased from five per 100,000 in 2023. The 2022 rate of 14 per 100,000 was the highest level seen in recent years, equal to that observed in 2020. The higher 2024 rate of congenital syphilis among Māori (23 per 100,000) reflects ongoing inequities in access to health care for Māori, including antenatal and sexual health care (Figure 7).

Figure 7 Congenital syphilis rates per 100,000 live births 2017–2024



Infectious syphilis in sex workers

In 2024, 14 people with infectious syphilis reported being a sex worker (Table 2). Due to low numbers no further analysis is provided.

Table 2: Sex worker status amongst infectious syphilis cases: 2019–2024

Sex Worker Status	2020	2021	2022	2023	2024
Case is a sex worker	9 (1.8%)	11 (2.5%)	17 (3.3%)	11 (1.5%)	14 (1.8%)
Case is not a sex worker	464 (90%)	379 (85%)	433 (85%)	611 (83%)	674 (87%)
Unknown	41 (8.0%)	58 (13%)	60 (12%)	117 (16%)	86 (11%)
Total	**514**	**448**	**510**	**739**	**774**

[1]Percentages may not total 100% due to rounding

CLINICAL NOTIFICATION SURVEILLANCE OF GONORRHOEA 2024

In 2024 clinical notifications were received for a subset of laboratory confirmed cases (4,195/7,581, 55%).

CHARACTERISTICS OF ALL CLINICAL GONORRHOEA NOTIFICATIONS 2024

Table 3: Clinical gonorrhoea notifications by sexual behaviour and age, ethnicity and region: 2024

	MSM, N = 1,380[1]	MSW, N = 907[1]	WSM, N = 1,119[1]	WSW N = 74[1]	Unknown N=715[1]	Total N = 4,195[1,3]
Age Group						
0–14	7 (0.5%)	7(0.8%)	24 (2.1%)	3 (4.1%)	5 (0.7%)	46 (1.1%)
15–19	47(3.4%)	110 (12%)	245 (22%)	17 (23%)	100 (14%)	519 (12%)
20–24	195 (14%)	270 (30%)	375 (33%)	25 (34%)	190 (27%)	1,055 (25%)
25–29	270 (20%)	194 (21%)	201 (18%)	11 (15%)	136 (19%)	812 (19%)
30–39	525 (38%)	196 (22%)	195 (17%)	13 (18%)	188 (26%)	1,117 (27%)
40+	336 (24%)	130 (14%)	79 (7.1%)	5 (6.8%)	96 (13%)	646 (15%)
Ethnicity						
European/Other	745 (54%)	300 (33%)	342 (31%)	16 (22%)	202 (28%)	1,605 (38%)
Māori	241 (18%)	331 (37%)	532 (48%)	41 (55%)	291 (41%)	1,436 (34%)
Pacific	119 (8.6%(	184 (20%)	201 (18%)	14 (19%)	147 (21%)	665 (16%)
Asian	245 (18%)	84 (9.5%)	31 (2.8%)	3 (4.1%)	60 (8.4%)	423 (10%)
Unknown	30 (2.2%)	8 (0.9%)	13 (1.2%)	0 (0.0%)	15 (2.1%)	66 (1.6%)
District/Region						
Auckland	421(32%)	149(17%)	139(13%)	7(9.5%)	145(20%)	861(21%)
Counties Manukau	105(7.9%)	167(19%)	204(18%)	13(18%)	178(25%)	667(16%)
Waitemata	125(9.4%)	82(9.2%)	100(9.0%)	8(11%)	64(9.0%)	379(9.0%)
Canterbury	138(10%)	59(6.7%)	64(5.8%)	5(6.8%)	31(4.3%)	297(7.1%)
Capital & Coast	192(14%)	63(7.1%)	91(8.2%)	15(20%)	58(8.1%)	419(10%)
Waikato	115(8.6%)	116(13%)	152(14%)	6(8.1%)	45(6.3%)	434(10%)
Southern	60(4.5%)	37(4.2%)	38(3.4%)	0(0.0%)	26(3.6%)	161(3.8%)
Bay of Plenty	42(3.2%)	55(6.2%)	74(6.7%)	2(2.7%)	35(4.9%)	208(5.0%)
Lakes	22(1.7%)	28(3.2%)	37(3.3%)	1(1.4%)	10(1.4%)	98(2.3%)
MidCentral	61(4.4%)	32(3.5%)	23(2.1%)	1(1.4%)	14(2.0%)	131(3.1%)
Hawke's Bay	16(1.2%)	25(2.8%)	40(3.6%)	7(9.5%)	31(4.3%)	119(2.8%)
Taranaki	14(1.1%)	8(0.9%)	10(0.9%)	0(0.0%)	7(1.0%)	39(0.9%)
Whanganui	11(0.8%)	6(0.7%)	13(1.2%)	1(1.4%)	5(0.7%)	36(0.9%)
Nelson Marlborough	15(1.1%)	18(2.0%)	25(2.3%)	0(0.0%)	7(1.0%)	65(1.5%)
Northland	25(1.9%)	41(4.6%)	74(6.7%)	2(2.7%)	37(5.2%)	179(4.3%)
Tairawhiti	11(0.8%)	13(1.5%)	21(1.9%)	4(5.4%)	12(1.7%)	61(1.5%)
West Coast	0(0.0%)	2(0.2%)	2(0.2%)	0(0.0%)	1(0.1%)	5(0.1%)
Hutt Valley	3(0.2%)	1(0.1%)	5(0.5%)	0(0.0%)	3(0.4%)	12(0.3%)
Wairarapa	3(0.2%)	3(0.3%)	4(0.4%)	1(1.4%)	2(0.3%)	13(0.3%)
South Canterbury	1(0.1%)	2(0.2%)	3(0.3%)	1(1.4%)	4(0.6%)	11(0.3%)

[1] n (%)

[2] Percentages may not total 100% due to rounding

[3] Cases with erroneous/missing ages were removed from the analysis

Table 4: Clinical gonorrhoea notifications by sexual behaviour and age, ethnicity, District/Region and year

Year	2020 N = 3,734	2021 N = 3,573	2022 N = 3,601	2023 N = 4,236	2024 N = 4,195
Sexual Behaviour					
MSM	948(25%)	1,135(32%)	938(26%)	1,187(28%)	1,380(33%)
MSW	955(26%)	776(22%)	893(25%)	981(23%)	907(22%)
Unknown	746(20%)	685(19%)	732(20%)	824(19%)	715(17%)
WSM	1,018(27%)	902(25%)	968(27%)	1,156(27%)	1,119(27%)
WSW	67(1.8%)	75(2.1%)	70(1.9%)	78(1.8%)	74(1.8%)
Gender*					
Cisgender men	2,233(60%)	2,275(64%)	2,201(61%)	2,574(61%)	2,606(62%)
Cisgender women	1,472(39%)	1,266(35%)	1,364(38%)	1,618(38%)	1,514(37%)
Transgender & non-binary people	29(0.8%)	21(0.9%)	36(1.0%)	41(1.0%)	65(1.5%)
Unknown	0	0	0	3(<0.1%)	10(0.2%)
Age					
0–14	43(1.2%)	28(0.8%)	28(0.8%)	27(0.6%)	46(1.1%)
15–29	427(11%)	384(11%)	422(12%)	566(14%)	519(13%)
20–24	845(23%)	763(21%)	855(23%)	1,059(25%)	1,055(25%)
25–29	866(23%)	776(22%)	752(21%)	818(19%)	812(19%)
30–39	986(26%)	1,017(29%)	969(27%)	1,094(26%)	1,117(27%)
40+	567(15%)	605(17%)	575(16%)	670(16%)	646(15%)
Ethnicity					
European/Other	1,549(42%)	1,474(41%)	1,423(40%)	1,689(40%)	1,605(38%)
Māori	1,317(35%)	1,207(34%)	1,215(34%)	1,417(33%)	1,436(34%)
Pacific	503(14%)	523(15%)	558(16%)	680(16%)	665(16%)
Asian	300(8%)	310(8.7%)	321(8.9%)	372(8.7%)	423(10%)
Unknown	65(1.7%)	59(1.7%)	84(2.3%)	78(1.8%)	66(1.6%)
District/Region					
Auckland	710(19%)	711(20%)	711(20%)	811(20%)	861(21%)
Counties Manukau	654(18%)	586(16%)	626(17%)	666(16%)	667(16%)
Waitemata	317(8.5%)	343(9.6%)	305(8.5%)	408(9.7%)	379(9.2%)
Canterbury	315(8.4%)	300(8.4%)	420(11.7%)	351(8.3%)	297(7.2%)
Capital & Coast	284(7.6%)	262(7.3%)	217(6.0%)	352(8.4%)	419(10%)
Waikato	359(9.6%)	369(10.3%)	376(10.4%)	391(9.3%)	434(11%)
Southern	90(2.4%)	120(3.4%)	103(2.9%)	155(3.7%)	161(3.9%)
Bay of Plenty	200(5.4%)	208(5.8%)	227(6.3%)	248(5.9%)	208(5.1%)
Lakes	130(3.5%)	122(3.4%)	88(2.4%)	137(3.3%)	98(2.4%)
MidCentral	94(2.5%)	112(3.1%)	105(2.9%)	139(3.3%)	131(3.1%)
Hawke's Bay	124(3.3%)	70(2.0%)	50(1.4%)	87(2.1%)	119(2.9%)
Taranaki	76(2.0%)	59(1.7%)	51(1.4%)	49(1.2%)	39(0.9%)
Whanganui	39(1.0%)	24(0.7%)	44(1.2%)	49(1.2%)	36(0.9%)
Nelson Marlborough	60(1.6%)	61(1.7%)	53(1.5%)	80(1.9%)	65(1.6%)
Northland	96(2.6%)	94(2.6%)	100(2.8%)	112(2.7%)	179(4.3%)
Tairawhiti	94(2.5%)	33(0.9%)	15(0.4%)	46(1.1%)	61(1.5%)
West Coast	1(0.0%)	2(0.1%)	3(0.1%)	4(0.1%)	5(0.1%)
Hutt Valley	75(2.0%)	81(2.3%)	92(2.6%)	110(2.6%)	12(0.3%)
Wairarapa	13(0.3%)	10(0.3%)	5(0.1%)	17(0.4%)	13(0.3%)
South Canterbury	3(0.1%)	6(0.2%)	10(0.3%)	24(0.6%)	11(0.3%)

