Queensland Health

Notifications of Syphilis in Queensland 2022 report

Public Health Intelligence Branch

Queensland Government

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For more information contact:

Public Health Intelligence Branch, Queensland Health, GPO Box 48, Brisbane QLD 4001, email EPI@health.qld.gov.au, phone (07) 3328 9728.

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Summary

Between 2001 and 2022, there was an increase in annual infectious syphilis notifications in Queensland, from 112 cases to 1,090 cases. The corresponding annual notification rates for this period increased from 3.1 cases per 100,000 population per year to 21.1 cases per 100,000 population per year.

Late latent syphilis notifications increased from 154 cases (4.2 per 100,000 population per year) in 2001 to 370 cases (7.1 per 100,000 population per year) in 2022.

The gap in infectious syphilis notification rates between First Nations Queenslanders and other Queenslanders has been widening, with the rate in First Nations Queenslanders 6.5 times higher than the rate for other Queenslanders in 2022.

In 2022, the highest notification rates of infectious syphilis were reported in First Nations males (117.4 per 100,000 population per year) and First Nations females (98.6 per 100,000 population per year), followed by other Queenslander males (27.7 per 100,000 population per year), and other Queenslander females (5.7 per 100,000 population per year).

In 2022 there were 1,090 infectious syphilis notifications in Queensland:

- 169 cases (16%) were from North Queensland, of which 24% were among First Nations Queenslanders reporting only heterosexual sex as their exposure, and 16% among other Queenslander men who have sex with men (MSM).
- 136 cases (12%) were from Central Queensland, of which 43% were among First Nations Queenslanders reporting only heterosexual sex as their exposure, and 12% among other Queenslander MSM.
- 783 cases (72%) were from South East Queensland, of which 50% were among other Queenslander MSM, and 22% among other Queenslanders reporting only heterosexual sex as their exposure.

Between 2010 and 2022, 2,398 syphilis cases (infectious/late latent) were notified in women of reproductive age (15–44 years), of which 54% (1,047) were in First Nations women from North Queensland, and 30% (705) were in other Queenslander women from South East Queensland.

In the same period, there were 494 syphilis notifications (infectious/late latent) in pregnant women in Queensland:

- 233 (47%) were in pregnant women from North Queensland (191 First Nations and 42 other Queenslanders).
- 62 (13%) were in pregnant women from Central Queensland (31 First Nations, 30 other Queenslanders and one unknown First Nations status).
- 199 (40%) were in pregnant women from South East Queensland (33 First Nations, 165 other Queenslanders and one unknown First Nations status).

Between 2001 and 2022, 44 congenital syphilis cases were notified in Queensland:

- 26 cases were from North Queensland (24 First Nations and 2 other Queenslanders).
- 4 cases were from Central Queensland (2 First Nations and 2 other Queenslanders).
- 14 cases were from South East Queensland (5 First Nations and 9 other Queenslanders).
- Statewide there were 13 deaths associated with congenital syphilis infections (11 in North Queensland, 1 in Central Queensland and 1 in South East Queensland), all in First Nations infants.

Introduction

Syphilis is a multistage disease caused by bacteria *Treponema pallidum*, subspecies *pallidum*. It is frequently sexually transmitted but may also be acquired by vertical transmission from mother to child. The organism was first identified in 1905.[1]

Syphilis is infectious during the first 2 years of infection if untreated.[2] However, sexual transmission is uncommon after 2 years of infection. The risk of vertical transmission from mother to child is high for untreated infectious syphilis, with the risk diminishing over years with latent infection but never disappearing.

Globally, 6.3 million people are infected with syphilis each year, with an estimated incidence rate of 170 cases per 100,000 population per year in women and 160 cases per 100,000 population per year in men.[3,4] Most syphilis infections occur in low-income countries where transmission is largely heterosexual. In high-income countries, syphilis is less common and disproportionately affects some populations, such as people experiencing disadvantage, ethnic minorities, and men who have sex with men.[5]

Each year, 1 million pregnant women worldwide are estimated to be infected with syphilis, which results in 661,000 congenital syphilis cases, 355,000 of which are associated with foetal and neonatal deaths.[6]

Syphilis may increase the risk of HIV infection, as syphilitic genital ulcers provide a portal of entry for HIV acquisition, and a focus for HIV transmission.[4]

Syphilis is a notifiable disease in Queensland under the *Public Health Act 2005* and *Public Health Regulation 2018*. All laboratory-diagnosed positive syphilis test results are notified and recorded in the Notifiable Conditions System (NoCS). The Queensland Syphilis Surveillance Service (north and south teams) reviews all notified syphilis cases, and provides the treating clinician with information about a patient's history of syphilis testing and treatment to support accurate staging of infection and clinical management. The service also plays a key role in enhanced surveillance data collection, education on syphilis, and may assist with contact tracing.

This report describes temporal trends in syphilis notifications in Queensland residents during the period 2001–2022, and demographic and geographic distributions of notified syphilis cases in the last decade (2010–2022). Data were extracted from NoCS on 12 October 2023, covering notifications (confirmed or probable) with onset dates between 1 January 2001 and 31 December 2022. Data are provisional and subject to change due to ongoing case investigations and data cleaning activities.

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[1] Bennett J, Dolin R, Blaser M. Blaser. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases. Eighth edition. Philadelphia, PA: Elsevier/Saunders, 2015

[2] Syphilis CDNA National Guidelines for Public Health Units. https://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-syphilis.htm

[3] Rowley J, et al. Chlamydia, gonorrhoea, trichomoniasis and syphilis: global prevalence and incidence estimates, 2016. Bulletin of the World Health Organization vol. 97,8 (2019): 548-562P. doi:10.2471/BLT.18.228486

[4] World Health Organization. (2018). Report on global sexually transmitted infection surveillance 2018. World Health Organization. https://apps.who.int/iris/handle/10665/277258

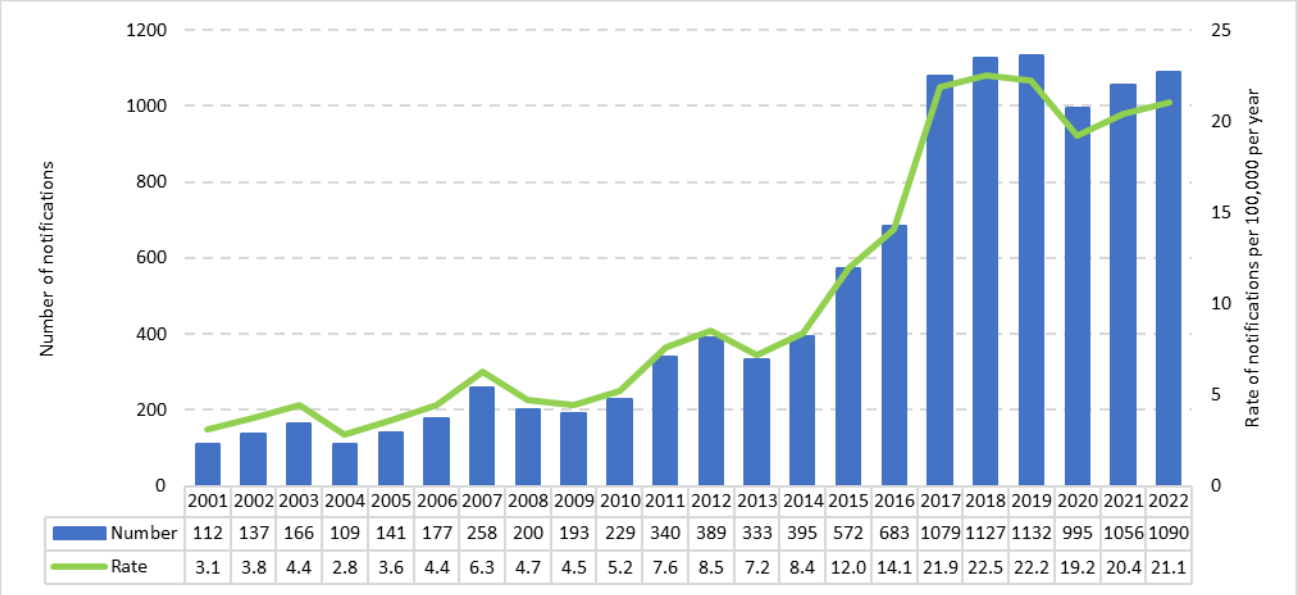
[5] Hook EW. Syphilis. Lancet. 2017 Apr 15;389(10078):1550-1557. doi: 10.1016/S0140-6736(16)32411-4

[6] Korenromp EL, et al. Global burden of maternal and congenital syphilis and associated adverse birth outcomes-Estimates for 2016 and progress since 2012. PLoS One. 2019 Feb 27;14(2): e0211720. doi: 10.1371/journal.pone.0211720

Syphilis notifications

Temporal trends of infectious syphilis (infection duration < 2 years)

Figure 1: Number and rate (per 100,000 population per year) of infectious syphilis notifications in Queensland, 2001 –2022*



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Number	112	137	166	109	141	177	258	200	193	229	340	389	333	395	572	683	1079	1127	1132	995	1056	1090
Rate	3.1	3.8	4.4	2.8	3.6	4.4	6.3	4.7	4.5	5.2	7.6	8.5	7.2	8.4	12.0	14.1	21.9	22.5	22.2	19.2	20.4	21.1

* See Appendix 1 for the infectious syphilis definition.

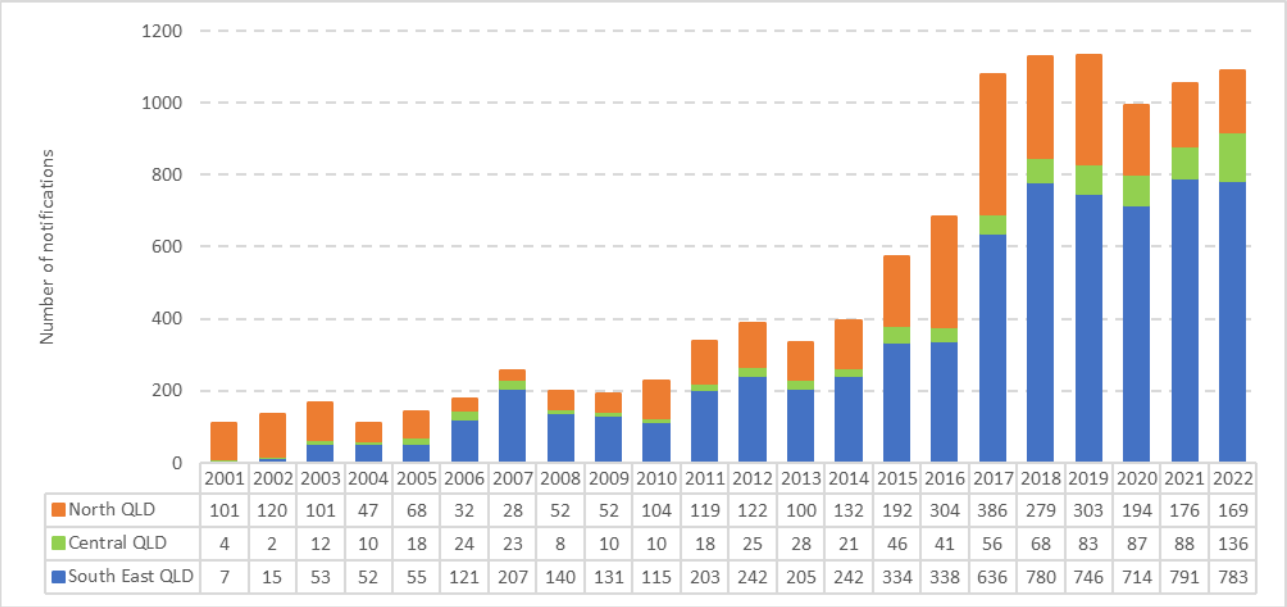
- There was a gradual increase in infectious syphilis notifications in Queensland, from 112 cases in 2001 to 395 cases in 2014, followed by a more rapid increase in notifications to a total of 1,132 cases in 2019 and slight decrease to 1,090 cases in 2022.[7]
- State-wide, infectious syphilis notification rates increased from 3.1 per 100,000 population per year in 2001 to 8.4 per 100,000 population per year in 2014, then further increased to 22.2 per 100,000 population per year in 2019 and decreased slightly to 21.1 per 100,000 population per year in 2022.
- A similar upward trend in infectious syphilis notification rates was observed Australia-wide, from 6.7 per 100,000 population per year in 2012 to 23.9 per 100,000 population per year in 2019 and decreasing to 22.7 per 100,000 population per year in 2021.[8]

[7] National surveillance case definitions for infectious syphilis changed on 1 July 2015 to also include probable cases in addition to confirmed cases, where in Queensland this change was implemented in January 2015. Of 7,734 infectious syphilis cases notified during 2015–2022, 969 (13%) were classified as probable cases, indicating the impact of change in case definitions on the increase of infectious syphilis cases is marginal.

[8] Kirby Institute. HIV, viral hepatitis and sexually transmissible infections in Australia: annual surveillance report 2022. Sydney: Kirby Institute, University of NSW, 2022.

https://www.kirby.unsw.edu.au/sites/default/files/documents/Annual-Surveillance-Report-2022_STI.pdf

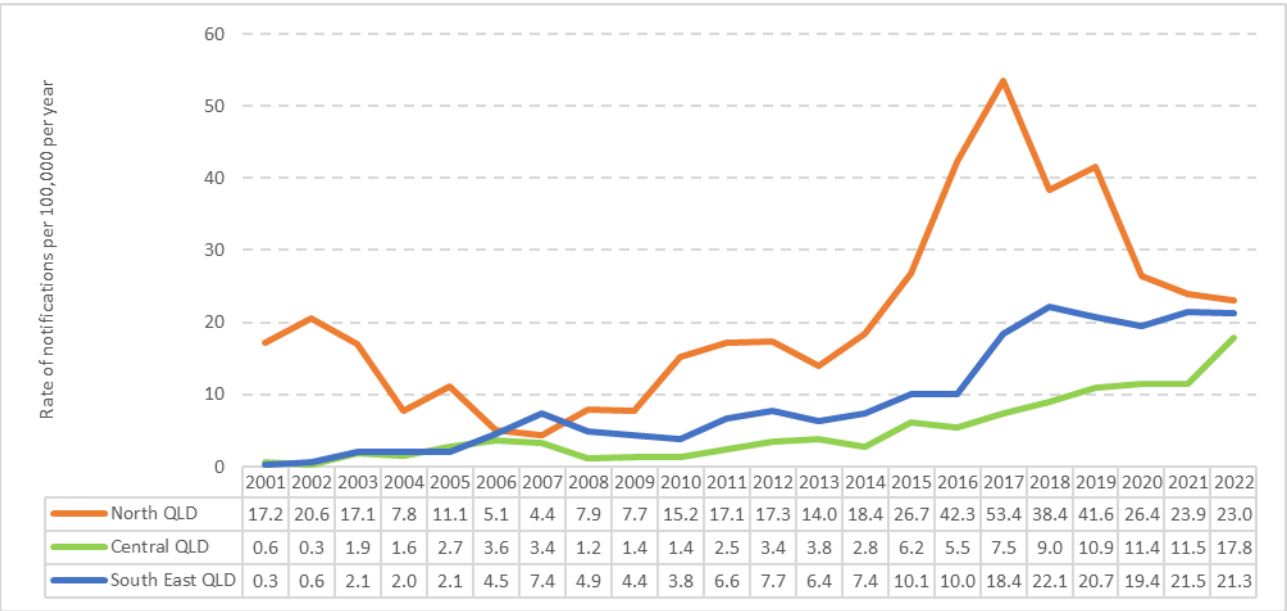
Figure 2: Number of infectious syphilis notifications in Queensland, by region, 2001–2022*



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
North QLD	101	120	101	47	68	32	28	52	52	104	119	122	100	132	192	304	386	279	303	194	176	169
Central QLD	4	2	12	10	18	24	23	8	10	10	18	25	28	21	46	41	56	68	83	87	88	136
South East QLD	7	15	53	52	55	121	207	140	131	115	203	242	205	242	334	338	636	780	746	714	791	783

* North QLD area: Torres and Cape, North West, Cairns and Hinterland, Townsville, Mackay. Central QLD area: Central West, Central Queensland, Wide Bay, South West, Darling Downs. South East QLD area: Sunshine Coast, Metro North, Metro South, West Moreton, Gold Coast.

