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Contents:

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VIRUSES, CHLAMYDIAS, COXIELLAS, RICKETTSIAS AND MYCOPLASMAS REPORTING SCHEME:

In this period (27 September to 10 October 1990) there were 1085 reports processed.

Q fever was reported on 10 occasions (1 female, 9 males), 6 of the reports being from the State Health Laboratory in Brisbane. Ages ranged from 21 to 48 years and four patients were described as meatworkers.

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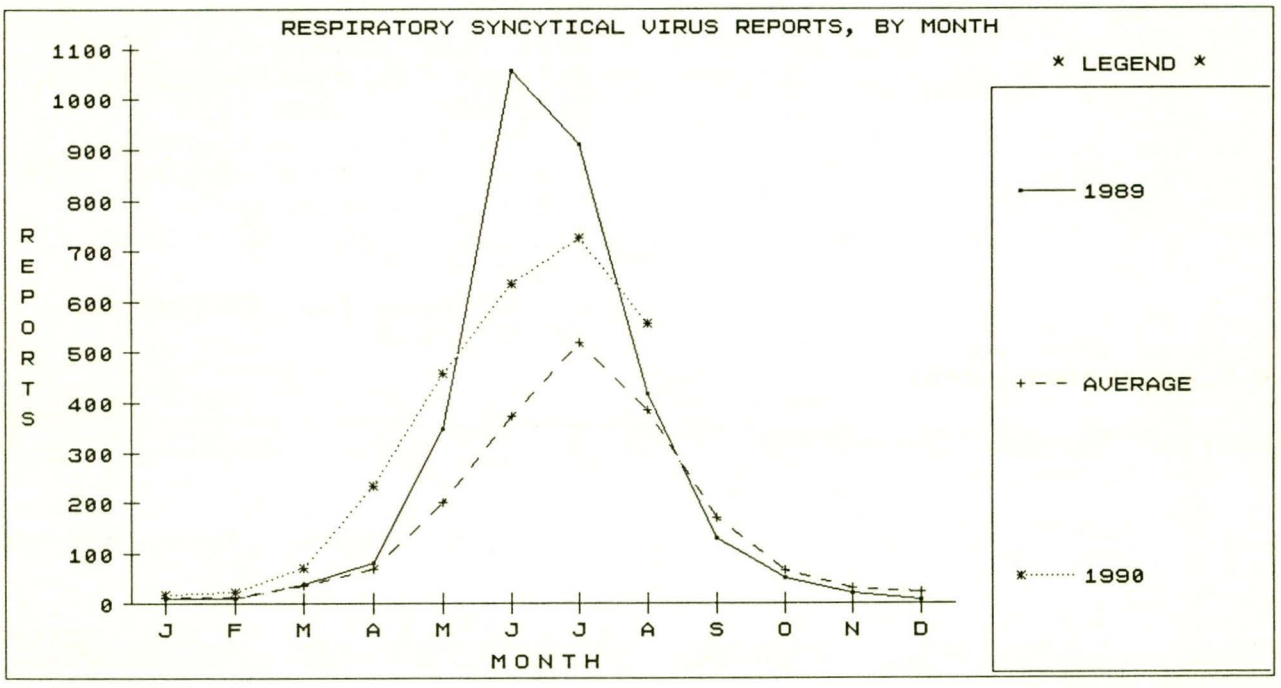
- Contributions are solicited, and do not preclude later publication elsewhere.

- Figures given may be subject to revision.

Four reports of dengue fever, three of which were associated with the recent outbreak in Queensland, were received. One case was from Townsville (dengue 2), one from Thursday Island (dengue 1) and two were from Cairns (one dengue 1; the other, dengue 2, in a person who had recently visited SE Asia).

A further 131 reports of respiratory syncytial virus were received for the period, bringing the year's total to 2947. This continues the above average reporting of RSV, the peak having been in July. The graph below indicates that the peak was significantly smaller than that for 1989. However it now seems possible that the total number of cases for the year could approach, or possibly pass those reported for 1989 (3086).



NON-VIRAL PATHOGEN REPORTS

A further 7 positive blood culture reports have been received for September (6 from Toowoomba Base Hospital and one from Dr Lynch's Pathology Laboratory at Rockhampton). The following organisms were isolated:

- Escherichia coli from 3 females aged 60, 65 and 68 years;
- Streptococcus equisimilis from a 56-year-old male;
- Streptococcus pneumoniae from a 69 year-old-male who subsequently died;
- Streptococcus salivarius from a 54 year-old-female.

