

## Notifications of bloodborne viruses and sexually transmissible infections (BBVSTIs) in Queensland: 1 January–31 December 2021

### Quarterly surveillance report

This report provides an overview of the epidemiology of bloodborne viruses and sexually transmissible infections (BBVSTIs) notified in Queensland, updated on a quarterly basis.

Data were extracted from the Queensland Health Notifiable Conditions System on 10 May 2022, for BBVSTIs with episode dates between 1 January 2016 and 31 December 2021. Data for 2021 should be interpreted with caution due to the impact that the COVID-19 pandemic has had on disease burden and testing. The effects of the pandemic and its control measures are not covered as they are beyond the scope of this report.

Data are provisional and subject to change due to ongoing case investigations and data quality activities.

For current year to date totals, please refer to the online Queensland Health Notifiable Conditions Weekly Report [here](#). Other BBVSTI surveillance reports can be accessed through the Queensland Health [website](#).

### Summary

**Table 1: BBVSTI notification counts and rates in Queensland, quarterly update**

Disease	2021 counts by quarter				Annual counts			2021 rate
	Q1	Q2	Q3	Q4	2021	5-year average (2016–2020)	Annual change (%)	per 100,000 population
Hepatitis B total	155	182	189	210	736	919.4	-20	14.2
Hepatitis B (newly acquired)	6	15	9	8	38	49.0	-22	0.7
Hepatitis B (unspecified)	149	167	180	202	698	870.4	-20	13.5
Hepatitis C total	513	524	539	481	2,057	2,353.6	-13	39.7
Hepatitis C (newly acquired)	153	135	158	132	578	412.2	+40	11.2
Hepatitis C (unspecified)	360	389	381	349	1,479	1,941.4	-24	28.6
HIV (new diagnoses)	37	31	35	22	125	165.0	-24	2.4
Chlamydia	6,018	5,215	5,772	5,579	22,584	23,119	-2	436.3
Gonorrhoea	1,442	1,354	1,392	1,362	5,550	5,199.2	+7	107.2
Infectious syphilis	234	257	299	247	1,037	1,003.0	+3	20.0

In 2021 (1 January–31 December):

- Gonorrhoea and infectious syphilis notifications increased by 7 and 3 per cent respectively compared with the previous 5-year average.
- Total hepatitis C notifications decreased by 13 per cent compared with the previous 5-year average, however for newly acquired hepatitis C there was a 40 per cent increase in notifications.
- New HIV diagnoses and hepatitis B notifications decreased by 24 and 20 per cent respectively in 2021 compared with the previous 5-year average.



## Hepatitis B notifications

**Table 2: Demographic and geographic characteristics of hepatitis B notifications in Queensland, 1 January–31 December 2021**

Characteristic	2021						5-year average (2016–2020)	2021 vs 5-yr average change (%) <sup>^</sup>	2021 rate (per 100,000 pop)	
	Q1	Q2	Q3	Q4	Total	%				
Hepatitis B classification										
Hepatitis B (newly acquired)*	6	15	9	8	38	5.2	49.0	-22	0.7	
Hepatitis B (unspecified)	149	167	180	202	698	94.8	870.4	-20	13.5	
Sex										
Male	87	96	100	103	386	52.4	480.6	-20	15.1	
Female	68	84	86	105	343	46.6	438.4	-22	13.1	
Unknown	0	2	3	2	7	1.0	0.4	-		
First Nations status										
First Nations	9	14	17	17	57	7.8	59.8	-5	23.6	
Non-First Nations	136	157	157	142	592	80.4	705.4	-16	12.0	
Unknown	10	11	15	51	87	11.8	154.2	-44	-	
Age group										
<15	1	0	3	3	7	1.0	10.8	↓	0.7	
15–19	2	2	1	4	9	1.2	24.2	↓	2.8	
20–24	7	9	6	8	30	4.1	58.4	-49	8.9	
25–29	9	17	19	15	60	8.2	106.6	-44	16.2	
30–34	18	28	27	30	103	14.0	145.4	-29	28.4	
35–39	27	28	32	35	122	16.6	143.0	-15	34.4	
40–44	24	23	21	19	87	11.8	93.2	-7	26.8	
45–49	17	22	17	20	76	10.3	91.0	-16	21.8	
50+	50	53	63	76	242	32.9	246.8	↔	13.8	
HHS of residence <sup>#</sup>										
North	Torres and Cape	1	4	4	6	15	2.0	20.8	-28	52.8
	North West	1	1	1	1	4	0.5	4.2	↓	14.6
	Cairns and Hinterland	11	13	8	17	49	6.7	63.2	-22	18.7
	Townsville	4	7	8	6	25	3.4	29.0	-14	10.3
	Mackay	3	1	8	2	14	1.9	13.4	↔	8.0
Central	Central West	0	0	0	0	0	0	1.0	↓	0
	Central Queensland	4	4	6	8	22	3.0	19.4	+13	10.0
	Wide Bay	8	7	0	5	20	2.7	16.8	+19	9.0
	South West	0	1	1	1	3	0.4	1.6	↑	12.5
South East	Darling Downs	6	5	7	6	24	3.3	24.2	↔	8.4
	Sunshine Coast	5	10	10	11	36	4.9	30.0	+20	8.1
	Metro North	34	37	38	38	147	20.0	200.8	-27	13.8
	Metro South	52	64	64	76	256	34.8	344.0	-26	21.2
	West Moreton	3	8	7	9	27	3.7	50.2	-46	8.6
	Gold Coast	23	20	27	24	94	12.8	100.8	-7	14.4
<b>Queensland total</b>	<b>155</b>	<b>182</b>	<b>189</b>	<b>210</b>	<b>736</b>	<b>100.0</b>	<b>919.4</b>	<b>-20</b>	<b>14.2</b>	

\* Cases with evidence of infection acquired within 24 months prior to diagnosis.

