



Government of Western Australia  
Department of Health

# Quarterly Surveillance Report of Notifiable STIs & BBVs in Western Australia

Period ending 30 June 2010

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Produced by the Epidemiology & Surveillance Program,  
Communicable Disease Control Directorate, Department of Health, Western Australia.  
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## Notes:

1. All data in this report are provisional and subject to future revision.
2. To help place the data in this report in perspective, comparisons with other reporting periods are provided. As no formal statistical testing has been conducted, some caution should be taken with the interpretations provided.

## Summary

**Table 1 Number and percentage change of STI and BBV notifications by reporting period, WA**

Disease Category	Disease	2nd Quarter			01 July to 30 June			
		2nd Quarter 2010	5 Year Mean for 2nd Quarter <sup>1</sup>	2nd Quarter % Change <sup>2</sup>	01 Jul 09 - 30 Jun 10	01 Jul 08 - 30 Jun 09	5 Year Mean for 01 Jul - 30 Jun <sup>3</sup>	01 Jul - 30 Jun % Change <sup>4</sup>
STIs	Chlamydia	2,703	1,878.6	44%	9,472	8,883	6,953.6	36%
	Gonorrhoea	379	436.8	-13%	1,272	1,547	1,638.6	-22%
	Infectious Syphilis	26	25.2	3%	87	141	83.6	4%
	<b>STI Total</b>	<b>3,108</b>	<b>2,340.6</b>	<b>33%</b>	<b>10,831</b>	<b>10,571</b>	<b>8,675.8</b>	<b>25%</b>
BBVs	Hepatitis B (Newly acquired)	11	11.6	-5%	37	54	43.0	-14%
	Hepatitis B (Unspecified)	207	130.4	59%	764	639	548.0	39%
	Hepatitis B (Total)	218	142.0	54%	801	693	591.0	36%
	Hepatitis C (Newly acquired)	20	19.4	3%	85	101	99.4	-14%
	Hepatitis C (Unspecified)	249	314.6	-21%	1,045	1,110	1,140.6	-8%
	Hepatitis C (Total)	269	334.0	-19%	1,130	1,211	1,240.0	-9%
<b>BBV Total</b>	<b>487</b>	<b>476.0</b>	<b>2%</b>	<b>3,862</b>	<b>3,808</b>	<b>3,662.0</b>	<b>5%</b>	
<b>HIV</b>	<b>31</b>	<b>18.4</b>	<b>68%</b>	<b>112</b>	<b>83</b>	<b>70.4</b>	<b>59%</b>	
<b>Combined Total</b>	<b>3,626</b>	<b>2,835.0</b>	<b>28%</b>	<b>12,874</b>	<b>12,558</b>	<b>10,589.8</b>	<b>22%</b>	

Notes: <sup>1</sup>Historical five-year mean (i.e. from 2005 to 2009) for the current quarter.

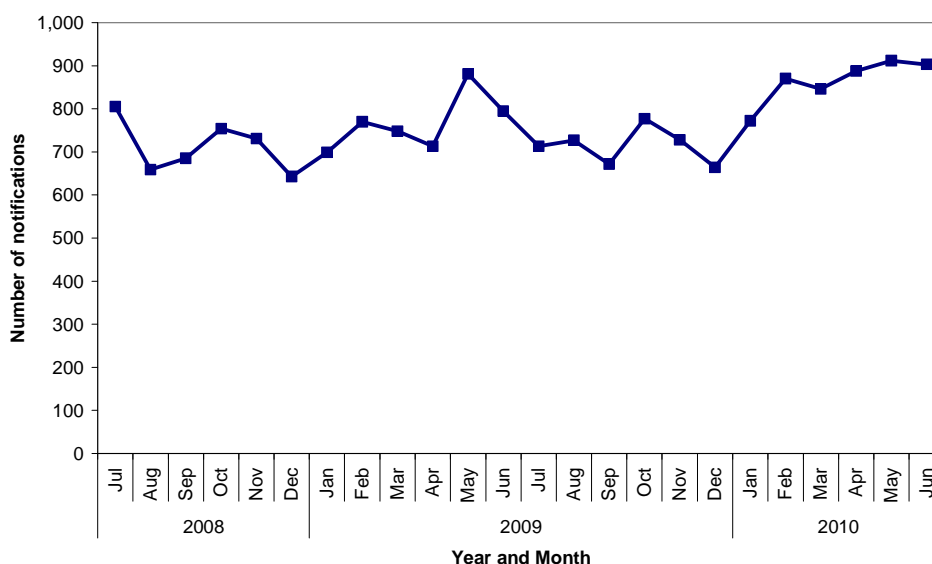
<sup>2</sup>Percentage change of the number of notifications in the current quarter compared to the historical five-year mean of the same quarter. Positive values indicate an increase in comparison to the historical five-year mean of the same quarter. Negative values indicate a decrease in comparison to the historical five-year mean of the same quarter.

