

# Communicable Diseases Surveillance

## Highlights

Communicable Diseases Surveillance consists of data from various sources. The National Notifiable Diseases Surveillance System (NNDSS) is conducted under the auspices of the Communicable Diseases Network Australia New Zealand. The *CDI* Virology and Serology Laboratory Reporting Scheme (LabVISE) is a sentinel surveillance scheme. The Australian Sentinel Practice Research Network (ASPREN) is a general practitioner-based sentinel surveillance scheme. In this report, data from the NNDSS are referred to as 'notifications' or 'cases', whereas those from ASPREN are referred to as 'consultations' or 'encounters' while data from the LabVISE scheme are referred to as 'laboratory reports'.

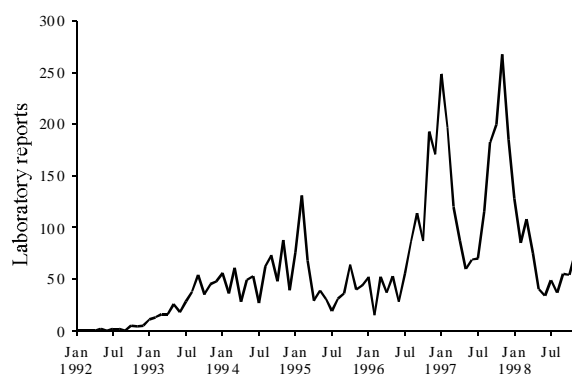
### Vaccine Preventable Diseases

When examined by date of onset, pertussis notifications increased in the July to October period of 1998 and appear to have now declined somewhat. The number of notifications with onset in December 1998 is the lowest since July 1996 (Figure 1). For the current reporting period, the highest proportion of notifications (21%) are in the 10-14 year age group and 12 per cent are in the 5-9 year age group. Twelve notifications were in children under 1 year of age. The male to female ratio was 1:1.14.

A similar pattern can be seen in the laboratory reports of pertussis from the LabVISE system (Figure 2).

Measles notifications remain at a low level. The completion of the primary schools vaccination campaign in the second half of 1998 combined with the moving of the second dose of MMR to be due prior to school entry (at age 4 to 5 years) and ongoing efforts to maintain a high level of vaccination coverage continue to move Australia into a measles elimination phase. Articles in this issue of *CDI*

**Figure 2. Laboratory reports for pertussis, Australia, 1992 to 1998, by date of specimen collection**

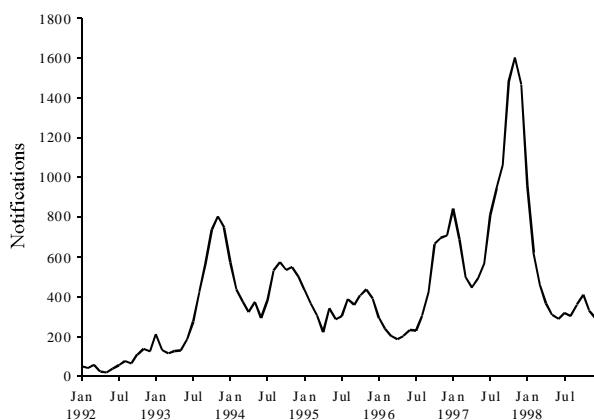


discuss the importance of enhanced measles surveillance during this phase.

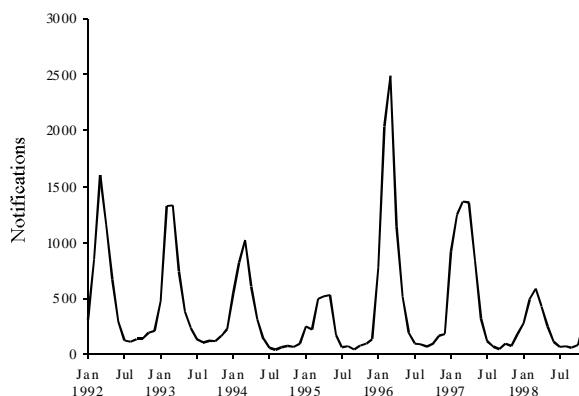
### Arboviruses

An increase in the number of notifications for Ross River virus infection is expected at the start of the warmer months, with a peak of activity in the early months of each year (Figure 3). A higher number of notifications has been received for this reporting period than for the same period of last year. The majority of cases (84%) are in the 20 to 59 year age groups with the highest proportion (18%) in the 35 to 39 year age group. The male to female ratio is approximately 1.