# HHS – Hospital and Health Service, refer to [HHS maps](#) for their boundaries.

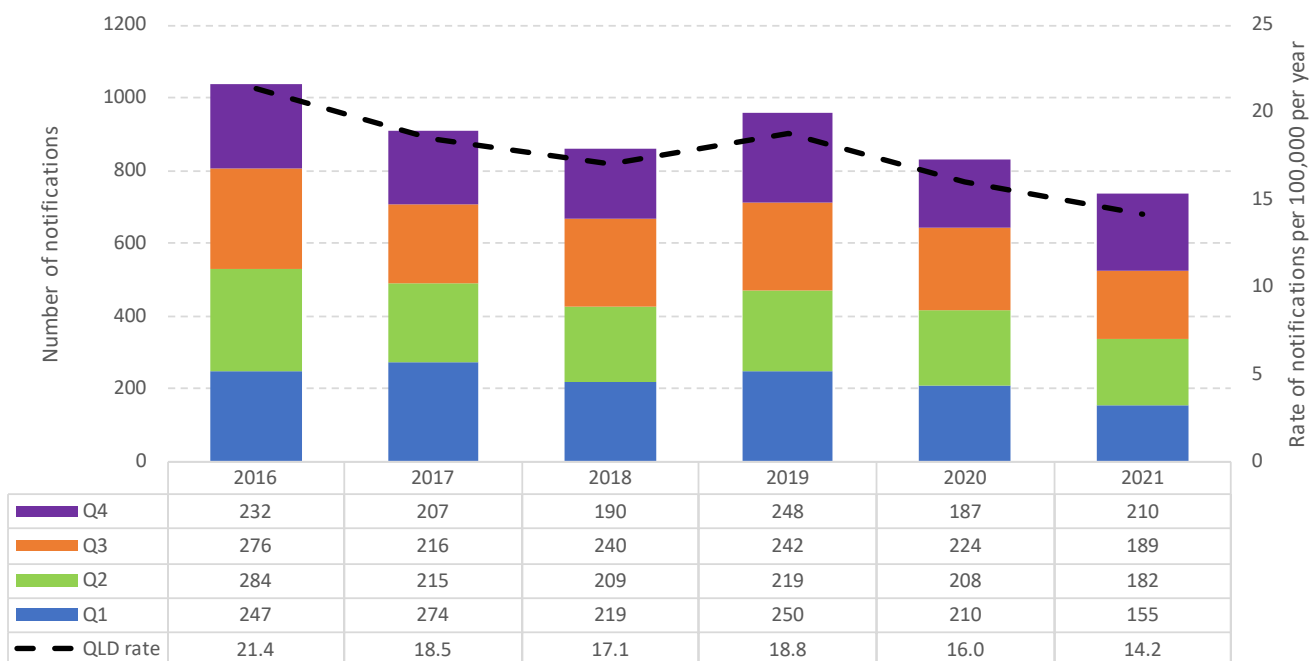
<sup>^</sup> Caution needed to interpret percentage change over time when the count of notifications in sub-groups is small.

In instances where the current year total and/or the five-year average is ≤10, symbols of ↑ and ↓ are used to indicate the direction of changes. The symbol ↔ denotes largely no change in numbers.

In 2021 (1 January–31 December):

- A total of 736 hepatitis B cases were notified, of which about 5 per cent were classified as newly acquired (Table 2). Follow-up of newly acquired hepatitis B cases is undertaken by Public Health Units.
- The hepatitis B notification count in males was slightly higher than that in females. There was around 20 per cent reduction in notifications in both males and females in 2021 when compared with the previous 5-year average.
- First Nations people accounted for 8 per cent and non-First Nations people, 80 per cent of the hepatitis B notifications. First Nations status was not reported for 12 per cent of the notifications of hepatitis B in 2021. The rate of hepatitis B notifications in First Nations people was 2 times higher than for non-First Nations people.
- 39 per cent of the hepatitis B notifications in 2021 were aged between 25 and 39 years, with a further 33 per cent in people aged 50 years or older.
- The largest count of hepatitis B notifications was from Metro South HHS (n=256), followed by Metro North HHS (n=147), Gold Coast HHS (n=94), and Cairns and Hinterland HHS (n=49). When compared with the five-year average, notifications from Sunshine Coast and Wide Bay HHS increased by 20 and 19 per cent, respectively, whereas notifications in most of HHS from North Queensland and South East Queensland declined.
- Torres and Cape HHS had the highest rate of hepatitis B notifications at almost 4 times the Queensland rate (53 vs. 14 per 100,000 population).
- Of 736 hepatitis B cases, 13 were reported in correctional settings (all classified as hepatitis B unspecified).

**Figure 1: Total hepatitis B notification counts in Queensland, by quarter, 1 January 2016–31 December 2021, and annual notification rates (per 100,000 population per year)**



In 2021 (1 January–31 December):

- There was a total of 736 hepatitis B notifications, a 20 per cent decrease compared with the previous 5-year average notifications (n=919; Figure 1).

2016 to 2021:

- There was some fluctuation in hepatitis B notification rates from 2016 to 2021, with an overall 34 per cent decrease in this period.

## Hepatitis C notifications

**Table 3: Demographic and geographic characteristics of hepatitis C notifications in Queensland, 1 January–31 December 2021**

Characteristic	2021						5-year average (2016–2020)	2021 vs 5-yr average change (%) <sup>^</sup>	2021 rate (per 100,000 pop)	
	Q1	Q2	Q3	Q4	Total	%				
Hepatitis C classification										
Hepatitis C (newly acquired)*	153	135	158	132	578	28.1	412.2	+40	11.2	
Hepatitis C (unspecified)	360	389	381	349	1,479	71.9	1,941.4	-24	28.6	
Sex										
Male	364	384	392	339	1,479	71.9	1,669.2	-11	57.8	
Female	149	137	141	136	563	27.4	683.6	-18	21.5	
Unknown	0	3	6	6	15	0.7	0.8	↑	-	
First Nations status										
First Nations	140	147	161	152	600	29.2	501.4	+20	248.2	
Non-First Nations	361	359	357	269	1,346	65.4	1,571.4	-14	27.3	
Unknown	12	18	21	60	111	5.4	280.8	-60	-	
Age group										
<15	1	1	0	3	5	0.2	10.2	↓	0.5	
15–19	24	11	14	12	61	3.0	82.4	-26	19.1	
20–24	66	60	73	75	274	13.3	287.4	-5	80.9	
25–29	80	87	89	82	338	16.4	327.4	+3	91.2	
30–34	78	80	69	68	295	14.3	300.2	-2	81.4	
35–39	52	64	77	64	257	12.5	277.0	-7	72.6	
40–44	41	58	59	44	202	9.8	262.2	-23	62.1	
45–49	51	35	33	48	167	8.1	227.0	-26	48.0	
50+	120	128	125	85	458	22.3	579.8	-21	26.0	
HHS of residence <sup>#</sup>										
North	Torres and Cape	0	0	3	2	5	0.2	10.2	↓	17.6
	North West	4	3	5	1	13	0.6	9.8	↑	47.3
	Cairns and Hinterland	18	20	22	16	76	3.7	147.0	-48	29.1
	Townsville	23	29	22	15	89	4.3	89.2	↔	36.6
	Mackay	9	9	14	8	40	1.9	57.8	-31	22.9
Central	Central West	0	0	0	1	1	0.1	3.8	↓	9.8
	Central Queensland	13	14	24	13	64	3.1	83.0	-23	29.0
	Wide Bay	27	22	17	17	83	4.0	125.2	-34	37.4
	South West	2	0	2	3	7	0.3	13.6	↓	29.3
South East	Darling Downs	36	24	26	27	113	5.5	110.6	↔	39.5
	Sunshine Coast	18	23	18	24	83	4.0	121.2	-32	18.6
	Metro North	55	72	56	57	240	11.7	305.0	-21	22.6
	Metro South	76	73	92	66	307	14.9	369.2	-17	25.5
	West Moreton	17	24	19	21	81	3.9	107.6	-25	25.9
	Gold Coast	44	42	44	34	164	8.0	212.4	-23	25.2
<i>HHS sub-total</i>										
	342	355	364	305	1,366	66.4	1,765.6	-23	26.4	
<i>Prison settings sub-total</i>										
	171	169	175	176	691 <sup>^</sup>	33.6	588.0	+18	7,744.0 <sup>¥</sup>	
<b>Queensland total</b>										
	<b>513</b>	<b>524</b>	<b>539</b>	<b>481</b>	<b>2,057</b>	<b>100.0</b>	<b>2,353.6</b>	<b>-13</b>	<b>39.7</b>	

\* Cases with evidence of infection acquired within 24 months prior to diagnosis.

