Communicable Diseases Weekly Report

Week 29, 14 July to 20 July 2019

In summary, we report:

- Viral hepatitis – World Hepatitis Day
- Hepatitis B and C – 2018 data report available
- HIV – Innovative NSW strategies feature in global report
- Summary of notifiable conditions activity in NSW

For further information see NSW Health infectious diseases page. This includes links to other NSW Health infectious disease surveillance reports and a diseases data page for a range of notifiable infectious diseases.

Viral Hepatitis – World Hepatitis Day

World Hepatitis Day is Sunday 28 July. The theme for 2019 is '*Find the missing millions'*. In Australia, access to care and treatment for hepatitis B or hepatitis C is good compared to many other countries. However it is estimated that in Australia only 64% of people with chronic hepatitis B have been diagnosed[1], and there are gaps in treatment uptake for both hepatitis B and C.

See the Hepatitis Australia website for more information

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Hepatitis B and C

Hepatitis B and C are viral infections of the liver, which in some people become chronic, leading to liver cirrhosis or liver cancer. They are part of the group known as blood borne viruses, as they are usually transmitted through blood, or blood products. Transmission can occur in medical, dental or cosmetic procedures where instruments are not properly sterilised, through people who use injection drugs sharing injecting equipment, through sexual intercourse, or from mother to infant around the time of birth.

For hepatitis B infections notified in NSW, the most common risk factor is being born in countries with high rates of hepatitis B infection. For hepatitis C infections notified in NSW, the most common risk factor is a history of injecting drug use.

Reports on progress against the NSW Hepatitis B and C Strategies 2014-2020 are published annually. The NSW Hepatitis B and C Strategies 2014-2020: 2018 Annual Data Report is now available.

[1] Viral hepatitis mapping project: National report 2017

Hepatitis B and C remain a significant public health burden in NSW. The NSW Hepatitis B and C Strategies 2014-2020 provide a framework to effectively form a coordinated response to hepatitis B and C across NSW. The Strategies outline four goals:

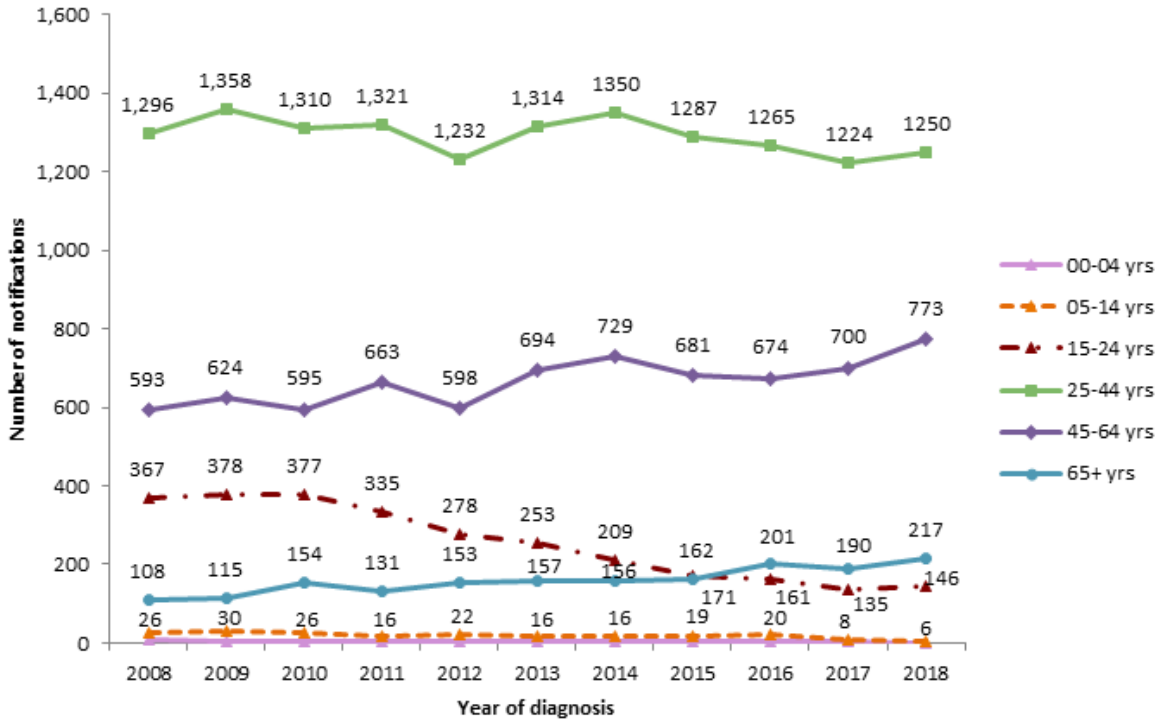
1. Reduce hepatitis B infections in NSW
2. Improve health outcomes of people living with hepatitis B
3. Reduce hepatitis C infections in NSW
4. Improve health outcomes of people living with hepatitis C