**Figure 1. Notifications of pertussis, Australia, 1992 to 1998, by month of onset**



**Figure 3. Notifications of Ross River virus, Australia, 1992 to 1998, by month of onset**



The number of notified cases of dengue continues to be higher than historical data with most cases occurring in Queensland. Cases are reported fairly evenly over a wide

range of age groups with most in persons between 10 and 64 years; the male to female ratio is 1:1.35.

## Tables

There were 6,815 notifications to the National Notifiable Diseases Surveillance System (NNDSS) in the four week period, 6 January to 2 February 1999 (Tables 1 and 2). The numbers of reports for selected diseases have been compared with historical data for corresponding periods in the previous three years (Figure 4).

There were 1,677 reports received by the *CDI* Virology and Serology Laboratory Reporting Scheme (LabVISE) in the four week period, 31 December 1998 to 27 January 1999 (Tables 2 and 3).

The Australian Sentinel Practice Research Network (ASPREN) data for weeks 48 to 51, ending 27 December 1998, are included in this issue of *CDI* (Table 5). A new list of conditions to be reported by ASPREN in 1999 is given on pages 55-56 of this issue of *CDI*.

### Correction:

The figures for clamydya and chancroid in Table 2 of the last issue of *CDI* were reversed.

**Table 1. Notifications of diseases preventable by vaccines recommended by the NHMRC for routine childhood immunisation, received by State and Territory health authorities in the period 6 January to 2 February 1999**

Disease <sup>1,2</sup>	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1999	This period 1998	Year to date 1999	Year to date 1998
Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0
<i>H. influenzae</i> type b infection	0	0	1	1	0	0	0	2	4	0	4	1
Measles	5	3	0	0	0	1	0	3	12	33	14	37
Mumps	1	0	0	0	0	0	1	2	4	12	5	12
Pertussis	11	105	1	140	0	1	80	25	363	1,126	389	1,243
Rubella <sup>3</sup>	3	8	0	9	0	0	6	1	27	63	31	67
Tetanus	0	0	0	0	0	0	0	0	0	1	0	1

NN. Not Notifiable

1. No notification of poliomyelitis has been received since 1978.
2. Totals comprise data from all States and Territories. Cumulative figures are subject to retrospective revision, so there may be

discrepancies between the number of new notifications and the increment in the cumulative figure from the previous period.

3. Includes congenital rubella.

**Table 2. Notifications of diseases received by State and Territory health authorities in the period 6 January to 2 February 1999**