<sup>3</sup>Historical five-year mean (i.e. from 2005 to 2009) for the current one-year period.

<sup>4</sup>Percentage change of the number of notifications in the current one year period compared to the historical five-year mean for the same one year period. For interpretation of positive and negative values, see note 2.

## Chlamydia

**Figure 1 Number of chlamydia notifications in WA by month, for the two most recent 12 month periods**



**Table 2 Number and proportion of chlamydia notifications in WA by sex, for the two most recent 12 month periods**

Sex	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Percent	Number	Percent
Male	4,024	42%	3,820	43%
Female	5,448	58%	5,063	57%
Male:Female ratio	0.7	N/A	0.8	N/A
<b>Total</b>	<b>9,472</b>	<b>100%</b>	<b>8,883</b>	<b>100%</b>

Notes: N/A = Not applicable

**Table 3 Number and proportion of chlamydia notifications in WA by age group, for the two most recent 12 month periods**

Age group (Years)	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Percent	Number	Percent
0-9	4	0%	3	0%
10-14	119	1%	87	1%
15-19	2,604	27%	2,414	27%
20-24	3,536	37%	3,311	37%
25-29	1,681	18%	1,562	18%
30-34	700	7%	662	7%
35-39	374	4%	354	4%
40-44	198	2%	198	2%
45-49	109	1%	140	2%
50-54	74	1%	59	1%
55-59	38	0%	53	1%
60+	35	0%	40	0%
<b>Total</b>	<b>9,472</b>	<b>100%</b>	<b>8,883</b>	<b>100%</b>

- The largest proportion of notifications was among 15 to 24 year olds (65%; n = 6,140) and the age distribution of notifications was very similar to the previous 12 month period.

**Table 4 Number and crude rate of chlamydia notifications in WA by Aboriginality, for the two most recent 12 month periods**

Aboriginality	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Rate	Number	Rate
Aboriginal	1,401	1,867.3	1,264	1,709.2
non-Aboriginal	6,319	289.2	5,695	267.0
Unknown	1,752	N/A	1,924	N/A
Aboriginal:non-Aboriginal ratio	0.2	6.5	0.2	6.4
<b>Total</b>	<b>9,472</b>	<b>419.2</b>	<b>8,883</b>	<b>402.5</b>

Notes: Rate = Crude notification rate per 100,000 population  
N/A = Not applicable

- The chlamydia notification rate increased by a similar proportion in both Aboriginal (9%) and non-Aboriginal (8%) people.

