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Communicable Diseases Intelligence

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Contents:

Editor *Dr Robert Hall*

VIRUSES, CHLAMYDIAS, COXIELLAS, RICKETTSIAS AND MYCOPLASMAS REPORTING SCHEME: A total of 1,571 reports were processed during this period.

Q fever: Only one case of Q fever was reported during this fortnight - a 39-year-old male for whom occupational exposure details were not provided.

Influenza: Twenty influenza A reports (including 3 reports of influenza A (H_3N_2) were received during this period. Making a total of 39 so far this season.

Twenty-one reports of influenza B were received, primarily from Western Australia. The cumulative total for influenza B is now 105.

RSV: Increased RSV activity continues with 228 reports received during this period.

RRV: The increased seasonal Ross River virus activity has tailed off with only 26 reports received during this period.

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OVERSEAS BRIEFS:

1. CHOLERA IN SAO TOME AND PRINCIPE

An outbreak of cholera commencing in June 1989 has been reported. A total of 1063 cases and 31 deaths had been reported up to 4 August. Control measures are reported to be well in hand.

Travellers are reminded:

- that care should be given to selection of food and water; and
- to check cholera vaccination requirements for countries visited after Sao Tome and Principe as some countries (Lesotho, Pakistan, Pitcairn and Sudan) officially require immunisation for travellers coming from infected areas. Cholera vaccination is not required for reentry into Australia.

2. UPDATE ON MENINGITIS IN KENYA

The Ministry of Health in Kenya has reported a total of 807 cases of meningococcal meningitis and 89 deaths in Nairobi Province between January and 10 July 1989.

A short report on meningitis in Kenya between October 1988 and March 1989 was published in *CDI* 89/15, page 2.

The Ministry of Health in Kenya has now advised that proof of vaccination against meningitis is not required from visitors arriving in Kenya. However, travellers are again reminded to check requirements for countries they intend visiting after Kenya.

3. DENGUE

Vanuatu:

While most areas of Vanuatu continue to show a decrease in the numbers of cases of dengue, there has been a slight resurgence in the area of Malekula with an increase in both the number and severity of cases. The health authorities expect to see a decrease there in coming weeks as a result of an improved control pogram. The total number of reported new cases in Vanuatu in the week ending 15 August 1989 was 91. One more death has been reported bringing the total to 9.

French Polynesia:

The South Pacific Commission reports that the epidemic of dengue type 1 which started in December last year has ended.

PSEUDOMONAS PICKETTII ASSOCIATED WITH IV LINE

(Contributed by Drs Leslee Roberts, Justin Raby and Peter Collignon - Royal Canberra and Woden Valley Hospitals - Canberra)

The Royal Canberra and Woden Valley Hospitals in the Australian Capital Territory (ACT) have, over the past two months, detected:-

- three cases of bacteraemia associated with intravenous therapy; the infective organism was an unusual Pseudomonas identified as *Pseudomonas pickettii*, and
- one non-bacteraemic case occurring in a clinically unwell woman with *Pseudomonas pickettii* cultured from the removed central line tip.

Case investigation in both hospitals implicated possible *Pseudomonas pickettii* contamination of sterile fluids and additives purchased from commercial sources. Liaison with interstate hospitals confirmed that hospitals in Queensland, Victoria and Western Australia have diagnosed similar cases. *Pseudomonas pickettii* and *Pseudomonas cepacia* were subsequently isolated from commercially prepared plastic vials of injectable sterile water by ACT hospitals laboratory, the National Biological Standard Laboratory and two other interstate hospitals. To date, fourteen cases of *P. pickettii* bacteraemia have been diagnosed in the Australian Capital Territory, Queensland, Victoria and Western Australia.

Pseudomonas pickettii has rarely been reported as an invasive pathogen. However *P. pickettii* was implicated in bacteraemia [1] outbreak associated with individual use of ampoule containing sterile saline for intravenous use.

In the period May-August 1988, a short-lived outbreak of *Candida parapsilosis* had also been observed in seven patients.

Any other laboratories which:

- in the past six months, have isolated:
  - *Pseudomonas pickettii* from central vein catheter tips or from blood; or
  - pseudomonas species that were not fully identified; or
- in the past year have isolated:
  - *Candida parapsilosis* or any other unusual organisms in blood cultures;

should contact the authors with details of the organisms involved including primary site of sepsis (if known), date of isolation, underlying illness of patients including immunosupression and clinical outcome including mortality. The CDI would be happy to forward relevant material to the authors.

Hospitals and hospital pharmacies are reminded to withdraw from use all sterile water for injection in plastic ampoule with the batch No 37571 (Delta West) in accordance with a recall order published by the Department of Community Services and Health.

Contact Peter Collignon or Leslee Roberts on:

Ph (062) 842105
Fax (062) 810349

REFERENCE

1. Gardener S, Shulman S. A nosocomial common source outbreak caused by Pseudomonas pickettii. Paed Infect Dis 1984;3:420-2.

INFLUENZA A OUTBREAK IN A CANBERRA SCHOOL

(Contributed by Drs Peter Collignon, Leslee Roberts, Justin Raby and Parissa Poulis, Microbiology Department, Woden Valley Hospital, ACT and Alistair McKenzie, Virology Department, Westmead Hospital, NSW)

Influenza A virus was implicated in a recent outbreak of respiratory disease at the Charnwood High School in the ACT. During the outbreak teachers and over 300 children were ill and the school was closed. Symptoms included sore throat, runny noses, myalgia, headache and cough. Specimens were submitted to the Microbiology Laboratory, Woden Valley Hospital, for serological testing and/or viral culture for a total of fifteen children and staff. Influenza A virus VIC/7/87(H_3N_2) was isolated from one child only, but 14 of the 15 individuals had serological evidence of influenza A virus infection on convalescent serology collected 3 weeks after the illness. Four patients who were influenza A seropositive also had concomitant positive serology for parainfluenza 2 and respiratory syncytial virus using complement fixation tests.