Figure 3: Rate (per 100,000 population per year) of infectious syphilis notifications in Queensland, by region, 2001–2022

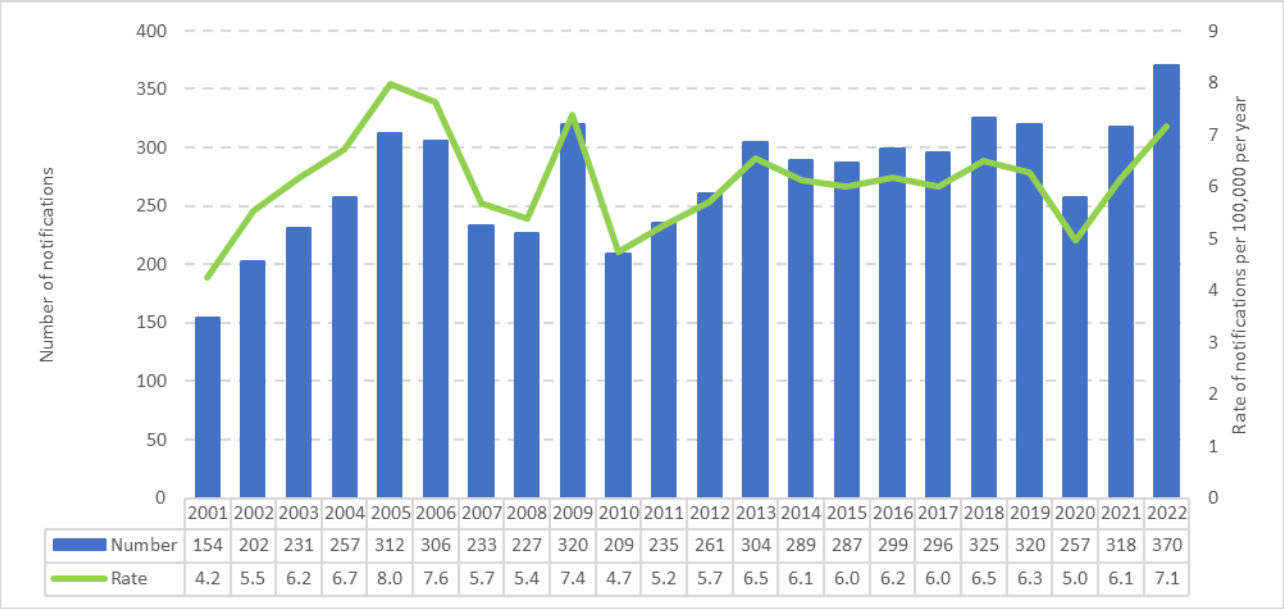


	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
North QLD	17.2	20.6	17.1	7.8	11.1	5.1	4.4	7.9	7.7	15.2	17.1	17.3	14.0	18.4	26.7	42.3	53.4	38.4	41.6	26.4	23.9	23.0
Central QLD	0.6	0.3	1.9	1.6	2.7	3.6	3.4	1.2	1.4	1.4	2.5	3.4	3.8	2.8	6.2	5.5	7.5	9.0	10.9	11.4	11.5	17.8
South East QLD	0.3	0.6	2.1	2.0	2.1	4.5	7.4	4.9	4.4	3.8	6.6	7.7	6.4	7.4	10.1	10.0	18.4	22.1	20.7	19.4	21.5	21.3

- There has been a gradual increase in infectious syphilis notification rates in both Central Queensland and South East Queensland areas since 2001, with a more rapid increase in South East Queensland since 2016.
- In North Queensland, following an initial decrease in notification rates from 17.2 per 100,000 population per year in 2001 to 4.4 per 100,000 population per year in 2007, there was a subsequent increase in rates to 18.4 per 100,000 population per year in 2014. After that, there was a more rapid increase in notification rates, with a peak of 53.4 per 100,000 population per year in 2017, followed by a decrease to 23.0 per 100,000 population per year in 2022.

Temporal trends of late latent syphilis (infection duration ≥ 2 years or unknown)

Figure 4: Number and rate (per 100,000 population per year) of late latent syphilis notifications in Queensland, 2001 –2022*

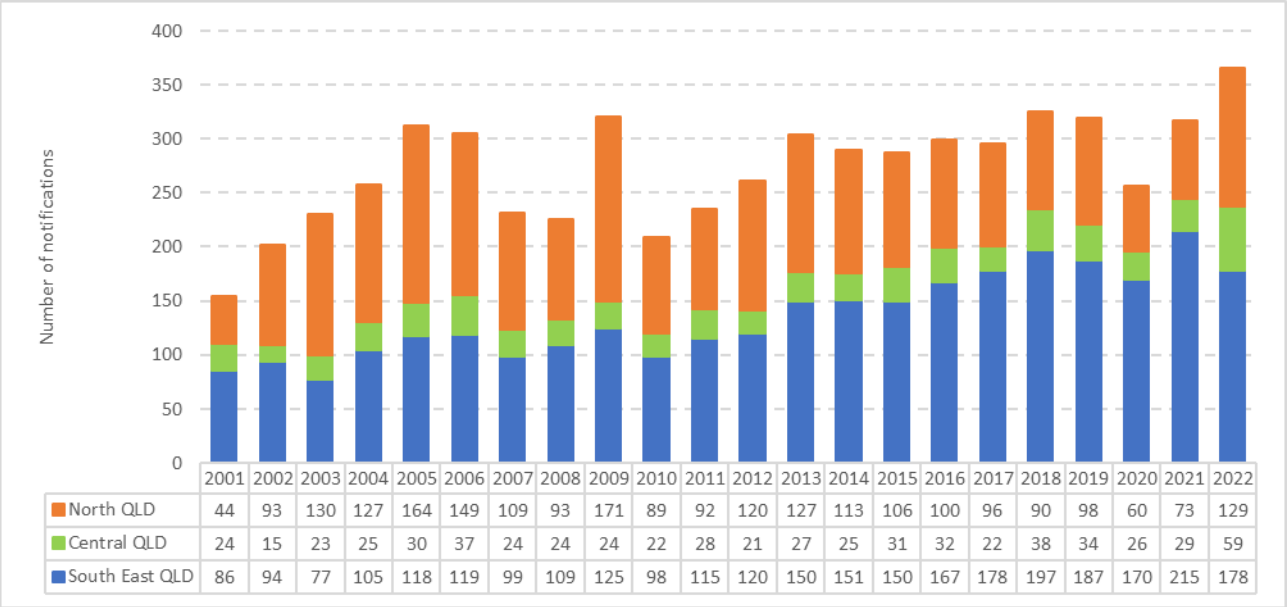


	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Number	154	202	231	257	312	306	233	227	320	209	235	261	304	289	287	299	296	325	320	257	318	370
Rate	4.2	5.5	6.2	6.7	8.0	7.6	5.7	5.4	7.4	4.7	5.2	5.7	6.5	6.1	6.0	6.2	6.0	6.5	6.3	5.0	6.1	7.1

* See Appendix 1 for late latent syphilis definition.

- There was a gradual increase in late latent syphilis notifications in Queensland between 2001 (154 cases) and 2005 (312 cases), followed by a fluctuation in notifications from 2006 to 2013. From 2014 to 2021, notifications remained relatively stable, at an average of 299 cases per year, followed by an increase in cases in 2022 (370 cases).
- Late latent syphilis notification rates increased from 4.2 per 100,000 population per year in 2001 to 8.0 per 100,000 population per year in 2005, fluctuated during 2006–2013, remained relatively stable between 2014 and 2021 and then increased to 7.1 per 100,000 population per year in 2022.

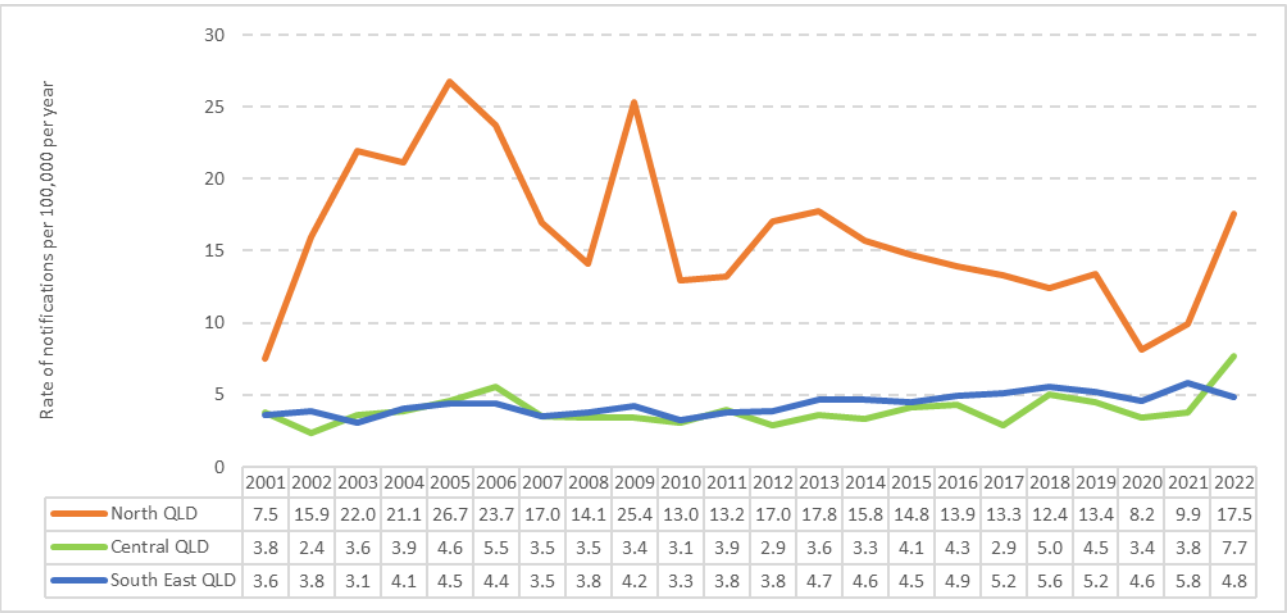
Figure 5: Number of late latent syphilis notifications in Queensland, by region, 2001–2022*



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
North QLD	44	93	130	127	164	149	109	93	171	89	92	120	127	113	106	100	96	90	98	60	73	129
Central QLD	24	15	23	25	30	37	24	24	24	22	28	21	27	25	31	32	22	38	34	26	29	59
South East QLD	86	94	77	105	118	119	99	109	125	98	115	120	150	151	150	167	178	197	187	170	215	178

* North QLD area: Torres and Cape, North West, Cairns and Hinterland, Townsville, Mackay. Central QLD area: Central West, Central Queensland, Wide Bay, South West, Darling Downs. South East QLD area: Sunshine Coast, Metro North, Metro South, West Moreton, Gold Coast.

Figure 6: Rate (per 100,000 population per year) of late latent syphilis notifications in Queensland, by region, 2001–2022

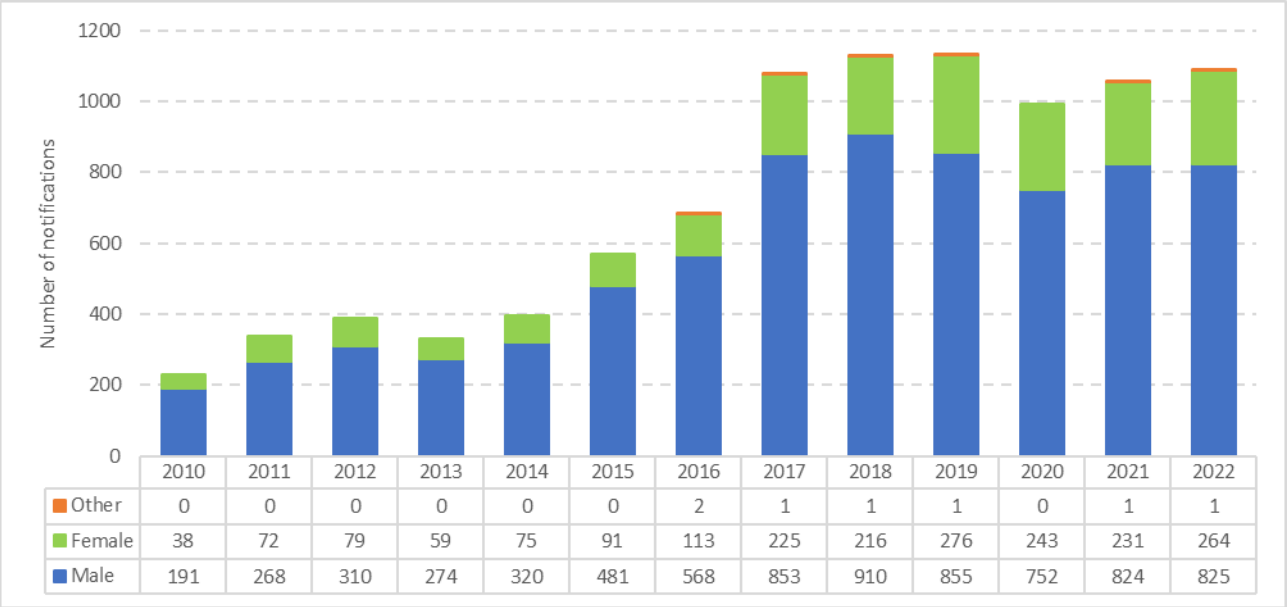


	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
North QLD	7.5	15.9	22.0	21.1	26.7	23.7	17.0	14.1	25.4	13.0	13.2	17.0	17.8	15.8	14.8	13.9	13.3	12.4	13.4	8.2	9.9	17.5
Central QLD	3.8	2.4	3.6	3.9	4.6	5.5	3.5	3.5	3.4	3.1	3.9	2.9	3.6	3.3	4.1	4.3	2.9	5.0	4.5	3.4	3.8	7.7
South East QLD	3.6	3.8	3.1	4.1	4.5	4.4	3.5	3.8	4.2	3.3	3.8	3.8	4.7	4.6	4.5	4.9	5.2	5.6	5.2	4.6	5.8	4.8

- Late latent syphilis notification rates remained relatively stable between 2001 and 2022 in both Central Queensland and South East Queensland areas.
- In North Queensland, following an initial increase in notification rates from 7.5 per 100,000 population per year in 2001 to 26.7 per 100,000 population per year in 2005, there was a downward trend in rates between 2006 and 2021 (with an exception of a single high rate of 25.4 per 100,000 population per year in 2009), followed by an increase to 17.5 per 100,000 population per year in 2022.

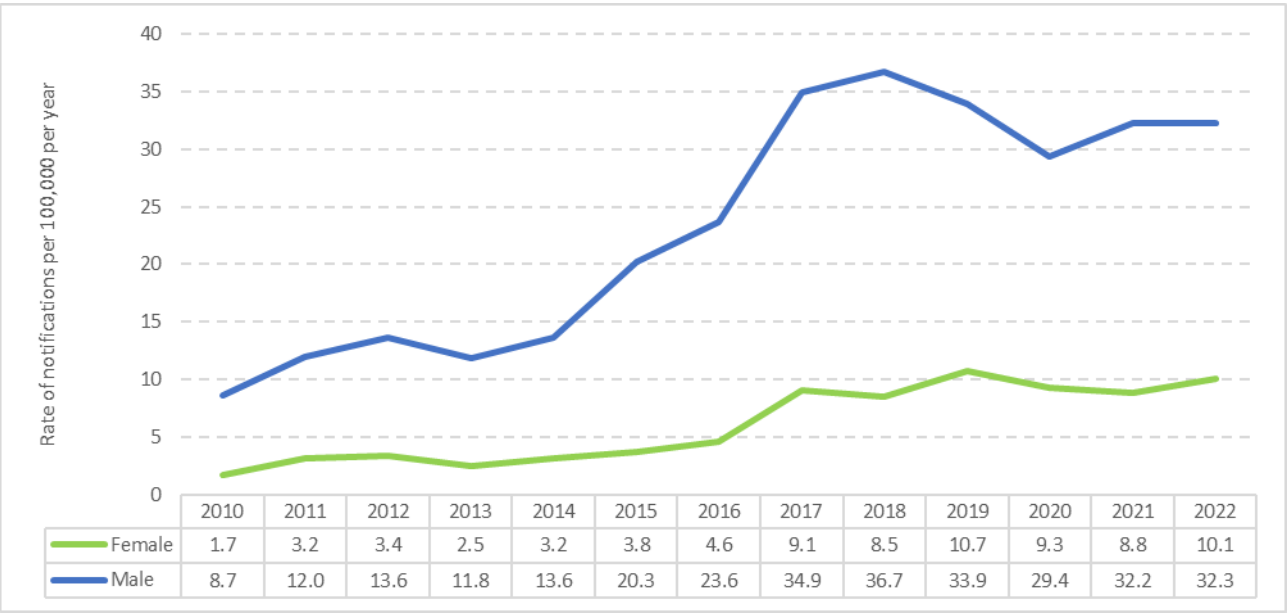
Distribution of infectious syphilis by sex

Figure 7: Number of infectious syphilis notifications in Queensland, by sex, 2010–2022



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Other	0	0	0	0	0	0	2	1	1	1	0	1	1
Female	38	72	79	59	75	91	113	225	216	276	243	231	264
Male	191	268	310	274	320	481	568	853	910	855	752	824	825

Figure 8: Rate (per 100,000 population per year) of infectious syphilis notifications in Queensland, by sex, 2010–2022