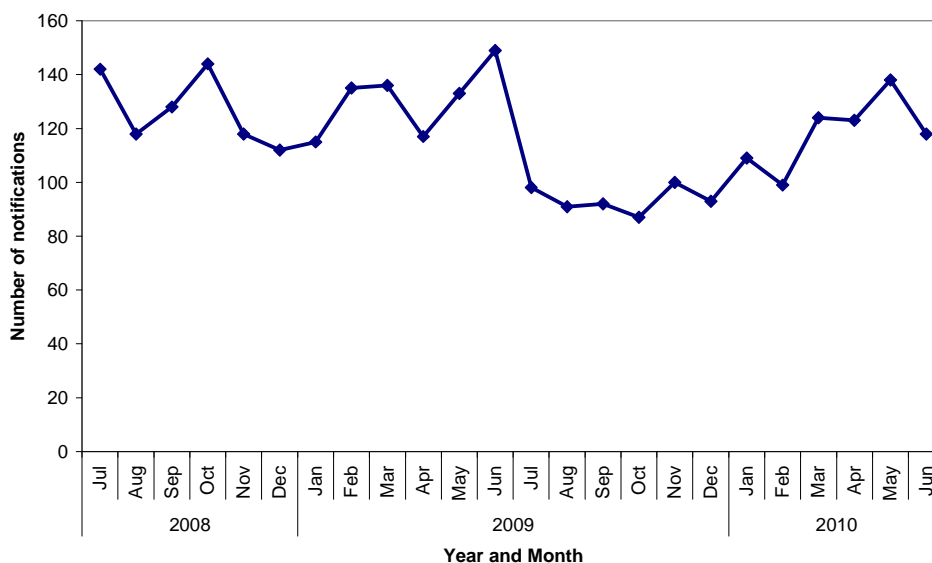
**Table 5 Number and crude rate of chlamydia notifications in WA by region, for the two most recent 12 month periods**

Region	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Rate	Number	Rate
Goldfields	391	657.9	392	672.5
Great Southern	148	252.5	154	266.1
Kimberley	622	1,766.1	578	1,684.3
Midwest	351	542.8	345	540.7
North Metropolitan	3,518	375.8	3,319	363.1
Pilbara	365	758.9	373	793.0
South Metropolitan	3,386	412.1	3,029	378.3
South West	461	287.8	454	291.3
Wheatbelt	153	202.6	154	205.3
Other	69	N/A	74	N/A
Unknown	8	N/A	11	N/A
<b>Total</b>	<b>9,472</b>	<b>419.2</b>	<b>8,883</b>	<b>402.5</b>

Notes: Rate = Crude notification rate per 100,000 population  
 Other = Interstate + Overseas residents diagnosed in WA  
 Unknown = Unknown residential address within WA  
 N/A = Not applicable

## Gonorrhoea

**Figure 2 Number of gonorrhoea notifications in WA by month, for the two most recent 12 month periods**



- The number of gonorrhoea notifications in the July 2009 to June 2010 period was 18% lower than the number of notifications in the previous 12 month period (Table 1).

**Table 6 Number and proportion of gonorrhoea notifications in WA by sex, for the two most recent 12 month periods**

Sex	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Percent	Number	Percent
Male	764	60%	871	56%
Female	508	40%	676	44%
Male:Female ratio	1.5	N/A	1.3	N/A
<b>Total</b>	<b>1,272</b>	<b>100%</b>	<b>1,547</b>	<b>100%</b>

Notes: N/A = Not applicable

- The number of gonorrhoea notifications decreased by 25% among females and by 12% among males.

**Table 7 Number and proportion of gonorrhoea notifications in WA by age group, for the two most recent 12 month periods**

Age group (Years)	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Percent	Number	Percent
0-9	0	0%	0	0%
10-14	43	3%	43	3%
15-19	346	27%	404	26%
20-24	324	25%	378	24%
25-29	194	15%	273	18%
30-34	122	10%	164	11%
35-39	91	7%	90	6%
40-44	68	5%	66	4%
45-49	37	3%	41	3%
50-54	22	2%	41	3%
55-59	11	1%	24	2%
60+	14	1%	23	1%
<b>Total</b>	<b>1,272</b>	<b>100%</b>	<b>1,547</b>	<b>100%</b>

- The largest proportion of gonorrhoea notifications was among 15 to 24 year olds (53%; n = 670), although absolute numbers notified in this age range decreased by 14% from the previous 12 month period (n = 782). There were also decreases in the number of notifications across all age groups except among 35 to 44 year olds, in whom the absolute numbers notified remained stable (July 2009 to June 2010 period n = 159; July 2008 to June 2009 period n = 156).

**Table 8 Number and crude rate of gonorrhoea notifications in WA by Aboriginality, for the two most recent 12 month periods**

Aboriginality	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Rate	Number	Rate
Aboriginal	814	1,084.9	1,081	1,461.7
Non-Aboriginal	446	20.4	465	21.8
Unknown	12	N/A	1	N/A
Aboriginal:Non-Aboriginal ratio	1.8	53.1	2.3	67.1
<b>Total</b>	<b>1,272</b>	<b>56.3</b>	<b>1,547</b>	<b>70.1</b>

Notes: Rate = Crude notification rate per 100,000 population  
N/A = Not applicable

- The gonorrhoea notification rate decreased by 26% among Aboriginal people and by 6% among non-Aboriginal people.
- Aboriginal status was reported for over 99% of notifications, reflective of the efforts of public health staff in ascertaining this information.