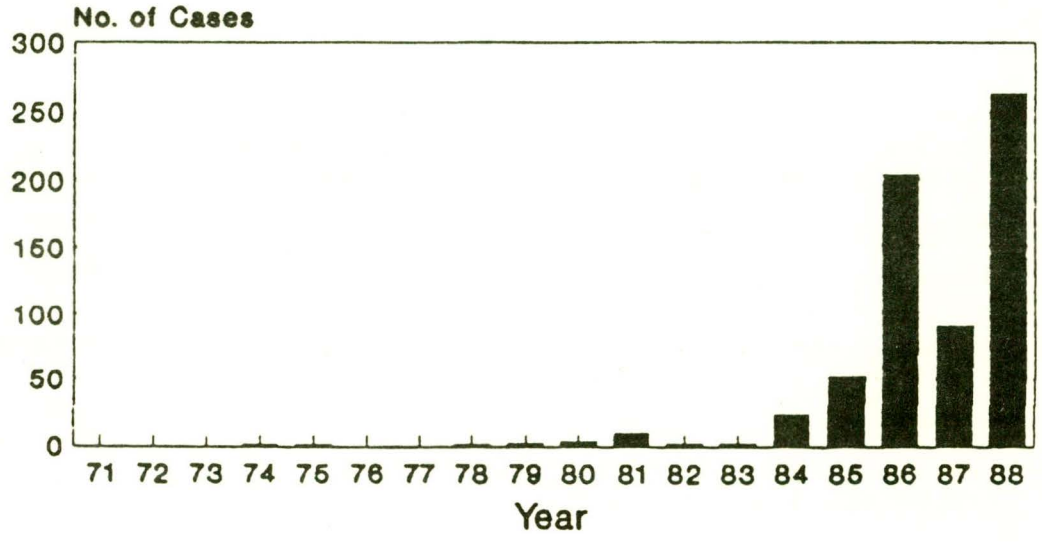
Specimens submitted to the laboratory during early August have indicated an increased activity of influenza A, parainfluenza and RSV. These viruses have been implicated in recent episodes of respiratory illness in Canberra with influenza A the predominant virus detected.

SALMONELLA HEIDELBERG IN AUSTRALIA - EMERGENCE AS A SEROTYPE OF IMPORTANCE

(Based on an article by C. Murray and D. Davos, Salmonella Reference Laboratory Monthly Report, March 1989)

Salmonella heidelberg has been seen in increasing numbers in Australia in recent years and has been associated with three outbreaks in the human population. Only very low numbers of isolations were seen in Australia in the 1960s and 1970s. Human cases of *S. heidelberg* for the period 1971 to 1988 are shown in Figure 1, demonstrating the increasing importance of this serotype in Australia.

Figure 1: Human cases of *S. heidelberg* in Australia, 1971-1988



The high numbers in 1986 and 1988 reflect the occurrence of outbreaks in those years:

. In 1986 two outbreaks occurred;
  - one in Victoria caused by a multiple antibiotic-resistant strain; and
  - one in Queensland caused by a strain with normal antibiotic sensitivity.
. In 1988 a third large outbreak occurred in Queensland.

No sources were found for the outbreaks; however porcine isolates with the same antibiotic resistance were found during the 1986 Victorian outbreak.

While cases have occurred in all states of Australia, most cases occur in Queensland (see Table 1).

Table 1: Human isolates of *S. heidelberg* in Australia by State, 1983-1988

Year	Qld	NSW	Vic	SA	WA	NT	Tas	ACT	Total
1983	2								2
1984	15				2		2	1	20
1985	31	6	10	1	3	1			52
1986	111	35	51	4				2	203
1987	69	5	5	7	2			2	90
1988	254	3	1	4	2	1			265

The presence of *S. heidelberg* in the animal population has become established over the same period of time as in the human population. Table 2 lists the dates of first isolation in various species.

Table 2: First isolation of *S. heidelberg* in animal species/meat in Australia

Year	Source
1983	raw meat (unknown type)
1984	pigs
1985	chickens
1986	sheep

Isolations from all these sources have continued, although not in high numbers (see Table 3). No isolates have been obtained from bovine sources up to June 1989. It is also noted that there have been only 3 isolations from animal feeds in the past 4 years. Small numbers of isolates have occurred from river waters and from sea waters associated with sewage outfall.

Table 3: Number of isolates of *S. heidelburg* (compared to total number of salmonella isolates) from meat and animal sources, Australia, 1984-1988

	Raw meats - not chicken	Porcine	Ovine	Chicken
1984	3 (268)	3 (610)	0 (42)	0 (4076)
1985	0 (324)	0 (217)	0 (226)	1 (2433)
1986	0 (463)	2 (146)	1 (331)	23 (4639)
1987	2 (398)	2 (86)	2 (350)	14 (4636)
1988	6 (390)	0 (79)	0 (305)	8 (3348)

Investigations of the plasmid profiles of isolates of *S. heidelberg* by the Salmonella Reference Laboratory, IMVS, Adelaide, have not given any clue to the source of human infections. However the history of the spread of the serotype suggests the introduction of an exotic strain. No other serotype has been observed to become established in the human population of Australia as effectively.