Staphylococcus aureus was isolated from the synovial fluid of a 22 year-old male.

One case of cryptococcal meningitis was reported from ICPMR, Westmead, in a 36-year-old HIV positive patient. Cryptococcus neoformans was detected in the CSF.

A further 11 cases of Bordetella pertussis were reported for September (7 from Rockhampton Pathology and 4 from Toowoomba Base Hospital) this included 7 children (aged 6-11 years, including 2 siblings), 3 adults (aged 20-40 years) and a 64-year-old male. The main presenting feature for these cases was a persistent cough. The total cases of B pertussis reported for September is now 32. Escherichia coli was isolated from the faeces of 3 infants (aged 16,17,18, months) with diarrhoea. All isolates were resistant to ampicillin and cephalothin.

3 cases of Brucella sp (all reacted with B abortus antigen in serological testing) were diagnosed at Dr Lynch's Rockhampton Pathology Laboratory. All 3 patients were male with the following exposure details; a 19-year-old farmer, a 22-year-old truck driver (who shoots pigs and kangaroos) and a 32-year-old pig farmer.

OVERSEAS BRIEFS

CHOLERA IN ALGERIA, FRANCE, MOROCCO, ROMANIA AND SPAIN

The World Health Organisation reports that cholera has occurred in the countries mentioned below and provides the following details as at 5 September 1990:

Algeria: No new information, case reports remain at 413 with 24 deaths in 20 wilayas (Territories).

France: One imported case (type EL TOR OGAWA) from Meknes, Morocco, 30 August.

Morocco: Most (80%) cases occurring in the provinces of Fez, Meknes and Taza. Actual case numbers not given, many suspected of being gastroenteritis. Fatality rate less than 3%.

Romania: As of 30 August, 183 cases (with 1 fatality) in the following districts: Tulcea 130, Braila 19, Galati 16, Constanta 6, Buzau 4, Prahova 3, Dimbovita 3, Vrancea 1 and Bucharest 1. The cases in the latter six districts were imported from Tulcea.

Spain: One imported case (type EL TOR OGAWA) from Rabat, Morocco, 30 August.

CHOLERA IN MOZAMBIQUE

Further details of the recently reported outbreak (CDI 90/18) have been received. Cases continue to occur (numbers not stated) in the city of Beira and there have been unsubstantiated reports of a small outbreak in the capital, Maputo.

INFLUENZA UPDATE FROM THE WHO INFLUENZA REFERENCE CENTRE CSL - NO 6 WEEK COMMENCING 15 OCTOBER 1990

The moderate influenza outbreak which commenced in the North Island of New Zealand in June and spread to the South Island in August has now abated. This was followed by a low level of influenza in a number of Australian cities during September, but this also appears to be declining.

Further analysis has now been completed for many of the New Zealand virus isolates received at the Centre and for a number of recent Australian isolates. It has now been shown that the majority of local strains isolated since August most closely resemble the antigenic variant A/Beijing/353/89 seen during the last Northern Winter.

Three families of H3 influenza viruses were involved in the severe outbreaks experienced in the 1989-90 Northern Winter. By far the majority of cases were caused by viruses which are closely related to the current vaccine strain A/Shanghai/11/87. A second smaller group of virus isolates seen in a number of regions and represented by the A/Guizhou/54/89 strain which was recommended by WHO in March this year for inclusion in vaccines for the 1990-91 Northern Winter. The third minor group of viruses, seen only in China and USA, is represented by the A/Beijing/353/89 strain which the Australiasian isolates resemble. A small number of antigenically distinct viruses have been received, mainly from the Waikato region in New Zealand and these are under further study.

Only a small number of Type B influenza viruses have been isolated from the Australasian region this year. While both B/Victoria/2/87 and B/Yamagata/16/88-like viruses co-circulated in most regions of the Northern Hemisphere, all of the local isolates to date are B/Yamagata-like.

Apart from the isolates received from Papua New Guinea early this year, there have been no further H1N1 isolates received for typing at the Centre.

ENTERIC PATHOGEN SUMMARY, WESTERN AUSTRALIA JULY 1989-JUNE 1990

(Produced by the Public Health and Enteric Diseases Unit, Health Department of Western Australia)

The following is a summary of the statistics for the isolation of enteric pathogens from six regions in Western Australia for the fiscal year July 1989 to June 1990.