# HHS – Hospital and Health Service, refer to [HHS maps](#) for their boundaries.

† Counts of hepatitis C notifications from individual HHS areas exclude notifications from correctional settings.

<sup>^</sup> Caution needs to be exercised in interpretation of % change over time when the count of notifications in sub-groups is small.

In instances where current year total or the five-year average is ≤10, symbols of ↑ and ↓ are used to indicate the direction of changes instead of providing % changes. The symbol ↔ denotes largely no change in numbers.

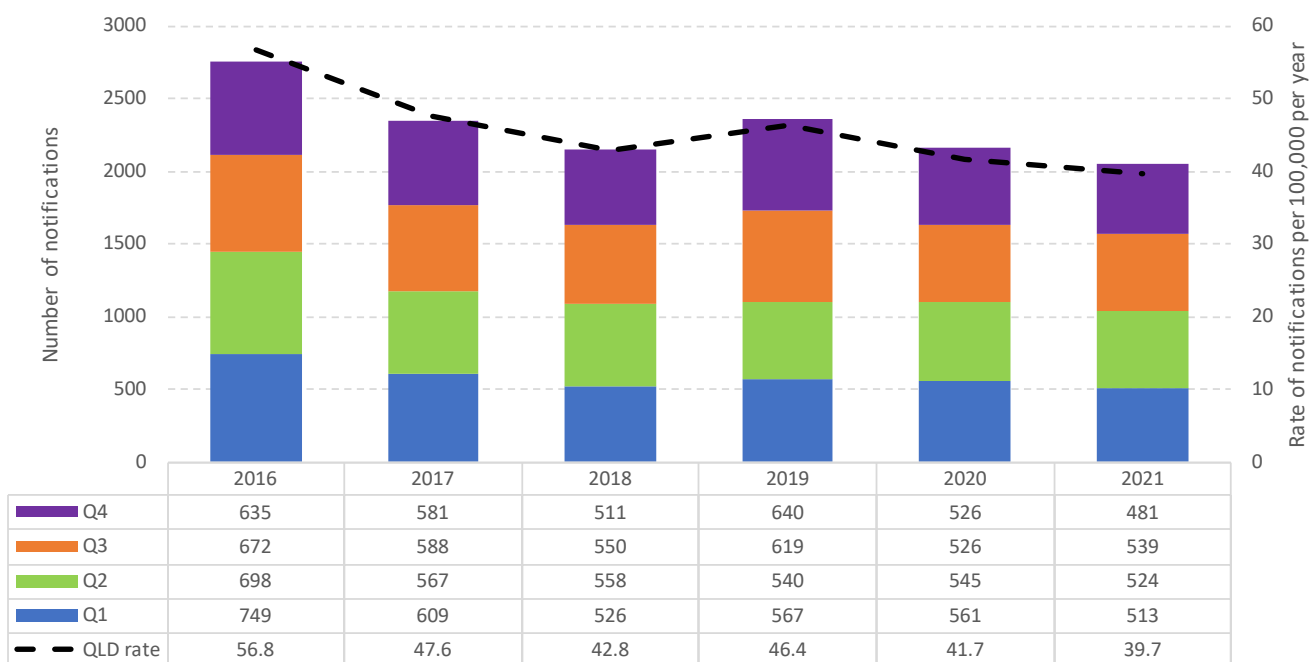
<sup>^</sup> Of 691 cases in correctional settings, 388 were newly acquired hepatitis C cases.

<sup>¥</sup> Rate estimated using the average prisoner population from 2018-2019 (n=8,923), sourced from [Qld correctional services statistics](#).

In 2021 (1 January–31 December):

- A total of 2,057 hepatitis C cases were notified, of which 28 per cent (n=578) were classified as newly acquired (Table 3). Compared with the previous 5-year average, there was a 24 per cent decrease in unspecified hepatitis C notifications in 2021 but a 40 per cent increase in newly acquired hepatitis C notifications.
- Notifications decreased in 2021 in both males and females when compared with the five-year average, however, there were more hepatitis C notifications in males than females (72 vs 27%).
- Notifications in First Nations people accounted for 29 per cent of the total hepatitis C notifications, with 65 per cent in non-First Nations Queenslanders. First Nations status was not reported in 5 per cent of the total cases. The rate of hepatitis C notifications in First Nations Queenslanders was 9 times higher than in non-First Nations Queenslanders.
- 57 per cent of the total hepatitis C notifications were in those aged between 20 and 39 years, with a further 22 percent of notifications in those aged 50 years or older. There was a decrease in notifications in most of the age groups in 2021 when compared with the five-year average.
- Correctional settings accounted for one-third of the total hepatitis C notifications (and 61% of newly acquired hepatitis C notifications). There was an 18 per cent increase in hepatitis C notifications in correctional settings in 2021 compared with the previous 5-year average. The rate of hepatitis C notifications in incarcerated people was 293 times higher than in non-incarcerated Queenslanders.
- In non-correctional settings, there was a 23 per cent reduction in notifications when compared with the five-year average. The largest number of hepatitis C notifications in 2021 was from Metro South HHS (n=307), followed by Metro North HHS (n=240), Gold Coast HHS (n=164), and Darling Downs HHS (n=113).

**Figure 2: Total hepatitis C notification counts in Queensland, by quarter, 1 January 2016–31 December 2021, and annual notification rates (per 100,000 population per year).**



In 2021 (1 January–31 December):

- There was a 13 per cent decrease in hepatitis C notifications when compared to the previous 5-year average (n=2,354; Figure 2).

2016 to 2021:

- Overall, there was a 30 per cent decrease in hepatitis C notification rates from 2016 to 2021.

## New HIV notifications

**Table 4: Demographic and geographic characteristics of new HIV notifications in Queensland, 1 January–31 December 2021**