ACQUIRED IMMUNE DEFICIENCY SYNDROME ASSOCIATED WITH INTRAVENOUS DRUG USE - UNITED STATES, 1988

(Based on MMWR 1989;38:165-70)

In 1988, health departments of the 50 states and the District of Columbia reported 9,752 cases, and U.S. territories reported 995 cases, of acquired immune deficiency syndrome (AIDS) in intravenous-drug users (IVDUs), their sex partners, and children born to mothers who were IVDUs or sex partners of IVDUs.

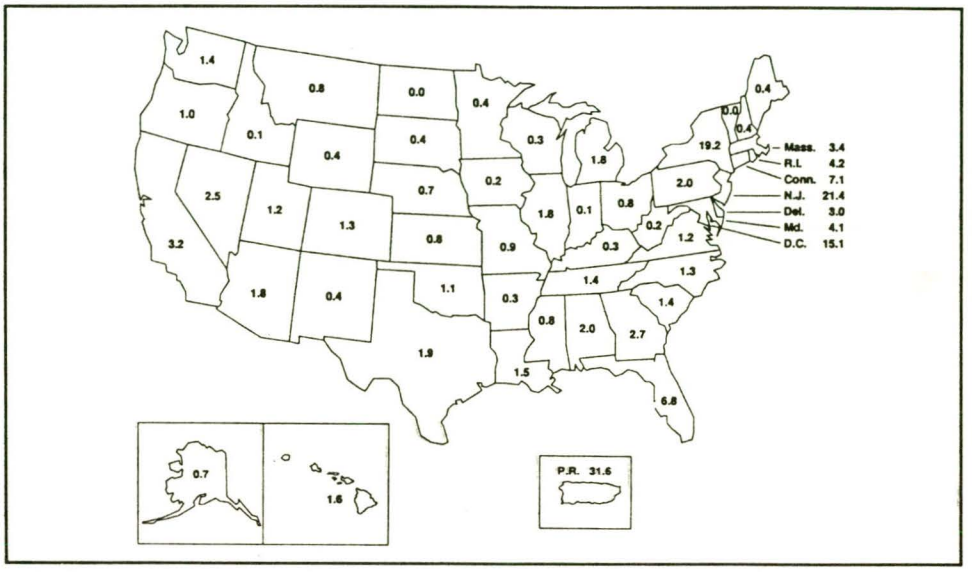
. The IVDU-associated AIDS cases represented 33.3% of the 32,311 AIDS cases reported in 1988 and included:
  - 5,789 (53.9%) male heterosexual IVDUs;
  - 1,742 (16.2%) female IVDUs;
  - 2,055 (19.1%) male homosexual/bisexual IVDUs;
  - 227 (2.1%) men whose heterosexual partners were IVDUs;
  - 620 (5.8%) women whose heterosexual partners were IVDUs;
  - 231 (2.1%) children whose mothers were partners were IVDUs;
  - 620 (2.1%) children whose mothers were IVDUs; and
  - 83 (0.8%) children whose mothers were sex partners of IVDUs.

. The 847 persons who were heterosexual partners of IVDUs accounted for 55.0% of the total 1541 cases associated with presumed heterosexual transmission of human immunodeficiency virus (HIV); 54.6% (379/694) of other such cases occurred in persons born in countries where heterosexual contact is predominant mode of HIV transmission.

. The 314 children whose mothers were IVDUs or sex partners of IVDUs accounted for 70.2% of the 447 cases associated with perinatal HIV transmission reported in 1988.

In 1988, 4.3 cases of IVDU-associated AIDS per 100,000 population were reported by the 50 states, District of Columbia, and U.S. territories combined. Rates for IVDU-associated AIDS varied widely by area; rates in Puerto Rico, New Jersey, New York, and the District of Columbia were greater than 10/100,000 population; in 22 states, rates were less than 1/100,000 population (Figure 1). Rates were higher in the Northeast census region# than in other regions (Table 1), and 54.5% of IVDU-associated cases were reported from the Northeast, which represents 19.7% of the population of the United States and its territories.

Figure 1: Reported rates of IVDU-associated AIDS cases per 100,000 population - United States, 1988



In 1988, IVDU-associated cases accounted for:

- 50.7% of all AIDS cases reported from the Northeast;
- 23.5% from the South;
- 19.8% from the Midwest; and
- 15.8% from the West.

Excluding states and territories with less than 10 reported cases in 1988, three states and one territory had more cases in heterosexual IVDUs than in homosexual/bisexual men who were not IVDUs (Table 2).

The rate of IVDU-associated AIDS continues to be higher for blacks and Hispanics than for whites (Table 1). Except for the West, where rates for whites and Hispanics were similar, this difference by race/ethnicity was observed for all regions of the country and was greatest in the Northeast (Table 1). IVDU-associated AIDS cases represented:

- 16.3% of all AIDS cases in whites;
- 52.7% in blacks;
- 55.5% in Hispanics;
- 6.3% in Asians/Pacific Islanders; and
- 29.0% in American Indians/Alaskan Natives.

See note on page 8.