Notifications from private laboratory services and teaching hospital laboratories have only been incorporated for the last six months of the summary.

ENTERIC PATHOGENS IN WESTERN AUSTRALIA
1ST JULY 1989-30TH JUNE 1990

PATHOGEN	PERTH METRO	SW	SE	CENTRAL	PILBARA	KIMBERLEY	TOTAL CASES
SALMONELLA (Major strains)							
S Anatum	17	1	1	3	1	14	37
S Chester	7	1		4	7	12	31
S Muenchen	14	1	3	3	3	7	31
S Saintpaul	17	3	3	3	2	6	34
S Typhimurium	176	59	22	18	12	19	306
Other serotypes (69)	192	43	4	16	17	85	357
Cases	423	108	33	47	42	143	796
Persons	422	108	33	47	42	138	790
SHIGELLA							
Shigella boydii	1						1
Shigella dysenteria	2						2
Shigella flexneri spp	3					1	4
Shigella flexneri 1b	1						1
Shigella flexneri 2	73	56	21	29	40	120	339
Shigella flexneri 3				1			1
Shigella flexneri 4	1						1
Shigella flexneri 5	2						2
Shigella flexneri 6	3	5		3	14	10	35
Shigella flexneri X	2						2
Shigella flexneri Y	3			2	1	3	9
Shigella sonnei	67	30	15	21	2	11	146
Shigella spp	3			2			5
Cases	161	91	36	58	57	145	548
Persons	159	91	36	57	57	145	545
Campylobacter jejuni	298	72	19	33	16	49	487
Campylobacter coli	16	12	3	1	1	5	38
Campylobacter spp	287	30	4	2	3		326
Persons	601	114	26	36	20	54	851
Aeromonas spp	50	17	6			9	82
Cl. difficile	321	27	6	11	2	6	373
B. cereus	1			1			2
Cl. botulinum	1						1
Cl. perfringens	6						6
E. tarda	1					3	4
E.H.E.C.	1			1		4	6
E.T.E.C.	2					13	15
Pl. shigelloides	11			1			12
V. cholerae 01	11						1
V. cholerae non 01						1	1
Y. enterocolitica	2					1	3
Y. fredericksenii	1						1

PATHOGEN	PERTH METRO	SW	SE	CENTRAL	PILBARA	KIMBERLEY	TOTAL CASES
PARASITES							
A. lumbricoides	8	1				1	10
B. hominis	357	48	16	10	3	65	499
C. sinensis	4						4
Cryptosporidia	29	15	5	14	24	123	210
D. fragilis				1	1		2
E. histolytica	16	2				3	21
Entamoebae spp.	7					3	10
E. vermicularis	17	4	1		5	14	41
G. lamblia	434	154	36	65	98	212	999
H. nana	39	24	12	28	29	114	246
Hookworm	49				2	57	108
I. belli		1				5	6
Sarcocystis spp.						2	2
Schistosoma haematobium	1						1
S. stercoralis	31		1	3	10	99	144
Taenia solium	1						1
T. trichiura	99		1			36	136
Trichostrongylus spp.			1				1
Parasite Cases	1092	249	73	121	172	734	2441
Persons	969	227	63	108	152	589	2108
Pathogen Cases	2549	584	170	262	273	963	4801
CO-Pathogen Cases	32	7	1	6	14	71	131
Persons	2517	577	169	256	259	892	4670
Cases/100,000	225	236	343	435	514	3804	302

SALMONELLA SURVEILLANCE - HUMAN ISOLATES, ANNUAL REPORT 1989

(National Salmonella Surveillance Scheme, Issue No. 5/90 editor J Powling, Microbiological Diagnostic Unit, University of Melbourne)

Human Isolates - Annual Summary 1989

Campylobacters are no longer included in the total number of notifications of enteric pathogens. At the time of ceasing collection of campylobacter data in December 1988, their numbers accounted for 32% of the total notifications of enteric pathogens. The actual figure could have been considerably higher if notifications had been received from South Australia and Tasmania and a more representative number from Queensland. In 1988, in those states which were submitting representative numbers of notifications, the mean percentage of campylobacter over total enteric pathogens was 43%.