1 n(%)

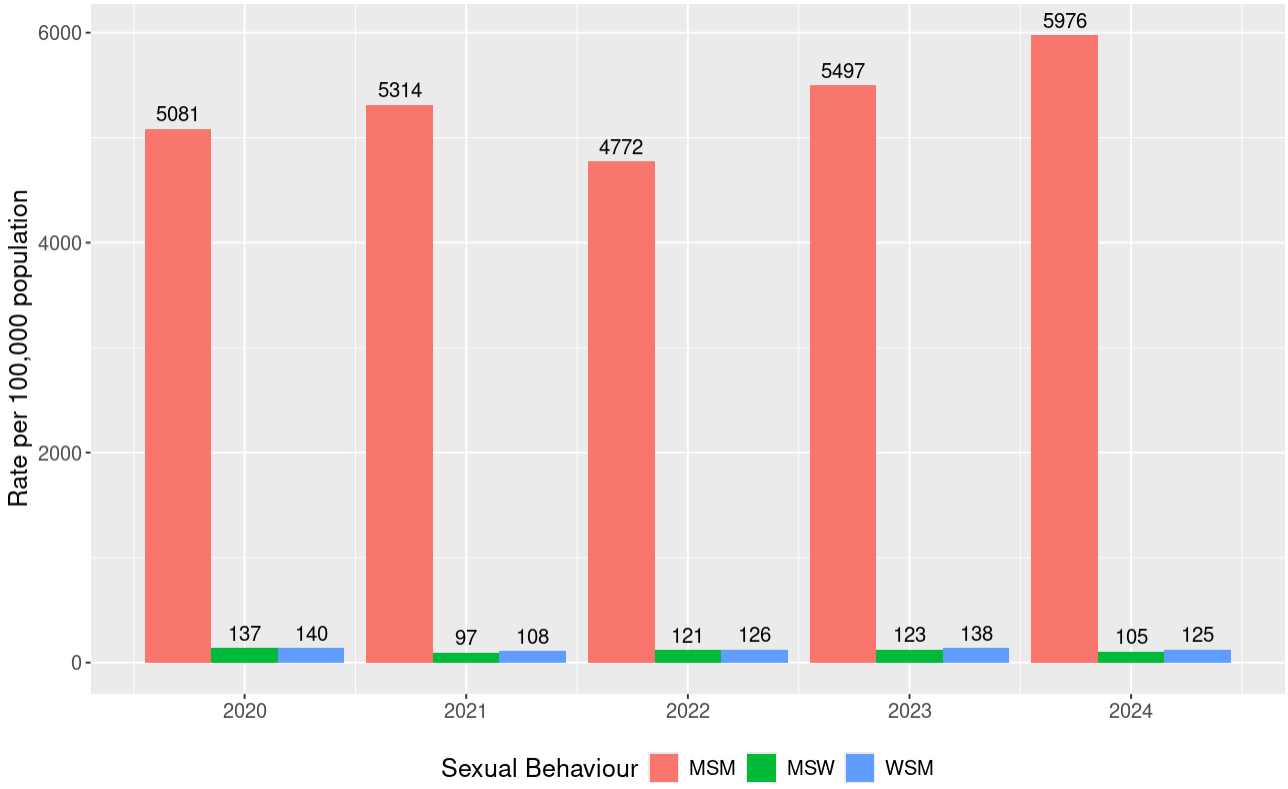
** An updated case report removed the specific question about transgender status in 2024 with transgender status for 2024 calculated based on reported sex and gender. This is likely to lead to an increase in cases reported as transgender. Data prior to 2024 is calculated as it was previously, using the transgender specific question.*

CLINICAL GONORRHOEA NOTIFICATION COUNTS

Estimated rates of gonorrhoea by sexual behaviour

Estimated gonorrhoea rates by sexual behaviour show clear disparities for MSM compared to MSW and WSM (Figure 8). MSM rates increased from 5,497 per 100,000 in 2023 to 5,976 per 100,000 population in 2024. Rates for MSW and WSM have remained relatively stable over 2020–2024, with a slight decrease between 2023 and 2024. Since 2019, rates among WSM have been slightly higher than MSW rates.

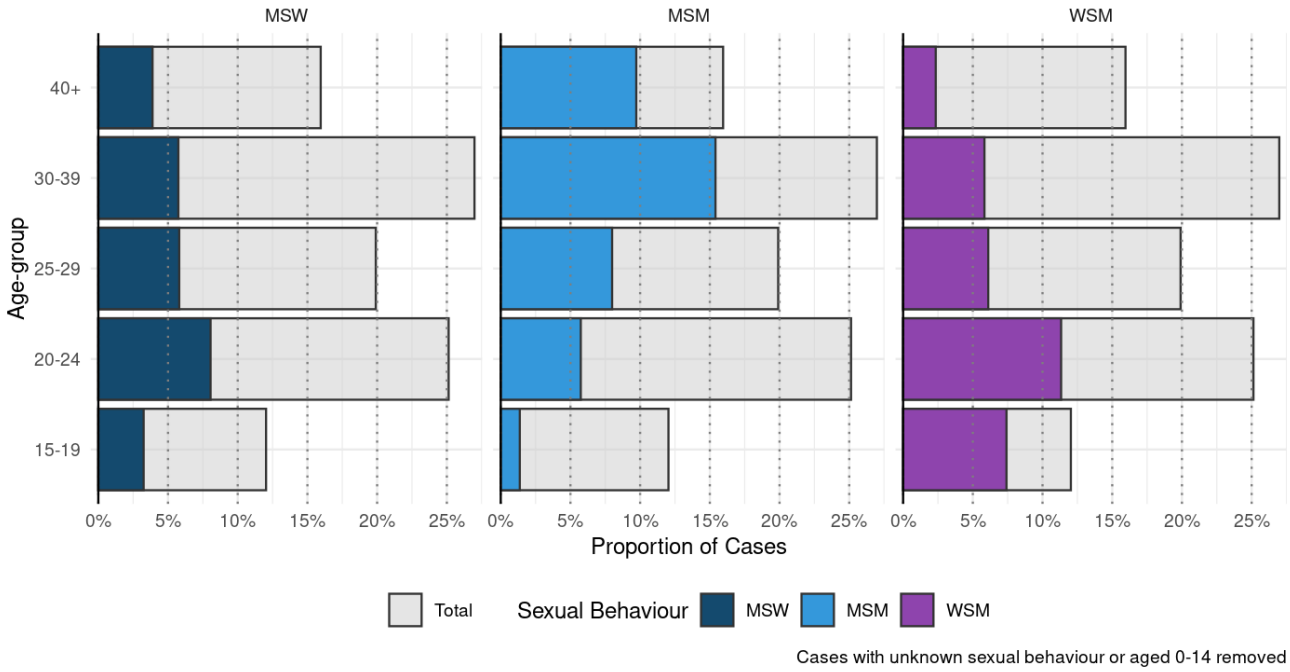
Figure 8. Estimated gonorrhoea rates per 100,000 population by sexual behaviour, 2020–2024