Characteristic	2021						5-year average (2016–2020)	2021 vs 5-yr average change (%) <sup>^</sup>	2021 rate (per 100,000 pop)	
	Q1	Q2	Q3	Q4	Total	%				
<b>Sex</b>										
Male	31	27	30	16	104	83.2	147.6	-30	4.1	
Female	6	3	5	6	20	16.0	17.0	+18	0.8	
Other*	0	1	0	0	1	0.8	0.4	↑	-	
<b>First Nations status</b>										
First Nations	3	1	1	1	6	4.8	12.2	↓	2.5	
Non-First Nations	33	30	33	21	117	93.6	152.8	-23	2.4	
Unknown	1	0	1	0	2	1.6	0	↑		
<b>Age group</b>										
<15	0	0	0	0	0	0.0	1.0	↓	0	
15–19	0	1	0	1	2	1.6	1.8	↔	0.6	
20–24	2	6	0	0	8	6.4	20.8	↓	2.4	
25–29	6	4	11	2	23	18.4	32.4	-29	6.2	
30–34	4	5	7	5	21	16.8	25.2	-17	5.8	
35–39	6	1	4	4	15	12.0	18.4	-18	4.2	
40–44	6	4	3	2	15	12.0	15.8	-5	4.6	
45–49	5	4	2	2	13	10.4	14.4	-10	3.7	
50+	8	6	8	6	28	22.4	35.2	-20	1.6	
<b>HHS of residence<sup>#</sup></b>										
North	Torres and Cape	0	0	0	0	0	0.0	2.0	↓	0
	North West	0	0	1	2	3	2.4	0.8	↑	10.9
	Cairns and Hinterland	6	4	4	2	16	12.8	15.8	↔	6.1
	Townsville	0	0	1	1	2	1.6	4.8	↓	0.8
	Mackay	2	2	1	1	6	4.8	2.6	↑	3.4
Central	Central West	0	0	0	0	0	0.0	0.4	↓	0
	Central Queensland	1	0	0	0	1	0.8	3.8	↓	0.5
	Wide Bay	0	1	1	2	4	3.2	3.0	↑	1.8
	South West	0	0	0	0	0	0.0	0.2	↓	0
South East	Darling Downs	1	2	0	0	3	2.4	4.4	↓	1.0
	Sunshine Coast	2	1	3	1	7	5.6	6.6	↔	1.6
	Metro North	9	9	13	6	37	29.6	43.8	-16	3.5
	Metro South	10	8	3	2	23	18.4	40.8	-44	1.9
	West Moreton	0	3	1	1	5	4.0	10.0	↓	1.6
Gold Coast	6	1	7	4	18	14.4	26.0	-31	2.8	
<b>Queensland total</b>	<b>37</b>	<b>31</b>	<b>35</b>	<b>22</b>	<b>125</b>	<b>100.0</b>	<b>165.0</b>	<b>-24</b>	<b>2.4</b>	

\* Identified as transgender at the time of HIV diagnosis

# HHS – Hospital and Health Service, refer to [HHS maps](#) for their boundaries.

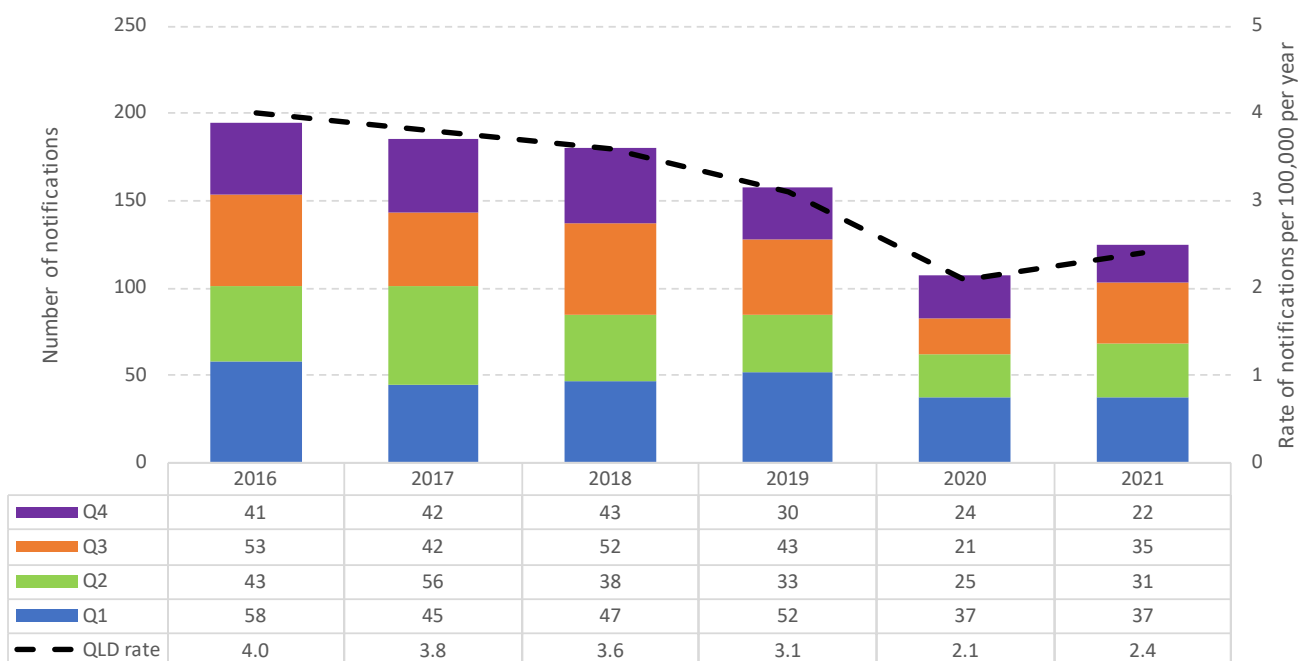
<sup>^</sup> Caution needs to be exercised in interpretation of % change over time when the count of notifications in sub-groups is small.

In such instance where current year total or the five-year average is ≤10, symbols of ↑ and ↓ are used to indicate the direction of changes instead of providing % changes. The symbol ↔ denotes largely no change in numbers.

In 2021 (1 January–31 December):

- Most new HIV cases (83%, 104/125) were reported in males in 2021 (Table 4).
- Cases in First Nations people accounted for 4.8 per cent of the new HIV notifications. The rate of new HIV notifications in First Nations Queenslanders was similar to that in non-First Nations Queenslanders.
- 54 per cent of the new cases were aged between 20 and 39 years, with 44 per cent aged 40 years or older. Notifications of new HIV diagnoses decreased in almost all age groups when compared with the five-year average.
- The highest numbers of new HIV cases were from Metro North HHS (n=37), Metro South HHS (n=23), Gold Coast HHS (n=18) and Cairns and Hinterland HHS (n=16). Despite small numbers, there was an increase in new HIV cases in Mackay HHS and North West HHS when compared with their respective five-year average. Most of the other HHSs showed a decrease in new HIV cases.
- North West HHS reported the highest rates of new HIV notifications (10.9 per 100,000 population), followed by Cairns and Hinterland (6.1 per 100,000 population) and Metro North (3.5 per 100,000 population), compared with the Queensland-wide new HIV notification rate (2.4 per 100,000 population).

**Figure 3: New HIV notification counts in Queensland, by quarter, 1 January 2016–31 December 2021, and annual notification rates (per 100,000 population per year).**



In 2021 (1 January–31 December):

- There were 125 new HIV notifications, a 24 per cent decrease when compared with the previous 5-year average (n=165; Figure 3).

2016 to 2021

- There was a downward trend in statewide new HIV notifications between 2016 and 2021, representing a 40 per cent decrease in notification rates during this period.
- New HIV notifications in First Nations people continued to decrease between 2016 (20 cases) and 2021 (6 cases) (data not shown in Figure 3).
- An ongoing decrease in new HIV notification rates was observed in First Nations people, from 9 per 100,000 population in 2016 to 2.5 per 100,000 population in 2021.