Disease <sup>1,2,3,4</sup>	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1999	This period 1998	Year to date 1999	Year to date 1998 <sup>5</sup>
Arbovirus infection (NEC)	0	0	0	5	0	0	14	0	19	4	21	6
Barmah Forest virus infection	0	13	0	21	0	0	3	1	38	59	45	61
Brucellosis	0	0	0	1	0	0	0	0	1	10	2	10
Campylobacteriosis <sup>6</sup>	31	0	17	376	0	26	413	258	1,121	1,108	1,300	1,221
Chancroid	0	0	0	0	0	0	0	0	0	0	0	0
Chlamydial infection (NEC) <sup>7</sup>	13	154	50	323	0	26	208	210	984	584	1,074	591
Cholera	0	0	0	0	0	0	0	0	0	0	0	0
Dengue	0	0	2	55	0	0	0	4	61	16	64	19
Donovanosis	0	0	1	0	0	0	0	2	3	2	3	2
Gonococcal infection <sup>8</sup>	0	84	73	111	0	2	53	97	420	398	491	406
Haemolytic uraemic syndrome <sup>9</sup>	0	0	0	0	0	0	0	0	0	1	0	1
Hepatitis A	0	34	4	78	0	0	8	30	154	253	165	272
Hepatitis B incident	2	4	2	5	0	3	6	7	29	24	31	24
Hepatitis B unspecified <sup>10</sup>	4	165	0	64	0	4	183	14	434	550	462	611
Hepatitis C incident	10	9	0	0	0	1	1	19	40	16	40	18
Hepatitis C unspecified <sup>5,10</sup>	23	467	17	189	0	27	569	118	1,410	1,682	1,650	1,803
Hepatitis (NEC) <sup>11</sup>	0	1	0	0	0	0	0	0	1	4	1	4
Hydatid infection	0	1	0	2	0	0	1	0	4	7	4	7
Legionellosis	0	2	0	2	0	0	7	6	17	11	19	12
Leprosy	0	0	0	0	0	0	0	0	0	0	0	0
Leptospirosis	0	3	0	19	0	0	4	1	27	15	32	15
Listeriosis	0	3	0	0	0	0	1	2	6	10	6	10
Malaria	1	12	1	31	0	1	7	3	56	48	63	52
Meningococcal infection	0	19	3	9	0	1	5	8	45	18	47	21
Ornithosis	0	0	0	0	0	0	8	0	8	3	8	3
Q Fever	0	11	0	24	0	0	0	0	35	44	44	47
Ross River virus infection	1	111	52	166	0	3	55	47	435	239	481	257
Salmonellosis (NEC)	4	170	36	262	0	16	155	125	768	885	902	956
Shigellosis <sup>6</sup>	0	0	10	13	0	0	9	21	53	66	58	69
SLTEC, VTEC <sup>12</sup>	0	0	0	0	0	0	0	5	5	2	5	2
Syphilis <sup>13</sup>	0	37	15	84	0	1	0	5	142	101	149	106
TTP <sup>14</sup>	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis	2	43	3	10	0	1	29	10	98	103	107	105
Typhoid <sup>15</sup>	0	0	0	1	0	0	3	0	4	13	5	13
Yersiniosis (NEC) <sup>6</sup>	0	0	0	20	0	0	4	1	25	41	25	42

1. Diseases preventable by routine childhood immunisation are presented in Table 1.

2. For HIV and AIDS, see Tables 6 and 7.

3. Totals comprise data from all States and Territories. Cumulative figures are subject to retrospective revision so there may be discrepancies between the number of new notifications and the increment in the cumulative figure from the previous period.

4. No notifications have been received during 1999 for the following rare diseases: lymphogranuloma venereum, plague, rabies, yellow fever, or other viral haemorrhagic fevers.

5. Data from Victoria for 1998 are incomplete.

6. Not reported for NSW because it is only notifiable as 'foodborne disease' or 'gastroenteritis in an institution'.

7. WA: genital only.

8. NT, Qld, SA and Vic: includes gonococcal neonatal ophthalmia.

9. Nationally reportable from August 1998.

10. Unspecified numbers should be interpreted with some caution as the magnitude may be a reflection of the numbers of testings being carried out.

11. Includes hepatitis D and E.

12. Infections with *Shiga*-like toxin (verotoxin) producing *E. Coli* (SLTEC/VTEC) became nationally reportable in August 1998.

13. Includes congenital syphilis.

14. Thrombotic thrombocytopenic purpura became nationally reportable in August 1998.

15. NSW, Qld: includes paratyphoid.

NN Not Notifiable.

NEC Not Elsewhere Classified.

- Elsewhere Classified.

**Table 3. Virology and serology laboratory reports by State or Territory<sup>1</sup> for the reporting period 31 December 1998 to 27 January 1999, and total reports for the year**