**Table 9 Number and crude rate of gonorrhoea notifications in WA by region, for the two most recent 12 month periods**

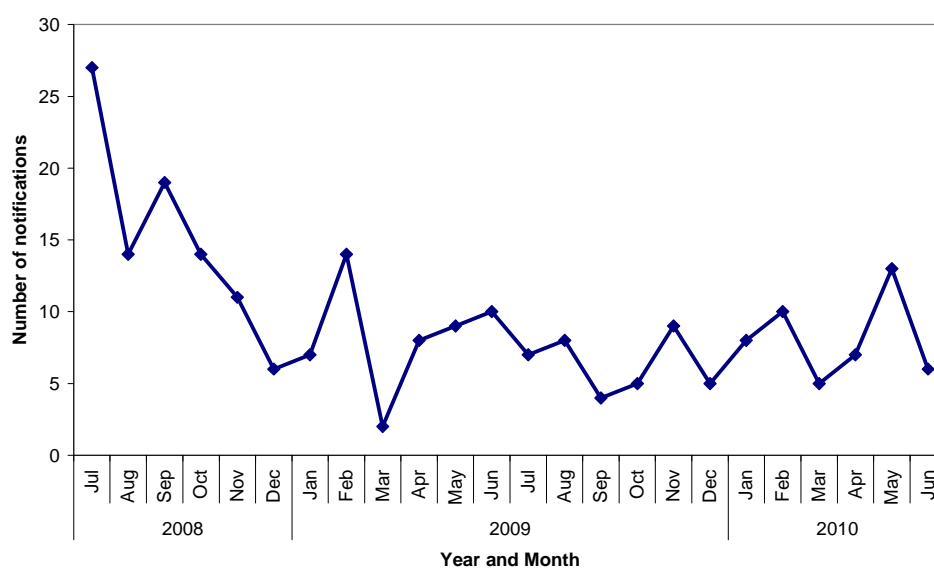
Region	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Rate	Number	Rate
Goldfields	159	267.5	190	326.0
Great Southern	2	3.4	7	12.1
Kimberley	335	951.2	603	1,757.2
Midwest	33	51.0	54	84.6
North Metropolitan	244	26.1	231	25.3
Pilbara	280	582.2	190	403.9
South Metropolitan	177	21.5	210	26.2
South West	20	12.5	27	17.3
Wheatbelt	6	7.9	18	24.0
Other	14	N/A	13	N/A
Unknown	2	N/A	4	N/A
<b>Total</b>	<b>1,272</b>	<b>56.3</b>	<b>1,547</b>	<b>70.1</b>

Notes: Rate = Crude notification rate per 100,000 population  
 Other = Interstate + Overseas residents diagnosed in WA  
 Unknown = Unknown residential address within WA  
 N/A = Not applicable

- Trends in the gonorrhoea notification rate varied between regions. Most notable was the 46% decrease in the Kimberley region and the 44% increase in the Pilbara region.