## Chlamydia notifications

**Table 5: Demographic and geographic characteristics of chlamydia notifications in Queensland, 1 January–31 December 2021**

Characteristic	2021					Total	%	5-year average (2016–2020)	2021 vs 5-yr average change (%) <sup>^</sup>	2021 rate (per 100,000 pop)
	Q1	Q2	Q3	Q4						
<b>Sex</b>										
Male	2,537	2,238	2,382	2,431	9,588	42.5	9,980.6	-4	374.9	
Female	3,467	2,942	3,362	3,121	12,892	57.1	13,117.0	-2	492.3	
Women of reproductive age (15–44 years)	3,343	2,865	3,273	3,048	12,529*		12,725.2	-2	1,201.5	
Other	1	0	0	0	1		0.4	↑	-	
Unknown	13	35	28	27	103	0.4	21.0	+390	-	
<b>First Nations status</b>										
First Nations	900	566	478	400	2,344	10.4	3,381.8	-31	969.6	
Non-First Nations	3,851	2,416	1,148	1,210	8,625	38.2	14,662.4	-41	410.2 <sup>¥</sup>	
Unknown	1,267	2,233	4,146	3,969	11,615	51.4	5,074.8	+129	-	
<b>Age group</b>										
<15	24	19	27	19	89	0.4	122.6	-27	8.9	
15–19	1,261	1,052	1,279	1,259	4,851	21.5	4,975.2	-2	1,520.6	
20–24	2,058	1,785	2,032	1,957	7,832	34.7	8,175.4	-4	2,311.5	
25–29	1,213	1,048	1,092	1,081	4,434	19.6	4,588.6	-3	1,196.9	
30–34	638	564	626	544	2,372	10.5	2,256.8	+5	654.3	
35–39	348	345	296	320	1,309	5.8	1,220.2	+7	369.5	
40–44	187	182	169	177	715	3.2	712.2	↔	219.9	
45–49	117	83	107	83	390	1.7	459.0	-15	112.1	
50+	172	137	144	139	592	2.6	608.8	-3	33.7	
<b>HHS of residence<sup>#</sup></b>										
North	Torres and Cape	140	110	183	109	542	2.4	605.0	-10	1,906.6
	North West	73	60	86	64	283	1.3	283.8	↔	1,030.7
	Cairns and Hinterland	368	394	368	387	1,517	6.7	1,978.4	-23	580.5
	Townsville	359	339	416	386	1,500	6.6	1,633.0	-8	616.4
	Mackay	211	203	240	230	884	3.9	753.2	+17	505.7
Central	Central West	7	13	15	15	50	0.2	42.8	+17	491.6
	Central Queensland	299	221	277	259	1,056	4.7	917.2	+15	478.1
	Wide Bay	150	129	180	139	598	2.7	580.0	+3	269.7
	South West	33	26	18	24	101	0.5	71.0	+42	422.5
	Darling Downs	277	211	234	271	993	4.4	892.4	+11	347.1
South East	Sunshine Coast	370	329	372	374	1,445	6.4	1,433.2	↔	324.1
	Metro North	1,307	1,103	1,103	1,123	4,636	20.5	4,856.6	-5	435.9
	Metro South	1,290	1,096	1,241	1,195	4,822	21.4	4,830.6	↔	400.2
	West Moreton	315	299	317	326	1,257	5.6	1,141.4	+10	402.2
	Gold Coast	819	682	722	677	2,900	12.8	3,100.4	-6	445.5
<b>Queensland total</b>	<b>6,018</b>	<b>5,215</b>	<b>5,772</b>	<b>5,579</b>	<b>22,584</b>	<b>100.0</b>	<b>23,119</b>	<b>-2</b>	<b>436.3</b>	

<sup>#</sup> HHS – Hospital and Health Service, refer to [HHS maps](#) for their boundaries.

<sup>^</sup> Caution needs to be exercised in interpretation of % change over time when the count of notifications in sub-groups is small.

In such instance where current year total or the five-year average is ≤10, symbols of ↑ and ↓ are used to indicate the direction of changes instead of providing % changes. The symbol ↔ denotes largely no change in numbers.

\* Of these 12,529 cases, 2,805 were from the north region, 1,636 from the central region, and 8,088 from the south east region.

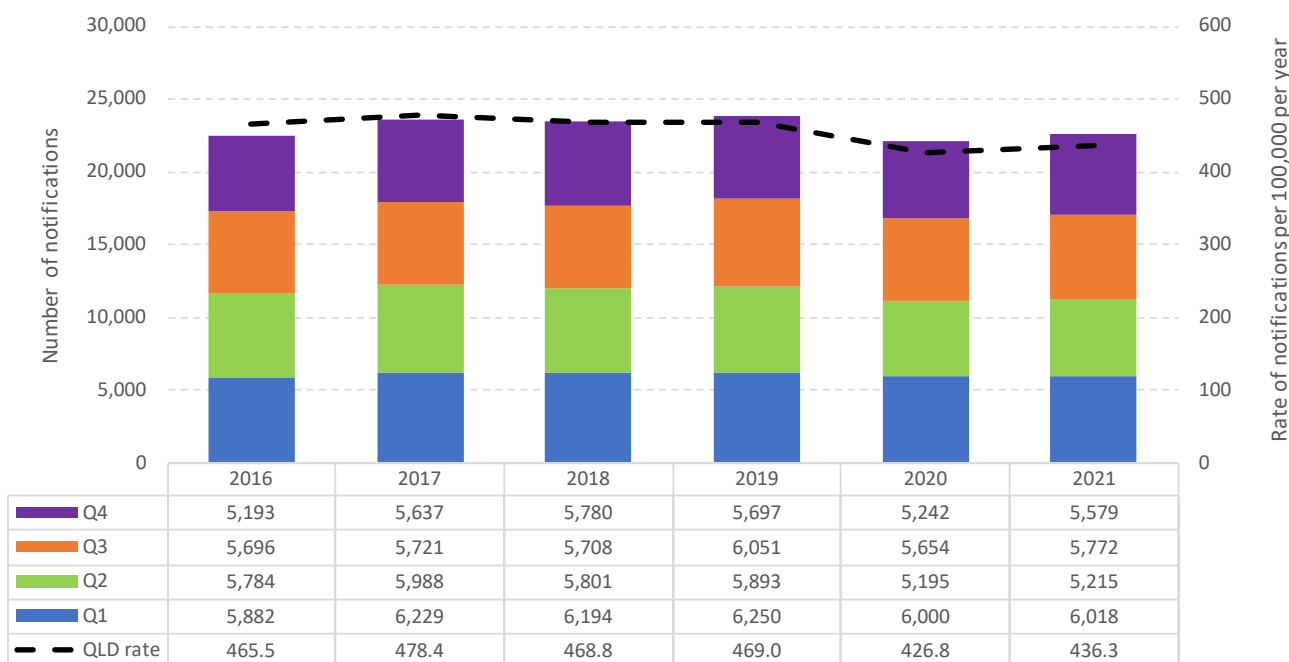
¥ Rate for non-First Nations people was calculated using the combined number of non-First Nations cases and cases with unknown First Nations status divided by the estimated non-First Nations resident population.