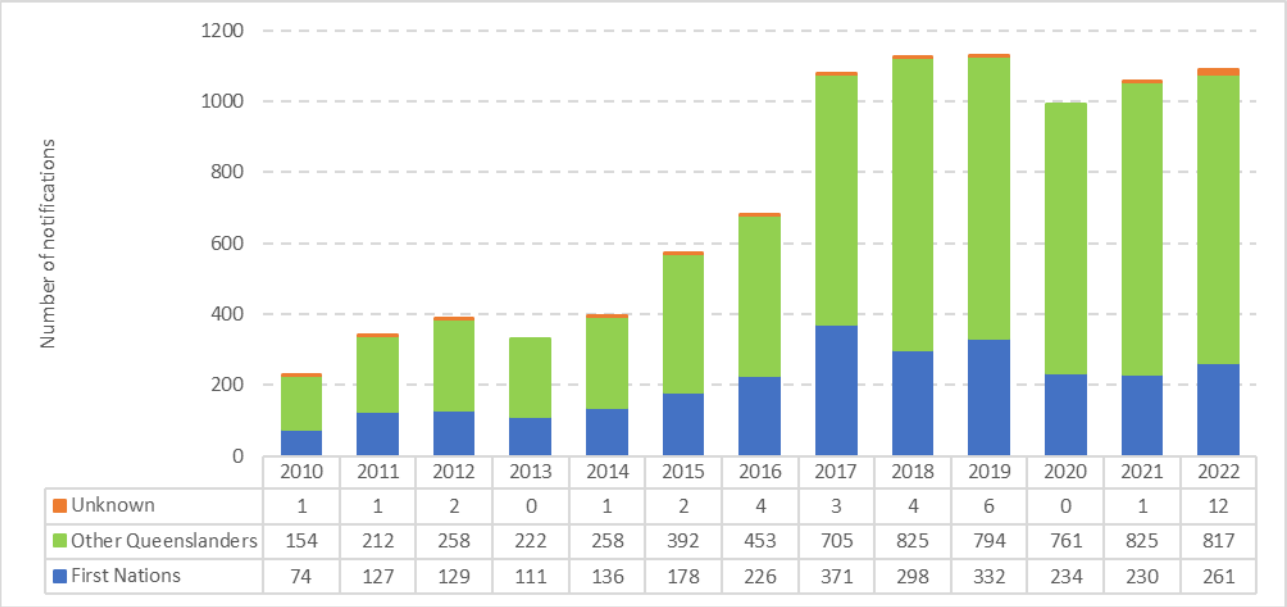


	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Female	1.7	3.2	3.4	2.5	3.2	3.8	4.6	9.1	8.5	10.7	9.3	8.8	10.1
Male	8.7	12.0	13.6	11.8	13.6	20.3	23.6	34.9	36.7	33.9	29.4	32.2	32.3

- Overall, males accounted for the majority (79%) of infectious syphilis notifications in the reporting period 2010–2022 (ranging from 76% to 84%).
- There was a 3.7 times increase in notification rates in males, from 8.7 per 100,000 population per year in 2010 to 32.3 per 100,000 population per year in 2022, with a more rapid increase since 2014.
- There was a 5.9 times increase in notification rates in females, from 1.7 per 100,000 population per year in 2010 to 10.1 per 100,000 population per year in 2022.

Distribution of infectious syphilis by First Nations status

Figure 9: Number of infectious syphilis notifications in Queensland, by First Nations status, 2010–2022



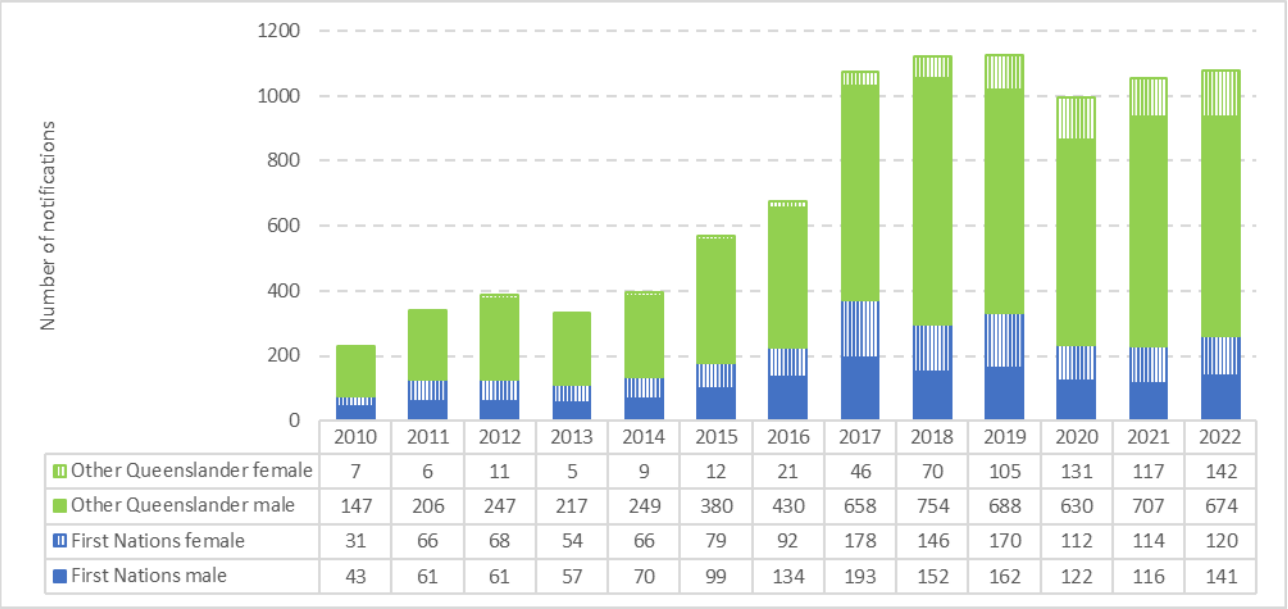
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Unknown	1	1	2	0	1	2	4	3	4	6	0	1	12
Other Queenslanders	154	212	258	222	258	392	453	705	825	794	761	825	817
First Nations	74	127	129	111	136	178	226	371	298	332	234	230	261

Figure 10: Rate (per 100,000 population per year) of infectious syphilis notifications in Queensland, by First Nations status, 2010–2022

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Other Queenslanders	3.7	5.0	5.9	5.0	5.7	8.6	9.8	15.0	17.3	16.3	15.4	16.7	16.6
First Nations	38.1	63.9	63.4	53.4	64.0	82.0	102.1	164.0	128.9	140.4	96.8	95.1	108.0

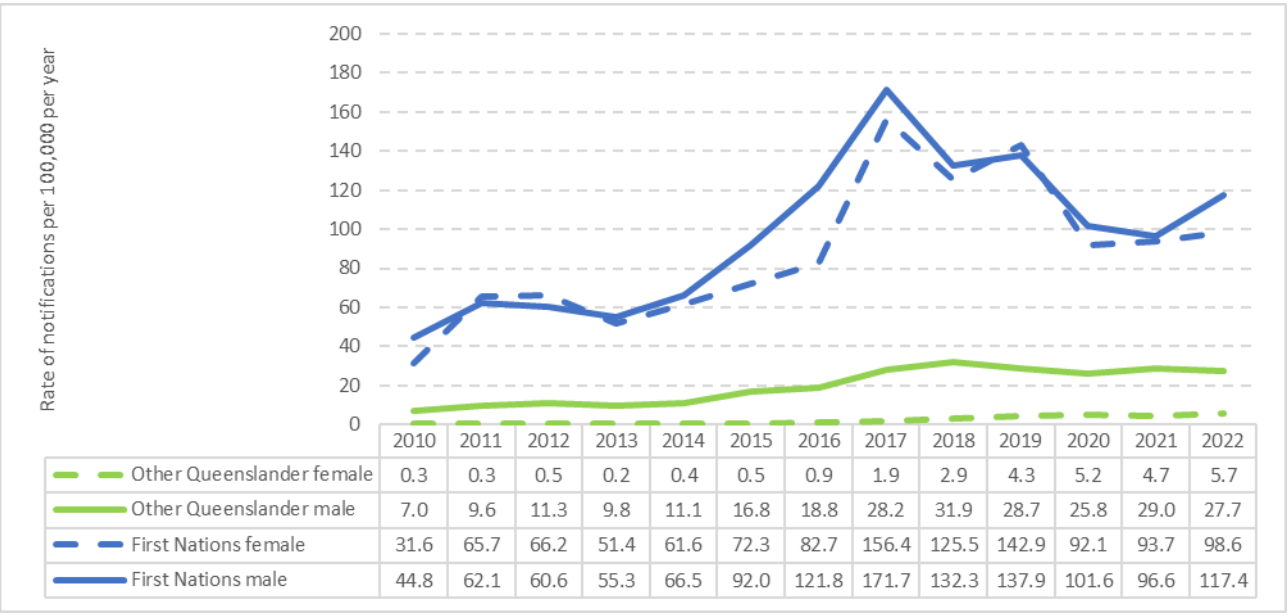
- First Nations Queenslanders accounted for 29% of infectious syphilis notifications during the period 2010–2022 (ranging from 22% to 37%).
- The gap in notification rates between First Nations Queenslanders and other Queenslanders had been widening during the period 2010–2017, followed by a certain level of narrowing between 2018 and 2021 before widening again. In 2022, First Nations Queenslanders had an infectious syphilis notification rate 6.5 times higher than the rate for other Queenslanders.

Figure 11: Number of infectious syphilis notifications in Queensland, by First Nations status and sex, 2010–2022



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Other Queenslander female	7	6	11	5	9	12	21	46	70	105	131	117	142
Other Queenslander male	147	206	247	217	249	380	430	658	754	688	630	707	674
First Nations female	31	66	68	54	66	79	92	178	146	170	112	114	120
First Nations male	43	61	61	57	70	99	134	193	152	162	122	116	141

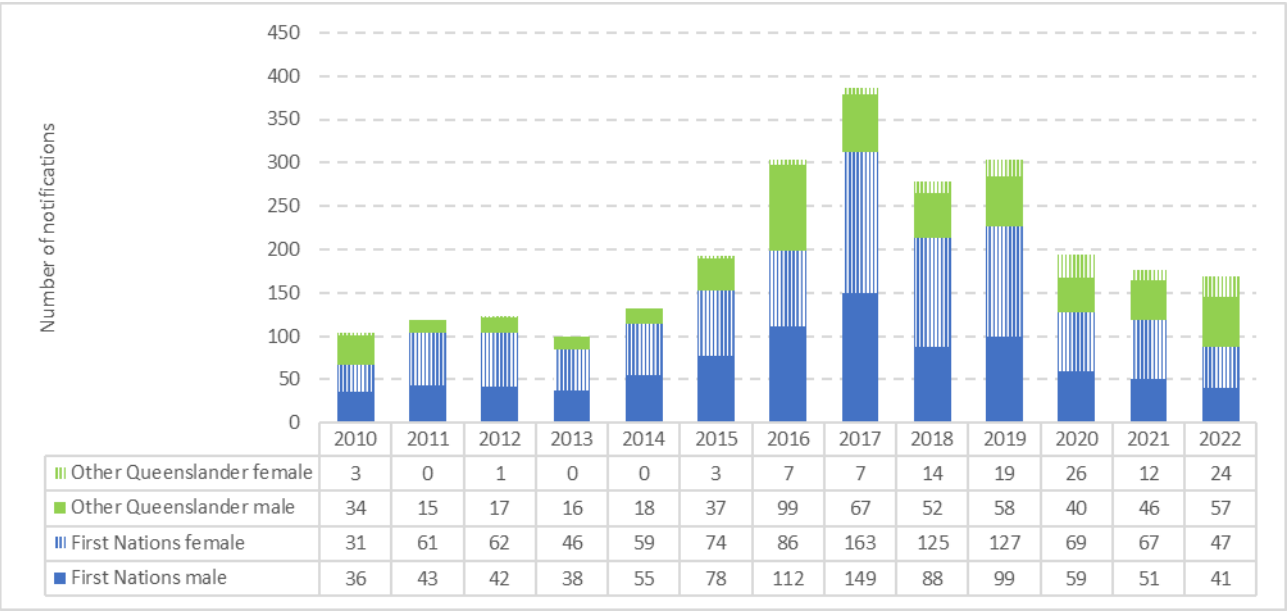
Figure 12: Rate (per 100,000 population per year) of infectious syphilis notifications in Queensland, by First Nations status and sex, 2010–2022



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Other Queenslander female	0.3	0.3	0.5	0.2	0.4	0.5	0.9	1.9	2.9	4.3	5.2	4.7	5.7
Other Queenslander male	7.0	9.6	11.3	9.8	11.1	16.8	18.8	28.2	31.9	28.7	25.8	29.0	27.7
First Nations female	31.6	65.7	66.2	51.4	61.6	72.3	82.7	156.4	125.5	142.9	92.1	93.7	98.6
First Nations male	44.8	62.1	60.6	55.3	66.5	92.0	121.8	171.7	132.3	137.9	101.6	96.6	117.4

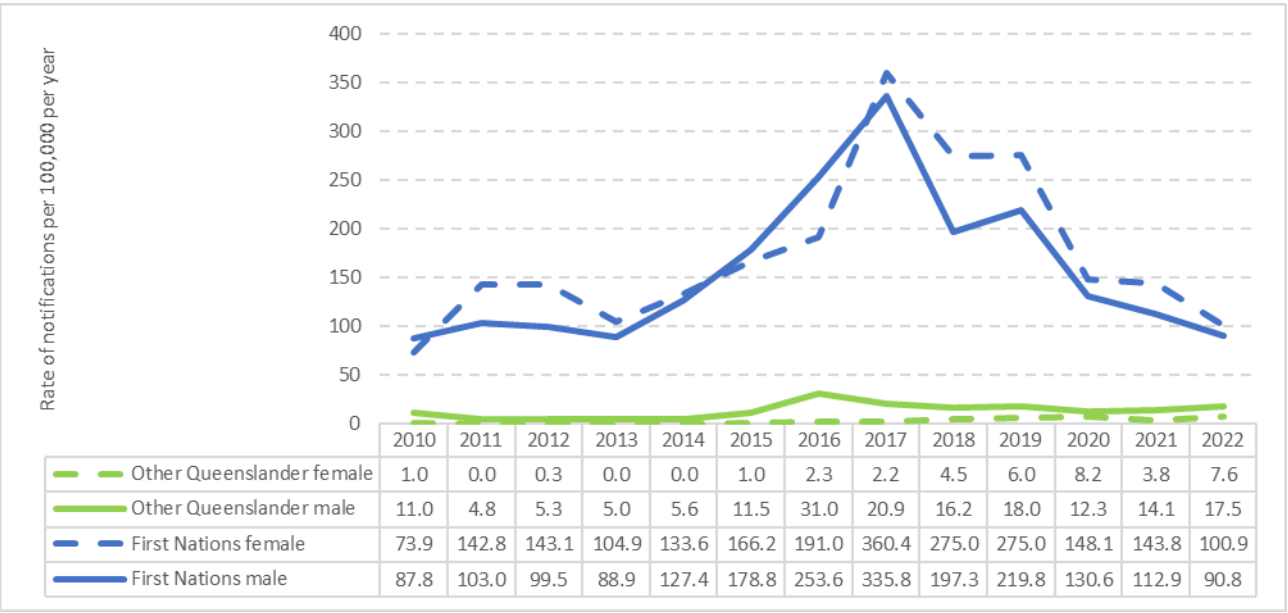
- Between 2010 and 2022, infectious syphilis cases were largely equally distributed among First Nations males and females (52% vs 48%).
- During the same period, the majority of other Queenslander cases were male (90% of the total other Queenslanders cases).
- A similar pattern of infectious syphilis notification rates was observed for First Nations males and females, with an upward trend during 2010-2017 and a downward trend during 2018-2021, followed by an increase in 2022.
- In 2022, the highest notification rates were reported in First Nations males (117.4 per 100,000 population per year) and females (98.6 per 100,000 population per year), followed by other Queenslander males (27.7 per 100,000 population per year), and other Queenslander females (5.7 per 100,000 population per year).