## Infectious syphilis

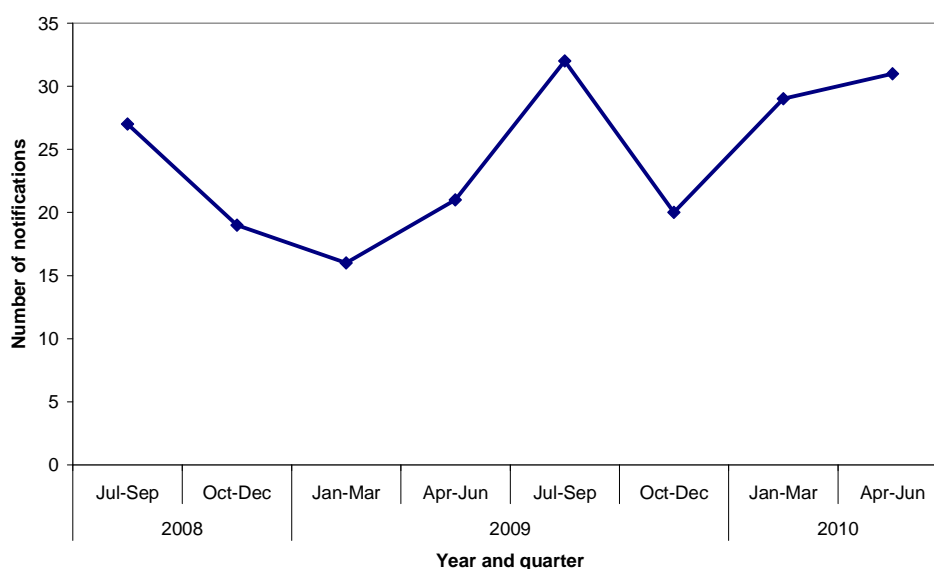
**Figure 3 Number of infectious syphilis notifications in WA by month, for the two most recent 12 month periods**



- The number of infectious syphilis notifications (i.e. primary and secondary cases) in the July 2009 to June 2010 period was 38% lower than the number of notifications in the previous 12 month period (Table 1).
- An outbreak of infectious syphilis began in October 2006 in the metropolitan region among non-Aboriginal men who have sex with men (MSM). The number of notifications in this outbreak reached a peak in the second quarter of 2008 (n = 31) and declined each subsequent quarter to the second quarter of 2009 (n = 6). There was then a small increase in the number of notifications in the third quarter of 2009 (n = 11) before another decrease in the fourth quarter of 2009 (n = 6). There were 10 notifications in the second quarter of 2010.
- A separate outbreak of infectious syphilis began in May 2008 in the Pilbara region among Aboriginal people. The number of notifications in this outbreak reached a peak in the third quarter of 2008 (n = 23) before declining each subsequent quarter to the third quarter of 2009 (n = 0). There was one notification in the second quarter of 2010.

## HIV/AIDS

**Figure 4 Number of HIV notifications in WA by quarter, for the two most recent 12 month periods**



- The number of newly diagnosed HIV notifications in the July 2009 to June 2010 period was 35% higher than the number of notifications in the previous 12 month period (Table 1).
- Of the new notifications in the July 2009 to June 2010 period, 71% (n = 80) were male and 29% (n = 32) were female. The male:female ratio in the July 2009 to June 2010 period was 2.5 compared to 3.2 in the previous 12 month period.

**Table 10 Number and proportion of HIV notifications in WA by age group, for the two most recent 12 month periods**

Age group (Years)	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Percent	Number	Percent
0-9	2	2%	1	1%
10-14	1	1%	1	1%
15-19	0	0%	1	1%
20-24	5	4%	6	7%
25-29	22	20%	9	11%
30-34	22	20%	15	18%
35-39	26	23%	14	17%
40-44	14	13%	14	17%
45-49	10	9%	8	10%
50-54	5	4%	12	14%
55-59	3	3%	1	1%
60+	2	2%	1	1%
<b>Total</b>	<b>112</b>	<b>100%</b>	<b>83</b>	<b>100%</b>

Notes: All three cases in the 0 to 9 year age group were born overseas and acquired HIV infection overseas

- The median age of newly diagnosed notified cases in the July 2009 to June 2010 period was 35 years (range: 4 to 64 years) compared to a median age of 39 years (range: 6 to 60 years) in the previous 12 month period.

**Table 11 Number and crude rate of HIV notifications in WA by Aboriginality, for the two most recent 12 month periods**

Aboriginality	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Rate	Number	Rate
Aboriginal	2	2.7	2	2.7
Non-Aboriginal	110	5.0	81	3.8
Aboriginal:Non-Aboriginal ratio	0.02	0.5	0.02	0.7
<b>Total</b>	<b>112</b>	<b>5.0</b>	<b>83</b>	<b>3.8</b>

Notes: Rate = Crude notification rate per 100,000 population

- The increase in HIV notifications in the July 2009 to June 2010 period was confined to non-Aboriginal people, in whom the rate increased by 36%.