	State or Territory <sup>1</sup>								Total this period	Total reported in <i>CDI</i> in 1999	
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA			
<b>Measles, mumps, rubella</b>											
Measles virus		1			1		2			4	7
Mumps virus								4		4	4
Rubella virus					1		1	1		3	8
<b>Hepatitis viruses</b>											
Hepatitis A virus		3		6	3		1	11		24	46
<b>Arboviruses</b>											
Ross River virus		3	8	31	12		2	19		75	123
Barmah Forest virus				3				4		7	12
Dengue type 3				20						20	20
Dengue not typed			2					9		11	11
Flavivirus (unspecified)				2						2	3
<b>Adenoviruses</b>											
Adenovirus type 1							1			1	10
Adenovirus type 2								1		1	3
Adenovirus type 40								10		10	12
Adenovirus not typed/pending		28		10	14		33	46		131	233
<b>Herpes viruses</b>											
Cytomegalovirus		17		5	35		35	13		105	140
Varicella-zoster virus		10	1	19	44		39	64		177	270
Epstein-Barr virus		16		20	94		19	24		173	390
<b>Other DNA viruses</b>											
Molluscum contagiosum								1		1	1
Contagious pustular dermatitis (Orf virus)								2		2	3
Poxvirus group not typed							1			1	1
Parvovirus				2	3	2	8	19		34	52
<b>Picornavirus family</b>											
Coxsackievirus B3							1			1	1
Echovirus type 5		1								1	1
Echovirus type 6							1			1	3
Echovirus type 9		4								4	14
Echovirus type 11		2								2	15
Echovirus type 18		1								1	8
Echovirus type 30		3								3	13
Poliovirus type 2 (uncharacterised)		2								2	8
Rhinovirus (all types)		17			1		1	12		31	74
Enterovirus not typed/pending		6		1			22	51		80	115
<b>Ortho/Paramyxoviruses</b>											
Influenza A virus		13		1	21		5	1		41	136
Influenza B virus					2		1	6		9	15
Parainfluenza virus type 1							3	1		4	8
Parainfluenza virus type 2					2		3			5	5
Parainfluenza virus type 3		14		3	20		18	54		109	171
Parainfluenza virus type 4								2		2	2
Respiratory syncytial virus		11		4	8	1	12	37		73	130

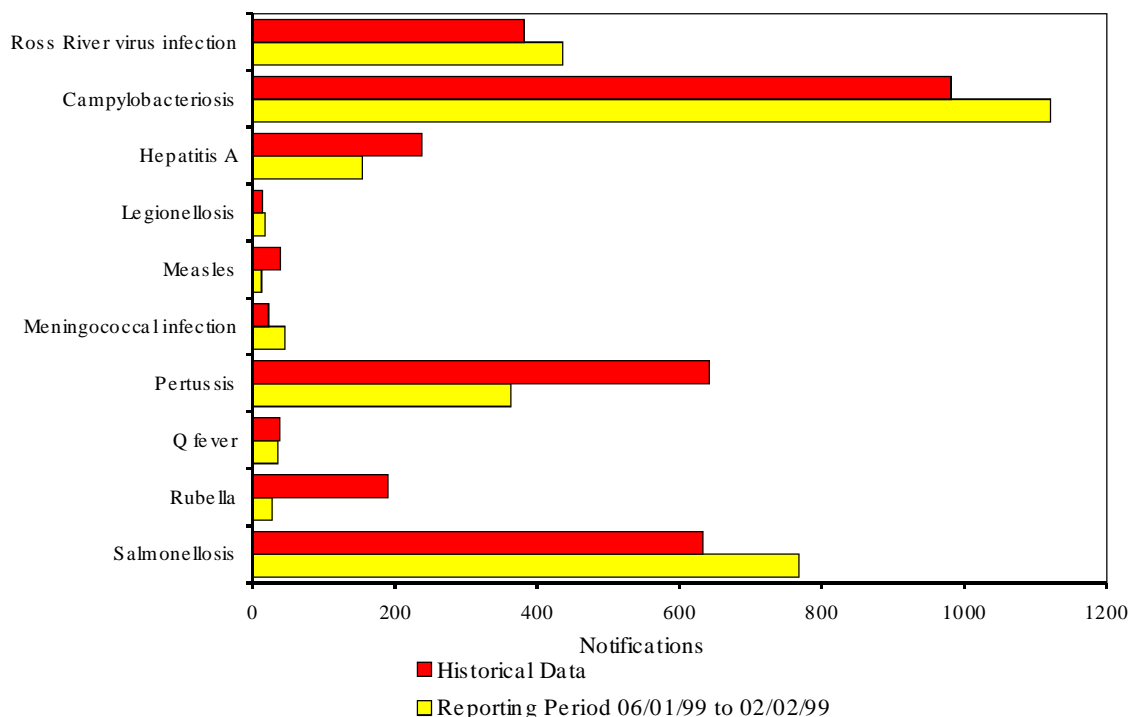
**Table 3. Virology and serology laboratory reports by State or Territory<sup>1</sup> for the reporting period 31 December 1998 to 27 January 1999, and total reports for the year (continued)**