The number of notifications of salmonellas increased in 1989 by 5% and that of shigellas by 4%. Cases of salmonella infection increased by 7% Australia-wide and the case rate increased in all States except for Queensland and Western Australia. The highest percentage increases in case rate were recorded from Tasmania (52%), Victoria (49%), and South Australia (36%). Similarly, the number of cases of shigella infection increased by 5% Australia-wide but there was a 60% increase in the case rate in Western Australia and a 25% decrease in the Northern Territory.

There were 17 outbreaks associated with salmonella infections and three associated with shigella infections. The largest of these were the two outbreaks of **S Typhimurium 201a** recorded in Victoria and South Australia in the first quarter of 1989 and the **S Bovismorbificans 7** outbreaks om Sydney (4 separate incidents in Jan-Feb) and in Brisbane (July-Aug). The Sydney incident was traced to a farm which received waste products from a catering company and returned unwashed bins; reports were not received for the Brisbane incident.

Two incidents of food poisoning were related to infection by **S Typhimurium 9** but the particular foodstuff was not identified in either case. One was traced to a cake shop in Gippsland in May and the other involved guests at an engagement party in Melbourne. The food or the cause was known to have been identified satisfactorily in only two outbreaks during the year and the locality or origin of the infection was identified in a further seven incidents. One of these was an outbreak of **S Bovismorbificans 24** in Ausgust from the Northern Territory, associated with the military training exercise Kangaroo/89. Samples were collected by the Military Field Hospital and processed on their return to New South Wales. This provided the clue to the increased number of notifications received from Darwin in the same period.

S Typhimurium 9 heads the list of the top ten salmonellas for 1989, accounting for 6.6% of all Australian acquired cases and 21% of Victorian cases. **S Virchow** with 12.5% of cases, and **S Saintpaul** with 8% of cases, were the most common serovars notified from Queensland. Eight of the top ten salmonellas isolated in 1988 reappeared in 1989. The two newcomers to the list were phage types **170** and **201a** of **S Typhimurium**.

A much larger number (21) of new and unusual serovars was notified during the year compared to 1988 (10). They were: **S Bergedorf** (NT), **S Blukwa** (SA), **S Bonariensis** (NSW), **S Bronx** (NT), **S Chailey** (QLD), **S Djugu*** (VIC), **S Hindmarsh** (QLD), **S Idikan** (NSW), **S Isangi*** (VIC), **S Israel** (WA), **S Kiambu** (NSW), **S Lindenburg** (QLD), **S Liverpool** (NSW - first found in sewage effluent, now more common in community), **S Manhattan*** (ACT), **S Morotai** (QLD), **S Newlands** (VIC), **S Pensacola*** (QLD), **S Rissen*** (VIC), **S Sunnycove*** (VIC), **S Taksony** (TAS), **S Tounouma** (NT), **S Westhampton* (VIC).**

(* known to have been acquired overseas)

Table 1: TOTAL NUMBER OF NOTIFICATIONS RECEIVED

	ACT	NSW	VIC	QLD	SA	WA	TAS	NT	TOTAL
Salmonella	**95**	**1434**	**1377**	**1609**	**509**	**733**	**180**	**449**	**6386**
Shigella	-	98	119	55	51	336	4	155	818
E coli (EPEC)	1	11	6	-	-	-	-	-	18
Vibrio	-	4	3	-	-	-	-	-	7
Total	96	1547	1505	1664	560	1069	184	604	7229

Salmonella Infections - Case Rates

The total number of cases acquired in Australia for the year ended 31st December 1989 was 5703. There were 368 follow-ups, 58 isolations from migrants and refugees and 257 cases acquired overseas.

Table 2: Case rates per 100,000 for salmonella infection

	ACT	NSW	VIC	QLD	SA	WA	TAS	NT	TOTAL
1989	32.1	24.4	26.8	56.5	35.1	49.8	38.7	268.6	5703
1988	21.4	19.6	18.0	62.6	25.8	53.0	25.4	226.6	5298
1987	21.4	16.0	12.3	52.4	23.2	50.2	28.2	236.8	4462
1986	19.2	17.1	12.7	50.4	25.6	52.9	13.3	264.8	4342
1985	55.3	21.4	12.0	43.1	28.6	59.7	18.5	311.9	4743