**Table 12 Number and proportion of HIV notifications in WA by exposure, for the two most recent 12 month periods**

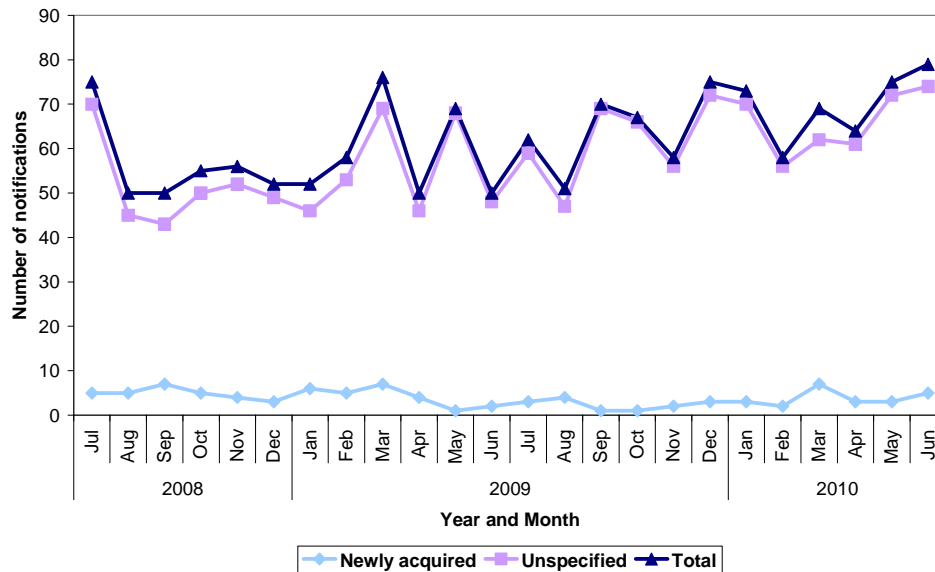
Exposure category	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Percent	Number	Percent
Men who have sex with men	43	38%	29	35%
Male Heterosexual	34	30%	31	37%
Female Heterosexual	30	27%	17	20%
Male and Female IDU	1	1%	1	1%
Male and Female Unknown/Other	4	4%	5	6%
<b>Total</b>	<b>112</b>	<b>100%</b>	<b>83</b>	<b>100%</b>

- There was a 48% increase in the number of notifications among men who have sex with men in the July 2009 to June 2010 period. Most (56%) were men born in Australia, who had acquired their infections in Australia.

- There was a 9% increase in the number of male heterosexual notifications in the July 2009 to June 2010 period. These were predominantly (71%) men who had acquired their infections overseas.
- There was a 76% increase in the number of female heterosexual notifications in the July 2009 to June 2010 period. These were predominately (80%) females born overseas, who had acquired their infections overseas.

## Hepatitis B

Figure 5 Number of hepatitis B notifications in WA by disease status, for the two most recent 12 month periods



- From the July 2008 to June 2009 period to the current 12 month period, the number of newly acquired hepatitis B notifications decreased by 31% and the number of unspecified hepatitis B notifications increased by 20% (Table 1).

Table 13 Number of hepatitis B notifications in WA by disease status, for the two most recent 12 month periods

Disease status	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Percent	Number	Percent
Newly acquired	37	5%	54	8%
Unspecified	764	95%	639	92%
<b>Total</b>	<b>801</b>	<b>100%</b>	<b>693</b>	<b>100%</b>

Table 14 Number and proportion of hepatitis B notifications (newly acquired + unspecified) in WA by sex, for the two most recent 12 month periods

Sex	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Percent	Number	Percent
Male	494	62%	387	56%
Female	307	38%	306	44%
Male:Female ratio	1.6	N/A	1.3	N/A
<b>Total</b>	<b>801</b>	<b>100%</b>	<b>693</b>	<b>100%</b>

Notes: N/A = Not applicable

- The number of hepatitis B notifications increased by 28% among males and remained stable in females.

