Communicable Diseases Weekly Report

Week 51 and 52 16 December 2013 – 29 December 2013

In summary, we report:

- **Measles** – cases who attended a hip hop dance competition
- ***Haemophilus influenzae* type b disease** – two recent notifications in children under five years of age
- **Summary of notifiable conditions activity in NSW**

For further information on infectious diseases and alerts see the Infectious Diseases webpage.

Follow the A to Z of Infectious Diseases link for more information on specific diseases.

For links to other surveillance reports, including influenza reports, see the NSW Health Infectious Diseases Reports webpage.

Measles

A case of measles possibly acquired in NSW was reported in a South Australian resident this reporting period. The case, a 10 year old unvaccinated child, had attended the 'World Supremacy Battlegrounds' Hip Hop dance competition held at Sydney Olympic Park on 7-8 December 2013. This event had dancers from Japan, Malaysia, the Philippines, Guam, New Zealand and Australia.

On 30 December 2013 (in the following reporting period), a notification of measles was received in a nine month old baby from the South East Sydney Local Health District area, who had also attended the dance competition. There are also four New Zealand residents who were at the event who have developed measles.

A media statement was released to alert people who were at the hip hop dance competition. The event organisers were also asked to inform attendees of the outbreak via their contact channels including social media. Anyone with symptoms of measles is requested to isolate themselves and seek medical attention.

Measles is highly infectious and is easily transmitted to people who are not immune from vaccination or natural infection. Symptoms include fever, runny nose, sore red eyes and cough. A few days later a rash appears. The rash starts on the face, spreads down to the body and lasts for 4-7 days. The rash is not itchy.

Measles can result in serious complications such as pneumonia and encephalitis (inflammation of the brain) that require hospitalisation and may result in permanent disability or death. It can also cause middle ear infection. Measles should not be regarded as a mild disease. Complications are more common and more severe in people with a chronic illness and very young children.

Very rarely, in about 1 in 100,000 cases, a severe form of encephalitis called subacute sclerosing panencephalitis (SSPE) can develop after several years. This condition is always fatal.

Everyone should ensure that they, and their family members, are immune to measles infection. Children are due for measles vaccination under the National Immunisation Program at 12 months of age, with a second dose due at 18 months of age. Anyone born during or after 1966 should ensure they have had two doses of measles vaccine. Vaccination is available from general practitioners. People born before 1966 are likely to have had measles infection as a child, and are considered to be immune.

Follow the link for further information on measles disease notifications.

Follow the link for further information on measles vaccination (external link).

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Haemophilus influenzae type b (Hib) disease

One case of invasive *Haemophilus influenzae* type b (Hib) disease in a child under five years of age was notified this reporting period (Table 1). The child was aged 21 months and had received only one dose of Hib vaccine. Another Hib case in a child aged 9 months was reported in the previous week (week 50); this case was fully vaccinated with three doses of Hib vaccine but had a severe immune-compromising medical condition. Year to date in 2013, there were a total of five cases of invasive Hib disease in children aged under five years.

Hib disease is caused by infection with *Haemophilus influenzae* type b bacteria. Infection can result in meningitis (infection of the membranes around the brain and spinal cord), epiglottitis (severe swelling of the epiglottis at the back of the throat) and pneumonia. Occasionally the organism can infect bones or skin.

Both Hib meningitis and epiglottitis can develop quickly, and if not treated can rapidly cause death.

Symptoms of Hib disease depend on which part of the body is infected. Hib meningitis presents with drowsiness, poor feeding, vomiting and high fever. Epiglottitis results in fever and obstructed, noisy breathing with drooling caused by the swollen epiglottis blocking the back of the throat. Pneumonia presents with fever, rapid breathing, shortness of breath, lack of energy, and cough.

Hib bacteria are transmitted from person to person via contact with droplets (from coughing or sneezing) or discharges from the nose and throat of an infected person.

The introduction of Hib vaccine onto the childhood immunisation schedule in Australia has resulted in a marked reduction in Hib disease. Hib meningitis, once the most common cause of meningitis in children under five years of age, and which often resulted in long term sequelae such as deafness, is now rare. Similarly, epiglottitis in young children, once a relatively common life threatening emergency, is now also rare.

Hib vaccine was introduced onto the immunisation schedule in 1993. Since then, there has been a 95% reduction in the number of notified cases. For example, in Australia in 1992 there were 549 Hib disease notifications compared to a total of 39 notifications in 2006 and 2007 combined.

Hib vaccine is recommended for infants from 2 months of age, but can be given at 6 weeks of age. The type of Hib vaccine used in NSW requires a second dose at 4 months of age and a third dose at 6 months of age. This is given as a combination vaccine, which protects against six diseases (Hib, diphtheria, tetanus, whooping cough, hepatitis B, poliomyelitis). A booster (fourth) dose is due at 12 months of age, and is given as a combination vaccine with meningococcal vaccine. Children under five years of age who have missed Hib vaccination should receive catch up doses; the number of catch up doses required depends on the age of the child. Older children and adults who do not have a spleen are at higher risk of Hib disease and should also be vaccinated.

Follow the link for further information on Hib disease.

Follow the link for further information on Hib disease notifications.

Follow the link for further information on Hib vaccination (external link).

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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 16 December 2013 to 29 December 2013, by date received.

		This fortnight	Week prior	Year to date			Full Year	
				2013	2012	2011	2012	2011
Enteric Diseases	Cryptosporidiosis	24	18	1131	655	354	655	354
	Giardiasis	51	39	2239	2012	2373	2013	2373
	Listeriosis	1	0	33	36	20	36	20
	Rotavirus	10	5	504	1761	1208	1761	1208
	Salmonellosis	119	77	3484	2939	3567	2941	3567
	Shigellosis	2	5	136	131	126	131	126
	Typhoid	3	1	58	42	45	43	45
Respiratory Diseases	Influenza	65	42	8382	8039	5791	8039	5791
	Legionellosis	2	2	102	104	105	105	105
	Tuberculosis	5	7	389	443	540	443	540
Sexually Transmissible Infections	Chlamydia	596	413	20992	21234	20448	21261	20448
	Gonorrhoea	74	101	4228	4106	2817	4115	2817
Vaccine Preventable Diseases	Adverse Event Following Immunisation	7	3	499	263	362	264	363
	Haemophilus influenzae type b	1	1	9	2	4	2	4
	Mumps	3	2	83	109	61	110	61
	Pertussis	79	41	2361	5991	13411	5996	13411
	Pneumococcal Disease (Invasive)	12	8	493	563	530	563	530
Vector Borne Diseases	Barmah Forest	13	4	438	342	471	344	471
	Dengue	5	5	261	289	149	289	149
	Malaria	1	2	91	67	82	68	82
	Ross River	9	6	508	594	590	596	590
Zoonotic	Q fever	1	1	141	123	145	123	145

Notes on Table 1: NSW Notifiable Conditions activity

- 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.
- 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.
- Only conditions for which at least one case report was received appear in the table. HIV and other blood-borne virus case reports are not included here but are available from the Infectious Diseases Data webpage.

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