Hepatitis B and C notifications data provide limited information that can be used for assessing the epidemiological patterns of these infections. This is because many infections are asymptomatic, and so people who are infected may never be tested, or only tested many years after infection, and laboratory reports do not distinguish between infections acquired recently, or years before. Furthermore, variations in notifications may reflect differences in testing patterns rather than differences in incidence of infection.

Hepatitis B

The hepatitis B notification rate in NSW has declined since 2001 and stabilised in recent years; it increased slightly between 2017 and 2018, from 29 to 30 notifications per 100,000 population. The annual number of notifications of hepatitis B in people aged 15-24 years has fallen since 2010, which may be related to the catch-up immunisation program for adolescents introduced as a school-based program in 2004 and universal infant hepatitis B vaccination introduced in May 2000. In 2018 the number of notifications in 15-24 year olds (146) was similar to that in 2017 (135) (Figure 1).

Figure 1: Hepatitis B notifications in NSW by age group and year of diagnosis, 2008-2018.



Data source: NCIMS, NSW Health; data extracted 27 May 2019

In NSW, hepatitis B infection is not evenly distributed, with higher notification rates in some areas including Western Sydney, South Western Sydney, South Eastern Sydney, Sydney and Northern Sydney Local Health Districts. This is likely explained by the larger numbers of people in these districts who were born in countries with a high burden of hepatitis B.

In 2018, the hepatitis B childhood vaccination coverage for children aged 12 months was similar, but slightly increased, compared to 2017 (94.5% vs 94.2%). There was also a slight increase in the hepatitis B childhood vaccination coverage for children aged 24 months to 96.3% (vs 96.1% in 2017).

In 2017, the proportion of women giving birth in a hospital in NSW who were screened for hepatitis B remained high at 98.8%. The proportion of babies born to mothers living with hepatitis B who received hepatitis B immunoglobulin within 12 hours of birth increased to 99.5% (vs 98.7% in 2016).

The number of hepatitis B tests performed in NSW each year is continuing to increase gradually. In 2018, 646,827 tests for hepatitis B surface antigen were performed in 15 laboratories in NSW, a 6% increase from 2017 (608,787 tests). The ratio of notifications to 100 tests in 2018 was 0.37, the same as in 2017.