Figure 13: Number of infectious syphilis notifications in North Queensland, by First Nations status and sex, 2010–2022



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Other Queenslander female	3	0	1	0	0	3	7	7	14	19	26	12	24
Other Queenslander male	34	15	17	16	18	37	99	67	52	58	40	46	57
First Nations female	31	61	62	46	59	74	86	163	125	127	69	67	47
First Nations male	36	43	42	38	55	78	112	149	88	99	59	51	41

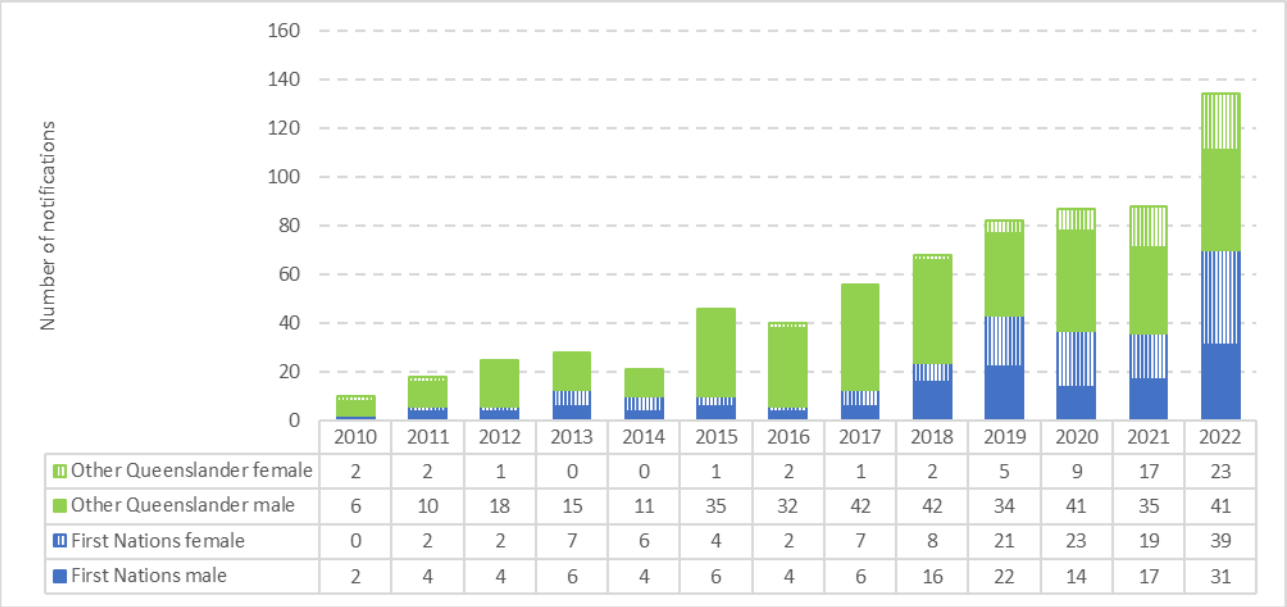
Figure 14: Rate (per 100,000 population per year) of infectious syphilis notifications in North Queensland, by First Nations status and sex, 2010–2022



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Other Queenslander female	1.0	0.0	0.3	0.0	0.0	1.0	2.3	2.2	4.5	6.0	8.2	3.8	7.6
Other Queenslander male	11.0	4.8	5.3	5.0	5.6	11.5	31.0	20.9	16.2	18.0	12.3	14.1	17.5
First Nations female	73.9	142.8	143.1	104.9	133.6	166.2	191.0	360.4	275.0	275.0	148.1	143.8	100.9
First Nations male	87.8	103.0	99.5	88.9	127.4	178.8	253.6	335.8	197.3	219.8	130.6	112.9	90.8

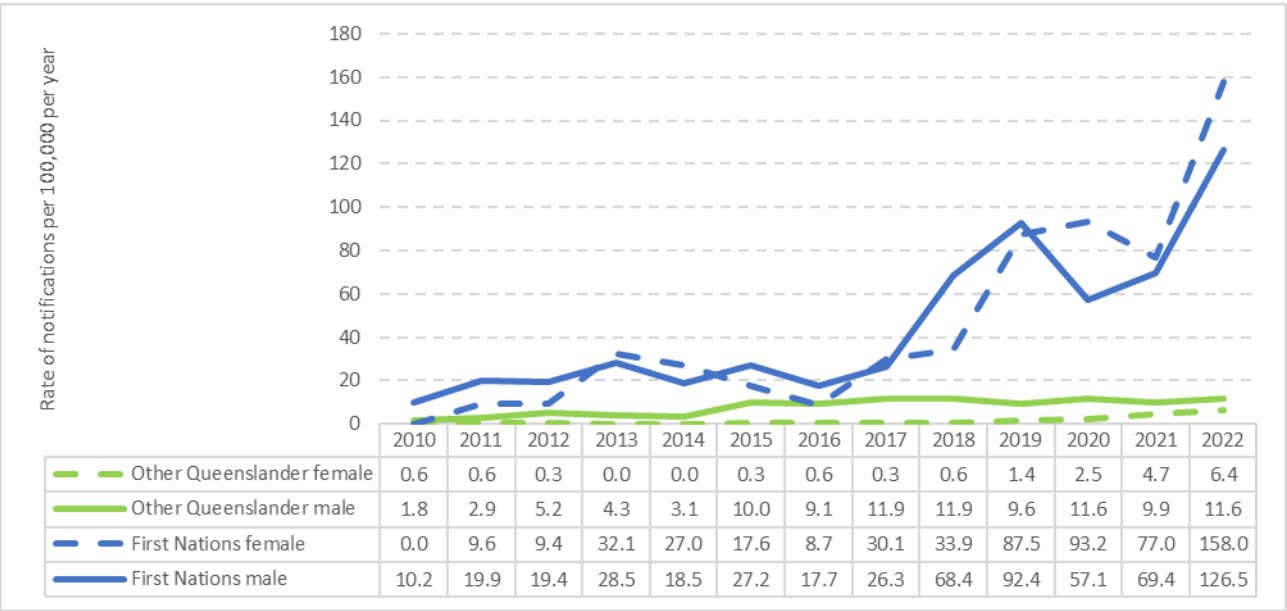
- In North Queensland, both First Nations males and females had the highest rates of infectious syphilis notifications in 2017, more than double that of the state-wide First Nations rates in the same year (shown in Figure 12).
- Compared to the peak rates in 2017 for First Nations males and females, in 2022 there was a 73% reduction in notification rate for First Nations males and 72% reduction for First Nations females.
- For other Queenslander males, notification rates in 2022 were lower than the state-wide rates for other Queenslander males, whereas for other Queenslander females notification rates in 2022 were higher than the respective state-wide rates (shown in Figure 12).

Figure 15: Number of infectious syphilis notifications in Central Queensland, by First Nations status and sex, 2010–2022



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Other Queenslander female	2	2	1	0	0	1	2	1	2	5	9	17	23
Other Queenslander male	6	10	18	15	11	35	32	42	42	34	41	35	41
First Nations female	0	2	2	7	6	4	2	7	8	21	23	19	39
First Nations male	2	4	4	6	4	6	4	6	16	22	14	17	31

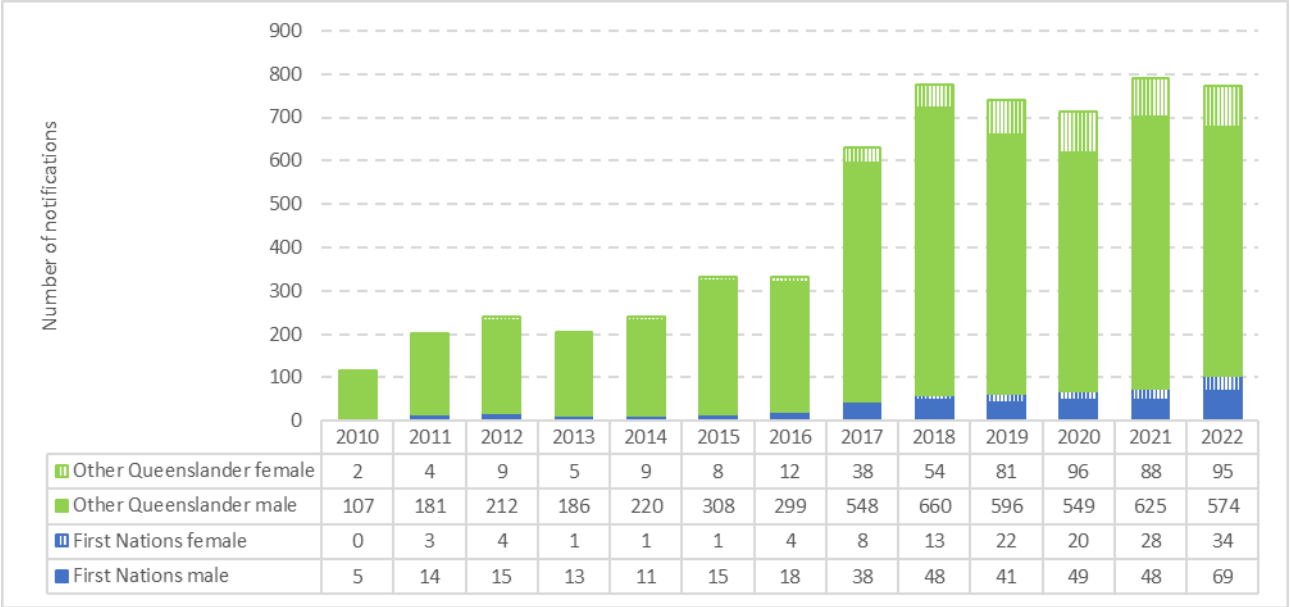
Figure 16: Rate (per 100,000 population per year) of infectious syphilis notifications in Central Queensland, by First Nations status and sex, 2010–2022



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Other Queenslander female	0.6	0.6	0.3	0.0	0.0	0.3	0.6	0.3	0.6	1.4	2.5	4.7	6.4
Other Queenslander male	1.8	2.9	5.2	4.3	3.1	10.0	9.1	11.9	11.9	9.6	11.6	9.9	11.6
First Nations female	0.0	9.6	9.4	32.1	27.0	17.6	8.7	30.1	33.9	87.5	93.2	77.0	158.0
First Nations male	10.2	19.9	19.4	28.5	18.5	27.2	17.7	26.3	68.4	92.4	57.1	69.4	126.5

- In Central Queensland, between 2017 and 2022, the number of notifications for both First Nations males and females has increased five-fold.
- Within the region there was an increase in notification rates in 2022 for First Nations males and females, compared to the previous peak of rates in 2019.
- For other Queenslander males, notification rates in 2022 were lower than the state-wide rates for the same population; notification rates for other Queenslander females were higher than the state-wide rates for the same population (shown in Figure 12).

Figure 17: Number of infectious syphilis notifications in South East Queensland, by First Nations status and sex, 2010–2022



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Other Queenslander female	2	4	9	5	9	8	12	38	54	81	96	88	95
Other Queenslander male	107	181	212	186	220	308	299	548	660	596	549	625	574
First Nations female	0	3	4	1	1	1	4	8	13	22	20	28	34
First Nations male	5	14	15	13	11	15	18	38	48	41	49	48	69

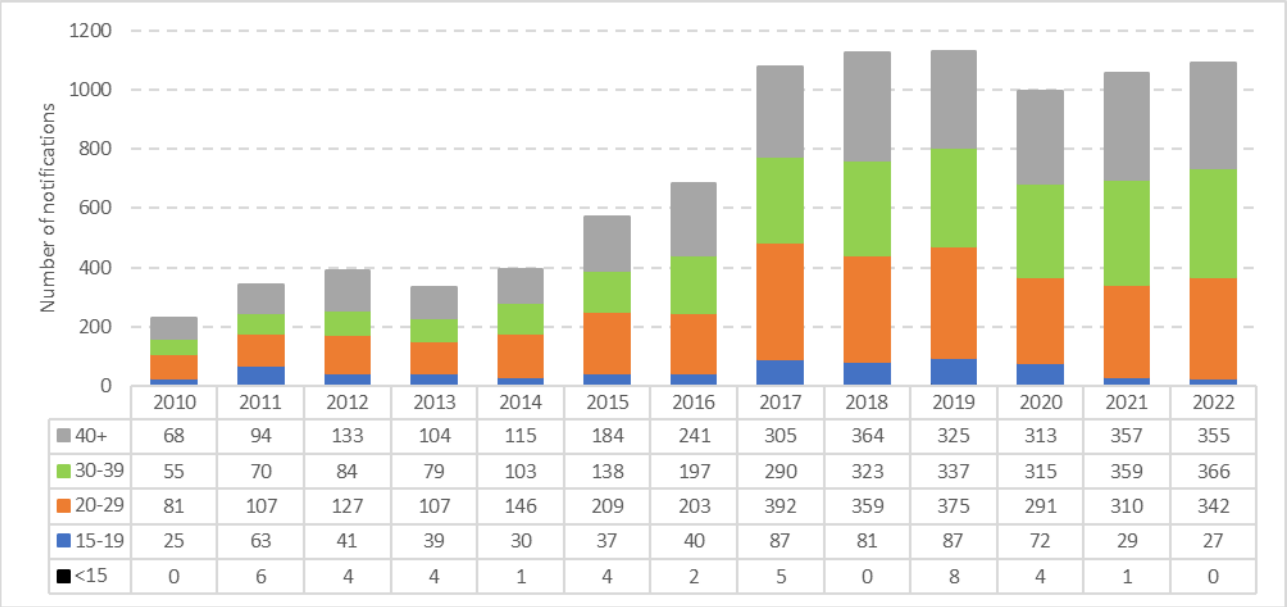
Figure 18: Rate (per 100,000 population per year) of infectious syphilis notifications in South East Queensland, by First Nations status and sex, 2010–2022

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Other Queenslander female	0.1	0.3	0.6	0.3	0.6	0.5	0.7	2.2	3.1	4.5	5.3	4.8	5.2
Other Queenslander male	7.4	12.2	14.0	12.0	14.0	19.3	18.4	33.1	39.0	34.6	31.3	35.6	32.7
First Nations female	0.0	8.1	10.5	2.5	2.5	2.4	9.2	17.7	27.5	45.1	39.7	55.6	67.5
First Nations male	14.1	38.4	39.7	33.2	27.1	35.8	41.6	84.0	102.3	84.3	97.2	95.2	136.9

- In South East Queensland, males accounted for 73% of the total in First Nations cases, and 91% of the total in other Queenslander cases between 2017 and 2022.
- Between 2017 and 2022, the number of infectious syphilis cases more than doubled in other Queenslander females and increased four-fold in First Nations females.
- There was a more rapid increase in notification rates across these 4 population groups from 2016 to 2022 compared to previous years.

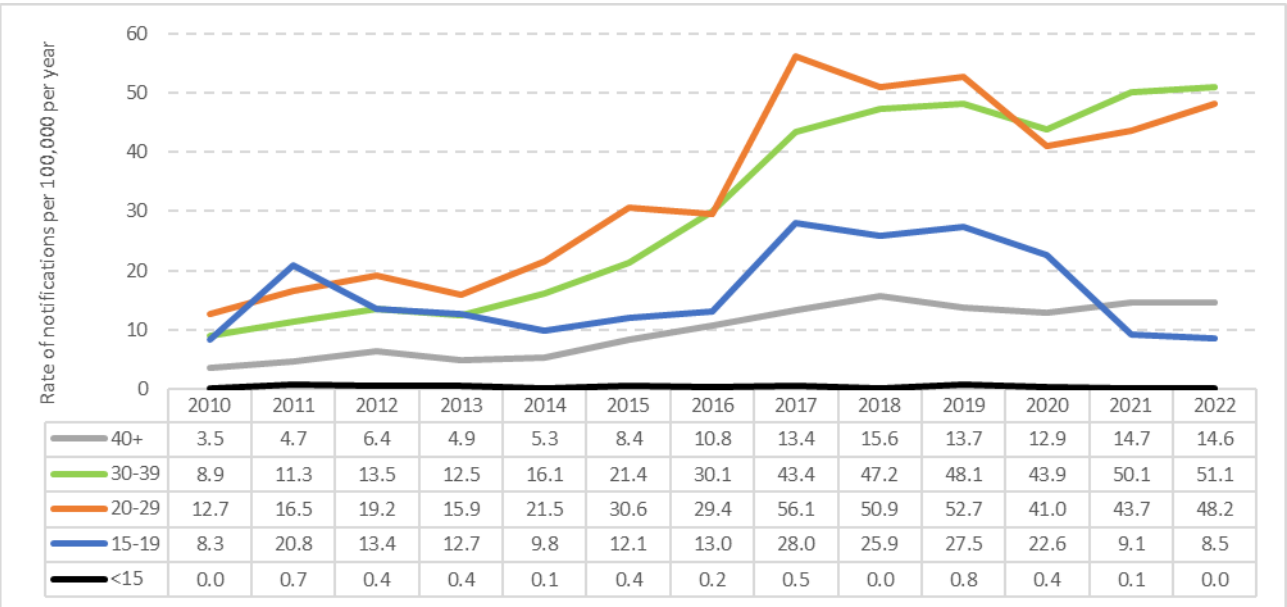
Distribution of infectious syphilis by age group

Figure 19: Number of infectious syphilis notifications in Queensland, by age group, 2010–2022



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
40+	68	94	133	104	115	184	241	305	364	325	313	357	355
30-39	55	70	84	79	103	138	197	290	323	337	315	359	366
20-29	81	107	127	107	146	209	203	392	359	375	291	310	342
15-19	25	63	41	39	30	37	40	87	81	87	72	29	27
<15	0	6	4	4	1	4	2	5	0	8	4	1	0

Figure 20: Rate (per 100,000 population per year) of infectious syphilis notifications in Queensland, by age group, 2010–2022



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
40+	3.5	4.7	6.4	4.9	5.3	8.4	10.8	13.4	15.6	13.7	12.9	14.7	14.6
30-39	8.9	11.3	13.5	12.5	16.1	21.4	30.1	43.4	47.2	48.1	43.9	50.1	51.1
20-29	12.7	16.5	19.2	15.9	21.5	30.6	29.4	56.1	50.9	52.7	41.0	43.7	48.2
15-19	8.3	20.8	13.4	12.7	9.8	12.1	13.0	28.0	25.9	27.5	22.6	9.1	8.5
<15	0.0	0.7	0.4	0.4	0.1	0.4	0.2	0.5	0.0	0.8	0.4	0.1	0.0

- Of notified infectious syphilis cases in Queensland 2010-2022, 7% were aged 15–19 years, 32% aged 20–29 years, 29% aged 30–39 years, and 31% aged 40 years or older.
- In 2022, the highest notification rate was among those aged 30-39 years (51.1 per 100,000 population per year), followed by those aged 20–29 years (48.2 per 100,000 population per year) and those aged 40+ years (14.6 per 100,000 population per year).

