# Communicable Diseases Report, NSW, January and February 2009

# Communicable Diseases Branch NSW Department of Health

For updated information, including data and facts on specific diseases, visit www.health.nsw.gov.au and click on Infectious Diseases or access the site directly at: http://www.health.nsw.gov.au/ publichealth/infectious/index.asp.

Figure 1 and Tables 1 and 2 show reports of communicable diseases received through to the end of February 2009 in New South Wales (NSW).

### Vaccine-preventable diseases

#### Pertussis (whooping cough)

Pertussis notifications continue to increase with more than 3900 cases reported in NSW in January and February. While babies and young children represent the largest proportion of notifications, an increase has also been seen in older children and adults. Increased use of polymerase chain reaction (PCR), a diagnostic test for pertussis, may account for some of the increase. Many cases have good evidence of past pertussis immunisation: the vaccine provides some protection for several years; however, pertussis immunity typically wanes thereafter.

### Measles

Five confirmed cases of measles were notified in NSW in January and February and another case is under investigation. Four cases had recently returned from overseas (Thailand, the United States of America and Vietnam). The case who returned from Vietnam was identified through contact tracing of a case on the same flight reported from another jurisdiction. As Vietnam is currently experiencing an outbreak of measles, it is difficult to determine whether transmission occurred during the flight or prior to boarding. The most recent case appears to have acquired measles locally, although a source case can not be identified.

## Invasive meningococcal disease

Twelve cases of invasive meningococcal disease were reported up to the end of February 2009 in NSW, compared with five cases in the same period in 2008. Of the 12 cases, nine were serogroup B, one was of unknown serogroup and two cases were serogroup C (the strain prevented by the current vaccine). Overall, rates of meningococcal disease have continued to decline since 2000.

#### Mumps

Three cases of mumps have been reported in NSW so far this year. The outbreak seen in young adults mainly around south-eastern and northern Sydney in 2008 appears to have passed.

#### Rubella

One case of rubella has been reported in NSW so far this year in a man who had recently travelled overseas.

# **Tetanus**

One case of tetanus has been reported in NSW so far this year in a man who presented with tetanus after a penetrating foot injury. The diagnosis was made clinically.

#### Influenza

Influenza outbreaks occur each winter in NSW. The influenza virus mutates frequently and new strains emerge regularly. Vaccination is the mainstay of influenza prevention and provides good protection when the strain circulating matches that in the vaccine. Vaccine manufacturers review strains that were circulating internationally several months before winter and typically include three strains of killed influenza in the vaccine. It is impossible to predict in advance the severity of the coming influenza season, as it is largely dependent on the degree of mutation, if any, of circulating influenza strains.

The anti-influenza drugs, oseltamivir and zanamivir, can reduce the severity of illness if given early in the course of infection and can prevent illness in people exposed to an infectious person. These drugs must be prescribed by a doctor and to date have not been widely used in Australia. Analysis of strains of influenza virus in 2008 has found that one strain, influenza A H1N1, is highly resistant to oseltamivir. In the past, this strain has been relatively uncommon in Australia, but it is included in this year's vaccine.

In preparation for the 2009 influenza season, NSW Health has:

- · faxed general practitioners and Aboriginal Medical Services with order forms for free influenza vaccine for some people at high risk (those aged over 65 and Aboriginal people aged over 50 or between 15 and 49 years with underlying illnesses);
- written to aged-care facilities promoting vaccine use in residents (provided free) and staff; and
- continued to provide free vaccine for use by area health services for health-care workers.

#### **Enteric diseases**

#### Cryptosporidiosis

In February 2009, an increase in cryptosporidiosis cases was identified across NSW. Cryptosporidiosis is a disease caused by infection with the parasite Cryptosporidium. Infection causes diarrhoea and abdominal cramps that can last for many weeks. There is no specific treatment. The disease is spread in several ways, most importantly by direct contact with people or animals with the infection, or by drinking contaminated water, including inadvertently while swimming. Large outbreaks have occurred in NSW in previous years and were linked to contaminated swimming pools. In the current outbreak, many cases reported swimming as a risk factor, but in a range of different pools.