**Table 15 Number and proportion of hepatitis B notifications (newly acquired + unspecified) in WA by age group, for the two most recent 12 month periods**

Age group (Years)	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Percent	Number	Percent
0-9	6	1%	11	2%
10-14	10	1%	24	3%
15-19	35	4%	33	5%
20-24	81	10%	69	10%
25-29	135	17%	106	15%
30-34	141	18%	113	16%
35-39	102	13%	90	13%
40-44	79	10%	72	10%
45-49	66	8%	64	9%
50-54	52	6%	37	5%
55-59	37	5%	24	3%
60+	53	7%	50	7%
<b>Total</b>	<b>801</b>	<b>100%</b>	<b>693</b>	<b>100%</b>

Note: The sum of notifications by age group does not necessarily equal the total, as notifications with an unknown date of birth are not shown in the table.

- The largest proportion of hepatitis B notifications was among 25 to 34 year olds (34%; n = 276).

**Table 16 Number and crude rate of hepatitis B notifications (newly acquired + unspecified) in WA by Aboriginality, for the two most recent 12 month periods**

Aboriginality	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Rate	Number	Rate
Aboriginal	31	41.3	63	85.2
Non-Aboriginal	712	32.6	600	28.1
Unknown	58	N/A	30	N/A
Aboriginal:Non-Aboriginal ratio	0.0	1.3	0.1	3.0
<b>Total</b>	<b>801</b>	<b>35.4</b>	<b>693</b>	<b>31.4</b>

Notes: Rate = Crude notification rate per 100,000 population  
N/A = Not applicable

- The hepatitis B notification rate decreased by 51% among Aboriginal people and increased by 16% among non-Aboriginal people.

**Table 17 Number and crude rate of hepatitis B notifications (newly acquired + unspecified) in WA by region, for the two most recent 12 month periods**

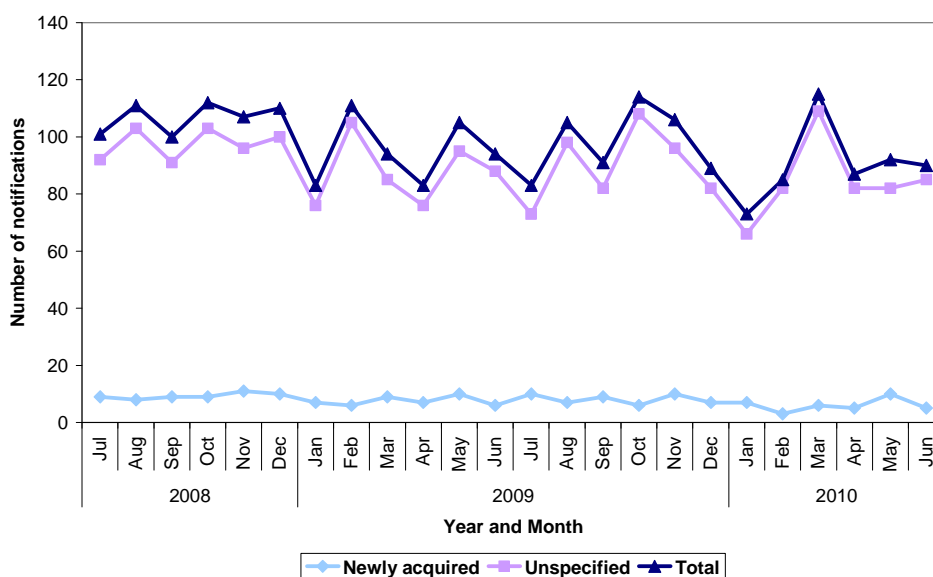
Region	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Rate	Number	Rate
Goldfields	17	28.6	39	66.9
Great Southern	6	10.2	3	5.2
Kimberley	135	383.3	48	139.9
Midwest	9	13.9	5	7.8
North Metropolitan	308	32.9	299	32.7
Pilbara	16	33.3	12	25.5
South Metropolitan	281	34.2	248	31.0
South West	16	10.0	18	11.5
Wheatbelt	6	7.9	6	8.0
Other	2	N/A	4	N/A
Unknown	5	N/A	11	N/A
<b>Total</b>	<b>801</b>	<b>35.4</b>	<b>693</b>	<b>31.4</b>

Notes: Rate = Crude notification rate per 100,000 population  
 Other = Interstate + Overseas residents diagnosed in WA  
 Unknown = Unknown residential address within WA  
 N/A = Not applicable

- Trends in the hepatitis B notification rate varied between regions. The number and notification rate in the Kimberley region more than doubled. However, this was substantially due to an increase in asylum seekers detained on Christmas Island, who come from countries with a high incidence of chronic hepatitis B infection, and who are routinely screened on arrival. Notifications for Christmas Island are nominally attributed to the Kimberley region.