Table 1: Number and rate per 100,000 population of AIDS cases associated with intravenous drug use, by census region# and race/ethnicity - United States, 1988

Race/ethnicity	No. cases (rate) Northeast	Midwest	South	West	Total*
White†	1203 (2.9)	217 (0.4)	687 (1.2)	719 (2.2)	**2826 (1.6)**
Black†	2929 (62.0)	294 (5.5)	1318 (9.5)	277 (12.5)	**4818 (18.4)**
Hispanic	1699 (65.2)	69 (5.4)	135 (3.0)	159 (2.5)	**2062 (14.1)**
Asian/Pacific Islander	6 (1.1)	0 (0.0)	0 (0.0)	6 (0.3)	**12 (0.3)**
American Indian/ Alaskan Native	1 (1.2)	2 (0.8)	0 (0.0)	6 (0.8)	**9 (0.6)**
Unspecified	23	0	0	2	**25**
Total	**5861 (11.9)**	**582 (1.0)**	**2140 (2.8)**	**1169 (2.7)**	**9752 (4.3)**

*Total cases and total rates exclude territories. Rates are based on the 1980 U.S. census. Total cases and rates in text and Figure 1 include territories and are based on 1988 intercensal population estimates.
†Non-Hispanic.

Table 2: States/territories where number of reported AIDS cases in heterosexual IVDUs exceeds cases in non-IVDU homosexual men - United States, 1988

State/territory	Reported AIDS cases: Male & female heterosexual IVDUs	Homosexual/ bisexual male non-IVDUs
Connecticut	164	156
New Jersey	1359	603
New York	2920	2727
Puerto Rico	757	189

Although homosexual/bisexual male IVDUs represented approximately one fifth of all IVDU-associated cases, this proportion varied widely by region of the country. Male homosexual/bisexual IVDUs constituted:

- 7.7% of IVDU-associated cases in the Northeast;
- 26.3% in the Midwest;
- 29.1% in the South; and
- 56.8% in the West.

US census regions are defined as follows:
- The Northeast census region includes states in the New England (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) and Middle Atlantic (New Jersey, New York, Pennsylvania) districts;
- the Midwest includes the East North Central (Illinois, Indiana, Michigan, Ohio, Wisconsin) and West North Central (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota) districts;
- the South includes the South Atlantic (Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia), East South Central (Alabama, Kentucky, Mississippi, Tennessee), and West South Central (Arkansas, Louisiana, Oklahoma, Texas) districts; and
- the West includes the Mountain (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming) and Pacific (Alaska, California, Hawaii, Oregon, Washington) districts.

Note: Territories are not included in tabulations by region.

Similarities between homosexual/bisexual male IVDUs and other men with AIDS varied by demographic and disease characteristics (Table 3).

Table 3: Characteristics of homosexual/bisexual and heterosexual men with IVDU-associated AIDS and homosexual/bisexual male non-IVDUs with AIDS - United States and U.S. territories, 1988

Characteristic	Men with AIDS: Homosexual/ bisexual IVDUs (%) (N=2055)	Heterosexual IVDUs (%) (N=5789)	Homosexual/ bisexual non-IVDUs (%) (N=17,993)
Race/ethnicity			
White*	53.6	19.6	71.6
Black*	27.4	46.2	16.8
Hispanic	18.7	33.9	10.5
Asian/Pacific Islander	0.1	0.0	0.7
American Indian/ Alaskan Native	0.1	0.1	0.1
Not specified	0.2	0.3	0.3
Total	**100.0**	**100.0**	**100.0**
Mean age (yrs) (SD)	34.4 (7.4)	36.4 (7.3)	36.9 (9.2)
Opportunistic disease			
Pneumocystis carinii pneumonia†	49.8	48.5	58.1
Kaposi's sarcoma†	12.9	2.5	15.9
Region			
Northeast	22.0	63.1	25.0
Midwest	7.4	5.0	11.2
South	30.3	15.3	31.6
West	32.3	5.9	31.2
Territories	8.0	10.7	1.1
Total	**100.0**	**100.0**	**100.0**

*Non-Hispanic.
†Categories are not mutually exclusive and include presumptive and confirmed diagnoses.

In August 1987, the CDC surveillance case definition for AIDS was expanded to include additional AIDS-indicator diseases (eg HIV dementia, wasting syndrome, extrapulmonary tuberculosis) and to accept presumptive diagnosis of some other indicator diseases (eg *Pneumocystis carinii* pneumonia, Kaposi's sarcoma, oesophageal candidiasis) when tests for HIV infection are positive [1]. Of IVDU-associated AIDS cases reported in 1988, 4682 (43.6%) met the case definition solely on the basis of criteria added in the 1987 revision of the case definition. Of these persons, 2616 (55.9%) had presumptively diagnosed indicator disease, 1572 (33.6%) had wasting syndrome, and 501 (10.7%) had HIV dementia (diagnostic groups not mutually exclusive). In contrast, diagnoses of 23.3% of all other AIDS cases meeting the case definition were based on the additional 1987 revision criteria. Of all 1988 AIDS cases based on the new criteria, 48.2% were IVDU-associated.

Throughout the course of the HIV epidemic, the proportion of IVDU-associated AIDS cases has been higher in the Northeast than in other regions (Figures 2 and 3). The 1987 revision of the AIDS suveillance definition was associated with an increase in reported cases beginning in the last quarter of 1987, particularly for IVDU-associated cases in the Northeast, where total IVDU-associated cases surpassed the number of all other AIDS cases.