There is normally a small risk of acquiring cryptosporidiosis from ingesting water while swimming in pools. This risk is likely to be higher now given the number of cases being notified in the general community, but can be reduced by not swallowing water from the pool. There is no public health recommendation to avoid swimming in public pools for well people; however, people with diarrhoea in the previous 2 weeks should not enter pools or spas, and all swimmers should follow good hygiene practices. Person-to-person transmission can be reduced by regular hand-washing with soap and running water for 10 seconds.

#### Shigellosis

Shigella infections remain elevated in men in eastern Sydney, possibly related to male-to-male sexual activities. Careful attention to hygiene (hand-washing with soap and water for at least 10 seconds) after using the toilet, before handling food, and before and after sex, will help reduce spread. People with diarrhoea should not handle food for others and avoid direct contact with others until at least 48 hours after symptoms resolve. Antibiotic treatment is recommended for patients with Shigella infection to reduce the likelihood of transmitting the infection to others.

#### Gastroenteritis

In January and February 2009, NSW public health units investigated 48 outbreaks of gastroenteritis, including 43 suspected to be caused by person-to-person transmission, and five suspected to be the result of foodborne transmission.

The 43 suspected person-to-person outbreaks affected a total of 475 people. Twenty-six occurred in aged-care facilities and affected 332 people; five occurred in hospitals and affected 52 people; nine occurred in child-care centres and affected 81 people; and three outbreaks in other institutions affected 10 people. Clinical specimens were submitted for testing from 16 suspected personto-person gastroenteritis outbreaks. Norovirus was confirmed in stool samples from six outbreaks in aged-care facilities. The causative agent was not determined for the remaining outbreaks.

Of the five suspected foodborne outbreaks, four were outbreaks of salmonellosis affecting 127 people, of whom 43 had laboratory confirmation of the diagnosis. One outbreak affecting six people was likely to be caused by a bacterial toxin. Deficiencies in food handling were the likely cause of all outbreaks.

# Sexually transmissible infections

#### Syphilis

Syphilis remains a concern in inner Sydney, mainly among men who have sex with men. Safe sex and regular screening for those with multiple partners are important preventive measures.

### **Vectorborne diseases**

Forty-eight cases of dengue fever were reported in NSW residents in January and February. Of these, three acquired the infection in Cairns and the remainder acquired the infection overseas. On the Australian mainland, dengue is transmitted by the Aedes aegypti mosquito, a species not currently found in NSW. There are ongoing outbreaks of dengue fever in Cairns, Townsville, Port Douglas, Yarrabah, Injinoo and Innisfail.

#### Reference

1. Centers for Disease Control and Prevention. [Health Alert Network Message on the Internet]. CDC Issues Interim Recommendations for the Use of Influenza Antiviral Medications in the Setting of Oseltamivir Resistance among Circulating Influenza A (H1N1) Viruses, 2008-09 Influenza Season [updated 19 December 2008]. Available at: http://www2a.cdc.gov/HAN/ArchiveSys/ViewMsgV.asp?Alert Num=00279 (Cited 8 March 2009.)

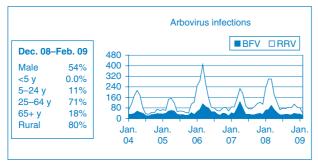
Figure 1. Reports of selected communicable diseases, NSW, January 2004 to February 2009, by month of onset.

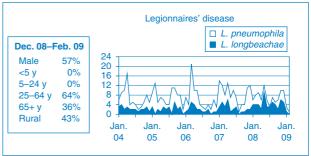
Preliminary data: case counts in recent months may increase because of reporting delays. Laboratory-confirmed cases only, except for measles, meningococcal disease and pertussis. BFV, Barmah Forest virus infection; RRV, Ross River virus infection; lab conf, laboratory confirmed; Men Gp C and Gp B, meningococcal disease due to serogroup C and serogroup B infection; other/unk, other or unknown serogroups.