In 2021 (1 January–31 December):

- There were more chlamydia notifications in females than males (57% vs 43%, Table 5). Of 12,892 female chlamydia cases, 12,529 (97%) were in women of reproductive age.
- 38 per cent of the notifications were in non-First Nations Queenslanders, 10 per cent in First Nations people, with a further 51 per cent of the total notifications where no First Nations status was recorded. The rate of chlamydia notifications reported among First Nations people was 2.4 times higher than in other Queenslanders.
- 56 percent of chlamydia notifications were in those aged between 15 and 24 years, with a further 30 per cent of notifications in those aged 25 to 34 years. There were increases in notifications of chlamydia in 2021 when compared with the five-year average for those aged 30 to 39 years and decreases in almost all other age groups.
- The highest number of chlamydia notifications was from Metro South HHS (n=4,822), followed by Metro North HHS (n=4,636), Gold Coast HHS (n=2,900), and Cairns and Hinterland HHS (n=1,517). Notifications of chlamydia in 2021 increased in all 5 HHSs in the Central Queensland area, Mackay HHS, and West Moreton HHS compared with the five-year average, whereas notifications remained relatively stable or decreased in other HHSs.
- Torres and Cape HHS reported the highest rate of chlamydia notifications at 4.4 times the Queensland rate (1,907 vs. 436 per 100,000 population).

**Figure 4: Chlamydia notification counts in Queensland, by quarter, 1 January 2016–31 December 2021, and annual notification rates (per 100,000 population per year).**



In 2021 (1 January–31 December):

- There were 22,584 chlamydia notifications, which was slightly lower than the previous 5-year average (n=23,119; Figure 4).

2016 to 2021:

- Chlamydia notification rates were relatively stable but remained high during the period 2016-2021.

## Gonorrhoea notifications

Table 6: Demographic and geographic characteristics of gonorrhoea notifications in Queensland, 1 January–31 December 2021

Characteristic	2021						5-year average (2016–2020)	2021 vs 5-yr average change (%) <sup>^</sup>	2021 rate (per 100,000 pop)	
	Q1	Q2	Q3	Q4	Total	%				
Sex										
Male	863	803	739	775	3,180	57.3	3,415.2	-7	124.3	
Female	572	542	648	579	2,341	42.2	1,781.2	+31	89.4	
Women of reproductive age (15–44 years)	525	505	608	547	2,185*		1,660.4	+32	209.5	
Unknown	7	9	5	8	29	0.5	2.6	↑	-	
First Nations status										
First Nations	317	222	209	187	935	16.9	999.2	-6	386.8	
Non-First Nations	861	643	366	373	2,243	40.4	3,252.6	-31	93.5 <sup>¥</sup>	
Unknown	264	489	817	802	2,372	42.7	947.4	+150	-	
Age group										
<15	11	4	14	4	33	0.6	28.4	+16	3.3	
15–19	152	149	186	183	670	12.1	597.8	+12	210.0	
20–24	321	278	333	324	1,256	22.6	1,191.6	+5	370.7	
25–29	312	286	289	284	1,171	21.1	1,136.2	+3	316.1	
30–34	234	235	214	227	910	16.4	825.6	+10	251.0	
35–39	140	155	150	139	584	10.5	527.4	+11	164.9	
40–44	103	91	81	76	351	6.3	340.8	+3	107.9	
45–49	73	70	53	47	243	4.4	231.0	+5	69.8	
50+	96	86	72	78	332	6.0	320.4	+4	18.9	
HHS of residence <sup>#</sup>										
North	Torres and Cape	41	26	31	23	121	2.2	175.8	-31	425.9
	North West	42	25	39	35	141	2.5	102.0	+38	513.5
	Cairns and Hinterland	93	96	91	87	367	6.6	454.4	-19	140.4
	Townsville	78	100	62	68	308	5.6	225.6	+37	126.6
	Mackay	41	45	58	58	202	3.6	115.6	+75	115.6
Central	Central West	0	1	1	3	5	0.1	2.6	↑	49.2
	Central Queensland	71	66	46	52	235	4.2	164.2	+43	106.4
	Wide Bay	20	28	43	17	108	2.0	86.2	+25	48.7
	South West	2	1	0	2	5	0.1	5.6	↓	20.9
	Darling Downs	44	35	51	36	166	3.0	130.6	+27	58.0
South East	Sunshine Coast	52	58	79	70	259	4.7	205.8	+26	58.1
	Metro North	334	301	282	277	1,194	21.5	1,413.2	-16	112.3
	Metro South	358	310	370	359	1,397	25.2	1,215.8	+15	115.9
	West Moreton	74	77	68	78	297	5.4	206.2	+44	95
	Gold Coast	192	185	171	197	745	13.4	695.6	+7	114.4
<b>Queensland total</b>	<b>1,442</b>	<b>1,352</b>	<b>1,392</b>	<b>1,362</b>	<b>5,550</b>	<b>100.0</b>	<b>5,199.2</b>	<b>+7</b>	<b>107.2</b>	

# HHS – Hospital and Health Service, refer to [HHS maps](#) for their boundaries.

<sup>^</sup> Caution needs to be exercised in interpretation of % change over time when the count of notifications in sub-groups is small.

In such instance where current year total or the five-year average is ≤10, symbols of ↑ and ↓ are used to indicate the direction of changes instead of providing % changes. The symbol ↔ denotes largely no change in numbers.

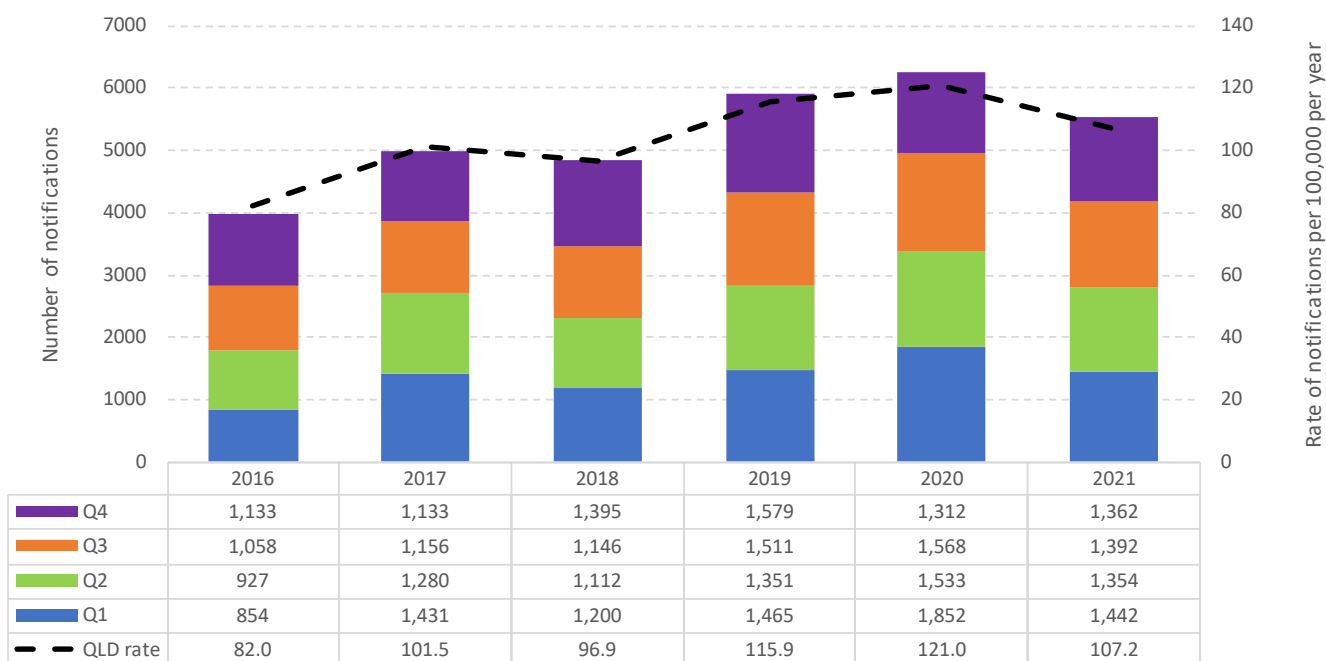
\* Of these 2,185 cases, 523 were from the north region, 251 from the central region, and 1,411 from the south east region.