Sexual behaviour by age-group and ethnicity*

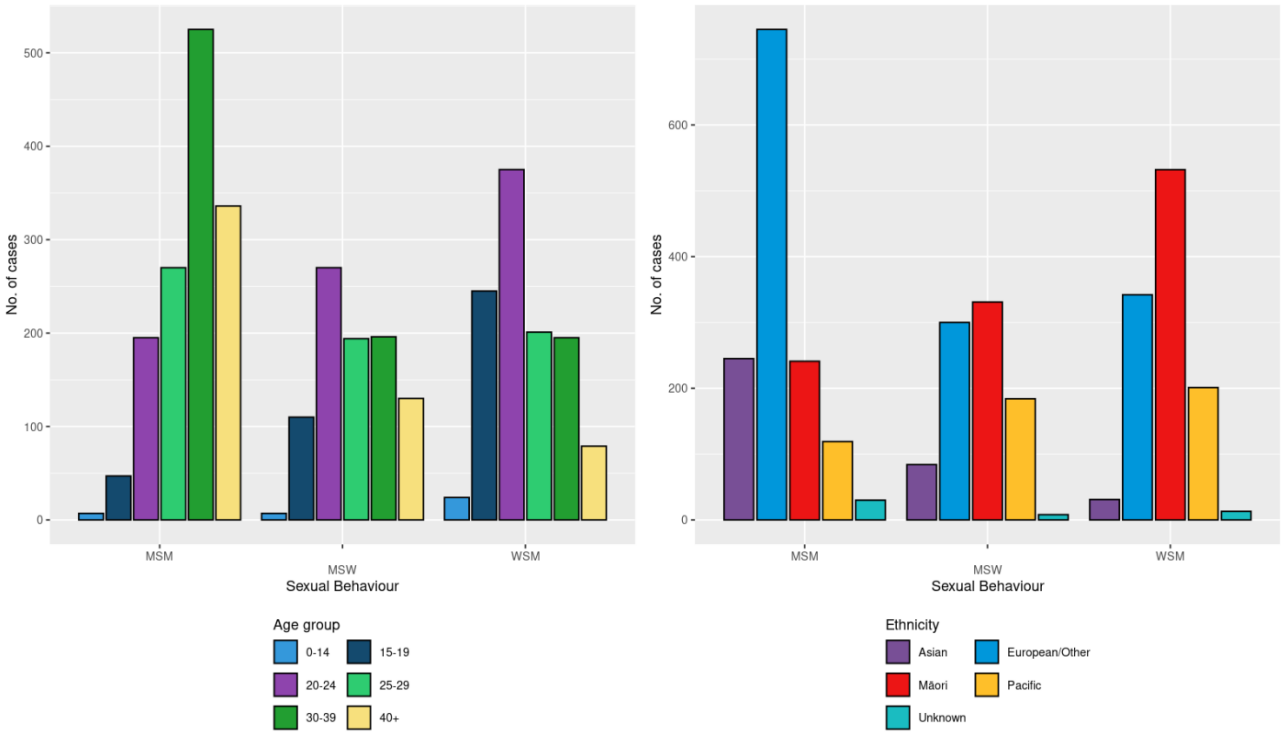
- Of the clinical notifications for gonorrhoea, 1,331 cases (32%) were reported to be MSM, 887 (22%) MSW and 1,111 (27%) WSM (Figure 10). Between 2023 and 2024, the proportion of cases reported to be MSM increased by 5%. A small proportion of cases were reported in women who have sex with women (2%, 74 cases). For 17% of cases, clinicians reported sexual behaviour as 'unknown'
- By age and sexual behaviour, the majority of MSM cases were aged 30 years or older [Figure 9]. MSW cases were more evenly distributed by age and predominantly aged between 20–40 years, with the highest proportion aged 20-24. WSM cases were younger than other sexual behaviour groups, with the highest proportion aged between 20–24 and 15–19 years respectively.
- Among MSM, 54% of cases were of European/Other ethnicity, 18% were Māori, 18% were Asian, and 9% were Pacific peoples. (Figure 10). Among MSW cases, 34% were of European/Other ethnicity, 36% Māori, 21% Pacific, and 10% were Asian. The highest number of WSM cases was reported amongst those of Māori ethnicity (48% of cases), followed by European/other (30% of cases) and then Pacific peoples (18% of cases).
- The proportions of cases by ethnicity for WSM, MSW, and MSM have remained relatively stable in 2024 compared to 2023.

Figure 9: Age pyramid of clinical notifications for gonorrhoea by sexual behaviour in 2024



* *Approximately 70 cases from MidCentral in 2024 not included*

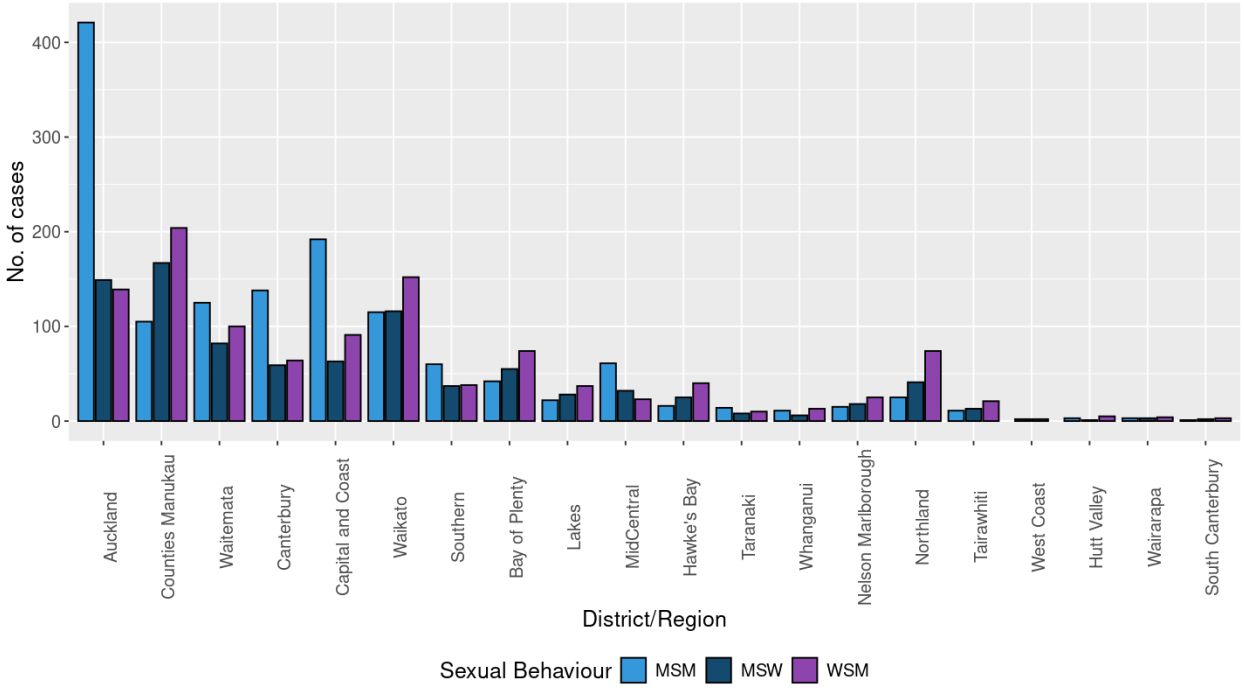
Figure 10: Clinical notifications for gonorrhoea by sexual behaviour and age-group and ethnicity: 2024



Sexual behaviour of cases notified with gonorrhoea in 2024 by district/region

In 2024, almost half (46%) of the clinical notifications for gonorrhoea were received from the Auckland region (Figure 11). Auckland, Wellington, and Canterbury regions accounted for 74% of all MSM cases; these regions accounted for the same proportion of MSM cases in 2023. Auckland, Canterbury, Wellington Region, Southern, MidCentral and Taranaki reported a higher proportion of MSM cases compared to other sexual behaviours. With the exception of West Coast which had an equal proportion of WSM and MSW cases, all other regions had a higher proportion of WSM cases compared to other sexual behaviours.

Figure 11: Clinical notifications for gonorrhoea by sexual behaviour and region: 2024



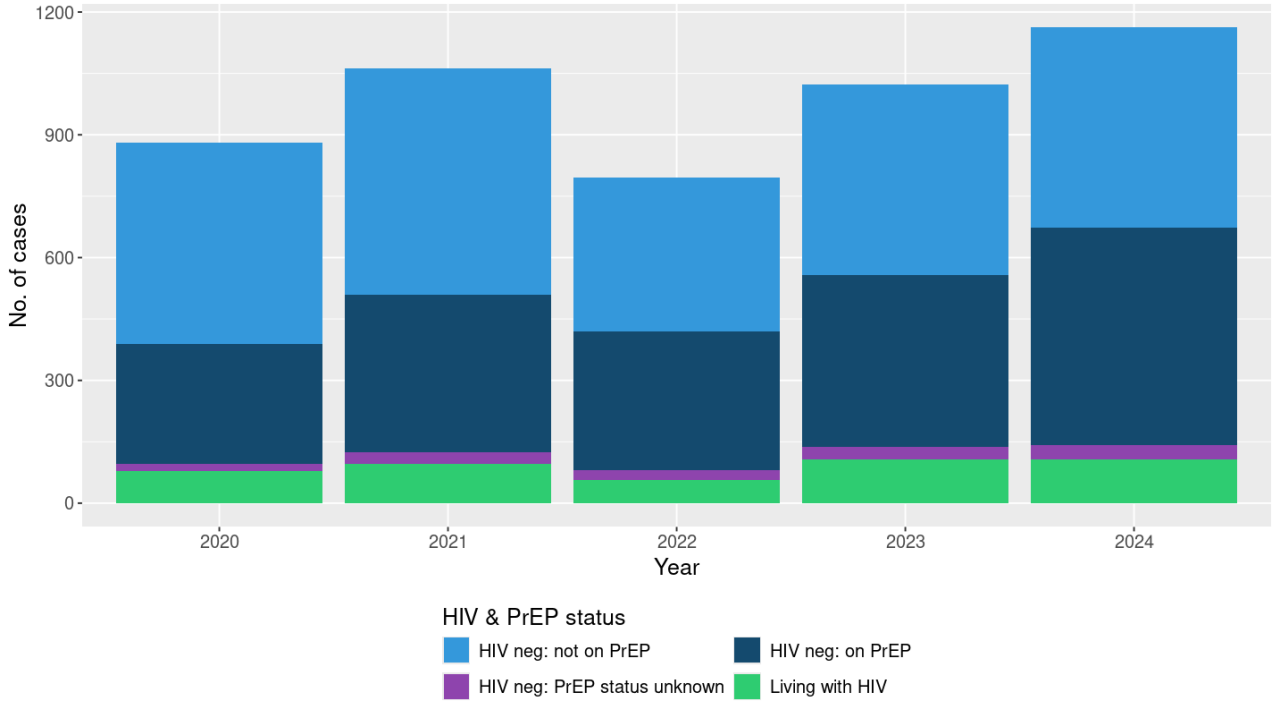
PARTICULAR POPULATIONS NOTIFIED WITH GONORRHOEA IN 2024

HIV and PrEP status amongst MSM

Of the 1,380 MSM with gonorrhoea, 1,055 (76%) were known to be HIV negative and 107 (8%) were living with HIV (Figure 12). HIV status was unknown for 218 cases (16%). The proportion of MSM with gonorrhoea who were living with HIV decreased slightly compared to 2023 (from 11%).