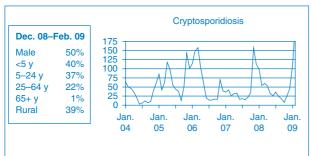
NB: Multiple series in graphs are stacked, except gastroenteritis outbreaks.

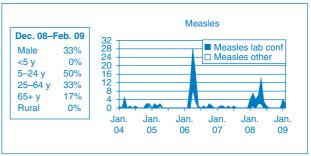
NB: Outbreaks are more likely to be reported by nursing homes and hospitals than by other institutions.

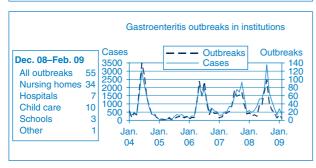


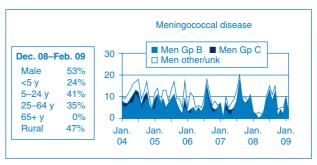


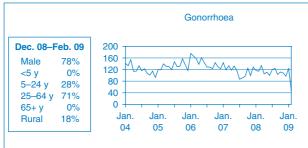


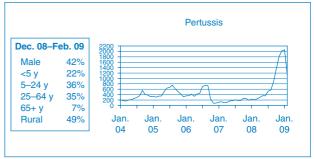


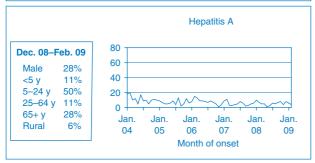












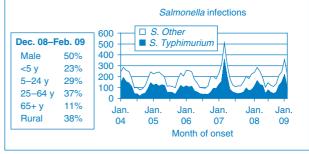


Table 1. Reports of notifiable conditions received in January 2009 by area health services