Table 3: Distribution of isolates of salmonella by State

	ACT	NSW	VIC	QLD	SA	WA	TAS	NT	TOTAL
Cases	**80**	**1323**	**1077**	**1461**	**474**	**702**	**169**	**417**	**5703**
Serovars*	15	70	60	92	49	64	21	66	140
S Typhimurium phage types	14	44	32	33	28	28	12	11	67
S Typhimurium cases	53	721	734	257	258	242	78	31	2374
% STM/total cases	66	55	68	17	55	34	46	8	42
S Bovismorbificans phage types	1	12	9	7	5	4	3	4	17
S Bovismorbificans cases	2	88	51	41	14	13	8	24	241
Typhoid cases**	2	7	22	4	4	6	-	2	47
Typhoid carriers**	-	-	2	-	1	-	-	-	3
Paratyphoid cases**	1	12	7	3	1	-	-	1	25

* this figure does not include the "untypable" salmonellas
** these figures include overseas acquired infections. This is to avoid the assumption that cases have been acquired in Australia when in fact the relevant patient details have not been provided.

Shigella Infections 1989

There were 818 notifications of shigella infection for 1989. Of these, 93 were acquired overseas, 14 were from migrants and refugees, and 20 were follow-up isolations leaving a total of 691 which were assumed to be acquired in Australia. This is probably an over-estimation as not all notifications were accompanied by comprehensive patient details. The case rates are given in Table 4 together with the corresponding figures for the previous three years.

Table 4: Shigella infections - case rates per 100,000

	ACT	NSW	VIC	QLD	SA	WA	TAS	NT	TOTAL
1989	**0.0**	**1.4**	**1.2**	**1.9**	**3.2**	**23.4**	**0.5**	**93.6**	**691**
1988	0.4	1.1	0.8	3.8	2.1	14.6	0.9	124.5	656
1987	0.0	1.3	0.6	2.2	3.2	19.8	0.4	120.0	687
1986	0.4	2.3	0.8	2.0	3.2	32.8	0.5	164.7	970

The Northern Territory case rate continues its downward trend whereas that for Western Australia has increased in the past year due to a greater than threefold increase in the number of cases of Sh flexneri 2a. This particular serotype accounted for 52% of all cases of Shigella (29% in 1988) and together with Sh flexneri 6 (9.9%) and Sh sonnei biotype a (28%) accounted for 90% of the total Australian acquired infections.

Very few cases were notified from Queensland (48), by comparison to Western Australia (329) and the Northern Territory (145). Even so, the 522 cases from these three states (525 in 1988) accounted for 76% of all Australian acquired cases.

Three outbreaks were associated with shigella infection during 1989. The biggest was of Sh flexneri 2b at an Outward Bound camp near Ingham in June when 12 cases were notified from laboratories in both Townsville and Cairns. In November there were two separate outbreaks of Sh sonnei biotype a, one in a hospital ward in Sydney and the other in far west NSW.

Typhoid and Paratyphoid Cases in 1989

The quarterly reports for 1989 (Issues 7 and 8/89, 2 and 3/90) presented details of age and gender of individual typhoid and paratyphoid patients, also details of overseas travel if this was provided by the notifying laboratory. The numbers of cases from the individual **S Typhi** reports do not tally with the final figure due to the inclusion of late notifications and, in one case, repeated isolates (all previously untypable) from a carrier (F/36, Vic) finally typing as Vi-phage type A.

S Typhi: There were 81 notifications during 1989 which is double the number received last year (39). Of these, 31 were repeat isolations leaving a total of 47 cases and 3 carriers. Thirty-six of the cases were known to be from infections acquired overseas including one immigrant and two refugees, two had contact with carriers, and nine gave no details.

The most common Vi-phage types encountered were **B1** and **E1** with nine cases of each. Of the **B1's** six were acquired in Thailand, two in Indonesia and one in the Philippines, and of the **E1's** four were cases from one family acquired in Lebanon, with single cases from Papua New Guinea, Asia (unspecified), the Northern Territory (food handler at a fete), Victoria (food poisoning at a party), and often unspecified.

The other Vi-phage types encountered were: **27** (Syria); **34** (not specified); **46** (Chile); **51** (Pakistan); **A** (3 cases - India and Indo-China); **B2** (3 cases - 2 Lebanon); **D2** (Papua New Guinea, Asia); **E2** (Philippines); **F3** (Poland); **J1** (India); **N** (India); **T** (South-east Asia); and the **d:z66** phase (Indonesia).