	State or Territory <sup>1</sup>								Total this period	Total reported in <i>CDI</i> in 1999
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA		
<b>Other RNA viruses</b>										
HTLV-1								2	2	3
Rotavirus		21			14	1	23	33	92	198
Norwalk agent							8		8	9
<b>Other</b>										
<i>Chlamydia trachomatis</i> not typed		32	12	37	40	1	11	104	237	361
<i>Chlamydia psittaci</i>							4	2	6	9
<i>Mycoplasma pneumoniae</i>		19	1	7	26		51	7	111	207
<i>Coxiella burnetii</i> (Q fever)		3		3	1		1		8	11
<i>Rickettsia australis</i>						2			2	2
<i>Bordetella pertussis</i>		1		12			30	4	47	66
<i>Legionella pneumophila</i>		1			1				2	3
<i>Legionella longbeachae</i>					3			3	6	15
<i>Leptospira hardjo</i>							1		1	1
<b>TOTAL</b>		229	24	186	346	7	338	547	1,677	2,953

1. State or Territory of postcode, if reported, otherwise State or Territory of reporting laboratory.

**Table 4. Virology and serology laboratory reports by contributing laboratories for the reporting period 31 December 1998 to 27 January 1999**

State or Territory	Laboratory	Reports
New South Wales	Institute of Clinical Pathology & Medical Research, Westmead	37
	New Children's Hospital, Westmead	20
	Royal Prince Alfred Hospital, Camperdown	56
	South West Area Pathology Service, Liverpool	106
Queensland	Queensland Medical Laboratory, West End	168
	Townsville General Hospital	41
South Australia	Institute of Medical and Veterinary Science, Adelaide	345
Tasmania	Northern Tasmanian Pathology Service, Launceston	5
Victoria	Monash Medical Centre, Melbourne	61
	Royal Children's Hospital, Melbourne	182
	Victorian Infectious Diseases Reference Laboratory, Fairfield	97
Western Australia	PathCentre Virology, Perth	471
	Princess Margaret Hospital, Perth	88
<b>TOTAL</b>		1,677

**Figure 4. Selected National Notifiable Diseases Surveillance System reports, and historical data<sup>1</sup>**

1. The historical data are the averages of the number of notifications in the corresponding 4 week periods of the last 3 years and the 2 week periods immediately preceding and following those.

**Table 5. Australian Sentinel Practice Research Network reports, weeks 48 to 51, 6 December to 27 December 1998**

Week number	48		49		50		51	
Week ending on	6 December 1998		13 December 1998		20 December 1998		27 December 1998	
Doctors reporting	55		55		52		44	
Total encounters	6940		6712		6866		4518	
Condition	Rate per 1,000		Rate per 1,000		Rate per 1,000		Rate per 1,000	
	Reports	encounters	Reports	encounters	Reports	encounters	Reports	encounters
Influenza	7	1.0	11	1.6	8	1.2	2	0.4
Rubella	0	0.0	2	0.3	0	0.0	1	0.2
Measles	1	0.1	0	0.0	0	0.0	0	0.0
Chickenpox	26	3.7	17	2.5	13	1.9	9	2.0
Pertussis	1	0.1	3	0.4	2	0.3	1	0.2
HIV testing (patient initiated)	9	1.3	10	1.5	10	1.5	8	1.8
HIV testing (doctor initiated)	4	0.6	3	0.4	2	0.3	2	0.4
Td (ADT) vaccine	52	7.5	47	7.0	45	6.6	0	0.0
Pertussis vaccination	47	6.8	61	9.1	45	6.6	0	0.0
Reaction to pertussis vaccine	1	0.1	0	0.0	0	0.0	0	0.0
Ross River virus infection	1	0.1	0	0.0	0	0.0	0	0.0
Gastroenteritis	78	11.2	108	16.1	81	11.8	61	13.5

The NNDSS is conducted under the auspices of the Communicable Diseases Network Australia New Zealand. The system coordinates the national surveillance of more than 40 communicable diseases or disease groups endorsed by the National Health and Medical Research Council (NHMRC). Notifications of these diseases are made to State and Territory health authorities under the provisions of their respective public health legislations. De-identified core unit data

are supplied fortnightly for collation, analysis and dissemination. For further information, see *CDI* 1999;23:55.