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Bloodborne and sexually transmitted	tted																		
Chlamydia (genital)ª	35	24	1 (2)	17	24	107	34	33	50	1 48	- 84	45 2	210	126	- 87		1 80	1079	1079
Gonorrhoea	_	2	-	ı	1	2	-	3	m		2							106	106
Hepatitis B – acute viral	l <del>-</del>	۱ ¬	Į ų	ı	ı	۱ ٥	l <del>-</del>	-	۱۲		<del>-</del> 0							9 7 9 6	921
Hepatitis C – acute virala	- 1	t i	· -			ו ר			۱ ۲		וכ							2	2
Hepatitis C – other <sup>a</sup>	14	14	-	9	Ж	18	9	19	23		11	15	32	34		5 19	19 35	302	302
Hepatitis D – unspecified <sup>a</sup>	ı	ı	ı	ı	ı	ı	ı	ı	_	ı	ı	ı	ı					_	_
Syphilis	1 1	1 1	1 45	1 1	1 1	2	ı <del>-</del>	5	2	1 1	۱ 4	7	_ 20	12	12		5 1	75	75
Vectorborne																			
Barmah Forest virus <sup>a</sup>	5		- 1		ı	7	2	4	1	ω,	1 -	e e	Le	1 -	1			35	35
Ross River virus <sup>a</sup>	9	m	2	m	ı	14	∞ ∩	7 -	- 2	-	- <	7 7	m <	<del>-</del> 0	1 5			54	54
Arbovila injecuon (outer)* Malaria*	2	ı <del>-</del>	1 1	1 1	1 1	ı <del>-</del>	n 1	- 1	- 1	1 1	<b>t</b> 1	7	<b>1</b> 1	o 1	+ ←		2	0 6	ი ი
Zoonoses																			
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Brucellosisa	ı	ı	ı	ı	ı	ı	ı	1 -	ı	ı	ı	ı	ı	ı	ı			1 =	1 -
Leptospirosis:   vssavirus <sup>a</sup>	1 1	1 1	1 1	1 1	1 1	1 1	1 1	- 1	1 1	1 1	1 1			1 1	1 1			- 1	- 1
Psittacosis <sup>a</sup>	1 (	ı	۱ -	1 -	ı	1 (	1 (	1 (	1 (	_	1	ı	1	_	ı	1	1	- t	- t
Q fever	7	-	-	-	-	7	~	2	~	-								5	5
Respiratory and other	ı	ı	٣	-	ı	ı	ı	-	1	ı	ı	1	-	1				9	٧
Influenza <sup>a</sup>	21	m	ו ר	- 1	4	6	1 1		7	5	6	7	- 8	m		12 1		110	110
Invasive pneumococcal infectiona	ı	ı	ı	ı	1 -	-	1 -	-	1	-	2	3	2	2	4			21	21
Legionella longbeachae Infection <sup>a</sup>	1 1	1 1	1 1	1 1		1 1		1 1	1 1	1 1	1 1	1 1	1 1	1 1	- 1	ı <del>-</del>	- 1	4 "	4 "
Legionnaires' disease (other) <sup>a</sup>	1 1	1 1	1 1	1 1	- 1	1 1	- 1	1 1	1 1				1 1			- 1	1 1	ו ח	י ח
Leprosy		1 -	ı	ı	ı	ı	1.0	ı	ı		ı	1.0	1.6	ı	1.0			1 ;	1;
Meningococcal infection (invasive) <sup>a</sup> Tuberculosis	_a	<del>-</del> 1	1 1	1 1	1 1	ı <del>-</del>	- 2	1 1	ı <del>-</del>	1 1	10	m ←	7 7	1 1/1	m I	1 2	1 7	33	33
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vaccine-preventable Adverse event after immunisation	-	1	1	1	1	1	1	1	1	-	_		1	_	1			9	9
H. influenzae b infection (invasive) <sup>a</sup>	ı	ı	í	í	i	i	í	í	í	ī	i.		1 (	1 -	1	1	1	1 (	1 0
Mumps <sup>a</sup>	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		7 6	_ ,_				m m	n m
Pertussis	85	30	10	43	23	104	25	98	177	121 1	162 3	338 2	263	80 12		183 271		2121	2121
