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YEAR IN REVIEW: COMMUNICABLE DISEASE SURVEILLANCE, 1999

In this edition, we review the trends in reports of notifiable diseases received by the NSW Department of Health for 1999. Readers interested in the details of specific diseases should review Tables 1 to 4 for notifications of disease reports by year, month, area of residence, age group and sex.

A remarkable achievement in 1999, first reported in the Bulletin (Volume 10 Number 11), was the interruption—probably for the first time since colonial days—of measles transmission in NSW.[1]

Among the 25,093 persons with notifiable diseases reported by doctors, hospital staff and laboratories for 1999, other highlights included:

- **condition most frequently reported**: hepatitis C (7,737 cases);
- **condition with the most sustained increase in reporting over the previous years**: gonorrhoea (1,290 cases, steadily increased from 357 in 1994), linked to an ongoing outbreak among inner-Sydney men who have sex with men;
- **conditions with the most important declines in reporting over previous years**:
  - — measles (32 cases, only 13 of which were lab-confirmed, down from 2,348 in 1993) and rubella (down to 46 laboratory-confirmed cases), thanks largely to the massive Measles Control Program in 1998 that provided vaccination against measles, mumps and rubella to Australian primary school children;
  - — AIDS (90 cases, down from 534 in 1994), thanks largely to effective new therapies.
- **the conditions least frequently reported**:
  - — diphtheria, lymphogranuloma venereum (LGV), donovanosis, plague, polio, rabies, typhus, viral haemorrhagic fevers and yellow fever (0 cases);
  - — one case of rabies was reported in an Australian living in—and bitten by a dog in—China (the tables only include persons living in NSW).[2]

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- **conditions that caused the most concern**:
  - — HIV infection (360 cases, with only a modest decline in recent years). The threat of drug resistance and some evidence of increasing rates of unsafe sex among men who have sex with men suggest that new HIV infections will continue to occur in at least similar numbers;
  - — hepatitis C (7,737 cases, of whom 80 were reported to be new infections). Identification of new infections is substantially under reported. High risk sharing of injecting equipment is still too common among injecting drug users;
  - — tuberculosis, with an increase in cases (483, up from 385 in 1998).

Some of the special programs aimed at further preventing illness and implemented in 1999 included:

- the Gonorrhoea Control Campaign that aimed to increase awareness, testing and safe sex among inner city men who have sex with men;
- a new childhood vaccine distribution system that provides vaccines from the new NSW Vaccine Centre to approximately 3,000 clinics in NSW each month;[2]
- a revised Infection Control Policy for health care facilities;[3]
- the installation of an improved Notifiable Diseases Database in public health units, and the development of related data performance indicators.

Once again we recognise that comprehensive public health surveillance depends on the notifications we receive from general and specialist medical practices, laboratories, hospitals, schools or childcare centres to public health units. So thanks again, your participation is the foundation on which disease prevention and control systems are built!

REFERENCES

1. NSW Department of Health. Infectious Diseases, NSW, November 1999. *NSW Public Health Bulletin* 1999; 10(11): 154.
2. NSW Department of Health. Infectious Diseases, NSW, July 1999. *NSW Public Health Bulletin* 1999; 10(7): 89.
3. NSW Department of Health. Infectious Diseases, NSW, December 1999. *NSW Public Health Bulletin* 1999; 10(12): 174.

LETTER TO THE EDITOR

24 March 2000

DEAR EDITOR,

Re: Fact*Sheet* on chickenpox in the March 2000 issue of the *NSW Public Health Bulletin.*

How can I prevent chickenpox? A live attenuated chickenpox vaccine is being launched on 4 April 2000 in Australia, which merits mention in the Bulletin. Could this matter be mentioned in the next issue (No. 4) of the Bulletin so that the Fact*Sheet* is brought up to date?

Best wishes.

Professor C.R. Boughton
Vaucluse, NSW

DEAR PROFESSOR BOUGHTON,

Thank you for your letter, which highlights the launch of a vaccine for chickenpox. In the Communicable Diseases Report of this issue of the Bulletin (see page 174) we note the licensing of this vaccine and refer readers to the Australian Immunisation Handbook for further information.

The Fact*Sheet* on chickenpox has been updated and is available through the Department of Health's Web site, and from the Better Health Centre.

Sincerely yours,

Dr Lynne Madden
Editor

TABLE 1

DISEASE NOTIFICATIONS IN NSW, 1995–1999

Condition	Year of Onset 1991	1992	1993	1994	1995	1996	1997	1998	1999
AIDS	439	429	468	534	463	350	199	165	90
Adverse event after immunisation	10	31	24	40	28	55	70	93	12
Arboviral infections (total)*	412	342	655	382	534	1226	1804	780	1216
Barmah Forest virus infections*	6	6	25	40	271	172	186	133	246
Ross River virus infections*	299	324	597	330	236	1030	1597	584	954
NOS*	107	12	33	12	27	24	21	63	16
Botulism	not notifiable until December 1996								1
Blood lead level ≥ 5ug/dl*	not notifiable until December 1996					237	713	881	714
Brucellosis*	2	2	4	4	2	1	3	3	2
Chancroid	not notifiable until August 1998								1
Chlamydia trachomatis infections*	not notifiable until August 1998							562	2465
Cholera*	1	0	1	0	1	3	1	1	2
Cryptosporidiosis*	not notifiable until December 1996					23	157	1130	121
Food-borne illness (NOS)	2748	253	106	213	270	211	255	201	151
Gastroenteritis (in an institution)	153	405	426	296	1359	554	939	737	635
Giardiasis*	not notifiable until August 1998							403	1091
Gonorrhoea*	387	494	382	357	427	522	636	1051	1290
Invasive H. Influenzae type b infections (total)*	211	219	124	61	29	14	17	11	13
Epiglottitis*	15	57	32	21	6	2	5	1	2
Meningitis*	47	104	53	17	11	4	3	3	3
Septicaemia*	11	26	24	12	8	3	1	4	6
NOS*	138	32	15	11	4	5	8	3	2
Haemolytic uraemic syndrome	not notifiable until December 1996						3	6	11
Hepatitis A*	1125	903	580	586	615	958	1429	927	409
Hepatitis B: acute viral*	414	115	96	75	63	43	52	55	64
Hepatitis B: other*	1095	3169	3646	4088	4114	3602	3242	3043	3604
Hepatitis C: acute viral*	22	28	23	22	33	19	19	102	80
Hepatitis C: other*	831	3972	6015	8014	7001	7130	7087	7307	7657
Hepatitis D*	0	8	12	19	19	9	11	3	13
Hepatitis E*	0	0	1	2	0	3	6	4	7
Hepatitis: acute viral (NOS)	56	16	5	1	2	3	1	2	0
HIV infection*	788	636	519	432	438	412	398	370	360
Legionnaires disease (total)*	37	104	66	60	75	74	33	46	41
L. longbeachae*	0	14	13	8	16	30	9	19	12
L. pneumophila*	16	80	34	30	35	34	18	22	22
NOS*	21	10	19	22	24	10	6	5	7
Leprosy	1	7	5	3	3	2	0	1	1
Leptospirosis*	29	21	16	14	6	33	33	50	55
Listeriosis*	11	13	12	10	14	22	23	28	22
Malaria*	202	164	164	184	96	203	173	161	198
Measles (total)	494	808	2348	1484	596	191	273	119	32
Laboratory confirmed cases*	20	76	460	302	138	35	98	19	13
Other	474	732	1888	1182	458	156	175	100	19
Meningococcal disease (total)	130	122	153	142	113	161	219	184	218
Meningitis	53	94	98	80	72	98	108	52	113
Septicaemia	17	18	43	41	26	40	65	76	70
NOS	60	10	12	21	15	23	46	56	35
Meningococcal disease—conjunctivitis	not notifiable until September 1998							1	3
Mumps*	8	23	13	11	14	27	29	39	33
Mycobacterial infection: other than TB*	304	400	451	520	470	411	359	313	366
Pertussis*	49	217	1533	1408	1370	1157	4251	2312	1414
Q Fever*	166	213	404	267	202	287	258	236	160
Rubella (total)*	61	326	1186	233	2376	635	153	78	46
Rubella*	60	326	1184	229	2375	630	153	78	45
Rubella (Congenital)*	1	0	2	4	1	5	0	0	1
Salmonella infections (total)*	1174	805	980	1101	1366	1224	1698	1813	1447
Salmonella bovis morbificans infections*	19	21	32	24	15	13	25	41	22
Salmonella typhimurium infections*	196	232	291	457	547	581	934	857	669
NOS	959	552	657	620	804	630	739	915	756
Syphilis (total) *	585	881	742	981	840	665	514	607	526
New diagnoses*	3	5	14	52	172	110	85	68	183
NOS*	582	876	728	929	668	555	429	539	343
Tetanus	5	2	5	4	0	1	3	3	1
Tuberculosis*	412	424	390	393	443	411	422	385	483
Typhoid and paratyphoid*	58	28	37	35	39	45	33	27	37
Verotoxin - producing *Escherichia coli* infections*	not notifiable until December 1996					0	0	2	0