Of the 1055 MSM cases with a known HIV negative status, 489 (46%) were not on PrEP, 532 (50%) reported being on PrEP while PrEP status was unknown for 34 (3%).

Figure 12: HIV and PrEP status of clinical gonorrhoea notifications amongst MSM: 2020–2024



**Individuals with an unknown HIV status not included in this figure*

Gonorrhoea in sex workers

Of all gonorrhoea clinical notifications received in 2024, 67 (1.6%) reported being sex workers, which is the same number reported in 2023 (Table 5). Among female cases in 2024, 39 (2.6%) were reported to be sex workers compared to 44 cases (2.6%) in 2023. Among male cases, 29 (1.0%) were reported to be sex workers in 2024 compared to 23 in 2023 (1.0%). Of the 64 cases identifying as sex workers, 10 were transgender or non-binary. In 2024, the sex work status of cases was unknown in 23.6% of female cases and 21.7% of male cases.

The highest numbers of gonorrhoea notifications identified as sex workers in 2024 were in Auckland (29 cases), followed by Waikato (11 cases); the number of cases increased slightly Auckland compared to 2023 (27 to 29 cases), increased in Waikato (7 to 11 cases), and decreased in Canterbury compared to 2023 (16 to 7 cases cases).

In 2024, most cases amongst sex workers were of European/Other (32/67, 48%) or Māori (23/67, 34%) ethnicity. By sexual behaviour, 33/67 (49%) were WSM, 21/67 (31%) were MSM.

Table 5: Sex worker status of gonorrhoea cases by sex in 2020–2024

Sex Worker Status	2020	2021	2022	2023	2024
Case is a sex worker	87 (2.3%)	59 (1.7%)	70 (1.9%)	68 (1.6%)	68 (1.6%)
Case is not a sex worker	3,005 (81%)	2,878 (81%)	2,816 (78%)	3,352 (79%)	3,206 (76%)
Unknown	642 (17%)	636 (18%)	715 (20%)	816 (19%)	921 (22%)
Total	**3,734**	**3,573**	**3,601**	**4,236**	**4,195**

* Decimal places included for percentages <10%

Gonorrhoea site of infection by sexual behaviour (clinical notifications) 2024

Of all gonorrhoea clinical notifications received in 2024, 79% (3,320/4195) had both site of infection and known sexual behaviour recorded (Table 6). For MSM, the most commonly reported site of infection was multiple sites followed by the pharynx, and urogenital was the most commonly reported site for MSW and WSM.

Table 6. Gonorrhoea site of infection by sexual behaviour for clinically notified cases, 2024

Site of infection	MSM	MSW	WSM	WSW	Unknown	Total
Urogenital only	174 (13%)	718 (79%)	936 (84%)	65 (88%)	530 (74%)	2,423 (58%)
Pharynx only	381 (28%)	59 (6.5%)	60 (5.4%)	0	48 (6.7%)	548 (13%)
Ano-rectal only	289 (21%)	33 (3.6%)	5 (0.4%)	2 (2.7%)	31 (4.3%)	360 (8.6%)
Multiple sites	445 (32%)	49 (5.4%)	99 (8.8%)	5 (6.8%)	37 (5.2%)	635 (15%)
Unknown	91 (6.6%)	48 (5.3%)	19 (1.7%)	2 (2.7%)	69 (9.7%)	229 (5.5%)
Total	**1,380**	907	**1,119**	**74**	**715**	**4,195**

* Decimal places included for percentages <10%

ADDITIONAL LABORATORY SURVEILLANCE

GONORRHOEA AND CHLAMYDIA BY SITE OF INFECTION

Gonorrhoea

The site from which the specimen was taken was recorded for 95.3% (9,889/10,375) of positive specimens. The most common site recorded in 2024 was urogenital for females (81.1%) (Table 7) and males (56.9%) (Table 8). Of the 288 other/unknown specimen sites, 3 were from the eye. Totals in these tables are positive specimens rather than cases of gonorrhoea; therefore, numbers are higher than total gonorrhoea case counts reported elsewhere.

While the highest number and proportion of positive gonorrhoea specimens for males and females were from urogenital samples, the number of positive urogenital samples decreased between 2023 and 2024. Among males, a higher proportion of gonorrhoea infections are from ano-rectal and pharyngeal specimens compared to females, and the number of ano-rectal and pharyngeal infections in males increased in 2024 compared to 2023.

Table 7. Gonorrhoea by site, female, 2020–2024

Specimen site	2020	2021	2022	2023	2024
Ano-rectal	83 (2.1%)	79 (2.6%)	87 (2.5%)	107 (2.9%)	79 (2.4%)
Pharyngeal	181 (4.6%)	160 (5.3%)	214 (6.2%)	260 (7.1%)	267 (8.0%)
Urogenital	3,433 (88%)	2,636 (88%)	2,986 (87%)	3,163 (86%)	2,720 (81%)
Other/Unknown	213 (5.4%)	130 (4.3%)	155 (4.5%)	140 (3.8%)	288 (8.6%)
Total	**3,910**	**3,005**	**3,442**	**3,670**	**3,354**

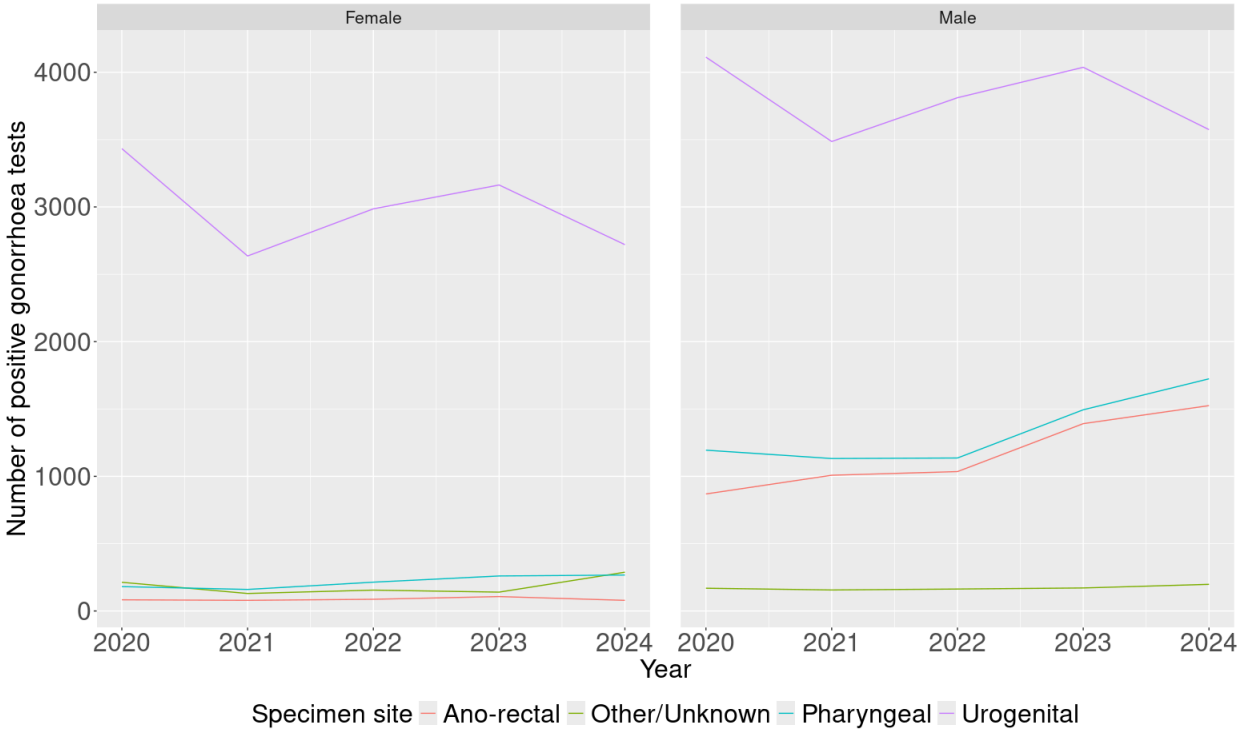
*Tests with unknown or indeterminant recorded for sex were removed from the table (33 – 62 tests per year).