*LabVISE* is a sentinel reporting scheme. Twenty-one laboratories contribute data on the laboratory identification of viruses and other organisms. Data are collated and published in *Communicable Diseases Intelligence* every four weeks. These data should be interpreted with caution as the number and type of reports received is subject to a number of biases. For further information, see *CDI* 1999;23:58.

*ASPREN* currently comprises about 100 general practitioners from throughout the country. Up to 9,000 consultations are reported each week, with special attention to 12 conditions chosen for sentinel surveillance in 1999. *CDI* reports the consultation rates for seven of these conditions. For further information, including case definitions, see *CDI* 1999;23:55-56.

## Additional Reports

### *HIV and AIDS Surveillance*

National surveillance for HIV disease is coordinated by the National Centre in HIV Epidemiology and Clinical Research (NCHECR), in collaboration with State and Territory health authorities and the Commonwealth of Australia. Cases of HIV infection are notified to the National HIV Database on the first occasion of diagnosis in Australia, by either the diagnosing laboratory (ACT, New South Wales, Tasmania, Victoria) or by a combination of laboratory and doctor sources (Northern Territory, Queensland, South Australia, Western Australia). Cases of AIDS are notified through the State and Territory health authorities to the National AIDS Registry. Diagnoses of both HIV infection and AIDS are notified with the person's date of birth and name code, to minimise duplicate notifications while maintaining confidentiality.

Tabulations of diagnoses of HIV infection and AIDS are based on data available three months after the end of the reporting interval indicated, to allow for reporting delay and to incorporate newly available information. More detailed information on diagnoses of HIV infection and AIDS is published in the quarterly *Australian HIV Surveillance Report*, available from the National Centre in HIV Epidemiology and Clinical Research, 376 Victoria Street, Darlinghurst NSW 2010. Telephone: (02) 9332 4648 Facsimile: (02) 9332 1837 (website address: <http://www.med.unsw.edu.au/nchechr>).

HIV and AIDS diagnoses and deaths following AIDS reported for 1 September to 30 September 1998, as reported to 31 December 1998, are included in this issue of *CDI* (Tables 6 and 7).

**Table 6. New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 September to 30 September 1998, by sex and State or Territory of diagnosis**

									Totals for Australia				
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1999	This period 1998	Year to date 1999	Year to date 1998
HIV diagnoses	Female	0	3	1	1	0	0	1	2	8	10	69	58
	Male	0	34	0	5	3	0	9	1	52	59	477	542
	Sex not reported	0	0	0	0	0	0	0	0	0	1	6	12
	Total <sup>1</sup>	0	37	1	6	3	0	10	3	60	70	552	613
AIDS diagnoses	Female	0	0	0	0	0	0	0	0	0	1	7	21
	Male	0	7	0	5	0	1	1	0	14	21	170	240
	Total <sup>1</sup>	0	7	0	5	0	1	1	0	14	22	177	261
AIDS deaths	Female	0	0	0	1	0	0	0	0	1	1	7	10
	Male	0	5	1	2	1	0	5	0	14	16	81	177
	Total <sup>1</sup>	0	5	1	3	1	0	5	0	15	17	88	188

1. Persons whose sex was reported as transgender are included in the totals.

**Table 7. Cumulative diagnoses of HIV infection, AIDS and deaths following AIDS since the introduction of HIV antibody testing to 31 December 1998, by sex and State or Territory**

		State or Territory								Australia
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
HIV diagnoses	Female	22	566	8	132	54	4	198	99	1,083
	Male	183	10,430	99	1,851	640	77	3,708	866	17,854
	Sex not reported	0	259	0	0	0	0	24	0	283
	Total <sup>1</sup>	205	11,274	107	1,989	694	81	3,943	968	19,261
AIDS diagnoses	Female	8	162	0	45	20	2	64	23	324
	Male	82	4,439	32	773	325	43	1,559	337	7,590
	Total <sup>1</sup>	90	4,612	32	820	345	45	1,630	362	7,936
AIDS deaths	Female	2	113	0	30	15	2	46	16	224
	Male	62	3,071	24	535	222	27	1,221	241	5,403
	Total <sup>1</sup>	64	3,191	24	567	237	29	1,273	258	5,643

1. Persons whose sex was reported as transgender are included in the totals.