* Laboratory-confirmed cases only NOS = Not otherwise Specified

The following diseases have not been notified since 1991: Diphtheria*, Granuloma inguinale*, Lymphogranuloma venereum*, Plague*, Poliomyelitis*, Rabies, Typhus*, Viral haemorrhagic fever, Yellow fever.

TABLE 2

DISEASE NOTIFICATIONS BY PUBLIC HEALTH UNIT AREA, NSW, ONSET IN 1999

Condition	Public Health Unit Area								
	CCA	CSA	FWA	GMA	HUN	ILL	MAC	MNC	MWA
AIDS	0	12	0	1	6	2	1	3	1
Adverse event after immunisation	0	3	0	0	1	0	0	1	1
Arboviral infections (total)*	39	12	37	126	149	103	45	172	27
Barmah Forest virus infections*	3	0	2	16	11	37	1	77	2
Ross River virus infections*	36	10	35	110	137	66	44	95	24
NOS*	0	2	0	0	1	0	0	0	1
Botulism	0	0	0	0	0	0	0	0	0
Blood lead level ≥ 15ug/dl*	6	49	198	8	152	48	0	10	8
Brucellosis*	0	1	0	0	0	0	0	0	0
Chancroid	0	0	0	0	0	0	0	0	0
Chlamydia trachomatis infections*	82	207	100	104	256	129	36	101	84
Cholera*	1	0	0	0	0	0	0	0	0
Cryptosporidiosis*	0	2	0	19	8	3	11	10	5
Food-borne illness (NOS)	11	43	1	0	0	7	1	46	3
Gastroenteritis (in an institution)	39	116	10	0	184	7	15	0	0
Giardiasis*	49	66	15	27	84	47	21	32	28
Gonorrhoea*	13	238	34	4	14	22	15	10	23
Invasive H. Influenzae type b infections (total)*	0	1	0	0	2	2	0	0	0
Epiglottitis*	0	0	0	0	0	0	0	0	0
Meningitis*	0	0	0	0	1	1	0	0	0
Septicaemia*	0	1	0	0	1	0	0	0	0
NOS*	0	0	0	0	0	1	0	0	0
Haemolytic uraemic syndrome	0	2	0	0	2	0	0	0	0
Hepatitis A*	17	51	1	9	6	18	0	6	8
Hepatitis B: acute viral*	0	3	1	3	5	2	2	7	2
Hepatitis B: other*	50	585	53	23	74	76	11	24	13
Hepatitis C: acute viral*	0	4	4	1	20	6	3	4	0
Hepatitis C: other*	354	783	53	164	597	217	60	342	305
Hepatitis D*	0	1	0	1	0	3	0	0	1
Hepatitis E*	1	0	0	0	1	0	0	0	0
HIV infection*	4	60	1	1	3	7	1	5	7
Legionnaires disease (total)*	2	1	0	2	2	6	1	2	1
L. longbeachae*	0	0	0	0	0	2	0	0	1
L. pneumophila*	2	1	0	2	1	2	1	0	0
NOS*	0	0	0	0	1	2	0	2	0
Leprosy	0	0	0	0	0	0	0	0	0
Leptospirosis*	0	1	0	1	6	0	1	10	1
Listeriosis*	2	1	0	0	1	2	0	1	1
Malaria*	11	16	0	6	7	12	2	3	1
Measles (total)	2	3	1	0	1	7	4	0	0
Laboratory confirmed cases*	1	2	1	0	0	2	0	0	0
Other	1	1	0	0	1	5	4	0	0
Meningococcal disease (total)	4	10	3	8	9	18	4	7	8
Meningitis	4	7	1	3	6	13	3	6	1
Septicaemia	0	2	1	4	3	0	1	1	6
NOS	0	1	1	1	0	5	0	0	1
Meningococcal disease - conjunctivitis	0	1	0	0	0	0	0	0	0
Mumps*	0	3	0	0	1	4	0	4	0
Mycobacterial infection: other than TB*	11	43	0	11	28	11	1	16	7
Pertussis*	42	85	5	93	284	58	35	47	68
Q Fever*	1	1	14	4	8	3	23	30	8
Rubella (total)*	1	0	0	0	0	5	0	3	0
Rubella*	1	0	0	0	0	5	0	3	0
Rubella (Congenital)*	0	0	0	0	0	0	0	0	0
Salmonella infections (total)*	42	100	20	36	103	89	21	66	36
Salmonella bovis morbificans infections*	2	1	0	1	3	1	1	3	0
Salmonella typhimurium infections*	17	45	4	20	41	64	14	29	14
NOS	23	54	16	15	59	24	6	34	22
Syphilis (total) *	4	57	31	2	17	14	11	28	17
New diagnoses*	4	24	20	2	14	11	10	24	14
NOS	0	33	11	0	3	3	1	4	3
Tetanus	0	0	0	0	1	0	0	0	0
Tuberculosis*	12	74	1	2	14	7	4	7	3
Typhoid and paratyphoid*	1	9	0	2	0	2	0	0	0

* lab-confirmed cases only NOS = Not Otherwise Specified

Area health service population estimates 1999:

CCA = Central Coast Area (289 429) CSA = Central Sydney Area (490 840) FWA = Far West Area (48 611)
GMA = Greater Murray Area (257 711) HUN = Hunter Area (537 147) ILL = Illawarra Area (346 007)
MAC = Macquarie Area (103 445) MNC = Mid North Coast Area (259 733) MWA = Mid Western Area (167 057)