Table 8. Gonorrhoea by site, male, 2020–2024

Specimen site	2020	2021	2022	2023	2024
Ano-rectal	869 (14%)	1,008 (17%)	1,035 (17%)	1,391 (20%)	1,525 (22%)
Pharyngeal	1,194 (19%)	1,132 (20%)	1,136 (19%)	1,494 (21%)	1,724 (25%)
Urogenital	4,112 (65%)	3,486 (60%)	3,811 (62%)	4,037 (57%)	3,574 (51%)
Other/Unknown	169 (2.7%)	156 (2.7%)	163 (2.7%)	171 (2.4%)	198 (2.8%)
Total	**6,344**	**5,782**	**6,145**	**7,093**	**7,021**

*Tests with unknown or indeterminant recorded for sex were removed from the table (35 – 62 tests per year).

Figure 13: Number of positive gonorrhoea tests by sex and site of infection, 2020–2024



Chlamydia

The site from which the specimen was taken was recorded for 94.5% (28,998 /30,697) of positive specimens in 2024. The most common site recorded in 2024 was urogenital for males (76%) and females (89%). Of the 1702 other/unknown specimens in 2024, 69 specimens were from the eye (Tables 9 and 10).

The number of positive chlamydia urogenital specimens decreased in females and increase in males between 2023 and 2024. The number of positive pharyngeal specimens among males and females has increased steadily between 2020 and 2024. Among males, numbers of positive anorectal specimens have increased steadily since 2020 (Tables 9 and 10).

Table 9. Chlamydia by site, female, 2020–2024

Specimen site	2020	2021	2022	2023	2024
Ano-rectal	221 (1.2%)	224 (1.3%)	218 (1.3%)	311 (1.6%)	279 (1.5%)
Pharyngeal	138 (0.8%)	168 (1.0%)	210 (1.2%)	322 (1.7%)	328 (1.8%)
Urogenital	17,085 (93%)	16,329 (94%)	16,175 (94%)	17,902 (93%)	16,403 (89%
Other/Unknown	923 (5.0%)	723 (4.1%)	689 (4.0%)	743 (3.9%)	1,493 (8.1%)
Total	**18,367**	**17,444**	**17,292**	**19,278**	**18,503**

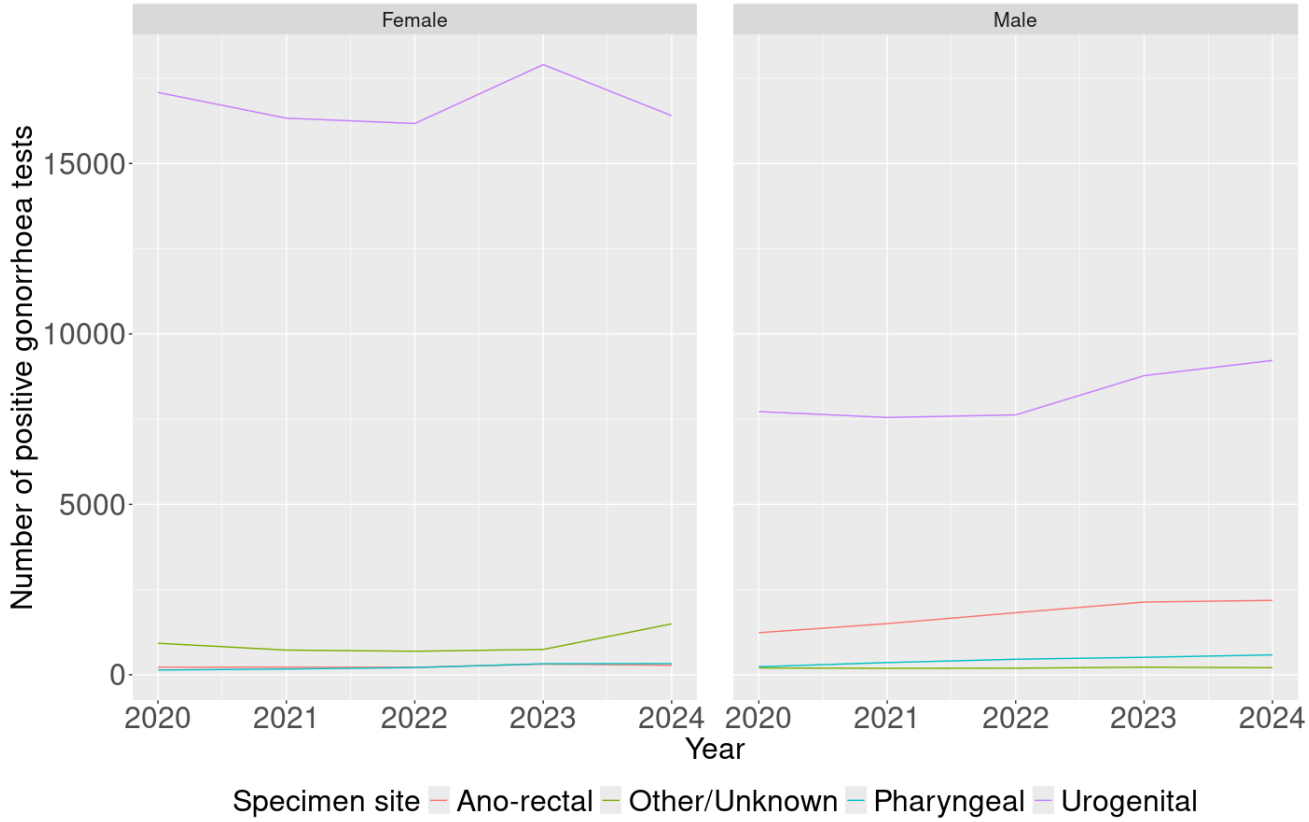
*Tests with unknown or indeterminant recorded for sex were removed from the table (34–238 tests per year)

Table 10. Chlamydia by site, male, 2020–2024

Specimen site	2020	2021	2022	2023	2024
Ano-rectal	1,233 (13%)	1,501 (16%)	1,820 (18%)	2,132 (18%)	2,182 (18%)
Pharyngeal	236 (2.5%)	357 (3.7%)	45 (4.5%)	511 (4.4%)	583 (4.8%)
Urogenital	7,721 (82%)	7,549 (79%)	7,624 (76%)	8,775 (75%)	9,223 (76%)
Other/Unknown	200 (2.1%)	187 (1.9%)	193 (1.9%)	221 (1.9%)	206 (1.7%)
Total	**9,390**	**9,594**	**10,092**	**11,641**	**12,194**

* Tests with unknown or indeterminant recorded for sex were removed from the table (34–238 tests per year)

Figure 14. Number of positive chlamydia tests by sex and site of infection, 2020–2024



PERINATAL GONORRHOEA AND CHLAMYDIA LABORATORY SURVEILLANCE

If untreated during pregnancy, chlamydia and gonorrhoea can be transmitted from mother to child around the time of birth. The most common presentation in infants is conjunctivitis, which occurs in 30–50% of infants born to mothers with chlamydia or gonorrhoea (Hammerschlag, 2011). These perinatal infections are preventable through antenatal STI screening and maternal treatment.

CHARACTERISTICS OF ALL PAEDIATRIC CHLAMYDIA CASES

The number of cases of chlamydia in infants decreased in 2024 (30 cases) compared to 2023 (42 cases) (Table 11). The site of infection was the eye for all paediatric cases for whom a site of infection was reported (25 cases, 83%). The highest number of cases were reported in Māori infants in 2024 (17 cases, 56%). From 2023 to 2024, cases decreased for Pacific, Māori and European/Other infants, and remained low and similar for Asian, MELAA and those of unknown ethnicity.

Table 11: Laboratory reported chlamydia among cases <1 year of age, by ethnicity, sex and site of infection: 2020–2024

	2020	2021	2022	2023	2024
Ethnicity					
Māori	29	21	24	23	17
Pacific	15	7	13	10	8
Asian	3	3	2	2	3
European/Other	10	11	16	6	2
MELAA	2	0	0	1	0
Unknown	2	2	1	0	0
Sex					
Female	29	27	31	22	15
Male	32	17	24	20	15
Site of Infection					
Eye	49	35	50	33	25
Unknown	12	9	6	9	5
Total	**61**	**44**	**56**	**42**	**30**

CHARACTERISTICS OF ALL PAEDIATRIC GONORRHOEA CASES

Paediatric gonorrhoea case numbers during 2024 were low (3 cases) (Table 12). Two cases were Pacific infants and one was Asian.

Table 12: Laboratory reported gonorrhoea by ethnicity, sex and site of infection: 2020–2024

	2020	2021	2022	2023	2024
Ethnicity					
Asian	2	0	0	0	1
European/Other	1	1	0	0	0
Māori	8	7	5	3	0
MELAA	0	1	0	0	0
Pacific	1	1	1	3	2
Unknown	0	0	0	0	0
Sex					
Female	9	7	4	4	1
Male	3	3	2	2	2
Site of Infection					
Eye	10	8	4	5	1
Unknown	2	2	2	1	1
Total	**12**	**10**	**6**	**6**	**3**

GENITAL WARTS

Prior to 2022, data on the first presentation of genital warts was reported to PHF Science by sexual health and Family Planning clinics across New Zealand. In 2022, genital warts surveillance shifted to a sentinel surveillance approach, focusing on data from eleven high-volume sexual health clinics across New Zealand which historically reported the majority of New Zealand's genital warts cases.