Rubella <sup>a</sup> Tetanus	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	<b>-</b> 1	1 1	- I	2 -	- 2
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Botulism	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	1 (	ı	ı	ı				1 (	1 6
Cryptosporidiosis <sup>a</sup>	ı <del>-</del>	1 1	1 1	ı <del>-</del>	ı <del>-</del>	17	ı <del>-</del>	ıπ	۱ 6	- 2	7 M	ı <del>-</del>	1 6	2	ıκ	ım	2	61	61
Giardiasis <sup>a</sup>	2	2	1	_	_	1	4	1	1	4	16	m	56	13				115	115
Haemolytic uraemic syndrome	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	ı <del>-</del>	۱۳	1 1	l <del>-</del>	1 1		1 1		1 4	١٧
Hepatitis E <sup>a</sup>	1	ı	1	1	1	1	1	1	1	- 1	n 1	1	- 1	1				) I	)
Listeriosisa	1 5	1 4	1 (	1 -	ı	1 6	1 6	1 (	1 5	5	- 5	1 -	1 6					2,5	2,5
Shigellosis <sup>a</sup> Shigellosis <sup>a</sup>	<u>×</u> 1	ი <del>-</del>	7 1	= '	7 -	97	<u>0</u> 1	<u>n</u> 1	<u>×</u> 1	4 1	40	= '	12	7 7 7			330	316	316
Typhoida	ı	1	ı	ı	- 1	ı	ı	ı	1	ı	1	1	1	2	3	1		7	7
Verotoxin producing E. coll <sup>ia</sup>	1	ı	1	1	1	-	-	1	1	1	1		1	1	_			3	3
Miscellaneous																		•	•
Creutzfeldt–Jakob disease Meningococcal conjunctivitis	1 1	1 1	1 1	1 1	1 1	- 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	- 1	- 1
al aboutour confirmed cases only black	tive soco solo	dinordan d	oportion																
NB: Data are current and accurate as at t	he preparatio	on date. The	number of	cases report	ed is, howeve	er, subject to	change, as	cases may be	entered at a	a later date o	r retracted u	ipon further	investigatio	n. Historical A	Area Health	Service confi	gurations are	included for co	ontinuity/
comparison purposes and to highlight regional differences. NB: From 1 January 2005, Hunter New England AHS also comprises Great Lakes, Gloucester and Greater Taree LGAs (LGA, Local Government Area), Sydney West also comprises Greater Lithgow LGA.	egional differ igland AHS al	ences. Iso comprise	es Great Lak	ces, Gloucest	er and Great	er Taree LGA	\s (LGA, Loca	l Governmen	it Area), Sydn	ney West also	comprises	Greater Lithg	iow LGA.						
NB: HIV and AIDS data are reported sepa GMA. Greater Murray Area MAC. Mac.	rately in the Pugarie Area	Public Healt NEA. Ne	h Bulletin q	luarterly.	CA. Central C	oast Area	SES, South E	astern Sydne	v Area WE	N.Wentwort	) Area	SA. Souther	n Area M	WA. Mid West	ern Area	MN	. North Coast	Area.	
NSA, Northern Sydney Area CSA, Cent	al Sydney Are	ea WSA,W	estern Sydr	ney Area F	WA, Far West	Area	HUN, Hunte	r Area	NR	A, Northern	Rivers Area	ILL, Illawarr	a Area SV	VS, South We	stern Sydne	y Area JHS,	Justice Health	Service.	