S Paratyphi A: There were 31 notifications and 20 cases. Nine of the cases were reported as overseas acquired and all of these were from Asia; the remainder were sent without patient details. Of these, all bar one were either of overseas travelling age or had surnames suggestive of overseas origin or contact. There were 5 cases of **S Paratyphi A1** and two each of phage types **2** and **6**.

S Paratyphi B: There were only 7 notifications and 5 cases which is less than one-third of the number for 1988 (19 cases from 22 notifications). The phage types were **3aI Var.1**, and **Taunton** and the only case reported as acquired overseas was from Morocco (phage type Taunton).

Outbreaks in 1989 - Summary

Organism	Locality	Date	Cases	Notes
S Bovismorbificans 24	Darwin area, NT	Aug-Sep	23	K/89
S Bovismorbificans 7	Sydney	Feb-Mar	40	FP
S Bovismorbificans 7	Brisbane	Jul-Aug	16	?
S Chester	Nhulunbuy, NT	Sept	3	FP
S Mississippi	Tasmania	March	13	?
S Oranienburg	Alice Springs	Jan-Feb	15	Hostel
S Orientalis	Rockhampton, Qld	Dec	14	?
S Reading	Darwin	Jul-Aug	11	?
S Reading	Victoria	Oct	11	?
S Singapore	Perth	Apr-May	26	?
S Typhimurium 135	Hobart	March	10	FP
S Typhimurium 141	Hamilton, Vic	June	19	?
S Typhimurium 201a	Melbourne, Vic	Dec-Mar	43	?
S Typhimurium 201a	Adelaide, SA	Jan-Mar	32	?
S Typhimurium 9	Sale, Vic	May	20	FP
S Typhimurium 9	Melbourne	May	11	FP
S Typhimurium untypable	Perth	December	16	?
Sh sonnei biotype a	Sydney	November	4	Hosp
Sh sonnei biotype a	Bourke, NSW	November	7	?
Sh flexneri 2b	Ingham, Qld	June	12	Camp

Key: K/89 = Kangaroo '89 military exercise in NT; FP = food poisoning; ? = not determined; Hostel = Tourist Hostel; Hosp = Hospital ward; Camp = Outward Bound Camp

Annual Report 1989 - Summaries

Bacteraemias (51) excluding enteric fever

S Adelaide (2); **S Birkenhead** (4); **S Bovismorbificans** phage types **11, 13, 22** (2), **7** (4) and RDNC; **S Bredeney; S Chester** (2); **S Dublin; S Enteritidis; S Heidelberg** (2); **S Java*** (3); **S Oranienburg** (2); **S Poona; S Reading** (2); **S Singapore; S Typhimurium**, and phage types **145, 156** (2), **201a, 25, 4, 9** (5), and RDNC (3); **S Virchow** (2); **S Waycross;** Sh flexneri 2a; and Sh sonnei biotype a.

* acquired overseas

Isolations from Urine (55)

S 4,12:d:-; S Aberdeen (2); **S Adelaide; S Agona; S Anatum** (2); **S Berta; S Birkenhead** (2); **S Bovismorbificans** phage types **11** and **4; S Cerro** (2); **S Chester; S Derby; S Dublin** (2); **S Eastbourne; S Enteritidis** (2); **S Haardt; S Hadar; S Havana; S Heidelberg; S Infantis; S Lansing** (2); **S Litchfield; S Livingstone; S Newlands; S Panama; S Potsdam; S Saintpaul** (5); **S Singapore** (2); **S Stanley; S Tennessee; S Typhimurium** phage types **108; 12a; 141, 41, 9** (4), **5; S Virchow, S Zanzibar;** S untypable 4,12:-:-; and Sh sonnei biotype a.

Unusual Sites of Isolation (32)

Organism	Sex/ Age	State	Notes
S Ball	F/60	NT	sputum
S Bovismorbificans 7	F/84	NSW	pleural aspirate
S Chester	M/ns	SA	mesenteric lymph node
S Chester	M/59	NSW	wound
S Eastbourne	F/21	Tas	episiotomy wound
S Enteritidis	M/49	Qld	perianal abscess
S Infantis	M/59	NSW	gall bladder
S Mbandaka	F/47	NSW	bile
S Mississippi	F/17	Tas	cervix
S Mississippi	F/19	Tas	vagina
S Newport	F/80	Vic	abdominal abscess
S Oranienburg	M/ns	NT	foot wound
S Oranienburg	M/33	NSW	lymph node
S Paratyphi A untypable	F/33	Vic	gall bladder
S Potsdam	F/26	NSW	breast
S Singapore	F/32	NSW	rectal biopsy
S Singapore	M/ns	NSW	synovial fluid
S Typhimurium 135	M/18	Vic	perianal abscess
S Typhimurium 135	M/69	NSW	pleural fluid