¥ Rate for non-First Nations people was calculated using the combined number of non-First Nations cases and cases with unknown First Nations status divided by the estimated non-First Nations resident population.

In 2021 (1 January–31 December):

- There were more gonorrhoea notifications in males than females (57% vs 42%, Table 6). When compared with the previous 5-year average, there was an increase in notifications in females (+31%) but a decrease in males (-7%). Of 2,341 female cases notified, 2,185 (93%) were in women of reproductive age.
- 40 per cent of gonorrhoea notifications were in non-First Nations Queenslanders, 17 per cent in First Nations people, with a further 43 per cent of the total notifications where no First Nations status was recorded. The rate of gonorrhoea notifications reported among First Nations people was 4 times higher than in other Queenslanders.
- 44 per cent of the gonorrhoea notifications were in people aged 20 to 29 years, with a further 27 per cent aged 30 to 39 years. Compared with the previous 5-year average, an increase in notifications occurred across all age groups.
- The largest number of gonorrhoea notifications was from Metro South HHS (n=1,397), followed by Metro North HHS (n=1,194), Gold Coast HHS (n=745), and Cairns and Hinterland HHS (n=367). Most HHSs experienced an increase in gonorrhoea notifications in 2021 compared with the previous five-year average.
- North West HHS and Torres and Cape HHS reported the highest rates of gonorrhoea notifications at 4.8 and 4 times the Queensland rate, respectively.

**Figure 5: Gonorrhoea notification counts in Queensland, by quarter, 1 January 2016–31 December 2021, and annual notification rates (per 100,000 population per year).**



In 2021 (1 January–31 December):

- There were 5,550 gonorrhoea notifications, a 7 per cent increase when compared with the previous 5-year average (n=5,199; Figure 5).

2016 to 2021:

There was a 31% increase in gonorrhoea notification rates from 2016 to 2021.

## Infectious syphilis notifications

**Table 7: Demographic and geographic characteristics of infectious syphilis notifications in Queensland, 1 January–31 December 2021**

Characteristic	2021						5-year average (2016–2020)	2021 vs 5-yr average change (%) <sup>^</sup>	2021 rate (per 100,000 pop)	
	Q1	Q2	Q3	Q4	Total	%				
<b>Sex</b>										
Male	176	196	234	198	804	77.5	787.4	+2	31.4	
Female	58	59	64	49	230	22.2	214.6	+7	8.8	
Women of reproductive age (15–44 years)	52	56	59	44	211*		193.0	+9	20.2	
Pregnant female	7	8	4	10	29		31.4	-8	49.4 <sup>a</sup>	
Other	0	1	0	0	1	0.1	1.0	↔		
Unknown	0	1	1	0	2	0.2				
<b>First Nations status</b>										
First Nations	44	59	62	49	214	20.6	284.8	-25	88.5	
Non-First Nations	189	178	200	153	720	69.4	713.8	+1	14.6	
Unknown	1	20	37	45	103	9.9	4.4	↑	-	
<b>Age group</b>										
<15	1	0	0	0	1	0.1	5.4	↓	0.1	
15–19	12	10	9	4	35	3.4	86.0	-59	11.0	
20–24	25	41	35	30	131	12.6	156.8	-16	38.7	
25–29	38	51	51	37	177	17.1	173.2	+2	47.8	
30–34	37	54	59	60	210	20.3	165.0	+27	57.9	
35–39	31	33	45	36	145	14.0	116.4	+25	40.9	
40–44	25	26	34	26	111	10.7	87.2	+27	34.1	
45–49	22	12	22	23	79	7.6	75.6	+4	22.7	
50+	43	30	44	31	148	14.3	137.4	+8	8.4	
<b>HHS of residence<sup>#</sup></b>										
North	Torres and Cape	3	12	3	6	24	2.3	30.0	-20	84.4
	North West	11	5	6	2	24	2.3	44.4	-46	87.4
	Cairns and Hinterland	10	23	18	18	69	6.7	134.4	-49	26.4
	Townsville	11	8	11	5	35	3.4	71.6	-51	14.4
	Mackay	4	5	3	7	19	1.8	12.4	+53	10.9
Central	Central West	0	0	0	0	0	0	1.8	↓	0
	Central Queensland	6	15	16	17	54	5.2	26.0	+108	24.4
	Wide Bay	2	3	2	2	9	0.9	11.6	↓	4.1
	South West	0	0	0	0	0	0	1.4	↓	0
South East	Darling Downs	5	10	7	3	25	2.4	26.2	-5	8.7
	Sunshine Coast	3	2	7	4	16	1.5	36.2	-56	3.6
	Metro North	67	80	89	72	308	29.7	293.2	+5	29.0
	Metro South	65	54	79	65	263	25.4	175.0	+50	21.8
	West Moreton	9	11	15	13	48	4.6	36.6	+31	15.4
Gold Coast	38	29	43	33	143	13.8	102.2	+40	22.0	
<b>Queensland total</b>	<b>234</b>	<b>257</b>	<b>299</b>	<b>247</b>	<b>1,037</b>	<b>100.0</b>	<b>1,003.0</b>	<b>+3</b>	<b>20.0</b>	

# HHS – Hospital and Health Service, refer to [HHS maps](#) for their boundaries.

<sup>^</sup> Caution needs to be exercised in interpretation of % change over time when the count of notifications in sub-groups is small.

In such instance where the current year total or five-year average is ≤10, symbols of ↑ and ↓ are used to indicate the direction of changes instead of providing % changes. The symbol ↔ denotes largely no change in numbers.