Table 2. Reports of notifiable conditions received in February 2009 by area health services

					Himte		rea Health Se	ervice (2009	) om Sydney	South Fact		Atnoy South				Total	_
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Bloodborne and sexually transmitted																	
Chlamydia (genital) <sup>a</sup>	31 39	۱4	1 81	12	118	31	25 68	51	70	30	_ 152	77		96	1 1	944	2023
Gonorrhoea		ı	1 +	ı	2	-			7	-	29			9	ı	95	201
Hepatitis B – acute viral Hepatitis B – other <sup>a</sup>	2 4	ı <del>-</del>	- 5	l m		1 1			- 06	2 -	ı 96	- 68		ı <del>-</del>	1 1	408	534
		- 1	ı	ı		1			2 1	l I	) I			. 1	1	4	9
Hepatitis C – othera		2	13	m	46	6			25	14	2	70 105		<del>-</del>	_	487	789
repatitis D = unspecified:   Lymphogranuloma vanereum	1 1	1 1	1 1	1 1	1 1	1 1	- 1		1 1	1 1	1 1		1 1	1 1	1 1		٦ ٢
Syphilis	1	1	1	ı	2	-			4	-	43			7	1	101	176
Vectorborne																	
Barmah Forest virus <sup>a</sup>	<b>⊢</b> 1	l <del>-</del>	I <del>-</del>	I <del>-</del>	2 7	w r	1 13	- c	<b>—</b> 1	2	l <del>-</del>	- 1	I <del>-</del>	1 1	1 1	30	63
Arboviral infection (other) <sup>a</sup>		- 1	- 1	- 1	t i	· —			9	1	- m	-		2	1	20	23
Malariaa		1	ı	1	1	1			1	1	ı	-		1	1	7	16
Zoonoses																	
Anthraxa	1	1 1	1	1	1 1	1 1			1	1 1	1 1			1 1	1	ı	1 1
Leptospirosis <sup>a</sup>		1 1							1 1	1 1					1 1	1 1	ı —
Lyssavirus <sup>a</sup>	1	1	ı	1	1	1			ı	1	1			1	1	1	1
Psittacosis <sup>a</sup> Q fever <sup>a</sup>	- 2	I <del></del>	- 2	ı <del>-</del>	ıκ	7 7		<del>-</del> 1	1 1	1 1	1 1	1 1	<b>←</b> 1	1 1	1 1	4 &	33
Resniratory and other																	
level <sup>a</sup>	-	e	7	ı	1	1.0			1.5	ı	-			1 ;	1	14	20
	1	ı	ı	l <del>-</del>		7	1		4 0	ı	<b>-</b> -			<b>4</b> c	ı	20	160
Invasive priedmococcal injection <sup>a</sup> I egionella lonabeachae infection <sup>a</sup>	n 1	1 1	1 1	- 1	<b>4</b> 1				о 1	1 1	n I	n 1		n 1	1 1	67	) V
Legionella pneumophila infectiona		1	1	-	ı	1	1	1	1	-	1	1	1	1	1	2	. 72
Legionnaires' disease (other) <sup>a</sup>		ı	ı	ı	ı	ı			1	ı	ı			ı	ı	1	ı
Leprosy Meningococcal infection (invasive) <sup>a</sup>	1 1	1 1	1 1	1 1	1 1	1 1	1 1		1 1	1 1	ı <del>-</del>			1 1	1 1	1 0	۱ ک
Tuberculosis		1	ı	ı	1	1			4	1				7	1	15	8
Vaccine-preventable																	
Adverse event after immunisation	-	I	ı	ı	ı	ı	-		ı	-	ω <del>-</del>	1	<del></del>	2	ı	= (	17
n. influenzae o infection (invasive)" Measles		1 1	1 1	1 1	1 1	1 1			ı <del>-</del>	1 1	- ,-		- 1	1 1	1 1	7 ~	7 9
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	7	ı	56	16	144	19			110	278	158	15	13	205	ı	1786	3907
Kubella" Tetanus	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		1 1	1 1	1 1	ı <del>-</del>	7 -
Enteric																	
Botulism	1	ı	1	1	ı	1			1	ı	1			1	1	1	1 (
Cryptosporidiosis <sup>a</sup>	1 4	1 1	ια	٦	73		12 20		- 40	ועי	36.1	72 33		30	1 1	797	358
Giardiasis		1	<b>→</b>		22	. ∞			13	) I	33			23	1	152	267
Haemolytic uraemic syndrome	1	ı	ı	ı	ı	1			1	ı	_			1	1	-	_
Hepatitis A <sup>a</sup> Hocoatitis E <sup>a</sup>	1	1 1	1	1	1 1	1 1			7 -	1 1	7	ι <del>-</del>		m	1	٦,	9 (
Listeriosis <sup>a</sup>		1 1	1 1		1 1				- 1	1 1	ı <del>-</del>			1 1	1 1	7 -	4 W
Salmonellosis <sup>a</sup>	14	1	2	4	16	12			49	2	61	(1)		22	1	346	662
	- 1	1	1	1	- 1	1	1 1	1 1	- c	1 1	9	v -	1	7 -	1	<u>4</u> п	% <del>C</del>
producing E. coli <sup>a</sup>	1	1	1	1	4	1			1 1	ı	_			- 1	1	9	i o
Miscellaneous																	
Creutzfeldt–Jakob disease	1	ı	ı	ı	-	ı	1		ı	I	ı	1	1	ı	ı	7	m
Mellingococcal conjunicativitis	1 2			١						1				1	-	'	
<ul> <li>"Laboratory-confirmed cases only." Includes cases with unknown postcode</li> <li>NB: Data are current and accurate as at the preparation date. The number o</li> </ul>	ases with unkno eparation date.T	wn postcod 'he number	ie. of cases report	ed is, howeve	r, subject to o	change, as ca	ses may be ente	ered at a later	date or retract	ver, subject to change, as cases may be entered at a later date or retracted upon further investigation. Historical Area Health Service configurations are included for continuity/	investigation	n. Historical Are	ea Health Servi	ce configuratio	ons are inclu	ded for contir	uity/
comparison purposes and to highlight region	nal differences.	rices Great	Jakes Gloucest	er and Greats	r Taree I GAs	(I GA Local o	Avernment Are	W Vedney W	ect also compr	ices Greater Litho	ΔΩ I wo						
NE. Hon January 2 2021 fatter New Linguist on 15 and Control of the Public Control of th	y in the Public H	ealth Bulletin	n quarterly.			יבלי, בסלפו ל			est also collips								
NSA, Northern Sydney Area CSA, Central Sy	dney Area WS/	v, New Engla 4, Western Sy	ind Area F	WA, Far West	Area H	:S, South Eds UN, Hunter A	terri aydırey Art Area	NRA, Nor	thern Rivers An	ea ILL, Illawarra	Area SW	SWS, South Western Sydney Area	ı Area rn Sydney Area	JHS, Justice Health Service	Health Serv	ice.	