Genital warts surveillance helps monitor the impact of the vaccination for human papillomavirus (HPV). HPV is implicated in the development of genital warts, ano-genital and head and neck cancers. HPV vaccination has been part of the national immunisation programme for girls aged 12 years since 2008 and was extended to include boys aged 12 years from 2017. The HPV vaccine may be offered from nine years of age but is usually given at age 11–12 years of age. (Ministry of Health, 2021). Table 13 shows the characteristics of genital warts cases between 2020 and 2024, from the eleven sexual health clinics participating in genital warts surveillance.

Table 13: Characteristics of first presentation genital warts cases in sentinel clinics by sex, age, ethnicity, and region: 2020–2024

Year	2020, N = 678[1]	2021, N = 572[1]	2022, N = 473	2023, N = 550[1]	2024, N =541[1]
Sex					
Female	227 (33%)	217 (38%)	169 (36%)	217 (39%)	183 (34%)
Male	451 (67%)	355 (62%)	302 (64%)	330 (60%)	357 (66%)
Unknown/Other	0 (0%)	0 (0%)	2 (0%)	3 (1%)	1 (0%)
Age Group					
0–14	0 (0%)	2 (0%)	0 (0%)	0 (0%)	0 (0%)
15–19	29 (4%)	16 (3%)	5 (1%)	6 (1%)	6 (1%)
20–24	174 (26%)	130 (23%)	83 (18%)	81 (15%)	56 (10%)
25–29	173 (26%)	133 (23%)	107 (23%)	124 (23%)	126 (23%)
30–39	174 (26%)	155 (27%)	147 (31%)	154 (28%)	166 (31%)
40+	128 (19%)	136 (24%)	131 (28%)	179 (33%)	186 (34%)
Unknown	0 (0%)	0 (0%)	0 (0%)	6 (1%)	0 (0%)
Ethnicity					
European/Pakeha	458 (68%)	358 (63%)	303 (64%)	330 (60%)	332 (61%)
Māori	75 (11%)	80 (14%)	62 (13%)	74 (13%)	72 (13%)
Other	100 (15%)	103 (18%)	71 (15%)	98 (18%)	27 (5%)
Pacific Peoples	32 (5%)	23 (4%)	27 (6%)	19 (3%)	31 (6%)
Unknown	13 (2%)	8 (1%)	10 (2%)	29 (5%)	7 (1%)
Geographic Region					
Auckland	262 (39%)	191 (33%)	216 (46%)	198 (36%)	210 (39%)
Christchurch	91 (13%)	78 (14%)	38 (8%)	71 (13%)	75 (14%)
Dunedin	24 (4%)	20 (3%)	8 (2%)	12 (2%)	10 (2%)
Hamilton	96 (14%)	68 (12%)	27 (6%)	55 (10%)	41 (8%)
Hastings	19 (3%)	19 (3%)	1 (0%)	17 (3%)	4 (1%)
Nelson	37 (5%)	65 (11%)	24 (5%)	38 (7%)	47 (9%)
New Plymouth	40 (6%)	32 (6%)	67 (14%)	25 (5%)	31 (6%)
Palmerston North/ Levin/Dannevirke	5 (1%)	5 (1%)	17 (4%)	11 (2%)	93 (17%)
Rotorua	18 (3%)	35 (6%)	4 (1%)	10 (2%)	9 (2%)
Tauranga	44 (6%)	42 (7%)	31 (7%)	25 (5%)	8 (1%)
Wellington	42 (6%)	17 (3%)	40 (8%)	88 (16%)	13 (2%)

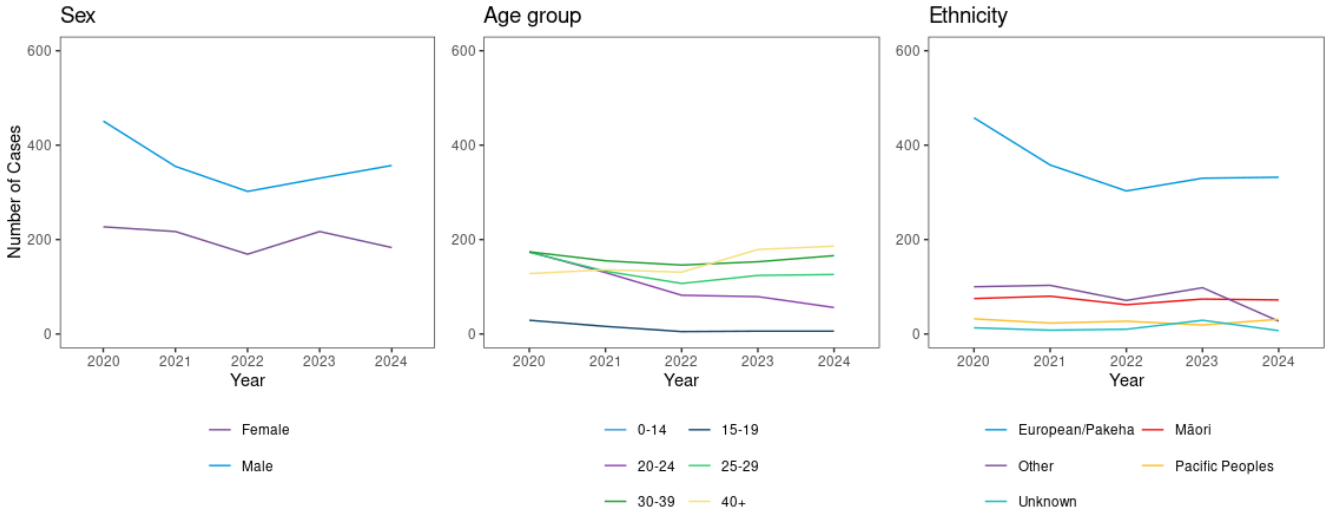
[1] n (%)

The number of first presentation of genital warts cases reported in 2024 decreased by nine cases (1.7%) compared to 2023. Genital warts increased by 15% between 2022–2023, following a decrease between 2020 and 2022. The overall number of cases of first presentation genital warts remains substantially lower than that seen in 2019 to 2020 (and prior years), reflecting the impact of the HPV vaccine.

Genital warts by sex, age, and ethnicity

- Males continued to be overrepresented in genital warts cases in 2024 (Figure 15).
- Case numbers remained stable for 15–19 and 25–29-year-olds, decreased for 20–24-year-olds, and increased for those over the age of 30 in 2024 compared to 2023.
- Case numbers increased for European/Pakeha and Pacific peoples, remained stable among Māori, and decreased for other ethnic groups in 2024 compared to 2022.

Figure 15: Genital warts cases by sex, age-group, and ethnicity: 2020–2024



CLINIC SURVEILLANCE OF LYMPHOGRANULOMA VENEREUM (LGV)

There were eight cases of LGV reported as part of clinic surveillance in 2024. Three cases were reported in the Christchurch, two each in Auckland Region, and Southern, and one case in Waikato. Thirteen cases of LGV were reported in 2023.

INEQUITIES ANALYSIS

Inequities are differences in health that are avoidable, unfair, and unjust. “Equity recognises different people with different levels of advantage require different approaches and resources to get equitable health outcomes.” (Ministry of Health, 2019)

Describing inequities is a crucial first step to eliminating them. Inequities in STIs are likely to reflect differences in access to sexual health care and sexual network characteristics, rather than sexual behaviour alone. Health inequities in STIs in Aotearoa New Zealand are evident in the disproportionately high rates of STIs observed for Māori, Pacific, young people, and MSM. In communities in which there is higher prevalence of a particular STI, with each sexual encounter there is a greater chance of contact with someone with an infection than in lower prevalence communities (CDC, 2022). Differences persist in communities because access to quality and culturally safe STI prevention and treatment has not been equitably available. Higher rates of STIs in ethnic groups known to have inequitable access to the determinants of health, including health care access, are observed around the world, including in African American communities and Aboriginal Australians (CDC, 2022) (The Kirby Institute, 2022).

Ngā Pokenga Paipai Me Ngā Pokenga Huaketo Mā Te Toto: Te Rautaki O Aotearoa, the Aotearoa New Zealand Sexually Transmitted and Blood Borne Infection Strategy 2024–2030 was published in March 2023. This strategy gives effect to the principles of Te Tiriti o Waitangi as a legal requirement and takes an equity first approach to address ongoing disparities. (Ministry of Health, 2023) The goals of the strategy are to:

1. reduce incidence of sexually transmitted and blood borne infections (STBBI) in Aotearoa New Zealand and eliminate congenital syphilis, hepatitis C and transmission of HIV
2. decrease mortality and the negative health and wellbeing outcomes of STBBI, including stigma and discrimination
3. improve Māori health and wellbeing in relation to STBBI through delivery on Te Tiriti o Waitangi obligations
4. increase equity in relation to all STBBI goals and objectives (Ministry of Health, 2023)

Until specific indicators are developed, this report will assess progress against the goals to reduce the incidence of STIs, eliminate congenital syphilis, and increase equity for the Strategy’s priority groups where possible; Māori, Pacific, young people aged under 29, MSM and sex workers. (Ministry of Health, 2023)

STBBI Strategy goal 1: Reduce incidence of STBBI and eliminate congenital syphilis

The rates of syphilis increased between 2023 and 2024 but decreased for gonorrhoea and chlamydia.