TABLE 2

DISEASE NOTIFICATIONS BY PUBLIC HEALTH UNIT AREA, NSW, ONSET IN 1999 *continued*

Condition	Public Health Unit Area									
	NEA	NRA	NSA	SA	SES	SWS	WEN	WSA	NOS	TOTAL
AIDS	0	4	10	0	31	3	2	11	3	90
Adverse event after immunisation	1	0	1	0	0	3	1	0	0	12
Arboviral infections (total)*	34	241	31	110	19	20	27	22	2	1216
Barmah Forest virus infections*	6	58	2	27	1	2	0	1	0	246
Ross River virus infections*	28	183	26	82	13	17	26	20	2	954
NOS*	0	0	3	1	5	1	1	1	0	16
Botulism	0	0	0	0	0	0	0	1	0	1
Blood lead level ≥ 15ug/dl*	5	16	26	6	25	102	13	36	6	714
Brucellosis*	0	0	0	0	1	0	0	0	0	2
Chancroid	0	0	0	0	0	0	1	0	0	1
Chlamydia trachomatis infections*	117	195	100	31	536	90	60	195	42	2465
Cholera*	0	1	0	0	0	0	0	0	0	2
Cryptosporidiosis*	16	15	3	5	12	8	1	3	0	121
Food-borne illness (NOS)	0	12	1	7	3	0	4	12	0	151
Gastroenteritis (in an institution)	35	0	0	0	34	14	97	84	0	635
Giardiasis*	47	87	159	4	183	87	52	102	1	1091
Gonorrhoea*	20	19	119	5	560	78	26	72	18	1290
Invasive H. Influenzae type b infections (total)*	1	2	0	1	1	0	3	0	0	13
Epiglottitis*	0	1	0	0	1	0	0	0	0	2
Meningitis*	0	1	0	0	0	0	0	0	0	3
Septicaemia*	0	0	0	1	0	0	3	0	0	6
NOS*	1	0	0	0	0	0	0	0	0	2
Haemolytic uraemic syndrome	1	0	1	0	2	3	0	0	0	11
Hepatitis A*	4	3	40	15	86	45	13	82	5	409
Hepatitis B: acute viral*	4	6	1	2	13	1	2	8	2	64
Hepatitis B: other*	34	28	350	22	472	1109	52	615	13	3604
Hepatitis C: acute viral*	4	1	10	2	11	0	9	0	1	80
Hepatitis C: other*	141	363	422	241	870	1145	314	1205	81	7657
Hepatitis D*	0	0	0	0	3	0	0	3	1	13
Hepatitis E*	0	0	0	0	2	0	0	3	0	7
HIV infection*	1	0	26	1	131	15	5	25	67	360
Legionnaires disease (total)*	1	0	2	1	5	2	2	11	0	41
L. longbeachae*	0	0	1	1	3	1	1	2	0	12
L. pneumophila*	1	0	1	0	1	1	0	9	0	22
NOS*	0	0	0	0	1	0	1	0	0	7
Leprosy	0	1	0	0	0	0	0	0	0	1
Leptospirosis*	6	27	0	0	0	1	0	0	1	55
Listeriosis*	0	0	4	0	5	1	3	0	1	22
Malaria*	8	11	46	7	31	13	10	14	0	198
Measles (total)	0	1	1	1	5	2	1	2	1	32
Laboratory confirmed cases*	0	1	0	0	3	1	0	2	0	13
Other	0	0	1	1	2	1	1	0	1	19
Meningococcal disease (total)	10	8	17	3	27	28	23	28	3	218
Meningitis	6	4	5	1	9	21	7	13	3	113
Septicaemia	4	3	8	0	1	6	15	15	0	70
NOS	0	1	4	2	17	1	1	0	0	35
Meningococcal disease - conjunctivitis	1	0	0	0	1	0	0	0	0	3
Mumps*	0	0	6	0	8	4	1	1	1	33
Mycobacterial infection: other than TB*	9	13	96	7	57	45	8	3	0	366
Pertussis*	18	15	165	50	155	140	57	96	1	1414
Q Fever*	24	32	2	6	2	1	0	1	0	160
Rubella (total)*	0	9	6	1	12	2	3	4	0	46
Rubella*	0	9	6	1	12	2	2	4	0	45
Rubella (Congenital)*	0	0	0	0	0	0	1	0	0	1
Salmonella infections (total)*	46	146	187	30	132	156	74	147	16	1447
Salmonella bovis morbificans infections*	0	2	0	0	2	2	0	4	0	22
Salmonella typhimurium infections*	20	41	101	15	61	71	32	78	2	669
NOS	26	103	86	15	69	83	42	65	14	756
Syphilis (total) *	9	15	24	0	114	92	5	81	5	526
New diagnoses*	7	7	6	0	16	12	0	12	0	183
NOS	2	8	18	0	98	80	5	69	5	343
Tetanus	0	0	0	0	0	0	0	0	0	1
Tuberculosis*	0	5	48	6	93	117	4	81	5	483
Typhoid and paratyphoid*	0	1	3	0	6	5	0	7	1	37

* lab-confirmed cases only NOS = Not Otherwise Specified

Area health service population estimates 1999:

NEA = New England Area (174 989) NRA = Northern Rivers Area (260 931) NSA = North Sydney Area (773 767)
SA = Southern Area 183 300) SES= South Eastern Sydney (767 720) SWS = South Western Sydney (778 790)
WEN = Wentworth Area (314 257) WSA = Western Sydney Area (680 837) NOS = Area Not Stated

TABLE 3

DISEASE NOTIFICATIONS BY AGE AND SEX, NSW, ONSET IN 1999

Conditions	0–4 yrs M	0–4 yrs F	5–24 yrs M	5–24 yrs F	25–44 yrs M	25–44 yrs F
AIDS	0	0	1	2	49	8
Adverse event after immunisation	7	4	0	0	0	1
Arboviral infections (total)*	3	2	67	65	270	256
Barmah Forest virus infections*	1	0	12	10	59	49
Ross River virus infections*	2	2	54	51	208	203
NOS*	0	0	1	4	3	4
Botulism	0	0	0	0	0	0
Blood lead level ≥ 15ug/dl*	62	31	78	8	326	15
Brucellosis*	0	0	1	0	1	0
Chancroid	0	0	0	0	0	0
*Chlamydia trachomatis infections**	11	17	382	845	627	452
Cholera*	0	1	1	0	0	0
Cryptosporidiosis*	30	23	27	14	15	7
Food-borne illness (NOS)	1	1	10	18	31	31
Gastroenteritis (in an institution)	78	63	23	41	14	48
Giardiasis*	190	139	99	103	198	179
Gonorrhoea*	4	1	212	62	800	59
Invasive H.Influenzae type b infections (total)*	3	3	1	1	0	2
Epiglottitis*	0	0	0	1	0	1
Meningitis*	1	1	0	0	0	0
Septicaemia*	1	2	1	0	0	1
NOS*	1	0	0	0	0	0
Haemolytic uraemic syndrome	2	2	1	3	1	2
Hepatitis A*	7	9	87	71	112	53
Hepatitis B: acute viral*	0	0	15	16	18	7
Hepatitis B: other*	16	20	320	321	1047	936
Hepatitis C: acute viral*	1	0	18	15	29	8
Hepatitis C: other*†	48	39	870	508	3188	1665
Hepatitis D*	0	0	2	0	7	1
Hepatitis E*	0	0	0	2	2	0
HIV infection*	0	2	33	12	229	15
Legionnaires disease (total)	0	0	0	0	3	6
L.longbeachae*	0	0	0	0	1	3
L.pneumophila*	0	0	0	0	2	2
NOS*	0	0	0	0	0	1
Leprosy	0	0	0	0	1	0
Leptospirosis*	0	0	10	3	20	9
Listeriosis*	1	1	0	0	0	2
Malaria*	1	1	46	8	82	25
Measles (total)	6	11	4	2	2	4
Laboratory confirmed cases*	1	1	2	1	2	3
Other	5	10	2	1	0	1
Meningococcal disease (total)	44	32	58	29	19	9
Meningitis	21	16	29	21	9	6
Septicaemia	14	14	16	6	7	3
NOS	9	2	13	2	3	0
Meningococcal disease - conjunctivitis	1	0	1	0	0	0
Mumps*	1	1	6	4	8	2
Mycobacterial infection: other than TB*	11	13	8	9	42	17
Pertussis*	53	56	201	240	153	244
Q Fever*	2	0	21	3	65	9
Rubella (total)*	1	4	20	4	5	10
Rubella*	1	3	20	4	5	10
Rubella (Congenital)*	0	1	0	0	0	0
Salmonella infections (total)*	275	226	214	190	130	147
Salmonella bovis morbificans infections*	8	3	4	0	0	3
Salmonella typhimurium infections*	126	113	124	100	51	57
NOS	141	110	86	90	79	87
Syphilis (total)*	0	5	36	57	111	113
New diagnoses*	0	2	16	34	39	42
NOS	0	3	20	23	72	71
Tetanus	0	0	0	0	0	0
Tuberculosis*	7	5	37	39	75	96
Typhoid and paratyphoid*	2	1	7	7	10	4