Figure 2: Number of AIDS cases, by quarter of report - Northeast census region, US, 1981-1988

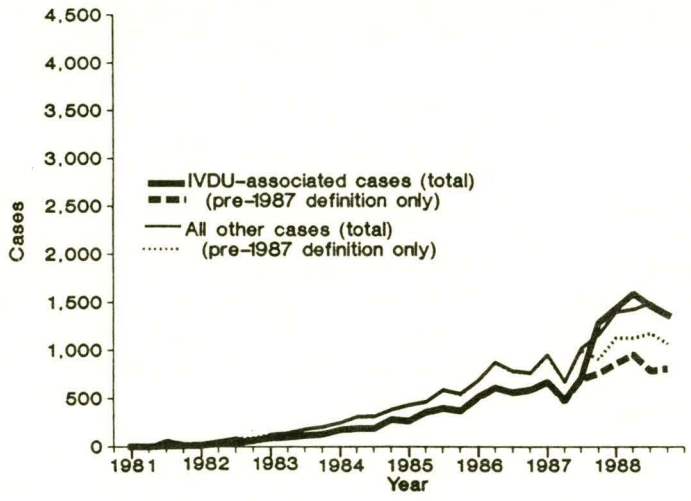
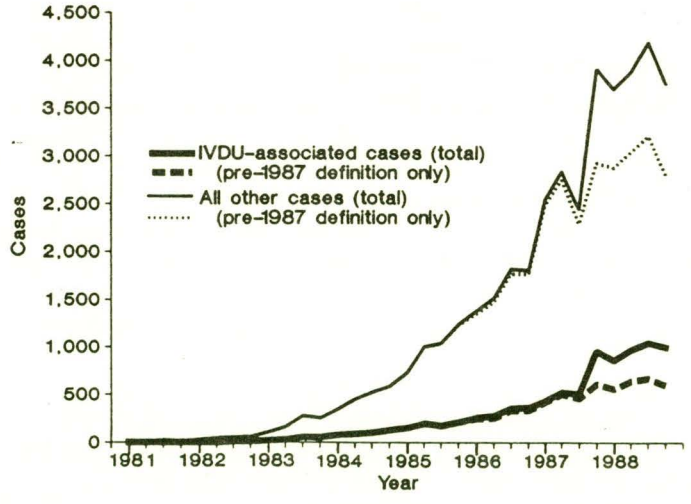


Figure 3: Number of AIDS cases, by quarter of report - Midwest, South, and West census regions, US, 1981-1988.



MMWR Editorial Note

AIDS cases occurring in association with IV-drug use involve not only IVDUs themselves but also their sex partners and children born to IVDUs or their sex partners. IVDU-associated AIDS accounts for most AIDS cases in heterosexual men, women, and children. Compared with the incidence in whites, the higher incidence of IVDU-associated AIDS in blacks and

Hispanics contributes to their overall higher incidence of AIDS [2]. This is most evident in the Northeast, where 1988 case rates for IVDU-associated AIDS were dramatically higher in blacks and Hispanics than in whites and where IVDU-associated AIDS cases exceeded all other AIDS cases.

Approximately one fifth of IVDU-associated AIDS cases are in homosexual/bisexual men. These cases may reflect HIV transmission through individual drug use or sexual activity.

The 1987 revision of the AIDS case definition appears to have increased the number of IVDU-associated cases reported in 1988. The new criteria may have resulted in the identification of some persons earlier in the course of their disease (eg persons who eventually would progress to meet the previous definition) or of persons who never would have met the previous definition. The latter is particularly important for IVDUs who may use health-care services for HIV-related illness later or less often than other persons with AIDS and may be more likely to have presumptive rather than definitive diagnoses of their HIV-related diseases. In addition, some states collected surveillance data on cases that met the new criteria before the criteria were implemented and later reported those cases. For these reasons, a temporary surge in reported cases may be expected until trends reach a new equilibrium. A longer period of observation and improved understanding of the course of disease in persons with cases diagnosed under new definition criteria are needed to assess the full impact of the revision of trends.

In addition to illnesses included in the AIDS case definition, there is increasing recognition of an even broader spectrum of severe HIV-associated disease, particularly among IVDUs. For example, studies in New York City indicate that deaths due to infections such as pneumonia, endocarditis, and pulmonary tuberculosis occur more frequently among IVDUs with HIV infection than among IVDUs without HIV infection and that the increased number of pneumonia-related deaths among IVDUs has paralleled the HIV epidemic [3,4]. In addition, pneumonia-associated deaths have recently increased among young adults in other cities that have a high incidence of AIDS among IVDUs [5].

Rates of IVDU-associated AIDS presented here are based on the total population, not on numbers of drug users. Consequently, these rates reflect the combined effect of both the prevalence of IV-drug use and the prevalence of HIV infection among IVDUs in different groups or geographical areas. Geographical variations in the rate of IVDU-associated AIDS cases also reflect differences in HIV seroprevalence rates among IVDUs; for IVDUs enrolled in drug-treatment programs, HIV seroprevalence rates have ranged from 50%-60% in areas such as New York City, northern New Jersey, and Puerto Rico to less than 5% in most other areas [6]. The observation that the number of cases in IVDUs exceeds those in homosexual men in several Northeastern states and Puerto Rico highlights the magnitude of the problem of IVDU-associated AIDS. In addition, the lower HIV seroprevalence rates in most other parts of the country, where IVDU-associated cases constitute a smaller proportion of the HIV epidemic, emphasise the need to prevent extension of the epidemic of IVDU-associated HIV infection and AIDS.