The 2024 rate of congenital syphilis, 11 per 100,000 live births, increased compared to 2023 (5 per 100,000), though lower than the peak of 14 per 100,000 seen in 2020 and 2022. The rate continues to be unacceptably high and falls short of New Zealand’s goal to eliminate congenital syphilis.

Sentinel surveillance suggests there has been a small decrease in genital warts cases in 2024 compared to 2023. This follows an increase in 2023 after a sustained decline since 2017. Increases were seen in those aged 30 and older, Pacific peoples, and males, while rates decreased or remained stable for other groups.

STBBI strategy goal 3: Improve Māori health and wellbeing through delivery on Te Tiriti o Waitangi obligations

Inequities for Māori continue to be seen for all STIs. While the gap in syphilis, gonorrhoea, and chlamydia rates between Māori and the European/Other group did not widen in 2024, the rates among Māori remain substantially higher than in European/Other people. Syphilis rates among Māori were 2.1 times those of European/Other people. Similarly, gonorrhoea and chlamydia rates among Māori were 3.8 and 3.6 times those among European/Other people respectively. Syphilis in pregnancy continues to disproportionately affect Māori, with 17 cases among Māori compared to seven among the European/other group in 2024. In 2024, three of the six cases of congenital syphilis cases were among Māori infants. The rate of congenital syphilis in 2024 remained substantially higher among Māori infants (23 per 100,000) compared to the New Zealand population (11 per 100,000), highlighting persistent inequities in access to antenatal and sexual health care for Māori women. The highest numbers of chlamydia infections were to be notified in Māori infants (57%). These infections in infants demonstrate inequitable access to appropriate antenatal care and sexual health care, including in pregnancy, for Māori.

STBBI strategy goal 4: Increase equity for other priority groups

Inequities for Pacific peoples likewise persist. Rates among Pacific peoples compared to those among European/Other ethnic group were 2.5 times higher for syphilis, 5.6 times higher for gonorrhoea, and 4.5 times higher for chlamydia. The numbers of syphilis cases reported in pregnancy for Pacific peoples decreased in 2024 compared to 2023 but there was a further case of congenital syphilis reported in 2024. Two of three paediatric gonorrhoea infections, and 27% of chlamydia eye infections were notified in Pacific infants in 2024.

Inequities for young people continue, with gonorrhoea rates highest among those aged 20–29 years, and rates of chlamydia highest among those aged 15–24.

MSM continue to be disproportionately impacted by STIs with rates of syphilis 86 times that of MSW. Gonorrhoea rates among MSM have also increased between 2023 and 2024, with the 2024 gonorrhoea rate 56 times that of MSW.

The number of syphilis cases who report sex work increased in 2024 compared with 2023, while the number of gonorrhoea cases reporting sex work remained the same. Interpretation of this data is limited by low numbers, and an unknown denominator. In addition, ongoing stigma and discrimination experienced by sex workers may affect access to sexual health care as well as the reporting of this information to clinicians.

REFERENCES

1. CDC. (2022). *Sexually transmitted Disease Surveillance 2022*. Retrieved from National Overview - Sexually Transmitted Disease Surveillance, 2022: https://www.cdc.gov/std/statistics/2022/overview.htm
2. Hammerschlag, M. (2011). Chlamydial and gonococcal infections in infants and children. *Clinical infectious diseases, 53*(Suppl 3), S99-S102.
3. Health., M. o. (2023). *Ngā Pokenga Paipai Me Ngā Pokenga Huaketo Mā Te Toto: Te Rautaki O Aotearoa 2023–2030 | Aotearoa New Zealand Sexually Transmitted and Blood Borne Infection Strategy 2023–2030.* Wellington: Ministry of Health. .
4. Ludlam, A. S. (2015). General practitioner awareness of sexual orientation among a community and internet sample of gay and bisexual men in New Zealand. *J Prim Health Care, 7*, 204-12.
5. Ministry of Health. (2019, October). *Ministry of Health: Achieving Equity*. Retrieved from The definition: https://www.health.govt.nz/about-ministry/what-we-do/work-programme-2019-20/achieving-equity
6. Ministry of Health. (2021). *HPV Immunisation Programme*. Retrieved from Immunisation: https://www.health.govt.nz/our-work/preventative-health-wellness/immunisation/hpv-immunisation-programme
7. Ministry of Health. (2021). *Report on Maternity: further information.* Retrieved from https://www.health.govt.nz/system/files/documents/publications/report-on-maternity-further-information-dec21.pdf
8. Ministry of Health. (2023). *Ngā Pokenga Paipai Me Ngā Pokenga Huaketo Mā Te Toto: Te Rautaki O Aotearoa 2023–2030 | Aotearoa New Zealand Sexually Transmitted and Blood Borne Infection Strategy 2023–2030.* Wellington: Ministry of Health.
9. New Zealand Sexual Health Society. (2020, September). *Syphilis in Pregnancy: Antenatal Management Guidelines for maternal and congenital syphilis.* Retrieved from The New Zealand Sexual Health Society Incorporated: https://www.nzshs.org/docman/guidelines/management-of-sexual-health-conditions/syphilis/syphilis-in-pregnancy/397-syphilis-in-pregnancy-v1-sep-2020/file
10. PHARMAC. (2018). *Decision to fund HIV pre-exposure prophylaxis (PrEP)*. Retrieved from https://pharmac.govt.nz/news-and-resources/consultations-and-decisions/decision-to-fund-hiv-pre-exposure-prophylaxis-prep
11. Pharmac Te Pātaka Whaioranga. (2022, June 15). *Decision to widen access to antiretrovirals and nitrofurantoin*. Retrieved from https://pharmac.govt.nz/news-and-resources/consultations-and-decisions/2022-06-15-decision-to-widen-access-to-antiretrovirals-and-nitrofurantoin
12. The Kirby Institute. (2022). *National surveillance data.* Retrieved from https://www.data.kirby.unsw.edu.au/
13. Waitangi Tribunal. (2019). *Hauora; Report on Stage One of the Health Services and Outcomes Kaupapa Inquiry.* Legislation Direct. Retrieved from https://forms.justice.govt.nz/search/Documents/WT/wt_DOC_152801817/Hauora%20W.pdf
14. World Health Organization. (2021). *Global guidance on criteria and processes for validation: elimination of mother-to child transmission of HIV, syphilis and hepatitis B virus.* Geneva: World Health Organization.

APPENDIX 1: ADDITIONAL TABLES

INFECTIOUS SYPHILIS: NUMBER OF PARTNERS IN PAST 3 MONTHS BY SEXUAL BEHAVIOUR: 2024

Table 14: Number of partners in past three months by sexual behaviour of case and sex of partner: 2024

	MSM	MSW	WSM	WSW
No. of partners				
0	10	30	8	0
1	104	57	77	3
2–4	171	50	26	1
5–10	88	5	3	0
10+	46	9	1	0
Unknown	14	35	6	0

GONORRHOEA: NUMBER OF PARTNERS IN PAST 3 MONTHS BY SEXUAL BEHAVIOUR: 2024

Table 15: Number of partners in past three months by sexual behaviour of case and sex of partner: 2024

	MSM	MSW	WSM	Total
No. of male partners				
0	17	58	3	78
1	101	6	73	180
2–4	148	13	16	177
5–9	65	3	7	75
10–15	35	0	0	35
>15	27	5	0	32
Unknown	43	66	6	115
No. of female partners				
0	169	16	46	231
1	24	57	2	83
2–4	11	30	1	42
5–9	2	3	0	5
10–15	1	3	0	4
>15	1	1	0	2
Unknown	1	1	0	2
Total	**645**	**262**	**154**	**1,061**

APPENDIX 2: DESCRIPTION OF STI SURVEILLANCE AND METHODOLOGY

PHF Science undertakes sexually transmitted infection (STI) surveillance on behalf of the Ministry of Health. The purposes on New Zealand STI surveillance system are:

- to understand the burden of disease (as an input to planning, policy development, prioritisation and resource allocation),
- to monitor inequalities in the burden of disease between population groups,
- to monitor trends in the burden of disease over time,
- to identify emerging problems, and outbreaks or clusters of disease, and
- to evaluate the effectiveness of policies and programmes.

Before the Health (Protection) Amendment Act 2016 came into force, STI surveillance comprised a combination of voluntary sentinel clinic surveillance from Sexual Health and Family Planning Clinics, enhanced syphilis surveillance from these clinics, and laboratory surveillance of chlamydia and gonorrhoea. Significant changes were made to the STI surveillance system after the Health (Protection) Amendment Act 2016 came into force in January 2017, making syphilis, gonorrhoea, HIV and AIDS notifiable to the Medical Officer of Health without identifying information (name, address and place of work), whereas previously only AIDS was notifiable. Because these diseases were the first to require notification without identifying information, there were substantial administrative difficulties designing and implementing a system which would integrate with the existing notifiable disease database EpiSurv. After significant delays, an interim solution was put in place from November 2018 using REDCap, a secure web application hosted on an PHF Science server, to collect data for syphilis, gonorrhoea and HIV in a survey format. This interim system remains in place. Each part of the system is described below.