* Laboratory-confirmed cases only NOS = Not Otherwise Specified

† 4 transsexual cases

TABLE 3

DISEASE NOTIFICATIONS BY AGE AND SEX, NSW, ONSET IN 1999 continued

Conditions	45-64 yrs M	45-64 yrs F	≥65 yrs M	≥65 yrs F	Total M	Total F	Total U
AIDS	27	2	1	0	78	12	0
Adverse event after immunisation	0	0	0	0	7	5	0
Arboviral infections (total)*	234	200	61	55	635	578	3
Barmah Forest virus infections*	55	38	13	8	140	105	1
Ross River virus infections*	176	161	48	47	488	464	2
NOS*	3	1	0	0	7	9	0
Botulism	1	0	0	0	1	0	0
Blood lead level ≥ 15ug/dl*	168	7	13	1	647	62	5
Brucellosis*	0	0	0	0	2	0	0
Chancroid	1	0	0	0	1	0	0
*Chlamydia trachomatis infections**	84	18	8	3	1113	1336	18
Cholera*	0	0	0	0	1	1	0
Cryptosporidiosis*	4	1	0	0	76	45	0
Food-borne illness (NOS)	25	24	5	5	72	79	0
Gastroenteritis (in an institution)	11	39	92	195	218	386	31
Giardiasis*	75	49	24	30	587	501	5
Gonorrhoea*	119	2	11	1	1146	125	19
Invasive H.Influenzae type b infections (total)*	1	0	0	2	5	8	0
Epiglottitis*	0	0	0	0	0	2	0
Meningitis*	0	0	0	1	1	2	0
Septicaemia*	0	0	0	1	2	4	0
NOS*	1	0	0	0	2	0	0
Haemolytic uraemic syndrome	0	0	0	0	4	7	0
Hepatitis A*	25	19	9	14	240	166	3
Hepatitis B: acute viral*	6	0	1	0	40	23	1
Hepatitis B: other*	454	267	89	70	1926	1615	64
Hepatitis C: acute viral*	4	2	0	2	52	27	1
Hepatitis C: other*†	619	312	136	122	4862	2646	150
Hepatitis D*	2	0	0	0	11	1	1
Hepatitis E*	2	1	0	0	4	3	0
HIV infection*	57	3	4	0	326	33	5
Legionnaires disease (total)	12	7	7	6	22	19	0
L.longbeachae*	1	1	4	2	6	6	0
L.pneumophila*	9	6	1	2	12	10	0
NOS*	2	0	2	2	4	3	0
Leprosy	0	0	0	0	1	0	0
Leptospirosis*	8	2	3	0	41	14	0
Listeriosis*	5	3	3	6	9	12	1
Malaria*	26	3	2	4	157	41	0
Measles (total)	1	1	0	1	13	19	0
Laboratory confirmed cases*	1	1	0	1	6	7	0
Other	0	0	0	0	7	12	0
Meningococcal disease (total)	10	5	4	8	135	83	0
Meningitis	4	2	1	4	64	49	0
Septicaemia	2	3	2	3	41	29	0
NOS	4	0	1	1	30	5	0
Meningococcal disease - conjunctivitis	0	0	1	0	3	0	0
Mumps*	1	9	0	1	16	17	0
Mycobacterial infection: other than TB*	51	51	90	69	202	160	5
Pertussis*	131	218	38	79	576	837	1
Q Fever*	39	7	9	3	136	22	2
Rubella (total)*	0	0	1	1	27	19	0
Rubella*	0	0	1	1	27	18	0
Rubella (Congenital)*	0	0	0	0	0	1	0
Salmonella infections (total)*	77	73	55	50	751	686	10
Salmonella bovis morbificans infections*	0	2	2	0	14	8	0
Salmonella typhimurium infections*	24	27	21	19	346	316	7
NOS	53	44	32	31	391	362	3
Syphilis (total)*	84	27	53	30	284	232	10
New diagnoses*	18	7	13	12	86	97	0
NOS	66	20	40	18	198	135	10
Tetanus	0	1	0	0	0	1	0
Tuberculosis*	49	40	73	56	241	236	6
Typhoid and paratyphoid*	2	2	1	1	22	15	0

* Laboratory-confirmed cases only NOS = Not Otherwise Specified
† 4 transsexual cases

TABLE 4

DISEASE NOTIFICATIONS BY MONTH OF ONSET, NSW, ONSET IN 1999

Conditions	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
AIDS	8	5	12	11	4	6	5	17	5	4	5	8	90
Adverse event after immunisation	4	3	1	1	0	1	0	0	1	1	0	0	12
Arboviral infections (total)*	150	199	266	221	131	64	29	32	27	37	36	24	1216
Barmah Forest virus infections*	20	32	35	44	29	18	10	14	13	12	12	7	246
Ross River virus infections*	129	163	228	176	101	45	18	15	14	25	23	17	954
NOS*	1	4	3	1	1	1	1	3	0	0	1	0	16
Botulism	0	0	0	0	0	0	0	0	0	0	1	0	1
Blood lead level ≥ 15ug/dl*	46	54	38	37	47	67	64	47	88	79	96	51	714
Brucellosis*	0	1	0	1	0	0	0	0	0	0	0	0	2
Chancroid	0	0	0	1	0	0	0	0	0	0	0	0	1
*Chlamydia trachomatis infections**	185	203	250	213	195	220	208	201	199	178	231	182	2465
Cholera*	1	0	0	1	0	0	0	0	0	0	0	0	2
Cryptosporidiosis*	39	18	8	11	6	2	5	5	8	6	6	7	121
Food-borne illness (NOS)	1	5	2	0	1	47	2	6	39	1	20	27	151
Gastroenteritis (in an institution)	1	20	63	4	28	144	52	49	31	86	110	47	635
Giardiasis*	101	136	133	105	111	89	80	71	59	56	78	72	1091
Gonorrhoea*	115	113	122	113	114	101	85	114	105	94	119	95	1290
Invasive H.Influenzae type b infections (total)*	0	2	1	1	1	3	1	1	0	2	0	1	13
Epiglottitis*	0	0	1	0	0	0	0	1	0	0	0	0	2
Meningitis*	0	1	0	0	0	1	0	0	0	1	0	0	3
Septicaemia*	0	0	0	1	1	1	1	0	0	1	0	1	6
NOS*	0	1	0	0	0	1	0	0	0	0	0	0	2
Haemolytic uraemic syndrome	1	4	1	0	1	1	1	0	0	2	0	0	11
Hepatitis A*	38	67	58	42	44	38	28	21	23	18	20	12	409
Hepatitis B: acute viral*	6	6	6	3	7	3	6	6	5	9	3	4	64
Hepatitis B: other*	279	270	314	249	265	261	316	327	314	345	402	262	3604
Hepatitis C: acute viral*	5	4	10	5	2	2	3	6	4	13	11	15	80
Hepatitis C: other*	544	693	697	554	622	588	601	710	629	673	763	583	7657
Hepatitis D*	0	1	1	0	2	0	4	1	0	3	1	0	13
Hepatitis E*	0	0	0	1	2	2	0	0	2	0	0	0	7
HIV infection*	23	27	40	23	25	20	32	39	31	29	36	35	360
Legionnaires disease (total)	2	13	2	5	6	2	3	3	0	2	1	2	41
L.longbeachae*	0	1	1	2	2	1	1	2	0	1	0	1	12
L.pneumophila*	1	9	1	2	3	1	2	0	0	1	1	1	22
NOS*	1	3	0	1	1	0	0	1	0	0	0	0	7
Leprosy	0	0	0	0	0	0	0	0	1	0	0	0	1
Leptospirosis*	4	3	2	4	7	6	2	0	7	6	9	5	55
Listeriosis*	3	2	1	1	3	1	0	0	6	4	0	1	22
Malaria*	18	23	19	12	15	14	24	20	10	15	12	16	198
Measles (total)	5	6	4	1	5	2	2	2	0	5	0	0	32
Laboratory confirmed cases*	0	2	1	0	4	1	1	0	0	4	0	0	13
Other	5	4	3	1	1	1	1	2	0	1	0	0	19
Meningococcal disease (total)	21	8	18	15	13	14	25	29	27	24	13	11	218
Meningitis	8	4	8	6	9	7	11	19	14	12	7	8	113
Septicaemia	7	2	6	6	1	5	10	7	12	9	3	2	70
NOS	6	2	4	3	3	2	4	3	1	3	3	1	35
Meningococcal disease - conjunctivitis	0	0	0	0	0	0	1	0	1	1	0	0	3
Mumps*	1	2	2	3	3	2	5	4	4	2	0	5	33
Mycobacterial infection: other than TB*	27	41	32	31	46	36	28	26	27	25	25	22	366
Pertussis*	115	98	88	92	102	104	105	140	122	148	156	144	1414
Q Fever*	13	15	10	18	9	12	7	14	19	17	12	14	160
Rubella (total)*	6	3	3	2	4	2	5	3	2	7	6	3	46
Rubella*	6	3	3	2	4	2	5	3	1	7	6	3	45
Rubella (Congenital)*	0	0	0	0	0	0	0	0	1	0	0	0	1
Salmonella infections (total)*	233	152	199	156	83	85	78	80	72	84	89	136	1447
Salmonella bovis morbificans infections*	1	3	3	2	1	2	0	4	0	0	4	2	22
Salmonella typhimurium infections*	115	70	114	89	40	34	39	25	28	34	34	47	669
NOS	117	79	82	65	42	49	39	51	44	50	51	87	756
Syphilis (total)*	54	56	54	41	48	42	46	58	35	39	30	23	526
New diagnoses*	11	11	17	12	20	18	14	24	18	16	9	13	183
NOS	43	45	37	29	28	24	32	34	17	23	21	10	343
Tetanus	0	0	1	0	0	0	0	0	0	0	0	0	1
Tuberculosis*	35	40	46	27	58	42	47	24	34	43	51	36	483
Typhoid and paratyphoid*	1	4	2	2	6	1	5	4	6	1	1	4	37