Table 1: Number and rate of infectious syphilis notifications in Queensland in 2022, by age group, First Nations status, and sex

Demographic	Age group (years)				
	<15	15–19	20–29	30–39	40+
	Number of notifications				
First Nations male	0	7	51	51	32
First Nations female	0	11	55	42	12
Other Queenslander male	0	5	175	220	274
Other Queenslander	0	4	56	48	34
	Rate of notifications (per 100,000 population per year)				
First Nations male	0.0	54.4	237.1	365.7	107.4
First Nations female	0.0	89.5	265.9	291.0	35.6
Other Queenslander male	0.0	3.3	52.5	65.4	23.9
Other Queenslander	0.0	2.8	16.8	13.6	2.8

- In 2022, for First Nations males in Queensland, the highest notification rate was among those aged 30–39 years (365.7 per 100,000 population per year).
- For First Nations females in Queensland in the same year, the highest notification rates were among those aged 30-39 years (291.0 per 100,000 population per year).
- For other Queenslander males in 2022, the highest notification rates were among those aged 30–39 years (65.4 per 100,000 population per year).
- For other Queenslander females in the same year, the highest notification rate was among those aged 20–29 years (16.8 per 100,000 population per year).

Distribution of infectious syphilis by Hospital and Health Service

Table 2: Rate (per 100,000 population per year) of infectious syphilis notifications in Queensland, by HHS, 2010–2022

Region	Hospital and Health Service	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
North	Torres and Cape	66.0	8.1	20.0	63.2	47.1	65.5	113.5	145.1	123.9	114.1	52.8	84.4	38.7
	North West	50.9	282.5	258.8	174.9	195.3	97.1	76.9	152.8	179.9	229.0	160.2	91.0	29.1
	Cairns and Hinterland	19.1	6.7	5.4	7.3	13.7	40.9	72.3	77.3	49.4	46.3	17.2	26.8	31.8
	Townsville	11.5	3.1	8.2	3.0	9.3	16.4	28.1	40.4	22.4	31.9	27.1	15.2	14.8
	Mackay	0.6	2.3	1.7	2.3	2.3	2.9	1.7	5.8	8.1	6.4	13.7	11.4	17.7
Central	Central West	8.2	16.2	8.2	0.0	8.5	0.0	0.0	28.6	19.3	38.7	0.0	0.0	0.0
	Central Queensland	1.9	1.9	3.3	6.4	6.3	7.3	7.3	8.7	12.4	14.6	16.3	24.9	39.4
	Wide Bay	1.5	0.5	1.0	0.5	0.9	1.4	5.6	3.7	6.0	5.5	5.9	3.6	6.8
	South West	0.0	0.0	3.8	11.5	0.0	0.0	4.1	4.1	12.4	0.0	8.4	0.0	4.2
	Darling Downs	0.8	4.1	5.2	3.6	1.4	9.7	4.3	8.9	8.1	12.3	12.6	8.7	11.5
South East	Sunshine Coast	0.3	3.0	2.7	1.6	4.4	6.0	7.4	9.4	9.6	9.2	7.0	3.8	7.2
	Metro North	8.4	12.1	14.2	9.9	9.5	14.9	17.7	28.5	35.9	30.0	30.5	29.6	29.1
	Metro South	2.1	5.1	6.5	5.7	5.8	7.6	6.9	12.8	18.0	19.2	17.8	22.0	22.0
	West Moreton	1.3	2.1	3.2	3.1	2.3	3.7	3.6	13.6	12.9	15.8	15.4	15.0	12.2
	Gold Coast	3.3	4.9	4.8	6.9	11.7	12.7	8.0	20.8	19.9	18.4	14.9	22.6	21.4
	Queensland	**5.2**	**7.6**	**8.5**	**7.2**	**8.4**	**12.0**	**14.1**	**21.9**	**22.5**	**22.2**	**19.2**	**20.4**	**21.1**

- Table 2 shows trends in infectious syphilis notification rates for 15 HHS areas during the period 2010–2022, and variation in rates across HHS areas.
- Upward trends in rates were observed in most HHS areas in the last decade, which are also illustrated by heat maps presented in Figures 21–26.
- For Torres and Cape, relatively high notification rates (around 60 per 100,000 population per year) were reported between 2010 and 2015 (with some fluctuation), followed by a peak of notification rates in 2017 (145.1 per 100,000 population per year) and decrease in 2022 (38.7 per 100,000 population per year).
- For North West, following a peak of notification rates in 2011 (282.5 per 100,000 population per year), there was a decrease in rates to 2016 (76.9 per 100,000 population per year). The rate then tripled in 2019 (229.0 per 100,000 population per year) and decreased in 2022 (29.1 per 100,000 population per year).
- In 2022, the highest infectious syphilis notification rate was reported in Central Queensland (39.4 per 100,000 population per year), followed by Torres and Cape (38.7 per 100,000 population per year), and Cairns and Hinterland (31.8 per 100,000 population per year).

Figure 21: Rate (per 100,000 population per year) of infectious syphilis notifications in Queensland, by HHS area, 2010

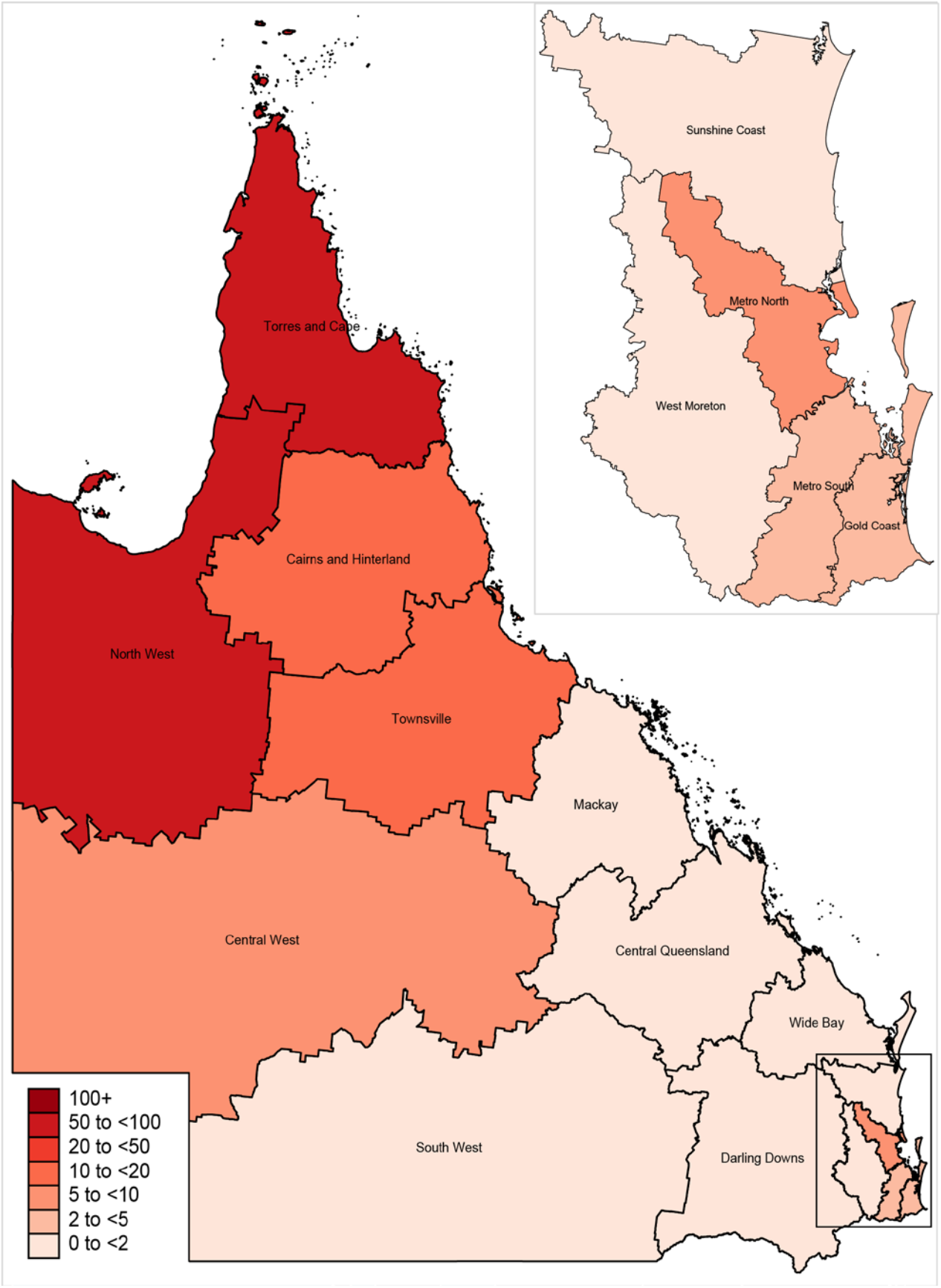


Figure 22: Rate (per 100,000 population per year) of infectious syphilis notifications in Queensland, by HHS area, 2013

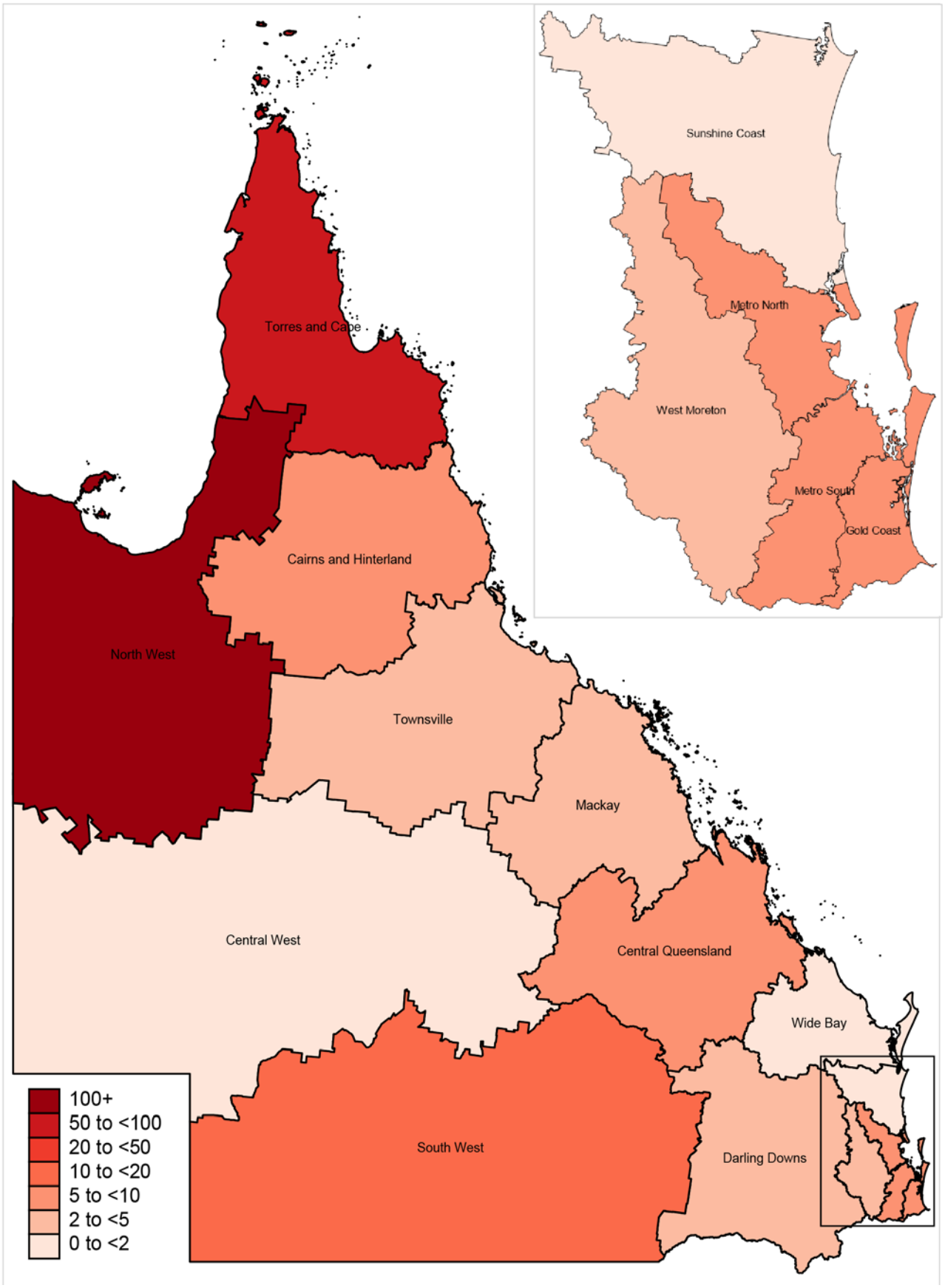


Figure 23: Rate (per 100,000 population per year) of infectious syphilis notifications in Queensland, by HHS area, 2016

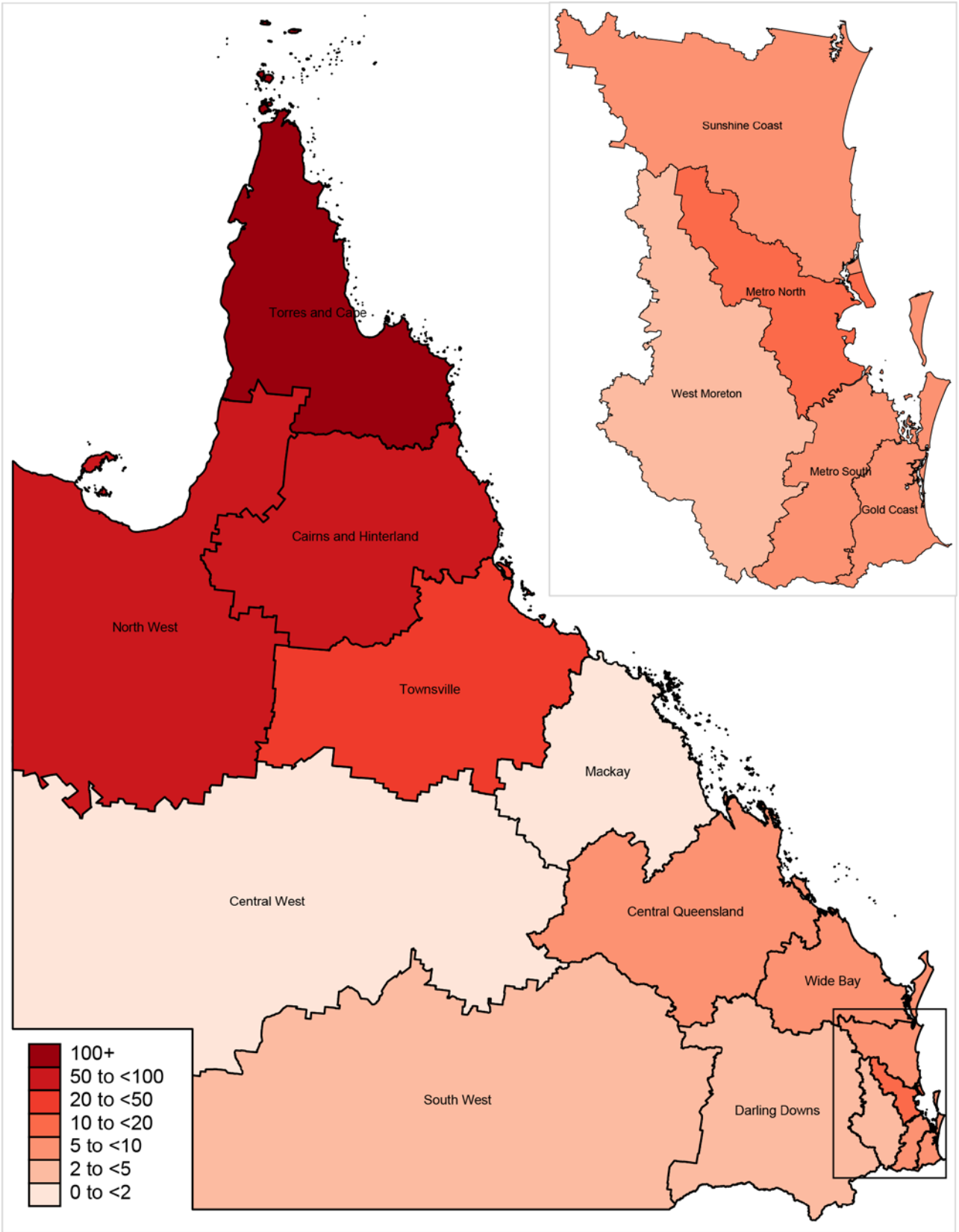


Figure 24: Rate (per 100,000 population per year) of infectious syphilis notifications in Queensland, by HHS area, 2019