REDCAP

REDCap is a secure web application hosted on an PHF Science server to collect notification/enhanced data for syphilis, gonorrhoea and HIV in a survey format. Sexual health clinic staff have individual logins to REDCap, managed by PHF Science. This means they can enter data and update information as required.

Gonorrhoea enhanced data can also be entered by non-sexual health clinic staff, such as general practitioners, by entering a generic survey website link which provides one-time access to a REDCap survey. Clinicians are directed to this link along with the positive laboratory result. Once the form is completed the clinician cannot access the form again.

Gonorrhoea case notifications entered into REDCap can be matched with laboratory data by NHI which provides an indication of how many cases are not notified (underreporting), and by comparing basic demographics, how representative notified cases are.

For syphilis, laboratory results are not automatically notified. Clinicians are directed to notify the case when a reactive laboratory result is received. Clinicians notify either using REDCap (sexual health clinics) or faxing a PDF (all other clinicians). Sexual health clinics and public health units can access all syphilis data in REDCap from within their own region only without identifying details. Most large sexual health clinics report accessing and auditing cases in REDCap; very few PHU's report accessing data in REDCap for surveillance purposes although this has changed somewhat in 2021 with support from PHF Science and reactivation of the syphilis action plan.

Syphilis cases diagnosed by clinicians outside a sexual health clinic are directed from the laboratory result to download a PDF from the PHF Science website and notify via fax. PDF forms can be completed either digitally or by hand. Faxes are received by PHF Science reception, automatically converted to a PDF email attachment and forwarded to a generic PHF Science support email. This is then forwarded to an PHF Science syphilis surveillance email address after which the PDF is printed, entered into REDCap and filed.

Limitations of REDCap data

Comparison of gonorrhoea laboratory and REDCap notifications in 2024 show that clinical notifications were made for just over half (4118/7581, 54%) of total positive cases. Approximately 15% of clinical notifications could not be matched to laboratory notifications, either because no NHI was provided or data entry errors. Analysis has shown that cases in Auckland and cases of Māori and Pacific peoples ethnicity are underrepresented in clinical notifications. Representativeness with regard to sexual behaviour is unknown because this information is not collected for laboratory data.

Manual data entry to the REDCap forms and a large number of fields to complete, is likely to significantly contribute to underreporting.

Likewise, syphilis notifications are often incomplete. Because there is no laboratory reporting of syphilis, the degree of underreporting at a national level is currently unknown but there is no reason to assume this is much different from gonorrhoea notification. There is often requirement for follow up by PHF Science to determine the case definition. Long complex case report forms with multiple manual steps for access and data entry are a significant issue for clinicians and for the quality of surveillance data.

The numbers reported in this report reflect those in REDCap on date of extraction. As this surveillance database can be updated by clinicians at any time, the counts and rates presented here may differ from those included in previous reports.

LABORATORY DATA

All laboratories in NZ have provided all positive and negative test results for chlamydia and gonorrhoea monthly since 2015. Demographic information, individual identifiers (NHI or provisional individual identifier), and site of infection are provided with the laboratory results.

Test results are received via excel spreadsheets into a portal, cleaned using R scripts and housed in SQL servers. Once cleaned, they are sent to the Ministry to be matched by NHI for ethnicity. This enables identification of all negative and positive results, duplicate results, testing coverage, proportion positive and reinfections by age, sex, region, and ethnicity. Identification of duplicate results by NHI ensure only one positive result is counted for each episode, and multiple tests and episodes for the same person can be identified over time (Table 14).

Table 14: Time period to identify duplicate tests to determine one episode/case

Chlamydia	< 6 weeks after a previous positive test
Gonorrhoea	Culture <10 days after previous positive test (it does not matter if previous positive test was a NAAT or culture)
	NAAT <=21 days after the previous positive test (it does not matter if previous positive test was a NAAT or culture)

Limitations of laboratory data

Approximately 6% of laboratory notifications are missing NHI and therefore cannot be matched to ethnicity. Although all laboratories report chlamydia and gonorrhoea tests and results, not all laboratories report AMR testing and results for gonorrhoea. Although nearly all positive culture results undergo AST for ceftriaxone, this is not the case for other antibiotics. Therefore, information on AMR collected may not be generalizable.

SENTINEL CLINIC DATA

Annually, collaborating sentinel Sexual Health clinics manually extract data and provide aggregate data to PHF Science via excel spreadsheets. This includes the total number of clinic consultations for lymphogranuloma venereum and first episode genital warts by age, sex, ethnicity, gender identity and sexual behaviour where available.

In November 2018, sentinel enhanced syphilis surveillance ceased as the notification system using REDCap was implemented, and in January 2019, clinic collection of chlamydia and gonorrhoea ceased.

Generalisability of clinic data

Clinics participating in STI sentinel surveillance are located in cities and some larger rural towns. First episodes of genital warts are also be seen in other sexual health clinics, Sexual Wellbeing Aotearoa clinics and General Practices. The sentinel clinic surveillance data can provide an alert for changes occurring in the wider population.

Limitations of clinic data

Methods for data extraction and data quality and completeness vary by clinic and will depend on coding completeness. Manual processes for data extraction, aggregation, entry and transfer using excel spreadsheets and email introduces potential for errors. The representativeness of the data is unknown as there is no sample strategy.

ANALYTIC METHODS

Numerator data

- Gonorrhoea positive cases (episodes): the total number of laboratory-confirmed cases (Table 13) reported after exclusion of repeat tests for an individual within a defined episode period.
- Chlamydia positive cases (episodes): the total number of laboratory-confirmed cases reported after exclusion of repeat tests for an individual within a defined episode period.
- Gonorrhoea positive test: the total of all positive results for gonorrhoea regardless of type of test, specimen type or time in-between test (not deduplicated).
- Chlamydia positive test: the total of all positive results for chlamydia regardless of specimen type or time in-between test (not deduplicated).
- Number of syphilis cases by sexual behaviour: the number of cases reported by sexual behaviour.

Denominator data

- New Zealand population by ethnicity: the proportion of people in each ethnic group from the 2018 Census 'usually resident population' applied to the 2024 mid-year population estimates from Statistics New Zealand. Ethnicity is prioritised in the following order: Māori, Pacific peoples, Asian, Middle Eastern/Latin American/African (MELAA), European or Other (including New Zealander) ethnic groups.
- Estimated New Zealand population by sexual behaviour: The denominator for MSM was calculated by multiplying the male population between 16 and 74 years of age (by the proportion of MSM estimated by the health survey 2014/2015 (2.6%). The remaining 97.4% of the male population between 16 and 74 was considered to be MSW and for women, the entire female population between 16 and 74 was considered WSM.
- An updated approach for calculating population estimates by age, sex, district, and ethnicity was used for this report, resulting in minor changes to the population denominators compared to the 2023 supplementary report.

Rates calculations:

- General: Calculating rates from fewer than five cases produces rates that are unstable for the purpose of comparison and are therefore not calculated. Caution is also advised when interpreting and comparing rates based on fewer than 20 cases. It is important when interpreting the results to consider the size of the risk group in the denominator, since rates calculated in smaller groups can have wide confidence intervals. Prioritised ethnicity is provided by the Ministry of Health using NHI number provided by the laboratories. Where NHI is not provided, ethnicity is described as 'unknown'.
- Testing coverage rates (people tested): the number of people tested based on NHI and patient ID numbers and using the age and location of the individual at the time of the first test of the year. These rates do not include multiple tests within the year for the same individual.
- Rate of syphilis by sexual behaviour: the reported number of cases by sexual behaviour was divided by the estimated NZ population by sexual behaviour and multiplied by 100,000 for a rate of syphilis per 100,000 population.
- Rate of gonorrhoea by sexual behaviour: the proportion of cases by sexual behaviour from clinical notifications is applied to laboratory notifications, divided by the estimated NZ population by sexual behaviour and multiplied by 100,000 for a rate of gonorrhoea per 100,000 population.

Age groups

For this publication we have adopted the age groups that are also used by the Kirby Institute to present Australian data: 0–14, 15–19, 20–24, 25–29, 30–39, 40+. Several different age groupings have been used previously across different New Zealand publications. Following the Australian data will allow us to directly compare by age groups to Australia. It provides for more detail at ages for which numbers are much higher. It is limited to six age categories, which gives enough detail and makes the graphs look clearer than with more age categories. However, it does result in loss of detail at higher ages and these data can be requested as needed.

NEW ZEALAND INSTITUTE FOR PUBLIC HEALTH AND FORENSIC SCIENCE LIMITED

- **Kenepuru Science Centre**
  34 Kenepuru Drive, Kenepuru, Porirua 5022
  PO Box 50348, Porirua 5240
  New Zealand
  T: +64 4 914 0700
- **Mt Albert Science Centre**
  120 Mt Albert Road, Sandringham, Auckland 1025
  Private Bag 92021, Auckland 1142
  New Zealand
  T: +64 9 815 3670
- **Wallaceville Science Centre**
  66 Ward Street, Wallaceville, Upper Hutt 5018
  PO Box 40158, Upper Hutt 5140
  New Zealand
  T: +64 4 529 0600
- **Christchurch Science Centre**
  27 Creyke Road, Ilam, Christchurch 8041
  PO Box 29181, Christchurch 8540
  New Zealand
  T: +64 3 351 6019

www.phfscience.nz