* Laboratory-confirmed cases only NOS = Not Otherwise Specified

TUBERCULOSIS IN NSW, 1991 TO 1999

Communicable Diseases
Surveillance and Control Unit
NSW Department of Health

Tuberculosis continues to be a major cause of mortality worldwide. While NSW and the rest of Australia have among the lowest rates of disease in the world, tuberculosis continues to pose a public health threat, especially with the dual emergence of multi-drug-resistant strains, and the HIV epidemic in our region. In this report we review the epidemiology of reported tuberculosis cases in NSW from 1991 to 1999. A review of multi-drug-resistant tuberculosis will be presented in a forthcoming article in the *NSW Public Health Bulletin*.

Tuberculosis is caused by infection with the bacterium *Mycobacterium tuberculosis*, or more rarely in Australia, *M. bovis and M. africanum*. Only about 10 per cent of persons infected with these bacteria, however, will ever develop tuberculosis. In the majority of infected persons, the infection lies dormant, neither causing disease nor capable of transmission. Once tuberculosis develops, symptoms vary according to the body part affected, but usually include fatigue, weight loss, fever, night sweats, and cough. Diagnosis depends on clinical suspicion, and is supported by finding acid-fast bacilli in sputum smears, culturing the bacteria from clinical specimens and changes in the chest x-ray. Specific treatment involves a suite of antibiotics for at least six months.[1]

Pulmonary tuberculosis can be infectious to others, and persons at increased risk for disease include close contacts of a case, especially those who are very young or old, with underlying conditions such as immune suppression, silicosis, gastrectomy, or with a history of substance misuse.[1] Cases of tuberculosis are notifiable to public health units (PHUs), and chest clinic staff investigate risk factors, provide education, screening and preventive therapy to close contacts.

TABLE 5

PATIENTS NOTIFIED, HOSPITALISED, AND DIED WITH TUBERCULOSIS, NSW, 1991–1999

Case characteristics	Notified cases	Hospital admissions (%)	Notified deaths (% of cases)
Year of onset			
1991*	432	63 (15)	9 (2)
1992*	395	143 (36)	20 (5)
1993	390	216 (55)	28 (7)
1994	393	204 (52)	24 (6)
1995	443	226 (51)	22 (5)
1996	411	191 (46)	16 (4)
1997	422	226 (54)	16 (4)
1998	385	204 (53)	27 (7)
1999	483	207 (43)	22 (5)
Total	3754	1680 (45)	184 (5)

* Data on NDD for 1991 and 1992 differ from those reported to the TB Register for those years (included in Table 1 on p.163).

METHODS

Under the NSW Public Health Act 1991, all doctors, laboratories and hospitals must notify suspected cases of tuberculosis to the local PHU. Public health unit staff record case details on a confidential statewide Notifiable Diseases Database (NDD). We analysed the characteristics of cases of tuberculosis, hospitalisations and deaths notified to PHUs between 1991 and 1999. Incidence rates were calculated using the estimated 1997 mid-year population. Country of birth was only reliably available in the database for cases from 1993, and therefore analysis on this variable was only included for cases notified from 1993 to 1999.

RESULTS

Case notifications

For 1991 to 1999, 3,754 cases of tuberculosis were notified in NSW, an average of 417 per year. Fewest reports were received in 1998 (385), and most in 1999 (483) (Table 5). The average annual incidence for the period was 6.6 per 100,000 persons. The case rate in 1999 was 7.7 per 100,000 NSW residents.

Demographics

This average annual incidence varied widely with age: it was highest among persons aged 65 years and older, and lowest among young adolescents. For 1993 to 1999, the average annual incidence was highest among persons born in regions with a high prevalence of tuberculosis (especially Asia), and lowest among persons born in Australia. In 1999, 75 cases (16 per cent) were reported to be born in Australia (1.6/100,000), 282 (58 per cent) in Asia (64.1/100,000), 79 (16 per cent) in Europe (10.8./100,000), 9 (two per cent) in Africa (20.1/100,000), 12

TABLE 6

CHARACTERISTICS OF PATIENTS NOTIFIED WITH TUBERCULOSIS, NSW, 1991–1999

Case characteristics	Cases (% total)	Average annual rate per 100,000	Deaths (% of cases)
Residence			
Sydney area	3135 (84)	9.4	134 (4)
Other NSW	576 (15)	2.5	47 (8)
Overseas/unknown	43 (1)		3 (7)
Sex			
Male	1983 (53)	7.1	129 (7)
Female	1752 (47)	6.2	55 (3)
Age group			
<5	130 (3)	3.3	3 (2)
5-9	55 (1)	1.4	1 (2)
10-14	46 (1)	1.2	1 (2)
15-19	115 (3)	3.0	0 (0)
20-24	293 (8)	7.2	0 (0)
25-44	1423 (38)	8.2	22 (2)
45-64	760 (20)	6.3	23 (3)
65+	932 (25)	13.0	134 (14)
Region of birth (1993–99)			
Australia	548 (19)	1.6	52 (9)
Europe	342 (12)	6.7	32 (9)
Asia	1656 (57)	53.8	48 (3)
Middle East	47 (2)	6.0	1 (2)
Africa	69 (2)	22.0	4 (6)
Oceania	108 (4)	10.6	2 (2)
Americas	32 (1)	6.3	0 (0)
Not reported	125 (4)		16 (13)
(Total 1993–99)	*2927*		*115 (5)*
Main site			
Lung	1853 (49)	3.3	109 (6)
Lymphatics	470 (13)	0.8	6 (1)
Pleura	122 (3)	0.2	6 (5)
Kidney/genito-urinary	113 (3)	0.2	4 (4)
Bone/joint	94 (3)	0.2	3 (3)
Gastro-intestinal	43 (1)	0.1	3 (7)
Central nervous system	33 (1)	0.1	7 (21)
Other	179 (5)	0.3	10 (6)
Not reported	847 (23)	1.5	36 (4)
Case classification			
New diagnosis	2753 (73)	4.9	137 (5)
Reactivation	200 (5)	0.4	11 (6)
Not reported	801 (21)	1.4	36 (4)
Laboratory confirmed	2607 (69)	4.6	148 (6)
Total	3754	6.6	184 (5)

(two per cent) in Oceania (8.2/100,000), six (one per cent) in the Americas (8.3/100,000), eight (two per cent) in the Middle East (7.1/100,000), and for 12 (three per cent) place of birth was not reported.