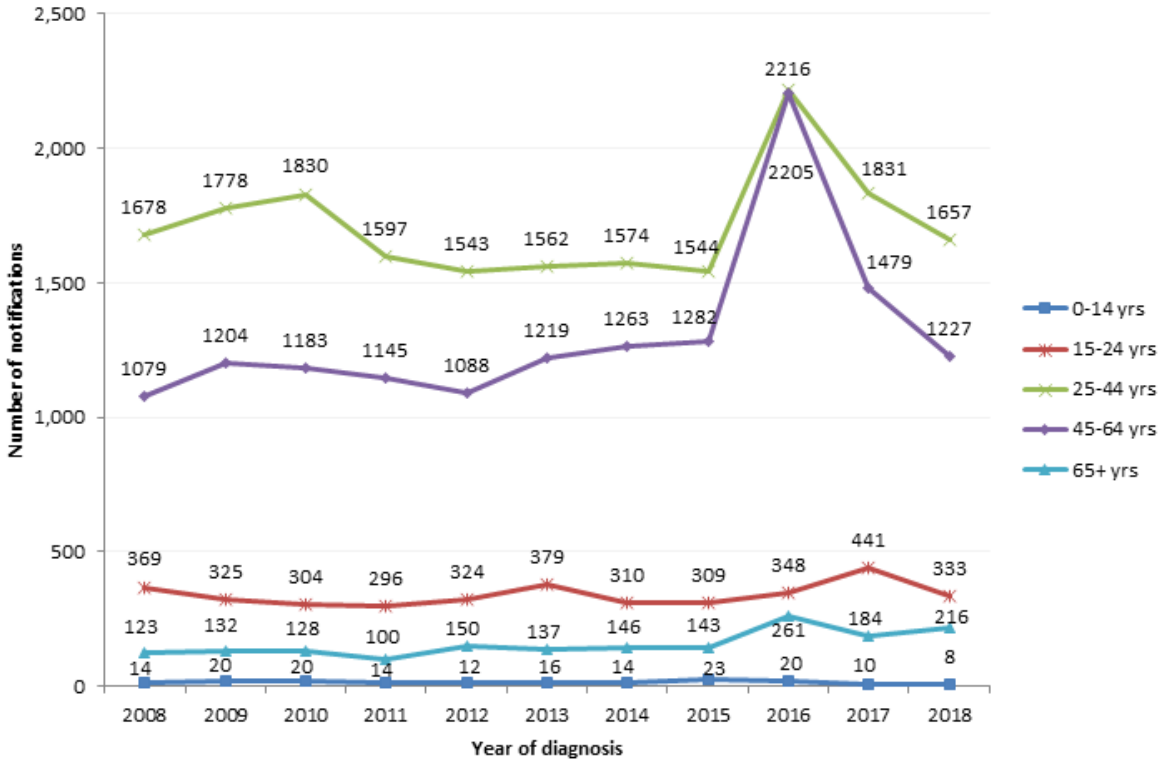
In 2018, a total of 9,152 NSW residents were dispensed hepatitis B treatment for chronic hepatitis B in the five LHDs with the highest prevalence of hepatitis B, which represented 92% of the hepatitis B treatment dispensed for the whole state. This is a nine per cent increase compared to 2017.

Hepatitis C

The hepatitis C notification rate in NSW declined in 2018 compared to 2017 (from 50 to 43 notifications per 100,000 population). This followed an upswing in the notification rate in 2016 thought to be due to increased targeted testing associated with highly effective and safe direct acting antivirals becoming available on the Pharmaceutical Benefits Scheme in March 2016.

In 2018, the largest number of hepatitis C notifications was amongst people aged 25-44 years; however there was a 10 per cent decline in this age group compared with 2017 (Figure 2). Hepatitis C notifications also declined in the 15-24 years, and 45-64 years age groups, with the largest (24%) decline occurring in the 15-24 years age group.

Figure 2: Hepatitis C notifications in NSW by age group and year of diagnosis, 2008-2018.



Data source: NCIMS, NSW Health; data extracted 27 May 2019

Among respondents in the 2018 NSW Needle and Syringe Program (NSP) Enhanced Data Collection, reports of receptive syringe sharing in the previous month was 20%, the same as the level reported in 2017.

In 2018, 21,103 people commenced an opioid treatment program in NSW, similar to 2017 (20,861 people).

The number of hepatitis C tests performed in NSW is continuing to increase gradually each year. In 2018, 582,937 tests for hepatitis C antibody were performed in 15 laboratories in NSW, a 6% increase from 2017 (550,409). However the ratio of notifications to100 tests in 2018 was 0.6, lower compared with 2017 (0.79).