Organism	Sex/ Age	State	Notes
S Typhimurium 145	F/54	NSW	aneurysmal abscess
S Typhimurium 201a	F/20	Vic	vagina
S Typhimurium 29	M/14	Vic	lymph node
S Typhimurium 35	F/43	Vic	rectal abscess
S Typhimurium 9	M/26	SA	sputum
S Typhimurium 9	?/74	Vic	elbow joint
S Virchow	M/15	Vic	distal tibia tissue
S Virchow	F/38	Qld	gall bladder
S untypable 9,12:-:-	M/34	Vic	skin from arm - vet.
S untypable 9,12:-:-	M/30	SA	perianal abscess
Sh flexneri 3a	M/62	NSW	ileostomy wound
Sh sonnei biotype a	F/15	NSW	gut tissue (PM)
V parahaemolyticus	F/60	NSW	leg ulcer

Infections Acquired Overseas - by organism name (325)

S 4,12:d:- : Fiji.
S Aberdeen: Thailand.
S Abony: unspecified
S Agona: India, Indonesia, Thailand, Philippines.
S Anatum: Indonesia, Singapore, Thailand, Philippines.
S Bareilly: India, Malaysia.

S Berta: Bali, Thailand.
S Blockley: Indonesia, Singapore, Thailand.
S Brunei: unspecified
S Cerro: Philippines.
S Chester: Fiji.

S Cubana: India.
S Derby: Thailand, Vietnam, Philippines.
S Djugu: Indonesia.
S Emek: Philippines, Thailand
S Enteritidis: Egypt, Hong Kong, Fiji, Singapore, Bali, India.

S Haardt: Malaysia.

S Hadar: Indonesia, Bali, Malaysia, Taiwan, Thailand.

S Haifa: unspecified.
S Havana: Bali.
S Infantis: Bali, Borneo, Singapore, China, Hong Kong.

S Isangi: Thailand.

S Typhi 51: Pakistan.
S Typhi A: India.
S Typhi B1: Thailand, Indonesia.

S Typhi B2: Lebanon.
S Typhi D2: Papua new Guinea, Asia.
S Typhi E1: Lebanon, Papua New Guinea.
S Typhi E2: Philippines.

S Typhi J1: India.
S Typhi N: India.
S Typhi T: South-east Asia.
S Typhi d:z66 Phage: Irianjaya (Indonesia).
S Typhimurium 104: Bali.

S Typhimurium 135: India.
S Typhimurium 141: unspecified.
S Typhimurium 21: Indonesia.

S Typhimurium 4: Bali.
S Typhimurium 64: China.
S Typhimurium RDNC: Indonesia, Japan.

S Uganda: Papua New Guinea.
S Virchow: Israel, Fiji, India, Indonesia, Bali, Malaysia.

S Virginia: unspecified.

S Weltevreden var 15+: Vietnam.
S Westhampton: Thailand.
S Zanzibar: unspecified.

S Java: Bali, Thailand.
S Java 1 var. 5: Bali.
S Java 3b var. 3: Bali.
S Javiana: Bali, Philippines, Thailand.
S Kentucky: Indonesia.
S Liverpoool: India.
S Mbandaka: India.
S Mikawasima: Thailand.

S Muenchen: South-east Asia.
S Ohio: Indonesia.
S Orientalis: unspecified.
S Oslo: India, South-east Asia.
S Paratyphi A 1: India, Nepal.

S Paratyphi A 6: unspecified.
S Paratyphi A RDNC: India, Bangladesh, Indonesia.

S Paratyphi B Taunton: Morocco.
S Pensacola: not specified.
S Rissen: Thailand.
S Saintpaul: South Africa.

S Senftenberg: India, Bali, Thailand.
S Singapore: India.

S Stanley: India, Thailand, Malaysia, Philippines, Vietnam.

S Sunnycove: Indonesia.

S Tennessee: Vietnam, Japan.
S Thompson: Philippines.