Rates were slightly higher in males compared with females, and higher among persons living in the Sydney area (covered by the Northern Sydney, Central Sydney, South Eastern Sydney, South Western Sydney, Western and Wentworth Area Health Services). The high incidence among persons living in Sydney is most likely due to more persons from high prevalence countries living in Sydney than in other parts of NSW (Table 6). In 1999, 417 (86 per cent) of 483 cases resided in the Sydney area.

Disease

For all cases 1991 to 1999, the major reported site of disease was lung disease, followed by lymphatic disease and pleural disease. In 1999, the major site of disease was reported for 97 per cent. Of these, 69 per cent were reported to have lung disease, 14 per cent lymphatic disease, and three per cent pleural disease as the major site. For the period 1991 to 1999, where case classification was reported, 93 per cent were diagnosed with tuberculosis for the first time, and seven per cent had reactivated disease. In 1999, case classification was reported for 98 per cent, and of these, 95 per cent were reported to have been diagnosed with tuberculosis for the first time, while five per cent were reactivations. For all cases 1991 to 1999, just over two-thirds of patients were reported to have been laboratory confirmed (Table 6). This proportion was stable in all years except 1991, when there may have been under-reporting. In 1999, 70 per cent (339) were confirmed by laboratory reporting (Table 6).

Sputum

During the nine-year period, among the 1902 cases reported to have any pulmonary disease, sputum microscopy results were reported for 63 per cent (Table 7). In about half of these, acid-fast bacilli (AFBs) were identified on direct sputum smears. Among the 62 per cent of pulmonary cases where results were reported, for 71 per cent *M. tuberculosis* was cultured in the sputum. In 1999, sputum results were recorded for 88 per cent (287 of 328) pulmonary cases. Of these, half were AFB positive. In 1999, among the 88 per cent (287 of 328) pulmonary cases where culture results were reported, for 76 per cent (219) *M. tuberculosis* was cultured.

HIV co-infection

HIV infection was reported in 56 peoplewith tuberculosis (1.5 per cent) over the nine-year period. The year with the highest number of reported cases of HIV–tuberculosis co-infection was 1993, with 13 (3.3 per cent). In 1999, HIV infection was reported in eight people with tuberculosis (1.7 per cent).

Hospitalisations

Of the 3,754 tuberculosis cases notified from 1991 to 1999, 1,683 (45 per cent) were reported to have been admitted to hospital. These data are likely to be incomplete, especially in the early part of the period. In 1999, 43 per cent of patients were reported to have been admitted to hospital.

Deaths

During the nine-year period, there were 184 deaths reported among patients with tuberculosis that were notified to public health units (five per cent of all cases). By year, reported deaths varied from two per cent in 1991 to seven per cent in 1993. Case fatality rates were higher among males, persons aged 65 years or older, persons born in Australia and Europe (who tend to be older), persons with central nervous system disease and persons living in rural areas (most likely because that is where older cases lived) (Table 6).

TABLE 7

CHARACTERISTICS OF PATIENTS NOTIFIED WITH PULMONARY TUBERCULOSIS, NSW, 1991–1999

Pulmonary cases	Cases (% total)	Average annual rate per 100,000	Deaths (% of cases)
Direct smear positive			
Yes	601 (32)	1.1	39 (6)
No	590 (31)	1.0	27 (5)
Not reported	711 (37)	1.3	45 (6)
Culture positive			
Yes	846 (44)	1.5	52 (6)
No	345 (18)	0.6	14 (4)
Not reported	711 (37)	1.3	45 (6)
Total	1902	3.4	111 (6)

DISCUSSION

These data indicate that while NSW enjoys a relatively low incidence of tuberculosis by world standards, some groups are at increased risk of disease, including persons born in countries with a high prevalence of the disease, notably in Asia and Africa (who are more likely to live in the Sydney area), and older persons (who may have acquired infection in the past when tuberculosis was more common in the Australian community). HIV co-infection remains unusual in NSW with reported rates much lower than in many other developed countries.[2]

The increase of 83 cases reported in 1999 over 1998 (25 per cent) may be partially explained by delayed reporting of some cases in 1998 (the lowest case count in recent years), but is largely attributed to cases among persons immigrating from Asia (including East Timorese refugees) and Europe (including Kosovar refugees). Thanks to an elaborate case-finding system among refugees, further transmission from these cases is unlikely.

Timely notification of tuberculosis allows for the implementation of public health action to minimise further transmission of the infection through the early identification, counselling, screening and treatment of exposed contacts. Notification also provides valuable data on trends and risk factors in persons with tuberculosis that allow the development of targeted prevention and control programs. The current surveillance system however does not collect data on several risk factors among patients, such as pre-existing medical conditions, nor does it consistently record useful information on drug resistance patterns among cases. These data are essential if we are to improve our understanding and therefore control of this disease, and NSW Tuberculosis Coordinators and Public Health Units are working closely with the NSW Department of Health's Communicable Diseases Surveillance and Control Unit to enhance the confidential reporting of this information.

ACKNOWLEDGEMENT

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FACT*SHEET*

NSW HEALTH

HEPATITIS A

WHAT IS HEPATITIS?

- 'Hepatitis' means inflammation or swelling of the liver. It can be caused by chemicals or drugs, or by different kinds of viral infections.
- Infection with one type of hepatitis virus does *NOT* give protection against infection with other hepatitis viruses.

One common cause of hepatitis is the hepatitis A virus.

WHAT IS HEPATITIS A?

- Hepatitis A is a viral infection of the liver which is associated with the symptoms of feeling unwell, aches and pains, fever, nausea, lack of appetite, abdominal discomfort and darkening of the urine, which is followed within a few days by jaundice (yellowing of the eyeballs and skin).
- Illness usually lasts approximately 1–3 weeks (although some symptoms can last several months) and is almost always followed by complete recovery. Small children who become infected usually have no symptoms.
- Hepatitis A does *NOT* cause long-term liver disease and deaths caused by hepatitis A are rare.
- The period between contact with the virus to the development of symptoms is usually four weeks, but can range from two to seven weeks.
- Infected people can pass on the virus to others from two weeks before the development of symptoms until one week after the appearance of jaundice (about three weeks in total).
- Very large amounts of the virus are found in faeces (stools) of an infectious person during the infectious period.
- The virus can survive in the environment for several weeks in the right conditions (for example, in sewage).

HOW IS HEPATITIS A TRANSMITTED?

Hepatitis A is usually transmitted when virus from an infected person is swallowed by another person through:

- eating food that has been handled by an infectious person;
- touching nappies, linen and towels soiled with the faeces of an infectious person;
- direct contact (including sexual) with an infectious person.

REPORTED OUTBREAKS OF HEPATITIS A HAVE BEEN TRACED TO:

- person-to-person spread, including among men who have sex with men;
- drinking water contaminated with sewage;
- eating food (contaminated with sewage) such as shellfish;
- eating food contaminated by infectious food handlers.

Hepatitis A continues to be a problem for people travelling overseas, especially people visiting developing countries where hepatitis A is common.

WHO CAN GET HEPATITIS?

Those who have not had hepatitis A and who have not been vaccinated against it may be at risk of catching the disease.