To December 2018, 29% of the estimated 80,700 people living with hepatitis C in NSW had initiated treatment with 59% of those accessing treatment through their general practitioner.

From 2016 onwards, screening and treatment has been scaled up across all correctional centres in NSW. In 2018, a total of 1,191 NSW residents initiated hepatitis C treatment in Justice Health; the proportion of those initiating treatment who are Aboriginal people increased from 39% in first quarter to 46% in the fourth quarter 2018.

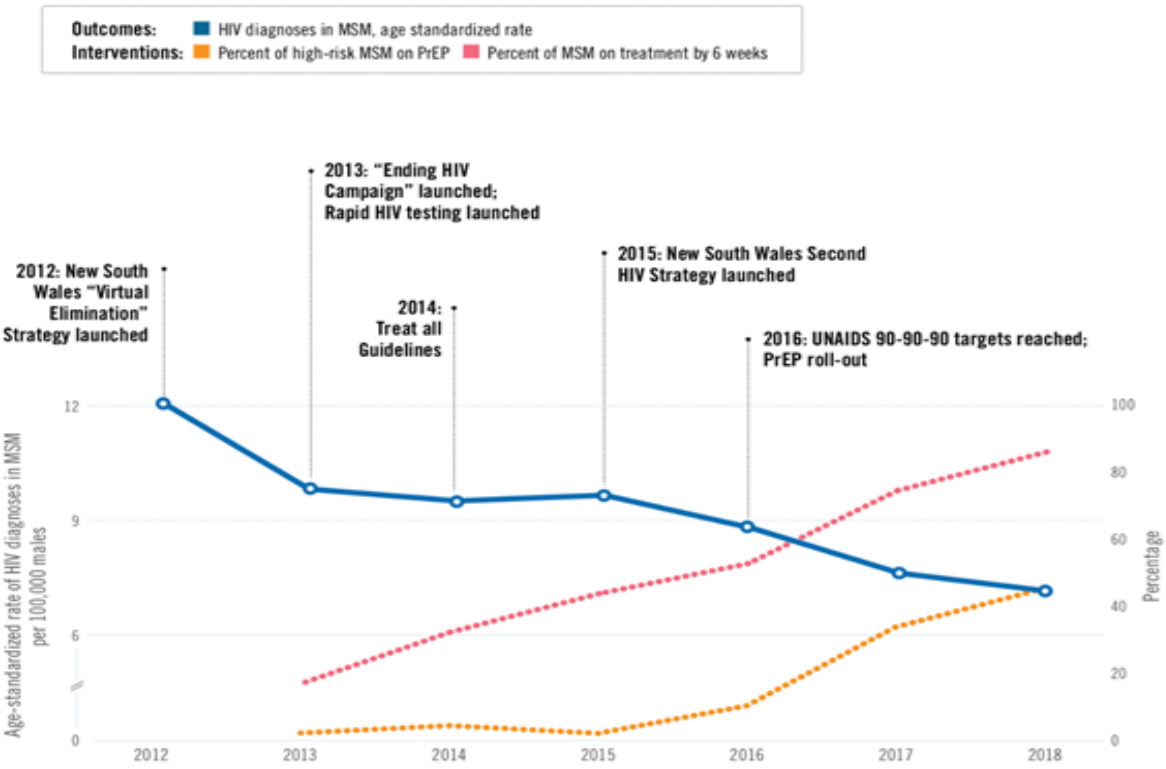
More detailed data can be found in the NSW Hepatitis B and C Strategies 2014-2020: 2018 Annual Data Report

HIV

Since 2012, successive HIV strategies in NSW have set the goal of the virtual elimination of HIV transmission by 2020. These strategies were implemented by community, government, clinicians and researchers collaborating to deliver a coordinated and effective response that culminated in achieving the UNAIDS 90/90/90 targets in 2016 and then in 2018 having the lowest number of new HIV notifications since surveillance in NSW began.