The changing epidemiology of IV-drug use challenges efforts to prevent and control HIV infection and AIDS among IVDUs. Data on IVDUs suggest that most persons who use IV heroin began use in the mid-1960s to mid-1970s [7]; many of the current AIDS cases among IVDUs may reflect the HIV epidemic among this cohort of heroin users. Increasingly, cocaine and other drugs are being used intravenously [8]. Prevention of HIV infection in IV-cocaine users is further complicated because those persons engage in more frequent injection and needle sharing than do other IVDUs and because, unlike methadone for treatment of heroin dependence, there is no specific therapy for treating cocaine dependence [9,10]. Controlling the epidemic of HIV infections and AIDS among IVDUs will require intense efforts to prevent and reduce IV-drug use and measures to prevent HIV transmission among IVDUs. In addition, the association between use of illicit drugs and recent increases in syphilis and between non-IV use of cocaine (eg 'crack') and sexual activity links illicit drug use to an increased potential for sexual HIV transmission [11,12].

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AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES
BASED ON DATE OF REPORTING

PERIOD 3/8/89 TO 16/8/89

1. CODE 019 - FAIRFIELD(VIC)
2. CODE 065 - STATE LAB(WA) PMH(WA)
3. CODE 110 - IMVS(SA)
4. CODE 111 - RCH(VIC)
5. CODE 112 - ICPMR(NSW) WVH(ACT)
6. CODE 113 - PHH POW(NSW)
7. CODE 114 - RAHC(NSW)
8. CODE 115 - STATE LAB(QLD)

		019	065	110	111	112	113	114	115	TOTAL
0100	ADENOVIRUS NOT TYPED	0	1	3	0	7	3	0	26	40
0101	ADENOVIRUS TYPE 1	3	1	0	0	0	1	0	0	5
0102	ADENOVIRUS TYPE 2	0	1	2	9	0	0	0	0	12
0103	ADENOVIRUS TYPE 3	7	0	5	4	0	0	0	0	16
0104	ADENOVIRUS TYPE 4	5	0	0	0	0	0	0	0	5
0105	ADENOVIRUS TYPE 5	0	0	3	0	0	0	0	0	3
0107	ADENOVIRUS TYPE 7	1	0	0	7	0	0	0	0	8
0108	ADENOVIRUS TYPE 8	0	1	0	0	0	0	0	0	1
0110	ADENOVIRUS TYPE 10	0	1	0	0	0	0	0	0	1
0111	ADENOVIRUS TYPE 11	0	0	0	0	1	0	0	0	1
0113	ADENOVIRUS TYPE 13	0	1	0	0	0	0	0	0	1
0119	ADENOVIRUS TYPE 19	0	0	0	0	1	0	0	0	1
0120	ADENOVIRUS TYPE 20	0	0	0	0	1	0	0	0	1
0128	ADENOVIRUS TYPE 28	0	0	0	0	1	0	0	0	1
0130	ADENOVIRUS TYPE 30	1	0	0	0	1	0	0	0	2
0199	ADENOVIRUS TYPING PENDING	0	0	0	9	0	0	1	0	10
0201	INFLUENZA A VIRUS	0	2	4	8	3	0	0	0	17
0202	INFLUENZA A VIRUS SUBTYPE H3N2	0	0	3	0	0	0	0	0	3
0203	INFLUENZA B VIRUS	0	17	3	0	0	1	0	0	21
0301	PARAINFLUENZA VIRUS TYPE 1	0	0	0	2	2	0	0	0	4
0302	PARAINFLUENZA VIRUS TYPE 2	0	1	1	3	0	0	0	0	5
0303	PARAINFLUENZA VIRUS TYPE 3	3	0	18	5	0	1	0	9	36
0400	RESPIRATORY SYNCYTIAL VIRUS (R	49	18	64	55	8	10	14	70	288
0500	RHINOVIRUS (ALL TYPES)	5	2	10	6	3	3	0	6	35
0600	MYCOPLASMA PNEUMONIAE	0	1	16	1	0	1	2	0	21
0700	ORNITHOSIS-PSITTACOSIS	2	0	1	0	0	1	0	0	4
0821	COXSACKIEVIRUS A21	1	0	0	0	0	0	0	0	1
0904	COXSACKIEVIRUS B4	1	0	1	1	0	0	0	0	3
1009	ECHOVIRUS TYPE 9	0	0	0	2	1	0	0	0	3
1028	ECHOVIRUS TYPE 28 = RHINO VIRU	0	0	0	0	0	0	1	0	1
1030	ECHOVIRUS TYPE 30	2	1	0	0	0	1	0	0	4
1100	POLIOVIRUS NOT TYPED	0	0	0	7	0	7	0	0	14
1102	POLIOVIRUS TYPE 2	1	0	0	0	0	0	0	0	1
1104	POLIOVIRUS - MIXED VACCINAL ST	0	1	0	0	0	0	0	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	2	0	0	0	7	3	0	113	125
1301	HERPES SIMPLEX VIRUS - NOT TYP	0	2	0	0	74	0	1	15	92
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	1	7	11	5	0	2	1	0	27
1303	VARICELLA-ZOSTER VIRUS	3	6	0	0	0	6	0	4	19
1306	HERPES SIMPLEX TYPE 1	45	36	23	35	3	8	0	1	151
1307	HERPES SIMPLEX TYPE 2	54	62	10	1	15	18	0	0	160
1399	HERPES VIRUS TYPING PENDING	0	0	0	3	0	0	0	0	3
1401	COXIELLA BURNETII	1	0	0	0	0	0	0	0	1
1502	PICORNIA VIRUS - NOT TYPED = E	0	0	0	0	0	10	0	15	25
1522	RUBELLA VIRUS	0	0	0	0	0	0	1	0	1
1532	HEPATITIS B ANTIGEN	22	25	12	0	31	12	3	28	133
1535	HEPATITIS A ANTIBODY	1	0	6	0	0	0	0	1	8
1541	CHLAMYDIA A - C. TRACHOMATIS	0	32	18	0	18	2	0	4	74
1555	PAPOVAVIRUS GROUP (PAPILLOMA -	1	0	0	0	0	1	0	0	2
1556	CMV - CYTOMEGALOVIRUS	22	3	1	7	5	9	0	26	73
1562	REOVIRUS (ALL TYPES)	0	0	0	0	1	0	0	0	1
1563	CORONAVIRUS	0	0	0	0	1	0	0	0	1
1564	ROTAVIRUS	1	4	9	0	2	19	5	17	57
1565	CALICI VIRUS	0	0	0	0	2	0	0	0	2
1599	ENTEROVIRUS TYPING PENDING	0	0	0	5	0	9	2	0	16
9992	ROSS RIVER VIRUS	0	20	5	0	0	1	0	0	26
9994	SMALL VIRUS (LIKE) PARTICLE	0	0	0	0	0	0	3	0	3
9995	DENGUE	0	1	0	0	0	0	0	0	1
TOTAL		234	247	229	175	188	129	34	335	1571