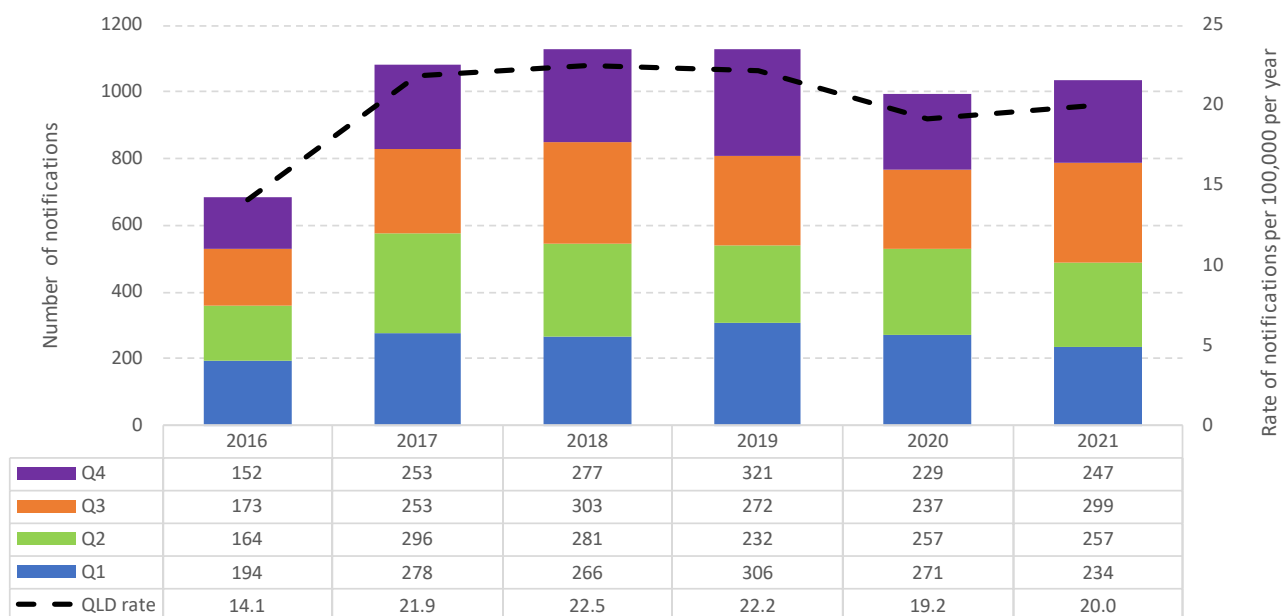
\* Of these 211 cases, 73 were from the north region, 35 from the central region, and 103 from the south east region.

<sup>a</sup> Rates in pregnant women estimated using the 2020 'Number of Mothers' (n=58,731), sourced from the [Queensland Perinatal Statistics](#).

In 2021 (1 January–31 December):

- There were more notifications of infectious syphilis in males than females (78% vs 22%, Table 7).
- There was a 9% increase in infectious syphilis notifications in women of reproductive age compared with the previous five-year average. Of 230 female cases, 211 (92%) were in women of reproductive age, 29 of which were in pregnant women.
- 48 per cent of the notifications in pregnant women were associated with the ongoing infectious syphilis outbreak (n=14) and most of these notifications were from North West HHS (n=5) and Townsville HHS (n=4). The rate of infectious syphilis notifications reported among pregnant women was 2.5 times the Queensland rate (49 vs. 20 per 100,000 population).
- 69 per cent of infectious syphilis notifications were in non-First Nations Queenslanders, and 21 per cent in First Nations people. There was a 25 per cent decrease in infectious syphilis cases in First Nations people. The rate of infectious syphilis notifications reported among First Nations people was 6 times higher than in non-First Nations people.
- Infectious syphilis cases were notified across all age groups with 64% of notifications in people aged 20 to 39 years.
- The highest number of infectious syphilis notifications was from Metro North HHS (n=308), followed by Metro South HHS (n=263), Gold Coast HHS (n=143) and Cairns and Hinterland HHS (n=69). There was a 46 to 51 per cent decrease in notifications of infectious syphilis in North West, Cairns and Hinterland and Townsville HHSs in 2021 compared with the previous five-year average. However, Mackay, Central Queensland, Metro North, Metro South, West Moreton, and Gold Coast HHSs experienced an increase in infectious syphilis notifications in comparison with their five-year average.
- In 2021, the highest rates of infectious syphilis were reported in North West HHS and Torres and Cape HHS (where an outbreak was declared in 2011 and 2012 respectively), which were 4 times the Queensland rate.

**Figure 6: Infectious syphilis notification counts in Queensland, by quarter, 1 January 2016–31 December 2021, and annual notification rates (per 100,000 population per year).**



In 2021 (1 January–31 December):

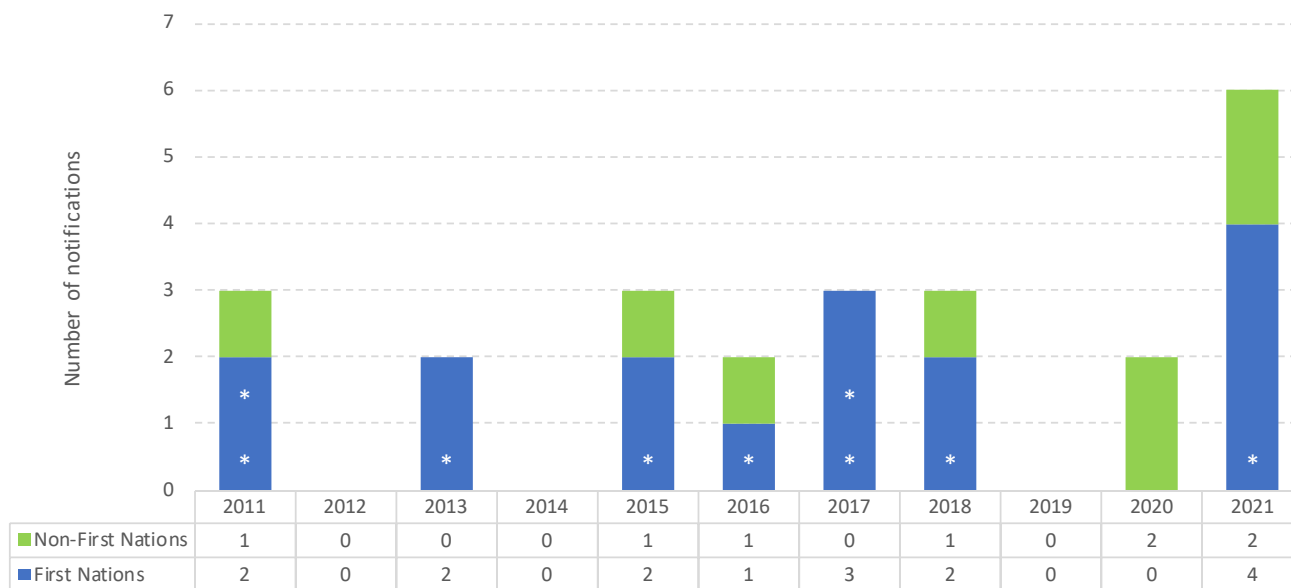
- There were 1,037 infectious syphilis notifications, a 3 per cent increase when compared with the previous 5-year average (n=1,003; Figure 6).

2016 to 2021:

- Statewide, there was a 55 per cent increase in infectious syphilis notification rates from 2016 to 2017. The rates remained high in 2018 and 2019, followed by a 10 per cent decrease in 2021.

### Congenital syphilis notifications

**Figure 7: Congenital syphilis notification counts in Queensland, by First Nations status, 1 January 2011–31 December 2021.**



\* Denotes deaths in congenital syphilis cases.

- There were 6 congenital syphilis cases notified in 2021 (1 January–31 December; Figure 7).
- Between 1 January 2011 and 31 December 2021, there were 24 congenital syphilis notifications (16 in the First Nations population and 8 in the non-First Nations population).
- Nine congenital syphilis cases were associated with intrauterine fetal deaths or died after birth (all in First Nations cases).

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