This success was recently highlighted by the inclusion of NSW in an international report about ending the AIDS epidemic. This report focused on 6 different locations that saw dramatic decreases in HIV incidence and mortality following different interventions, noting various steps that led to these favourable outcomes. Responses in Thailand, Malawi, Rakai, London and San Francisco were included along with NSW.

Figure 1: Outcomes and interventions in the NSW HIV response



Source: Translating progress into success to end the AIDS epidemic report, July 2019; EndAIDS.org.

The NSW response focuses on the redesign of sexual health services to facilitate normalisation and increase the ease of HIV testing as well as the rapid uptake of PrEP in men who have sex with men, via the EPIC-NSW trial. In concert with these prevention methods, changes in treatment guidelines and practises led to a significant decrease in the time from diagnosis to treatment initiation.

Data on HIV surveillance in NSW is updated and reported quarterly and further information on HIV and the NSW strategies can be found on the Ending HIV website. For further information, see the HIV infection factsheet.

Summary of notifiable conditions activity in NSW

The following table summarises notifiable conditions activity over the reporting period (Table 1).

Table 1. NSW Notifiable conditions from 14 July – 20 July 2019, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2019	2018	2017	2018	2017
Enteric Diseases	Cryptosporidiosis	8	6	422	481	1059	708	1266
	Giardiasis	45	50	1883	1712	2041	2937	3135
	Haemolytic Uremic Syndrome	1	0	4	2	2	4	2
	Rotavirus	22	18	406	476	470	808	2319
	STEC/VTEC	1	0	36	33	33	57	53
	Salmonellosis	41	46	2260	2096	2496	3341	3681
	Shigellosis	13	13	487	160	126	530	236
Respiratory Diseases	Influenza	5034	6461	55029	5665	13959	17424	103851
	Legionellosis	1	3	95	89	78	171	138
	Tuberculosis	10	11	316	266	284	507	542
Sexually Transmissible Infections	Chlamydia	524	566	17754	17834	16542	31197	29004
	Gonorrhoea	178	228	6650	5901	5262	10619	9160
	LGV	3	2	30	45	18	85	50
Vaccine Preventable Diseases	Meningococcal Disease	1	2	23	32	38	72	91
	Mumps	3	0	29	50	74	72	127
	Pertussis	83	98	3439	2198	3339	6281	5366
	Pneumococcal Disease (Invasive)	25	20	314	293	295	682	683
Vector Borne Diseases	Dengue	9	8	242	171	178	299	306
	Malaria	3	0	30	36	43	66	68
	Ross River	11	10	413	388	1428	570	1653
Zoonotic Diseases	Q fever	1	2	141	113	126	228	210

*** Notes on Table 1: NSW Notifiable Conditions activity**

- Only conditions which had one or more case reports received during the reporting week appear in the table.
- Data cells represent the number of case reports received by NSW public health units and recorded on the NSW Notifiable Conditions Information Management System (NCIMS) in the relevant period (i.e. by report date).
- Note that notifiable disease data available on the NSW Health website are reported by onset date so case totals are likely to vary from those shown here.
- Cases involving interstate residents are not included.
- The shigellosis case definition changed on 1 July 2018 to include probable cases (PCR positive only), hence case counts cannot be validly compared to previous years.
- Data cells in the 'Adverse Event Following Immunisation' category refer to suspected cases only. These reports are referred to the Therapeutic Goods Administration (TGA) for assessment. Data on adverse events following immunisation is available online from the TGA Database of Adverse Event Notifications.
- Chronic blood-borne virus conditions (such as HIV, Hepatitis B and C) are not included here. Related data are available from the Infectious Diseases Data and the HIV Surveillance Data Reports webpages.
- Notification is dependent on a diagnosis being made by a doctor, hospital or laboratory. Changes in awareness and testing patterns influence the proportion of patients with a particular infection that is diagnosed and notified over time, especially if the infection causes non-specific symptoms.