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 1

PERIOD 3/8/89 TO 16/8/89

1. CODE 00, 99 ..... - NO ILL OR DATA
2. CODE 01, 02, 11, 12 - RESPIRATORY
3. CODE E3 ..... - ENCEPHALITIS
4. CODE M3 ..... - MENINGITIS
5. CODE 04 ..... - PARALYSIS
6. CODE 05, 13 ..... - CNS OTHER UNSPEC
7. CODE 07, 49 - GASTRO INTESTINAL
8. CODE 17, 47 - HEPATIC
9. CODE 19 ... - CVS
10. CODE 89 ... - URINARY TRACCT
11. CODE 06 ... - SKIN MUCOUS

		1	2	3	4	6	7	8	9	10	11	TOTAL
0100	ADENOVIRUS NOT TYPED	0	19	0	0	0	16	0	0	0	1	36
0101	ADENOVIRUS TYPE 1	0	5	0	0	0	0	0	0	0	0	5
0102	ADENOVIRUS TYPE 2	1	10	0	0	0	0	0	0	0	0	11
0103	ADENOVIRUS TYPE 3	0	5	0	0	0	1	0	0	0	0	6
0105	ADENOVIRUS TYPE 5	0	3	0	0	0	0	0	0	0	0	3
0107	ADENOVIRUS TYPE 7	0	3	0	0	0	1	0	0	0	0	4
0108	ADENOVIRUS TYPE 8	1	0	0	0	0	0	0	0	0	0	1
0110	ADENOVIRUS TYPE 10	1	0	0	0	0	0	0	0	0	0	1
0111	ADENOVIRUS TYPE 11	0	0	0	0	0	1	0	0	0	0	1
0120	ADENOVIRUS TYPE 20	0	0	0	0	0	1	0	0	0	0	1
0128	ADENOVIRUS TYPE 28	0	0	0	0	0	1	0	0	0	0	1
0130	ADENOVIRUS TYPE 30	1	0	0	0	0	0	0	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	0	10	0	0	0	0	0	0	0	0	10
0201	INFLUENZA A VIRUS	0	13	0	0	1	1	0	0	0	0	15
0202	INFLUENZA A VIRUS SUBTYPE H3N2	0	3	0	0	0	0	0	0	0	0	3
0203	INFLUENZA B VIRUS	2	12	0	0	1	0	0	0	0	0	15
0301	PARAINFLUENZA VIRUS TYPE 1	0	4	0	0	0	0	0	0	0	0	4
0302	PARAINFLUENZA VIRUS TYPE 2	0	5	0	0	0	0	0	0	0	0	5
0303	PARAINFLUENZA VIRUS TYPE 3	1	32	0	0	0	0	0	0	1	0	34
0400	RESPIRATORY SYNCYTIAL VIRUS (R	6	273	0	0	0	0	0	0	0	0	279
0500	RHINOVIRUS (ALL TYPES)	1	32	0	0	0	0	0	0	0	0	33
0600	MYCOPLASMA PNEUMONIAE	2	16	0	0	0	0	0	0	0	3	21
0700	ORNITHOSIS-PSITTACOSIS	0	3	0	0	0	0	0	0	0	1	4
0821	COXSACKIEVIRUS A21	0	1	0	0	0	0	0	0	0	0	1
0904	COXSACKIEVIRUS B4	0	3	0	0	0	0	0	0	0	0	3
1009	ECHOVIRUS TYPE 9	0	0	0	1	0	0	0	0	0	0	1
1028	ECHOVIRUS TYPE 28 = RHINO VIRU	1	0	0	0	0	0	0	0	0	0	1
1030	ECHOVIRUS TYPE 30	0	0	0	3	1	0	0	0	0	0	4
1100	POLIOVIRUS NOT TYPED	0	5	0	0	0	6	0	0	0	0	11
1102	POLIOVIRUS TYPE 2	0	1	0	0	0	0	0	0	0	0	1
1104	POLIOVIRUS - MIXED VACCINAL ST	1	0	0	0	0	0	0	0	0	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	3	5	0	0	0	0	1	0	0	64	73
1301	HERPES SIMPLEX VIRUS - NOT TYP	18	2	0	0	0	0	0	0	0	22	42
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	8	1	0	0	0	0	2	0	0	0	11
1303	VARICELLA-ZOSTER VIRUS	6	0	2	0	0	0	0	0	0	11	19
1306	HERPES SIMPLEX TYPE 1	3	13	0	1	0	0	0	0	1	87	105
1307	HERPES SIMPLEX TYPE 2	6	1	0	0	0	0	0	0	0	64	71
1399	HERPES VIRUS TYPING PENDING	0	1	0	0	0	0	0	0	0	2	3
1401	COXIELLA BURNETII	1	0	0	0	0	0	0	0	0	0	1
1502	PICORNIA VIRUS - NOT TYPED = E	0	8	0	0	1	16	0	0	0	0	25
1522	RUBELLA VIRUS	0	0	0	0	0	0	0	0	0	1	1
1532	HEPATITIS B ANTIGEN	63	0	0	0	0	0	57	0	0	0	120
1535	HEPATITIS A ANTIBODY	1	0	0	0	0	0	7	0	0	0	8
1541	CHLAMYDIA A - C. TRACHOMATIS	9	0	0	0	0	1	0	0	0	0	10
1555	PAPOVAVIRUS GROUP (PAPILLOMA -	0	0	0	0	0	0	0	0	1	1	2
1556	CMV - CYTOMEGALOVIRUS	1	29	0	1	0	0	0	2	7	1	41
1562	REOVIRUS (ALL TYPES)	0	0	0	0	0	1	0	0	0	0	1
1563	CORONAVIRUS	0	0	0	0	0	1	0	0	0	0	1
1564	ROTAVIRUS	2	0	0	0	0	55	0	0	0	0	57
1565	CALICI VIRUS	0	0	0	0	0	2	0	0	0	0	2
1599	ENTEROVIRUS TYPING PENDING	0	5	0	2	0	6	0	0	0	0	13
9992	ROSS RIVER VIRUS	6	0	0	0	0	0	0	0	0	1	7
9994	SMALL VIRUS (LIKE) PARTICLE	0	0	0	0	0	3	0	0	0	0	3
TOTAL		145	523	2	8	4	113	67	2	10	259	1133