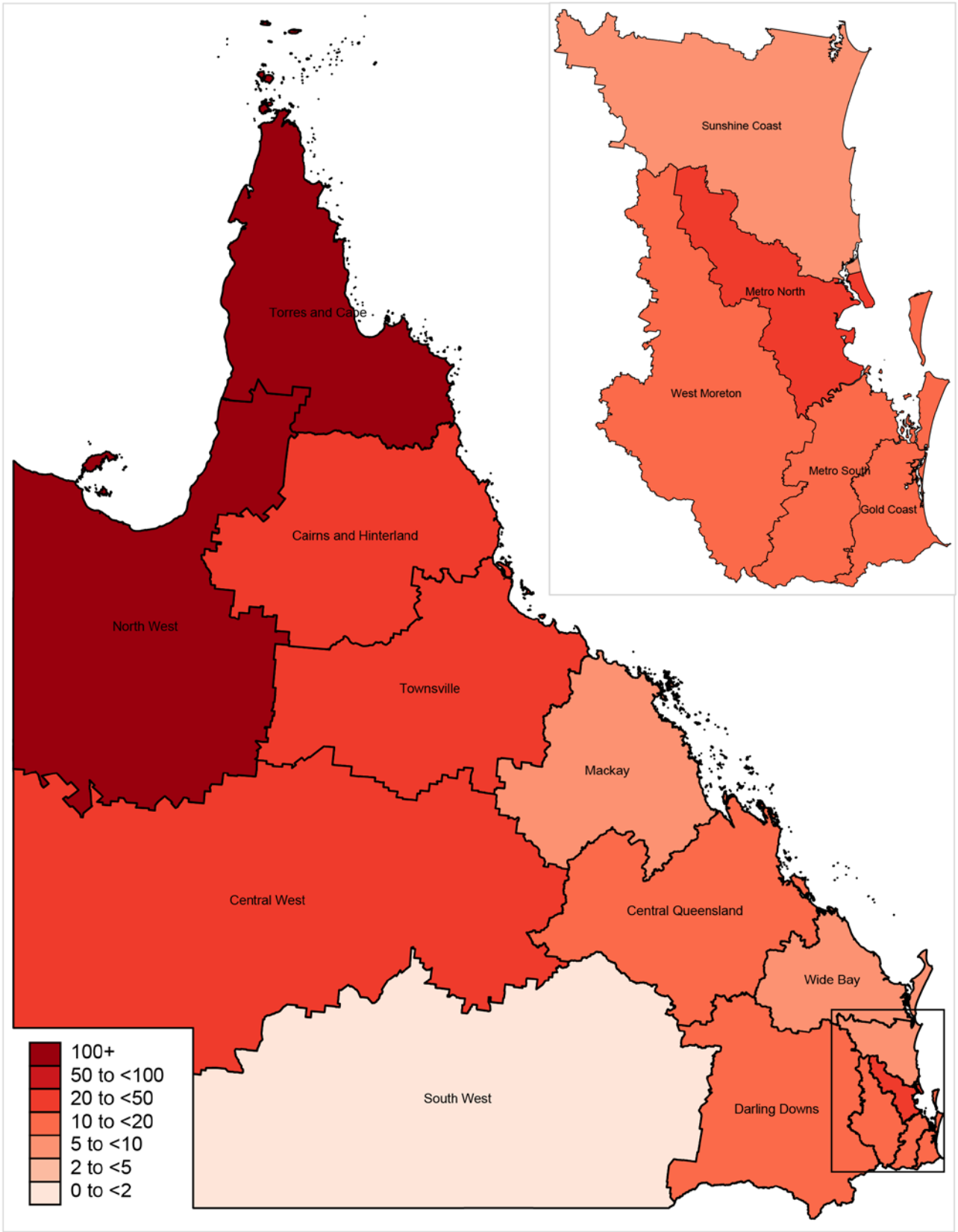


Figure 25: Rate (per 100,000 population per year) of infectious syphilis notifications in Queensland, by HHS area, 2021

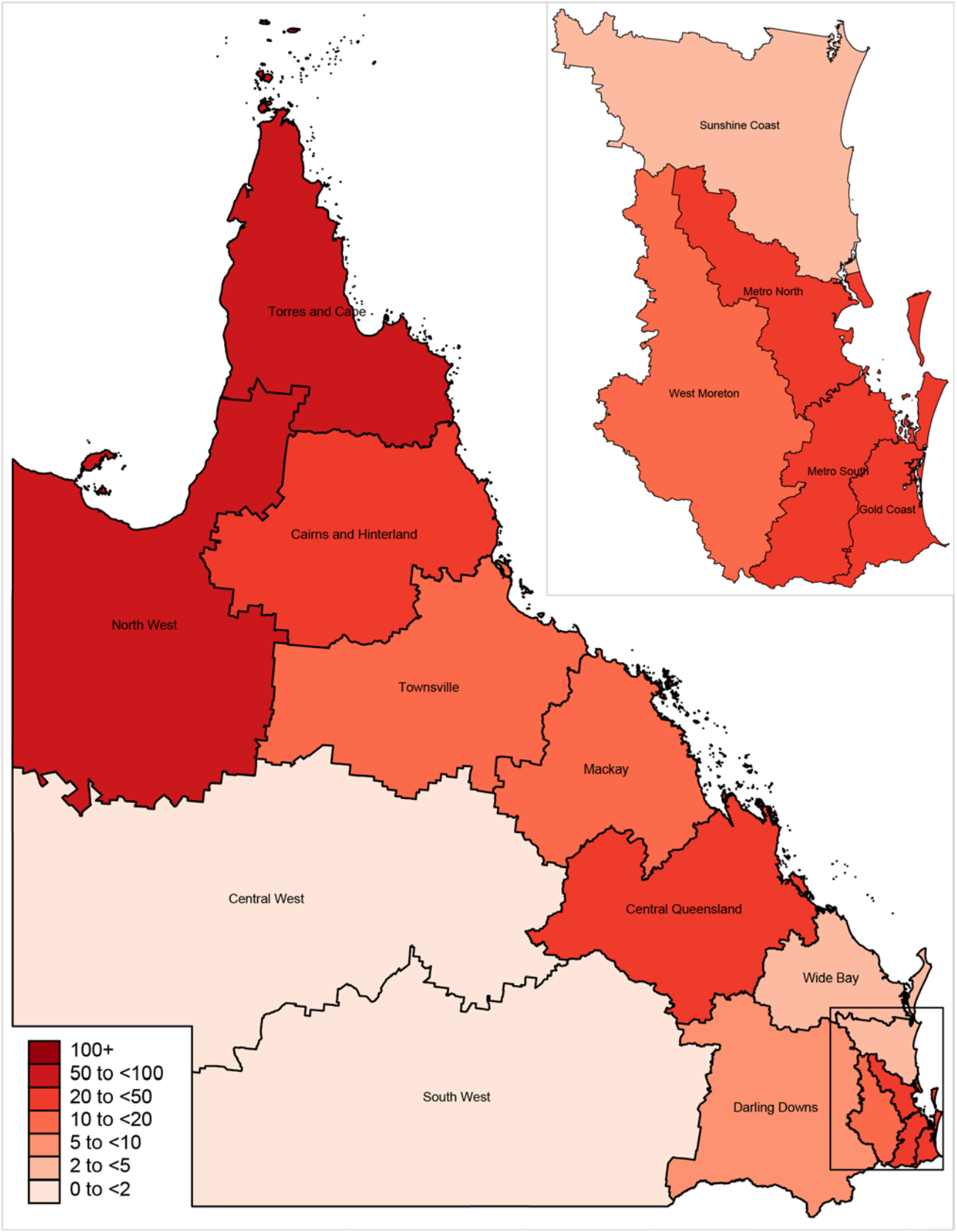
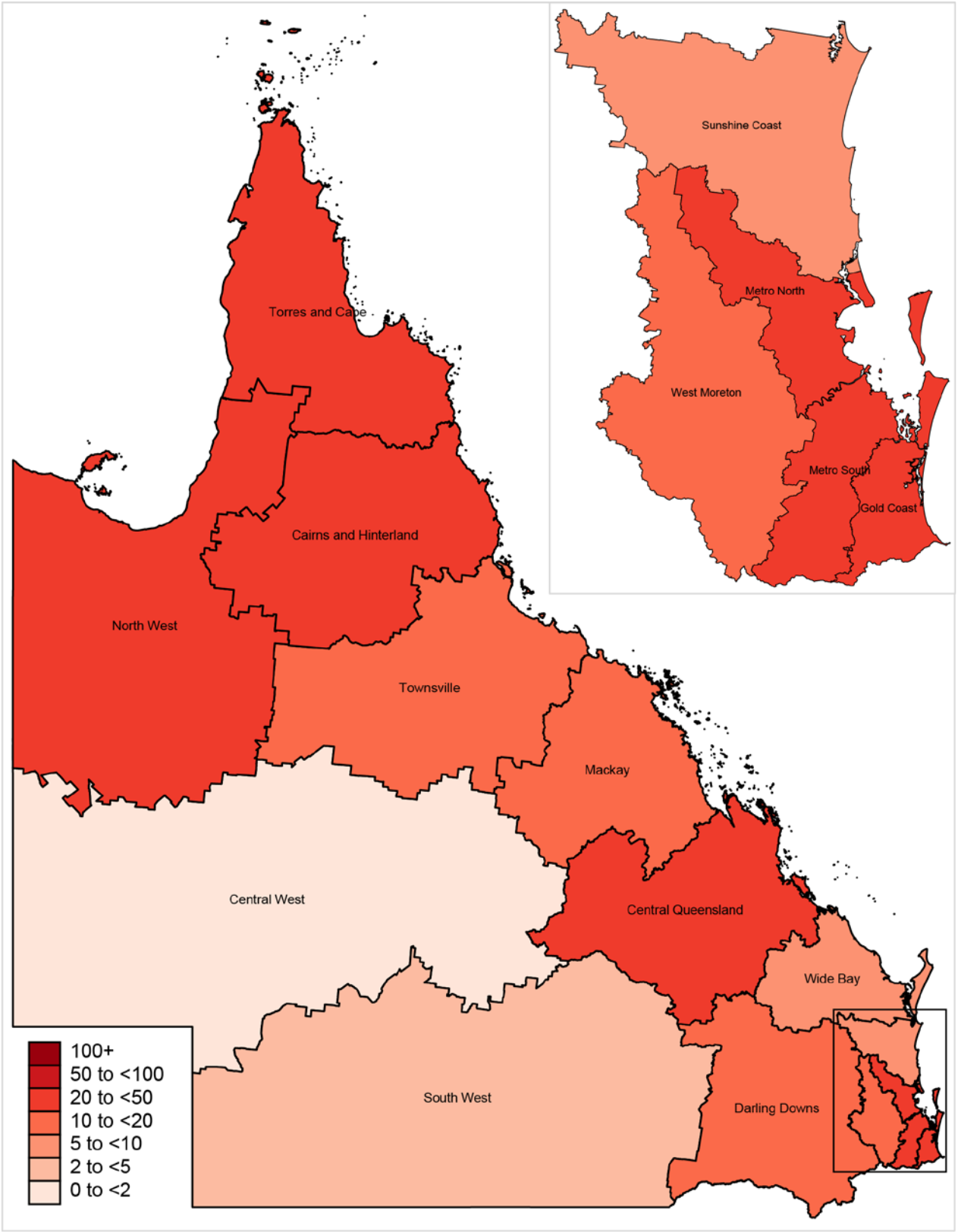
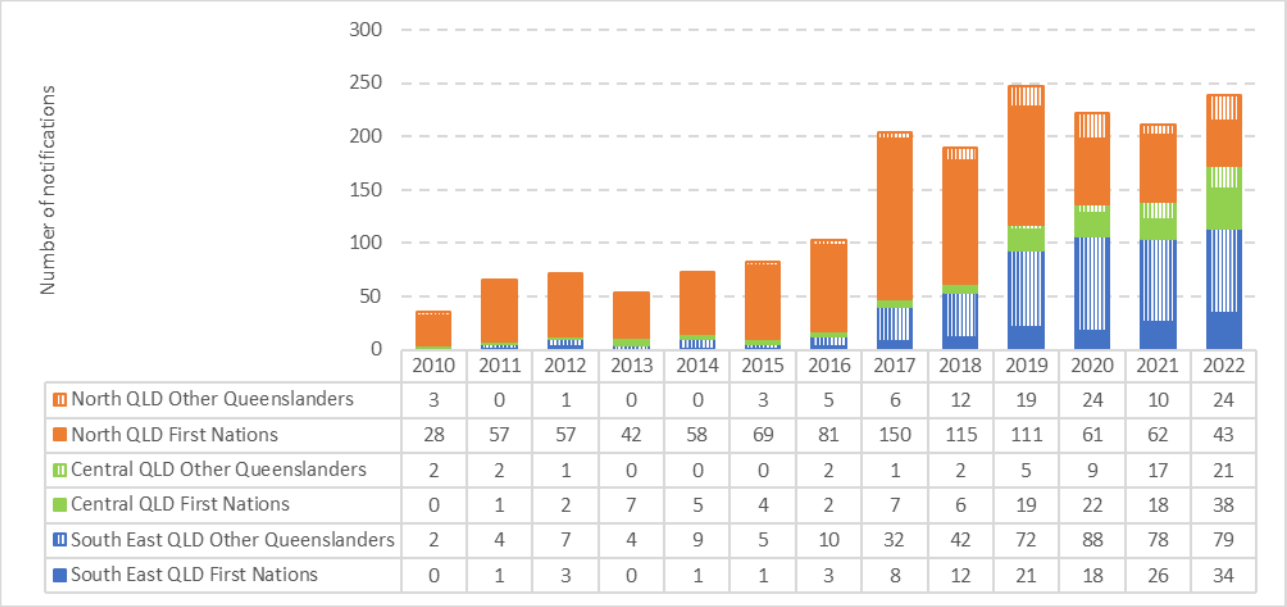


Figure 26: Rate (per 100,000 population per year) of infectious syphilis notifications in Queensland, by HHS area, 2022



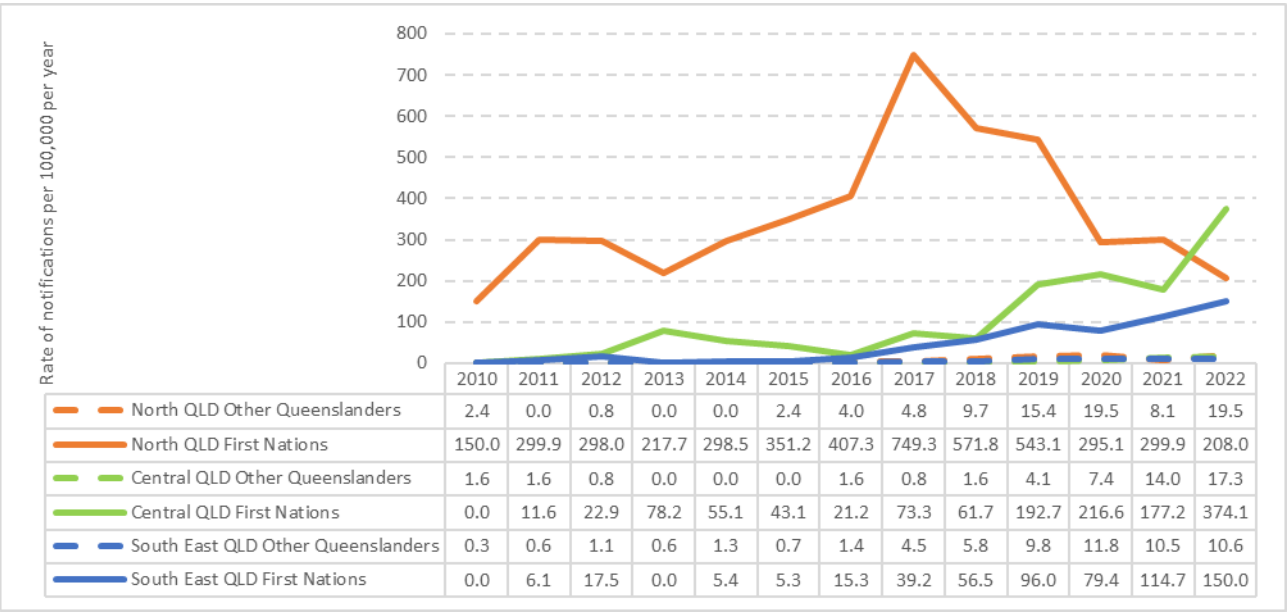
Syphilis in women of reproductive age (15–44 years)

Figure 27: Number of infectious syphilis notifications in women aged 15–44 years, by region and First Nations status, 2010–2022



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
North QLD Other Queenslanders	3	0	1	0	0	3	5	6	12	19	24	10	24
North QLD First Nations	28	57	57	42	58	69	81	150	115	111	61	62	43
Central QLD Other Queenslanders	2	2	1	0	0	0	2	1	2	5	9	17	21
Central QLD First Nations	0	1	2	7	5	4	2	7	6	19	22	18	38
South East QLD Other Queenslanders	2	4	7	4	9	5	10	32	42	72	88	78	79
South East QLD First Nations	0	1	3	0	1	1	3	8	12	21	18	26	34