## Hepatitis C

**Figure 6 Number of hepatitis C notifications in WA by disease status, for the two most recent 12 month periods**



**Table 18 Number of hepatitis C notifications in WA by disease status, for the two most recent 12 month periods**

Disease status	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Percent	Number	Percent
Newly acquired	85	8%	101	8%
Unspecified	1,045	92%	1,110	92%
<b>Total</b>	<b>1,130</b>	<b>100%</b>	<b>1,211</b>	<b>100%</b>

**Table 19 Number, proportion and ratio of hepatitis C notifications (newly acquired + unspecified) in WA by sex, for the two most recent 12 month periods**

Sex	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Percent	Number	Percent
Male	722	64%	763	63%
Female	408	36%	448	37%
Male:Female ratio	1.8	N/A	1.7	N/A
<b>Total</b>	<b>1,130</b>	<b>100%</b>	<b>1,211</b>	<b>100%</b>

Notes: N/A = Not applicable

**Table 20 Number and proportion of hepatitis C notifications (newly acquired + unspecified) in WA by age group, for the two most recent 12 month periods**

Age group (Years)	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Percent	Number	Percent
0-9	2	0%	6	0%
10-14	4	0%	3	0%
15-19	26	2%	31	3%
20-24	92	8%	115	9%
25-29	165	15%	180	15%
30-34	145	13%	191	16%
35-39	183	16%	163	13%
40-44	138	12%	123	10%
45-49	149	13%	152	13%
50-54	138	12%	147	12%
55-59	51	5%	62	5%
60+	37	3%	38	3%
<b>Total</b>	<b>1,130</b>	<b>100%</b>	<b>1,211</b>	<b>100%</b>

- Hepatitis C notifications were evenly distributed among most adult age groups. The most notable trend was a 24% decrease in the number of notifications among 30 to 34 year olds.

**Table 21 Number and crude rate of hepatitis C notifications (newly acquired + unspecified) in WA by Aboriginality, for the two most recent 12 month periods**

Aboriginality	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Rate	Number	Rate
Aboriginal	120	159.9	135	182.5
Non-Aboriginal	870	39.8	981	46.0
Unknown	140	N/A	95	N/A
Aboriginal:Non-Aboriginal ratio	0.1	4.0	0.1	4.0
<b>Total</b>	<b>1,130</b>	<b>50.0</b>	<b>1,211</b>	<b>54.9</b>

Notes: Rate = Crude notification rate per 100,000 population  
N/A = Not applicable

**Table 22 Number and crude rate of hepatitis C notifications (newly acquired + unspecified) in WA by region, for the two most recent 12 month periods**

Region	01 Jul 09 - 30 Jun 10 Period		01 Jul 08 - 30 Jun 09 Period	
	Number	Rate	Number	Rate
Goldfields	37	62.3	43	73.8
Great Southern	31	52.9	29	50.1
Kimberley	33	93.7	34	99.1
Midwest	33	51.0	43	67.4
North Metropolitan	404	43.2	435	47.6
Pilbara	34	70.7	35	74.4
South Metropolitan	393	47.8	427	53.3
South West	86	53.7	86	55.2
Wheatbelt	27	35.8	28	37.3
Other	14	N/A	27	N/A
Unknown	38	N/A	24	N/A
<b>Total</b>	<b>1,130</b>	<b>50.0</b>	<b>1,211</b>	<b>54.9</b>

Notes: Rate = Crude notification rate per 100,000 population  
Other = Interstate + Overseas  
Unknown = Unknown residential address within WA  
N/A = Not applicable

- The hepatitis C notification rate decreased in eight of the nine regions. Most notable was the 24% decrease in the Midwest region.

# Delivering a **Healthy WA**