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 2

PERIOD 3/8/89 TO 16/8/89

12. CODE 10 - EYE
13. CODE 59 - GENITAL
14. CODE 39 - ENDOCRINE/SALIVARY GL.
15. CODE 38 - RETICULO-ENDOTHELIAL
16. CODE 29 - MUSCLE/JOINT
17. CODE 69 - CONGENTIAL
18. CODE P8 - PUO
19. CODE G8 - FEVER/MALAISE
20. CODE 09 - OTHER
21. CODE A1 - SIDS

		12	13	14	16	17	18	19	20	21	TOTAL
0100	ADENOVIRUS NOT TYPED	2	1	0	0	0	0	1	0	0	4
0102	ADENOVIRUS TYPE 2	0	0	0	0	0	0	0	0	1	1
0103	ADENOVIRUS TYPE 3	5	0	0	0	0	1	2	2	0	10
0104	ADENOVIRUS TYPE 4	5	0	0	0	0	0	0	0	0	5
0107	ADENOVIRUS TYPE 7	2	0	0	0	0	0	1	0	1	4
0113	ADENOVIRUS TYPE 13	0	0	0	0	1	0	0	0	0	1
0119	ADENOVIRUS TYPE 19	1	0	0	0	0	0	0	0	0	1
0130	ADENOVIRUS TYPE 30	0	0	0	0	0	0	0	1	0	1
0201	INFLUENZA A VIRUS	0	0	0	0	0	0	1	1	0	2
0203	INFLUENZA B VIRUS	0	0	0	1	0	0	3	2	0	6
0303	PARAINFLUENZA VIRUS TYPE 3	0	0	0	0	0	0	0	1	1	2
0400	RESPIRATORY SYNCYTIAL VIRUS (R	0	0	0	0	0	0	2	7	0	9
0500	RHINOVIRUS (ALL TYPES)	0	0	0	0	0	0	0	2	0	2
1009	ECHOVIRUS TYPE 9	0	0	0	0	0	0	2	0	0	2
1100	POLIOVIRUS NOT TYPED	0	0	0	0	1	0	0	0	2	3
1300	HERPES VIRUS GROUP - NOT TYPED	0	52	0	0	0	0	0	0	0	52
1301	HERPES SIMPLEX VIRUS - NOT TYP	1	44	0	0	0	0	0	5	0	50
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	0	0	12	0	0	1	2	1	0	16
1306	HERPES SIMPLEX TYPE 1	9	28	0	0	0	0	3	6	0	46
1307	HERPES SIMPLEX TYPE 2	0	80	0	0	0	0	0	9	0	89
1532	HEPATITIS B ANTIGEN	0	0	0	1	0	0	0	12	0	13
1541	CHLAMYDIA A - C. TRACHOMATIS	1	63	0	0	0	0	0	0	0	64
1556	CMV - CYTOMEGALOVIRUS	1	2	1	0	4	1	6	17	0	32
1599	ENTEROVIRUS TYPING PENDING	0	0	0	0	0	0	2	0	1	3
9992	ROSS RIVER VIRUS	0	0	0	19	0	0	0	0	0	19
9995	DENGUE	0	0	0	0	0	0	1	0	0	1
TOTAL		27	270	13	21	6	3	26	66	6	438