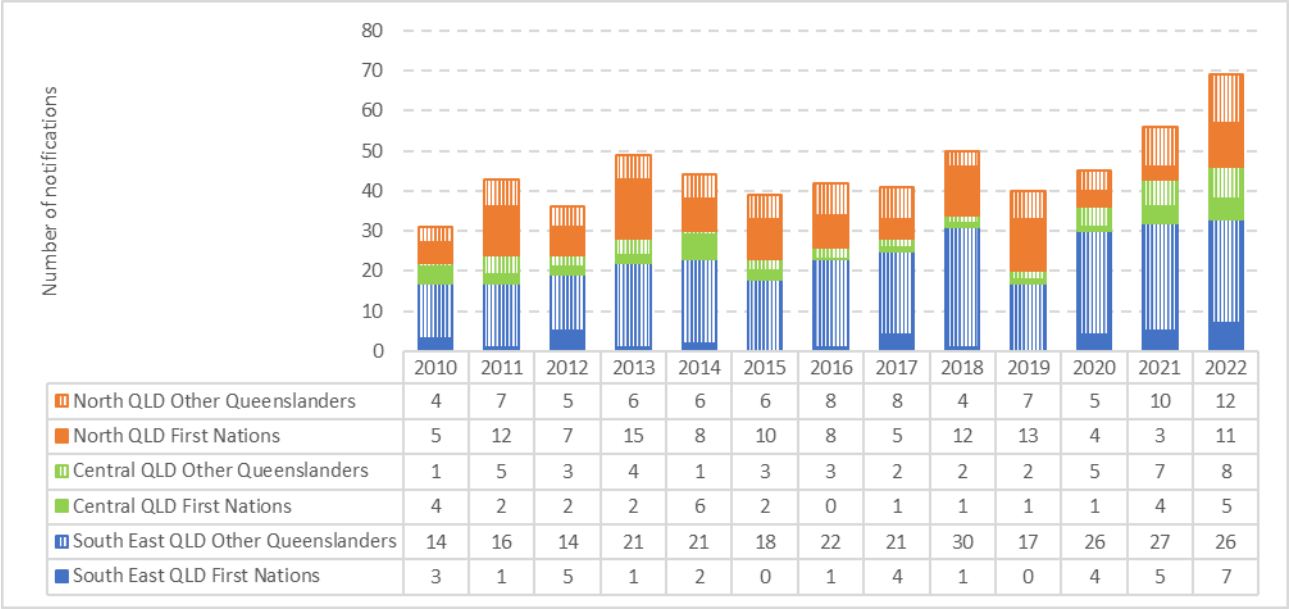
Figure 28: Rate of infectious syphilis notifications in women aged 15–44 years, by region and First Nations status, 2010–2022



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
North QLD Other Queenslanders	2.4	0.0	0.8	0.0	0.0	2.4	4.0	4.8	9.7	15.4	19.5	8.1	19.5
North QLD First Nations	150.0	299.9	298.0	217.7	298.5	351.2	407.3	749.3	571.8	543.1	295.1	299.9	208.0
Central QLD Other Queenslanders	1.6	1.6	0.8	0.0	0.0	0.0	1.6	0.8	1.6	4.1	7.4	14.0	17.3
Central QLD First Nations	0.0	11.6	22.9	78.2	55.1	43.1	21.2	73.3	61.7	192.7	216.6	177.2	374.1
South East QLD Other Queenslanders	0.3	0.6	1.1	0.6	1.3	0.7	1.4	4.5	5.8	9.8	11.8	10.5	10.6
South East QLD First Nations	0.0	6.1	17.5	0.0	5.4	5.3	15.3	39.2	56.5	96.0	79.4	114.7	150.0

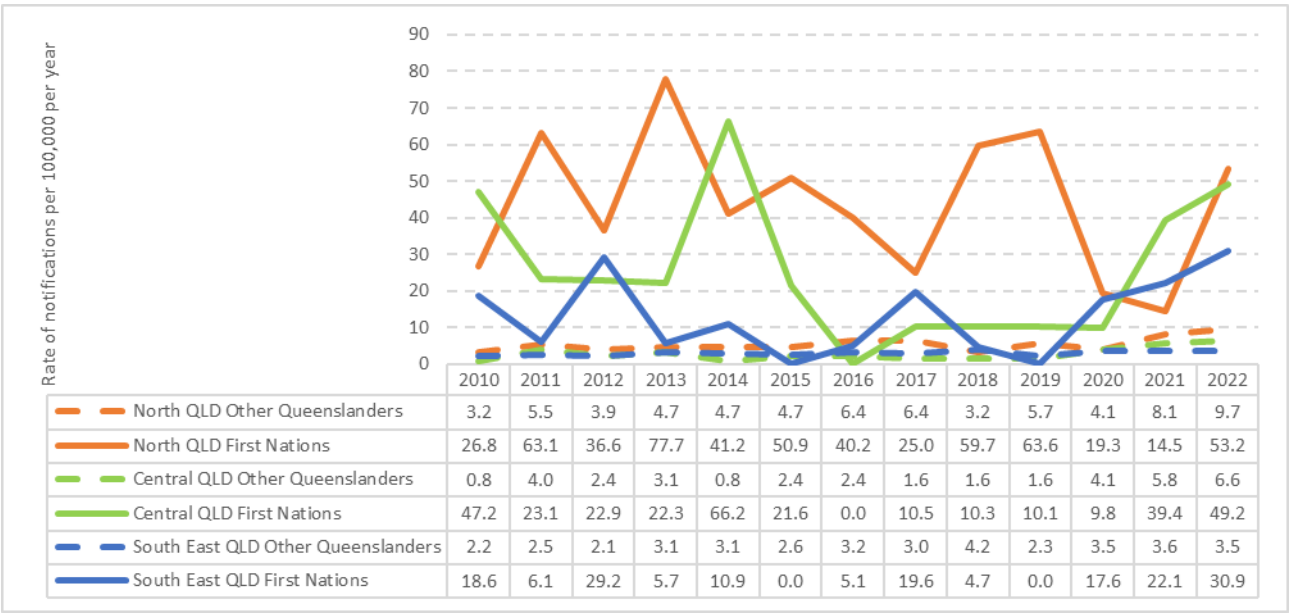
- Between 2010 and 2022, 1,794 infectious syphilis cases were notified in women of reproductive age (15-44 years); 52% (n=934) of these cases were in First Nations women from North Queensland, and 24% (n=432) were in other Queenslander women from South East Queensland.
- In 2022, Central Queensland First Nations women of reproductive age had the highest rate of infectious syphilis notifications (374.1 per 100,000 population per year) compared with First Nations women from other regions or other Queenslander women.

Figure 29: Number of late latent syphilis notifications in women aged 15–44 years, by region and First Nations status, 2010–2022



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
North QLD Other Queenslanders	4	7	5	6	6	6	8	8	4	7	5	10	12
North QLD First Nations	5	12	7	15	8	10	8	5	12	13	4	3	11
Central QLD Other Queenslanders	1	5	3	4	1	3	3	2	2	2	5	7	8
Central QLD First Nations	4	2	2	2	6	2	0	1	1	1	1	4	5
South East QLD Other Queenslanders	14	16	14	21	21	18	22	21	30	17	26	27	26
South East QLD First Nations	3	1	5	1	2	0	1	4	1	0	4	5	7

Figure 30: Rate of late latent syphilis notifications in women aged 15–44 years, by region and First Nations status, 2010–2022

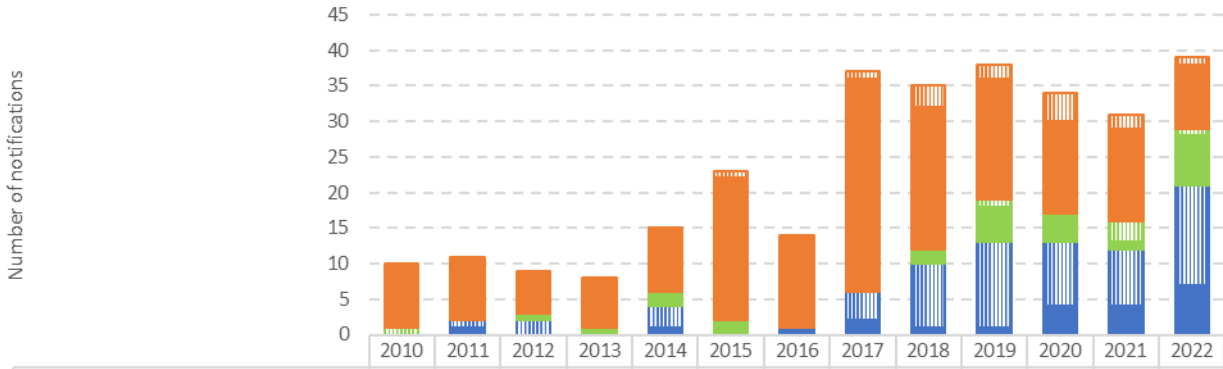


	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
North QLD Other Queenslanders	3.2	5.5	3.9	4.7	4.7	4.7	6.4	6.4	3.2	5.7	4.1	8.1	9.7
North QLD First Nations	26.8	63.1	36.6	77.7	41.2	50.9	40.2	25.0	59.7	63.6	19.3	14.5	53.2
Central QLD Other Queenslanders	0.8	4.0	2.4	3.1	0.8	2.4	2.4	1.6	1.6	1.6	4.1	5.8	6.6
Central QLD First Nations	47.2	23.1	22.9	22.3	66.2	21.6	0.0	10.5	10.3	10.1	9.8	39.4	49.2
South East QLD Other Queenslanders	2.2	2.5	2.1	3.1	3.1	2.6	3.2	3.0	4.2	2.3	3.5	3.6	3.5
South East QLD First Nations	18.6	6.1	29.2	5.7	10.9	0.0	5.1	19.6	4.7	0.0	17.6	22.1	30.9

- Between 2010 and 2022, 600 late latent syphilis cases were notified in women of reproductive age (15–44 years); 46% (n=273) of these cases were in other Queenslander women from South East Queensland, 19% (n=113) were in First Nations women from North Queensland, and 15% (n=88) were in other Queenslander women from North Queensland.
- In 2022, North Queensland First Nations women of reproductive age had the highest rate of late latent syphilis notifications (53.2 per 100,000 population per year) compared with First Nations women from other regions or other Queenslander women.

Syphilis in pregnant women

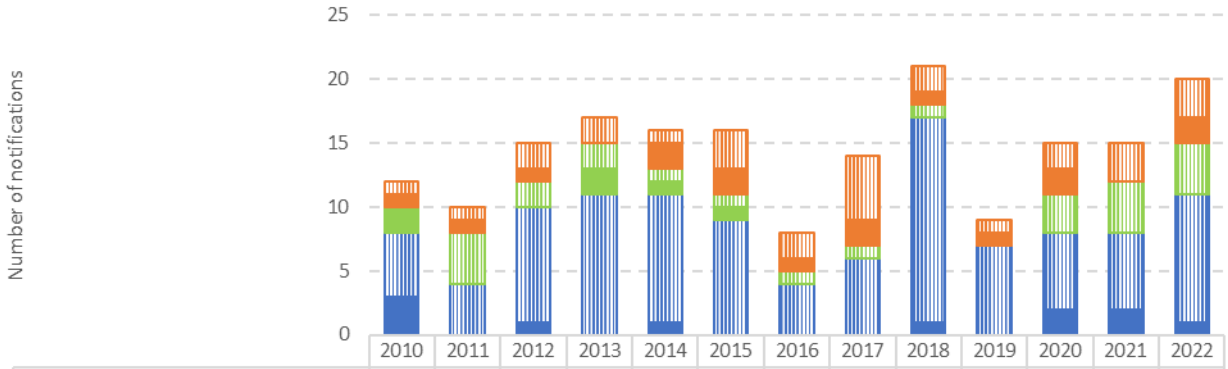
Figure 31: Number of infectious syphilis notifications in pregnant women, by region and First Nations status, 2010–2022



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
North QLD Other Queenslanders	0	0	0	0	0	1	0	1	3	2	4	2	1
North QLD First Nations	9	9	6	7	9	20	13	30	20	17	13	13	9
Central QLD Other Queenslanders	1	0	0	0	0	0	0	0	0	1	0	3	1
Central QLD First Nations	0	0	1	1	2	2	0	0	2	5	4	1	7
South East QLD Other Queenslanders	0	1	2	0	3	0	0	4	9	12	9	8	14
South East QLD First Nations	0	1	0	0	1	0	1	2	1	1	4	4	7

- Between 2010 and 2022, 304 infectious syphilis cases were notified in pregnant women in Queensland (303 cases aged 15 to 44 years). Of these cases, 189 (62%) were in North Queensland (175 First Nations and 14 other Queenslanders), 31 (10%) were in Central Queensland (25 First Nations and 6 other Queenslanders), and 84 (28%) were in South East Queensland (22 First Nations and 62 other Queenslanders).

Figure 32: Number of late latent syphilis notifications in pregnant women, by region and First Nations status, 2010–2022

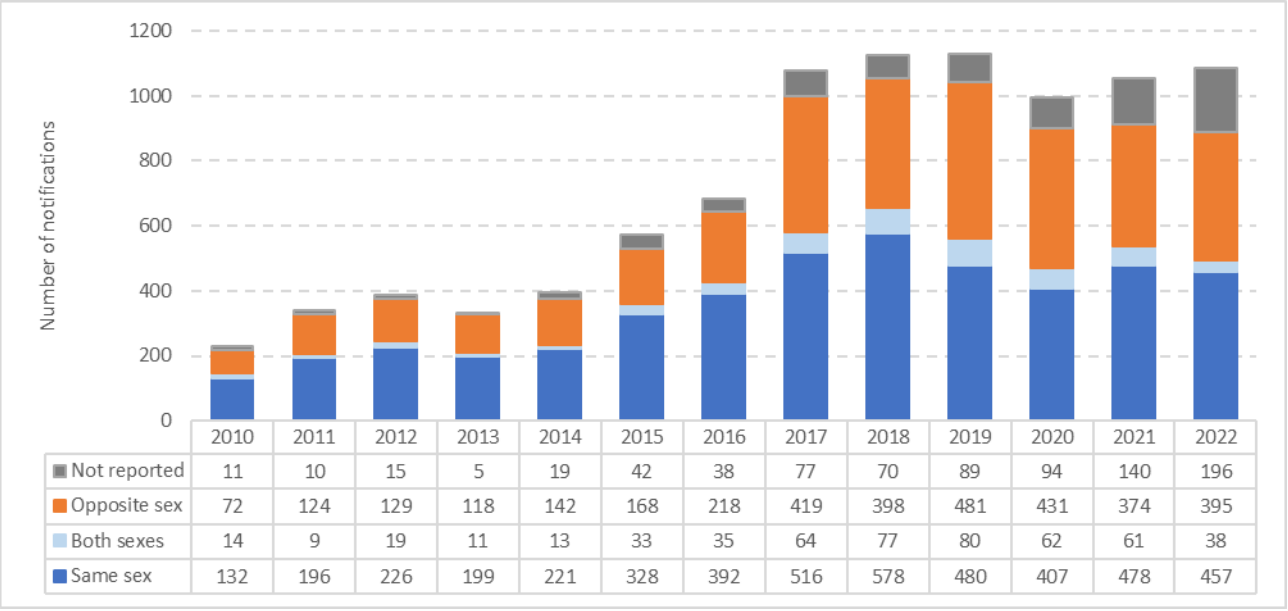


	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
North QLD Other Queenslanders	1	1	2	2	1	3	2	5	2	1	2	3	3
North QLD First Nations	1	1	1	0	2	2	1	2	1	1	2	0	2
Central QLD Other Queenslanders	0	4	2	2	1	1	1	1	1	0	3	4	4
Central QLD First Nations	2	0	0	2	1	1	0	0	0	0	0	0	0
South East QLD Other Queenslanders	5	4	9	11	10	9	4	6	16	7	6	6	10
South East QLD First Nations	3	0	1	0	1	0	0	0	1	0	2	2	1

- Between 2010 and 2022, 190 late latent syphilis cases were notified in pregnant women in Queensland (186 cases aged 15 to 44 years). Of these cases, 44 (23%) were in North Queensland (16 First Nations and 28 other Queenslanders), 31 (16%) were in Central Queensland (6 First Nations, 24 other Queenslanders and 1 unknown First Nations status), and 115 (61%) were in South East Queensland (11 First Nations, 103 other Queenslanders and 1 unknown First Nations status).

Distribution of infectious syphilis by type of sexual partners

Figure 33: Number of infectious syphilis notifications in Queensland, by type of sexual partners, 2010–2022



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Not reported	11	10	15	5	19	42	38	77	70	89	94	140	196
Opposite sex	72	124	129	118	142	168	218	419	398	481	431	374	395
Both sexes	14	9	19	11	13	33	35	64	77	80	62	61	38
Same sex	132	196	226	199	221	328	392	516	578	480	407	478	457

- Of 9,420 infectious syphilis cases notified in Queensland between 2010 and 2022, 49% reported having sex with the same sex, 5% reported having sex with both men and women, and 37% reported having sex with the opposite sex. In total, 54% of cases were among men who have sex with men (MSM).

Table 3: Number of infectious syphilis notifications in Queensland in 2022, by type of sexual partners, First Nations status, and sex

Type of sexual partners	First Nations male	First Nations female	Other Queenslander male	Other Queenslander female	Total
Same sex	43	0	408	5	**456**
Both sexes	2	2	29	4	**37**
Opposite sex	62	90	132	105	**389**
Not reported	33	28	104	26	**191**
Total	**140**	**120**	**673**	**140**	**1,073**

* Of a total of 1,090 infectious syphilis cases notified in Queensland in 2022, 1,073 had complete data for First Nations status and sex.