WHAT CAN BE DONE TO AVOID INFECTING OTHERS?

- Everyone should wash their hands thoroughly with soap and running water, after going to the toilet and before preparing food and drinks.

If you have hepatitis A, you should avoid the following activities while infectious (that is, until at least one week after onset of jaundice):

- do *NOT* prepare food or drink for other people
- do *NOT* share eating or drinking utensils with other people
- do *NOT* share linen and towels with other people
- abstain from sex
- wash eating utensils in soapy water, and machine wash linen and towels.

WHAT CAN BE DONE TO AVOID CATCHING HEPATITIS A?

Always wash your hands thoroughly in soap and running water:

- before eating
- after going to the toilet
- after handling objects such as nappies and condoms.

Avoid sharing food, drinks, cigarettes and other smoking implements with other people.

IS THERE ANY TREATMENT FOR HEPATITIS A?

There is no specific treatment for hepatitis A. Household contacts and sexual partners of an infectious person usually need an injection of immunoglobulin. The injection may prevent or reduce illness if given within two weeks of contact with the infectious person.

VACCINATION

A safe and effective vaccine is available against hepatitis A. The vaccine may take up to two weeks to provide protection. Vaccination is recommended for the following groups of people:

- travellers to countries (most developing countries) where hepatitis A is common
- frequent visitors to rural and remote indigenous communities
- men who have sex with men
- child day-care and pre-school personnel
- the intellectually disabled and their carers
- some health care workers who work in or with indigenous communities
- sewerage workers
- plumbers
- injecting drug users
- patients with chronic liver disease
- people with haemophilia who may receive pooled plasma concentrates.

SHOULD PEOPLE WHO HAVE HEPATITIS A BE EXCLUDED FROM WORK AND SCHOOL?

- People who handle food or drink must be excluded from work for at least one week after the onset of jaundice (that is, while infectious).
- People whose work involves close personal contact, such as child carers and health workers, should not work while they are infectious.
- Staff of childcare facilities should not attend while infectious.
- Children and adolescents should not attend childcare facilities or school while infectious.
- All patients should check with their doctor before returning to work or school.

For more information please contact your local public health unit, community health centre, or doctor.

NSW PUBLIC HEALTH BULLETIN

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The *Bulletin* aims to provide its readers with population health data and information to support effective public health action.

Submission of articles

Articles, news and comments should be 1000 words or less in length and include a summary of the key points to be made in the first paragraph. References should be set out in the Vancouver style, described in the *New England Journal of Medicine*, 1997; 336: 309–315. Send submitted articles on paper and in electronic form, either on disc (Word for Windows is preferred), or by email. The article must be accompanied by a letter signed by all authors. Full instructions for authors are available on request from the editor.

Editorial correspondence

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COMMUNICABLE DISEASES, NSW: SEPTEMBER–OCTOBER 2000

TRENDS

Pertussis on the rise

There has been a recent increase in reports of pertussis (whooping cough) in NSW. Pertussis typically begins with a runny nose, sore eyes, malaise and low-grade fever, and evolves into classic whooping cough. Coughing occurs in paroxysms that include short expiratory bursts followed by an inspiratory gasp that can result in the typical whoop. The disease is most severe in small children. Some of the symptoms may be absent, especially in older cases. Pertussis is most infectious early in the disease, spread by aerosol droplets from infected children or adults. Diagnosis depends on clinical suspicion, and laboratory isolation of *Bordetella pertussis* by nasopharyngeal culture, or antibodies in persons with symptoms.

To late July, 233 cases had been reported for June 2000, compared with 104 in June 1999, 101 in June 1998, and 233 in June 1997 (the year of the last epidemic in NSW). A total of 1,015 cases have been reported so far this year, compared with 1,414 for the whole of 1999, 2,312 in 1998, and 4,251 in 1997. No deaths have been reported so far this year.

Pertussis is currently affecting a larger proportion of adults than in previous years. In the three months to 30 June 2000, five per cent of cases were aged under five years, 27 per cent aged 5–14 years, 18 per cent aged 15–29 years, and 50 per cent aged 30 years or more. During the whole of 1997, 12 per cent of cases were aged under five years, 42 per cent aged 5–14 years, 14 per cent aged 15–29 years, and 32 per cent aged 30 years or more.

In the three months to 30 June 2000, the highest number of reports of pertussis were in residents of the Hunter Health Service Area (163 cases, 29 per cent of all NSW cases), followed by the Western Sydney Area (57 cases, 10 per cent). The 1997 epidemic was more widespread, with 16 per cent of cases being reported from the Hunter Area, and 12 per cent being reported from each of the Western Sydney, South Western Sydney, and South Eastern Sydney Areas.

After taking population size into account, annualised rates of the disease in the three months to 30 June 2000 were highest in residents of the Hunter Area (121/100,000/year), followed by the Macquarie Area (73/100,000/year), and the New England and Greater Murray Areas (each approximately 67/100,000/year). For the whole of 1997, the highest rates were in residents of the Hunter Area (126/100,000/year), followed by the Wentworth Area (97/100,000/year) and the Western Sydney Area (81/100,000/year).

To help prevent the further transmission of pertussis:

- All parents and doctors should ensure all children are fully immunised against pertussis (doses are due at two, four, six and 18 months, and at four years of age).
- Persons with symptoms of pertussis should seek medical diagnosis.
- Pertussis cases are infectious to others for up to three weeks after onset. Treatment with erythromycin given within three weeks of onset should render cases non-infectious after five days. While infectious, cases should not attend preschool or school (or other settings where there are susceptible persons, especially young children).
- Pertussis can be prevented among household contacts of infectious cases through treatment with erythromycin.
- The treatment of choice for cases and their household contacts is erythromycin 40 to 50 mg/kg per day in four divided doses up to one gram per day for 10 days.
- Doctors, laboratories and hospitals should notify suspected cases to the local public health unit.

Influenza

Laboratory diagnoses of influenza A increased in the last week of July. The virus strain isolated from cases has been predominantly H1N1 and not the A/Sydney (H3N2) strain of recent years. Influenza B isolates have remained few. Sentinel general practitioners report that clinical influenza-like illness among their patients increased slightly in late July. Little influenza activity has been reported from elsewhere in the Southern Hemisphere.

CHICKENPOX UPDATE

Since the publication of our Chickenpox *Fact*sheet in the March 2000 *NSW Public Health Bulletin,* a new varicella vaccine has been licensed in Australia. While not on the Australian Standard Vaccination Schedule published by the National Health and Medical Research Council, the varicella vaccine is recommended for non-immune adolescents and adults. For more information, see the *Australian Immunisation Handbook*.[1]

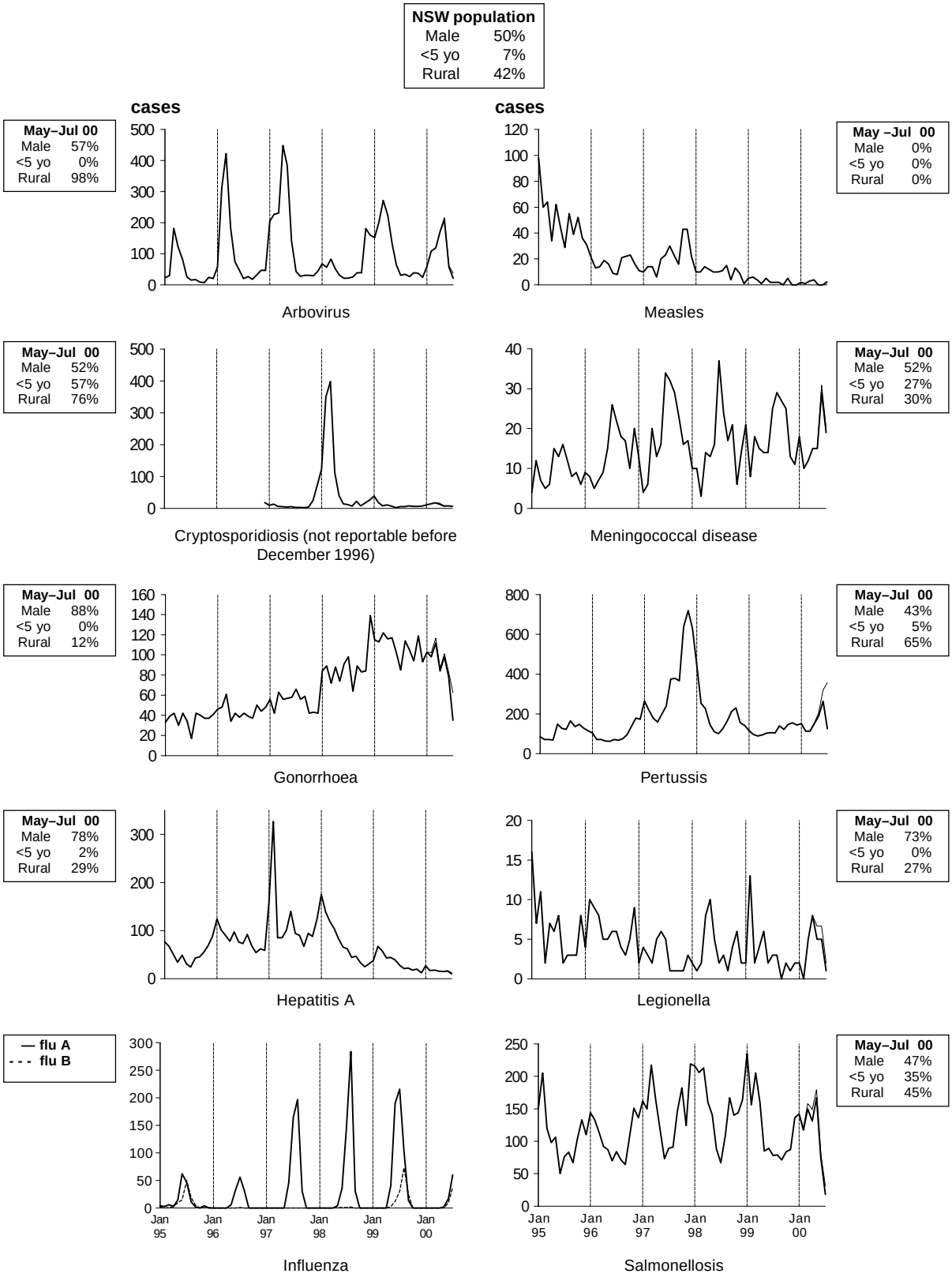
Reference

1. NHMRC. *Australian Immunisation Handbook,* 7th edition. Canberra: Commonwealth of Australia: March, 2000.

FIGURE 1

REPORTS OF SELECTED COMMUNICABLE DISEASES, NSW, JANUARY 1995 TO JULY 2000, BY MONTH OF ONSET

These are preliminary data: case counts in recent months may increase because of reporting delays. Laboratory-confirmed cases, except for measles, meningococcal disease and pertussis — actual ‗ predicted after adjusting for likely reporting delays



* For definition, see *NSW Public Health Bulletin*, April 2000

TABLE 8 REPORTS OF NOTIFIABLE CONDITIONS RECEIVED IN JULY 2000 BY AREA HEALTH SERVICES

Condition	Area Health Service (2000) CSA	NSA	WSA	WEN	SWS	CCA	HUN	ILL	SES	NRA	MNC	NEA	MAC	MWA	FWA	GMA	SA	CHS	Total for July†	Total To date†
Blood-borne and sexually transmitted																				
AIDS	3	-	-	-	-	-	-	-	5	1	-	-	-	-	-	-	-	-	9	76
HIV infection*	-	-	-	-	-	-	-	Reported every two months			-	-	-	-	-	-	-	-	-	90
Hepatitis B - acute viral*	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	2	46
Hepatitis B - other*	46	26	47	7	9	2	6	3	28	5	1	5	-	1	4	2	-	12	204	2,349
Hepatitis C - acute viral*	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	2	52
Hepatitis C - other*	54	19	62	34	3	12	34	23	63	34	30	6	4	14	6	14	12	69	498	4,911
Hepatitis D - unspecified*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	3
Hepatitis, acute viral (not otherwise specified)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chancroid*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlamydia (genital)*	42	20	23	8	1	1	31	4	44	15	8	9	4	8	2	12	6	3	244	1,661
Gonorrhoea*	19	2	4	-	-	1	-	-	28	3	-	3	-	2	-	1	1	-	65	672
Syphilis	11	4	6	-	2	-	-	1	21	4	2	3	-	1	7	-	-	-	62	307
Vector-borne																				
Arboviral infection (BFV)*	-	-	-	-	-	-	2	1	-	-	8	-	-	-	1	-	-	-	12	128
Arboviral infection (RRV)*	-	1	-	-	-	-	12	-	-	3	8	-	2	4	6	2	-	-	38	615
Arboviral infection (Other)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24
Malaria*	-	-	-	1	-	-	1	1	-	-	-	2	-	-	-	1	1	-	7	135
Zoonoses																				
Brucellosis*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Leptospirosis*	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	31
Q fever*	-	1	-	-	-	-	-	-	-	1	1	-	1	1	-	-	-	-	5	60
Respiratory and other																				
Blood lead level*	9	2	2	14	-	-	2	2	2	-	-	-	2	-	-	1	-	-	36	758
Legionnaires' Longbeachae*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Legionnaires' Pneumophila*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
Legionnaires' (Other)*	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	3
Leprosy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningococcal infection (invasive)	2	2	2	1	4	1	2	1	7	-	1	-	1	-	-	1	-	-	25	121
Mycobacterial tuberculosis	2	5	1	1	2	-	4	2	5	1	1	-	-	-	-	-	-	-	24	218
Mycobacteria other than TB	4	10	-	1	-	1	1	-	2	3	-	1	-	3	-	4	-	-	30	216
Vaccine-preventable																				
Adverse event after immunisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	6
H.influenzae b infection (invasive)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Measles	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2	12
Mumps*	-	-	3	1	1	-	-	-	1	-	-	-	-	-	-	-	-	-	6	56
Pertussis	8	12	31	19	19	4	120	8	6	2	5	9	18	7	-	46	10	-	324	1,252
Rubella*	-	1	-	-	-	-	-	-	1	-	-	1	-	-	-	1	-	-	4	30
Tetanus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Faecal-oral																				
Botulism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cholera*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cryptosporidiosis*	-	-	-	-	-	-	-	-	2	1	2	-	-	-	1	1	-	-	7	77
Giardiasis*	2	5	5	5	1	1	4	1	14	7	2	2	3	-	-	2	-	-	54	609
Food borne illness (not otherwise specified)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	93
Gastroenteritis (in an institution)	-	-	-	71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71	163
Haemolytic uraemic syndrome	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Hepatitis A*	3	3	1	1	1	-	1	-	1	1	-	1	-	4	-	-	-	-	17	127
Hepatitis E*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Listeriosis*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Salmonellosis (not otherwise specified)*	6	8	1	2	2	1	4	2	2	7	4	1	-	3	-	5	2	-	50	866
Typhoid and paratyphoid*	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	21
Verotoxin producing Ecoli*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--

CSA = Central Sydney Area
NSA = Northern Sydney Area
WSA = Western Sydney Area
WEN = Wentworth Area
SWS = South Western Sydney Area
CCA = Central Coast Area
HUN = Hunter Area
ILL = Illawarra Area
SES = South Eastern Sydney Area
NRA = Northern Rivers Area
MNC = North Coast Area
NEA = New England Area
MAC = Macquarie Area
MWA = Mid Western Area
FWA = Far West Area
GMA = Greater Murray Area
SA = Southern Area
CHS = Corrections Health Service