- Of 140 First Nations male cases in 2022, 62 (44%) reported heterosexual sex as their exposure, and 45 (32%) were among MSM.
- Of other Queenslander male cases in 2022, 437 (65%) were among MSM, and 132 (20%) reported heterosexual sex as their exposure.
- For both First Nations Queenslanders and other Queenslander female cases in 2022, heterosexual sex was reported as the predominant transmission route (75% and 75%, respectively).

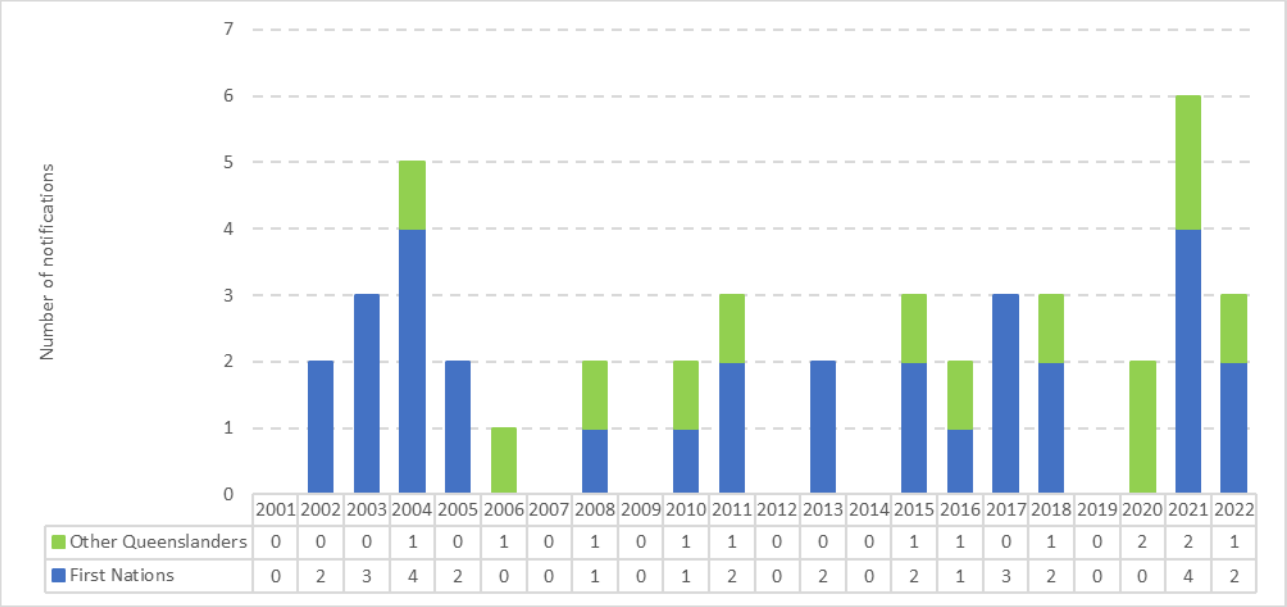
Table 4: Number of infectious syphilis notifications in Queensland in 2022, by demographic group, type of sexual partners and region

Demographic group/type of sexual partners	North QLD		Central QLD		South East QLD	
	Number	%	Number	%	Number	%
First Nations MSM	6	4	2	1	37	5
First Nations heterosexual male	15	9	25	18	22	3
First Nations heterosexual female	26	15	33	24	31	4
Other Queenslander MSM	27	16	16	12	393	50
Other Queenslander heterosexual	19	11	15	11	98	13
Other Queenslander heterosexual	18	11	13	10	74	9
Other	58	34	32	24	128	16
Total	**169**	**100**	**136**	**100**	**783**	**100**

- Of 169 infectious syphilis cases notified in North Queensland in 2022, 41 (24%) were among First Nations Queenslanders reporting heterosexual sex as their exposure, and 27 (16%) were among other Queenslanders reporting MSM as their exposure.
- Of 136 infectious syphilis cases notified in Central Queensland in 2022, 58 (43%) were among First Nations Queenslanders reporting heterosexual sex as their exposure, 28 (21%) were among other Queenslanders reporting heterosexual sex as their exposure, and 16 (12%) were among other Queenslander MSM.
- Of 783 infectious syphilis cases notified in South East Queensland in 2022, 393 (50%) were among other Queenslander MSM, and 172 (22%) were among other Queenslanders reporting heterosexual sex as their exposure.

Congenital syphilis notifications

Figure 34: Notifications of congenital syphilis in Queensland, by First Nations status, 2001–2022*

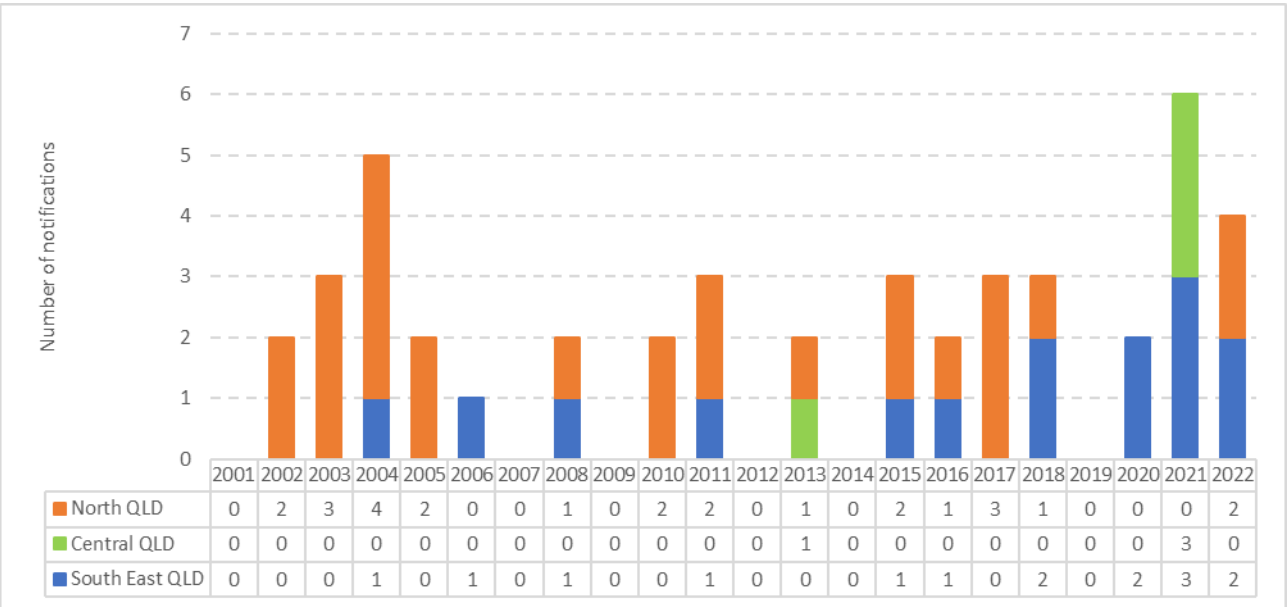


	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Other Queenslanders	0	0	0	1	0	1	0	1	0	1	1	0	0	0	1	1	0	1	0	2	2	1
First Nations	0	2	3	4	2	0	0	1	0	1	2	0	2	0	2	1	3	2	0	0	4	2

* See Appendix 1 for congenital syphilis definitions.

- Between 2001 and 2022, 44 congenital syphilis cases were notified in Queensland (31 First Nations and 13 other Queenslanders).
- 13 congenital syphilis cases were associated with intrauterine foetal deaths/stillbirths or died after birth (11 in North Queensland, 1 in Central Queensland and 1 in South East Queensland, all in First Nations infants).

Figure 35: Notifications of congenital syphilis in Queensland, by region, 2001–2022



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
North QLD	0	2	3	4	2	0	0	1	0	2	2	0	1	0	2	1	3	1	0	0	0	2
Central QLD	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0
South East QLD	0	0	0	1	0	1	0	1	0	0	1	0	0	0	1	1	0	2	0	2	3	2

- Of these 44 cases, 26 were from North Queensland (24 First Nations and 2 other Queenslanders), 4 were from Central Queensland (2 First Nations and 2 other Queenslanders), and 14 were from South East Queensland (5 First Nations and 9 other Queenslanders).

Table 5: Summary of notifications of syphilis* in women of reproductive age (aged 15–44 years), pregnant women, and congenital syphilis infections, by region and First Nations status, 2010–2022

Region/First Nations status	Syphilis notifications in women of reproductive age	Syphilis notifications in pregnant women	Congenital syphilis notifications
North - Other Queenslanders	195	42	1
North - First Nations	1,047	191	13
North - Unknown	3	0	0
Central - Other Queenslanders	108	30	2
Central - First Nations	162	31	2
Central - Unknown	3	1	0
South East - Other Queenslanders	705	165	7
South East - First Nations	162	33	4
South East - Unknown	11	1	0
Queensland	**2,396**	**494**	**29**

* Syphilis notifications include infectious syphilis and late latent syphilis.

- Between 2010 and 2022, 2,396 syphilis notifications (1,798 infectious and 598 late latent) were recorded in women of reproductive age in Queensland. Of these, 494 (20%) were in pregnant women, including 304 infectious and 190 late latent cases. A total of 29 cases of congenital syphilis were notified during the same period.
- The highest number of syphilis notifications in pregnancy was reported in First Nations women from North Queensland (191 cases, 39% of Queensland total), followed by other Queenslander women from South East Queensland (165 cases, 33%).
- Of 191 syphilis cases (175 infectious and 16 late latent) in First Nations pregnant women from North Queensland, 13 (7%) congenital syphilis cases occurred.
- Of 165 syphilis cases (62 infectious and 103 late latent) in other Queenslander pregnant women from South East Queensland, 7 (4%) congenital syphilis cases occurred.

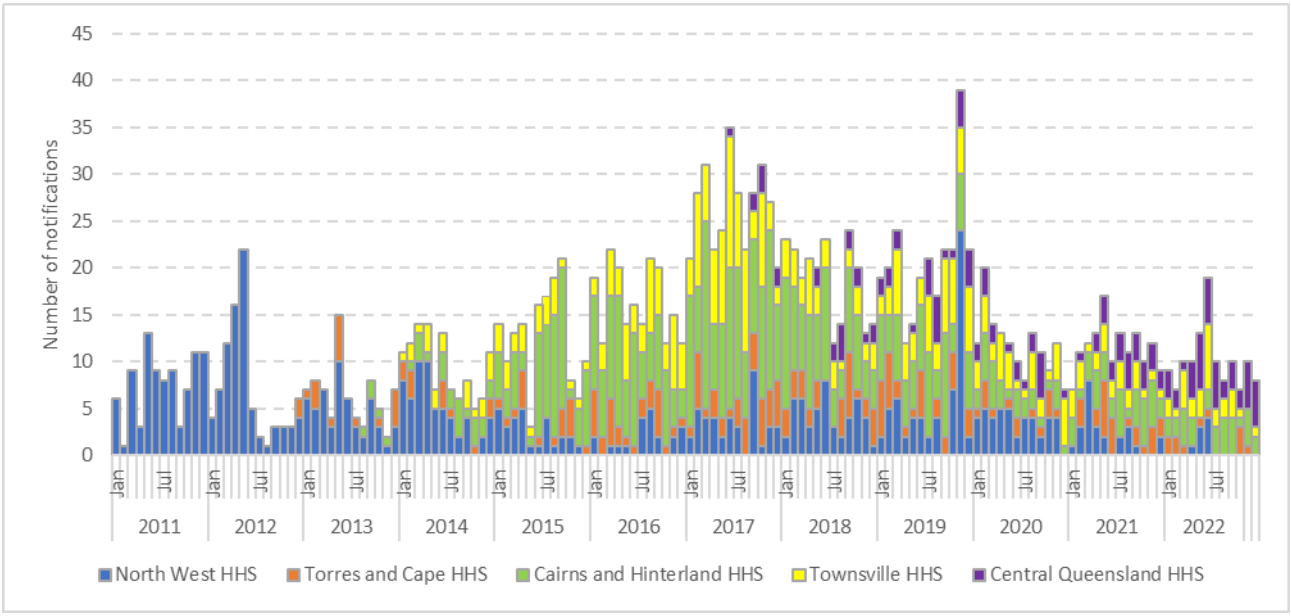
Infectious syphilis outbreak in North Queensland

There has been an ongoing infectious syphilis outbreak in Northern Australia, occurring predominantly in First Nations populations. The outbreak was first declared in January 2011 in North West Queensland, followed by the Northern Territory in July 2013, the Kimberley region in Western Australia in June 2014, and South Australia in March 2017. Detailed information on declared regions for the outbreak can be found in the national syphilis monitoring reports.[9]
The 5 outbreak declared regions in Queensland are defined as follows:

- North West HHS area: from 1 January 2011
- Torres and Cape HHS area: from 1 December 2012
- Cairns and Hinterland HHS area: from 1 August 2013
- Townsville HHS area: from 1 January 2014
- Central Queensland HHS area: from 1 June 2017

Outbreak cases are classified as either category 1 or category 2. Category 1 cases refer to infectious syphilis cases in First Nations Queenslanders residing in outbreak declared regions at the time of diagnosis. Category 2 cases are those infectious syphilis cases who are a sexual contact of a category 1 outbreak case, including First Nations Queenslanders who reside outside outbreak declared regions at the time of diagnosis, and other Queenslanders regardless of where they reside.

Figure 36: Infectious syphilis outbreak cases (category 1) in First Nations Queenslanders in 5 affected HHS areas in Queensland, 1 January 2011–31 December 2022



[9] National syphilis monitoring reports | Australian Government Department of Health and Aged Care

For the North West HHS area, the largest annual numbers of infectious syphilis cases were observed in the first 2 years of the outbreak (90 cases in 2011 and 82 cases in 2012), followed by a gradual decrease to 21 cases in 2016. The number increased to 62 cases in 2019 and decreased to 8 cases in 2022.

For the Torres and Cape HHS area, there was a gradual increase in outbreak cases, from 16 cases in 2013 to 39 cases in 2017, followed by a decrease in cases to 11 in 2022.

For the Cairns and Hinterland HHS area, there was a rapid increase in outbreak cases, from 22 cases in 2014 to a peak of 141 cases in 2017, followed by a 78% decrease in the annual total to 31 cases in 2022.

Similarly, there was an increase in outbreak cases in the Townville HHS area, from 20 cases in 2014 to a peak of 89 cases in 2017, followed by a 69% decrease in the annual total to 28 cases in 2022.

For the Central Queensland HHS area, there was a gradual increase in outbreak cases, from 15 cases in 2018 to 43 in 2022.

Of the total 1,905 category 1 infectious syphilis outbreak cases notified between 2011 and 2022, there were more females than males (54% vs 46%). Two-thirds of these cases were aged 15–29 years, with a further one-fifth aged 30–39 years.

A total of 59 category 2 infectious syphilis outbreak cases were notified between 2011 and 2022, including 14 First Nations cases who resided outside the declared regions at the time of diagnosis, and 45 other Queenslander cases (24 from Cairns and Hinterland, 17 from Townsville, 1 from Torres and Cape, 1 from North West, 1 from Central Queensland and 1 from Mackay).

A total of 12 congenital syphilis cases associated with the outbreak were notified between 2011 and 2022 (4 cases from Cairns and Hinterland, 3 cases from Townsville, 2 cases from each of North West, and Torres and Cape, and 1 case from Central Queensland). These congenital syphilis infections resulted in 7 deaths (6 intrauterine foetal deaths and 1 death after birth).

Appendix 1: Definitions and classifications of syphilis

<table>
<tr><td>Infectious syphilis</td><td colspan="3">Less than 2 years duration (includes primary, secondary and early latent stages of syphilis)</td></tr>
<tr><td></td><td>Stage of disease</td><td>Time post exposure</td><td>Major clinical features</td></tr>
<tr><td></td><td>Primary syphilis</td><td>10–90 days</td><td>Chancre and ulcer at the site of infection (external/internal genitalia or a non-genital site)</td></tr>
<tr><td></td><td>Secondary syphilis</td><td>4 weeks–6 months</td><td>Headache, fatigue, adenopathy, low grade fever, sore throat, rash, mucocutaneous lesions, and condylomata lata (large, raised, whitish or grey, flat-topped lesions found in warm moist areas).</td></tr>
<tr><td></td><td>Early latent syphilis</td><td>Less than 2 years</td><td>No symptoms or signs of infection at the time of diagnosis.</td></tr>
<tr><td>Late latent syphilis</td><td colspan="3">More than 2 years or unknown duration, with absence of clinical signs, and considered as non-infectious.</td></tr>
<tr><td>Congenital syphilis</td><td colspan="3">Infectious agent Treponema pallidum crosses the placenta and infects the foetus at any time in the pregnancy. If untreated, this can result in intrauterine foetal death, stillbirth or a premature baby. The infected baby can present with symptoms involving almost any organ including coryza, poor growth, eye lesions, long bone lesions, hepatitis, cerebral or pulmonary symptoms.</td></tr>
</table>

For national surveillance case definitions, please refer to the weblink below:
httphttps://www.health.gov.au/resources/collections/cdna-surveillance-case-definitions