S Typhi 27: Syria
S Typhi 46: Chile

S untypable 3,10:r:-: Fiji.
S untypable 6,7:r:-: Bali.
S untypable 9,12:l,v:-: Indonesia.

Sh boydii 1: unspecified.
Sh boydii 10: unspecified.
Sh boydii 14: India.
Sh boydii 18: Pakistan.
Sh boydii 2: South America, Thailand.
Sh boydii 4: Kuwait, Nepal.
Sh boydii 8: India, Nepal.
Sh dysenteriae: Philippines.
Sh dysenteriae 9: Bali.
Sh flexneri 1a: Fiji, South-east Asia.
Sh flexneri 1b: India, Indonesia.

Sh flexneri 2a: Bali, Thailand, India, Nepal, Philippines, Hong Kong, Fiji.
Sh flexneri 2b: India.
Sh flexneri 3a: India.
Sh flexneri 4a: Java.
Sh flexneri 4a mannitol neg: India.

Sh flexneri 4b: Thailand.
Sh flexneri 6: India, Indonesia, Lebanon, Mexico.

Sh flexneri var Y: Philippines
Sh sonnei biotype a: Indonesia, Thailand, Singapore, Malaysia, Philippines, Vietnam, Hong Kong, Papua New Guinea.
Sh sonnei biotype f: India.
Sh sonnei biotype g: India, Nepal, Indonesia, Malaysia.

V parahaemolyticus: Bali, Thailand.

Top Ten Salmonellas - 1989

The top ten salmonellas for 1989 comprised 34% of the total cases acquired in Australia (5700) and are listed below in Table 6, together with their position in 1988. 39% of cases were from the top ten in 1988.

Five of the serovars were associated with outbreaks (see Table 5 for details of case numbers).

Table 6: Top Ten Salmonellas, 1989

Serovar	No. of cases	Pos'n 1988	% of top 10	% of total	Origin/No. of cases
S Typhimurium 9*	375	3	19.3	6.6	Vic 230, NSW 49
S Typhimurium 135*	249	4	12.9	4.4	NSW 95, Vic 48
S Virchow	235	1	12.1	4.1	Qld 183
S Saintpaul	202	6	10.4	3.5	Qld 119,WA 29,
S Muenchen	173	7	8.9	3.0	Q 40, W 38, N 37
S Infantis	166	-	8.6	2.9	N 44, V 37, W 29
S Typhimurium 201a*	141	-	7.3	2.5	Vic 59, SA 51
S Anatum	136	5	7.0	2.4	Qld 38, NT 36,
S Chester*	135	8	7.0	2.4	Qld 52, WA 32
S Typhimurium 170	126	9	6.5	2.2	NSW 61, Vic 44
Total	1938		100	34.0	

In: **S Infantis, S Typhimurium 201a**
Out: **S Heidelberg, S Potsdam** (associated with outbreaks in 1988)

* associated with an outbreak

AUSTRALIAN SALMONELLA REFERENCE LABORATORY, MONTHLY REPORT - AUGUST 1990

(Produced by the ASRL, Institute of Medical and Veterinary Science, South Australia)

1,259 cultures were typed at the Salmonella Reference laboratory during August.

The origin of the cultures was as follows:

NSW	NT	QLD	SA	TAS	VIC	WA	ACT
367	41	479	93	18	86	45	4

MALAYSIA	SINGAPORE	PAPUA NEW GUINEA
11	93	22

Serotypes of interest:

Salmonella Amsterdam var 15+
Two isolates from homous were received from New South Wales. This serotype is rare in Australia. We have recorded only 4 **(5?)** human isolates, on in 1977, one in 1981 and two in 1988, and one isolate from lake water in 1986.

Salmonella Brunei

One isolate was received from Western Australia, from scallops of overseas origin. This serotype is rare in Australia. The last isolate was in 1988, from prawns, and the last human isolate was in 1986.

Salmonella Haardt

There was one isolate from a 25 year old woman in South Australia. This serotype occurs infrequently in Australia. We have seen only one or two human isolates each year, the first being in 1986.

Salmonella Idikan

An isolate was received from a 1 year old boy in new South Wales. Salmonella Idikan is rare in Australia. This laboratory had not recorded any isolates before this year. However, this is the third isolate in 1990. The other isolates were received in January and February, also from children in New South Wales.

Salmonella Liverpool

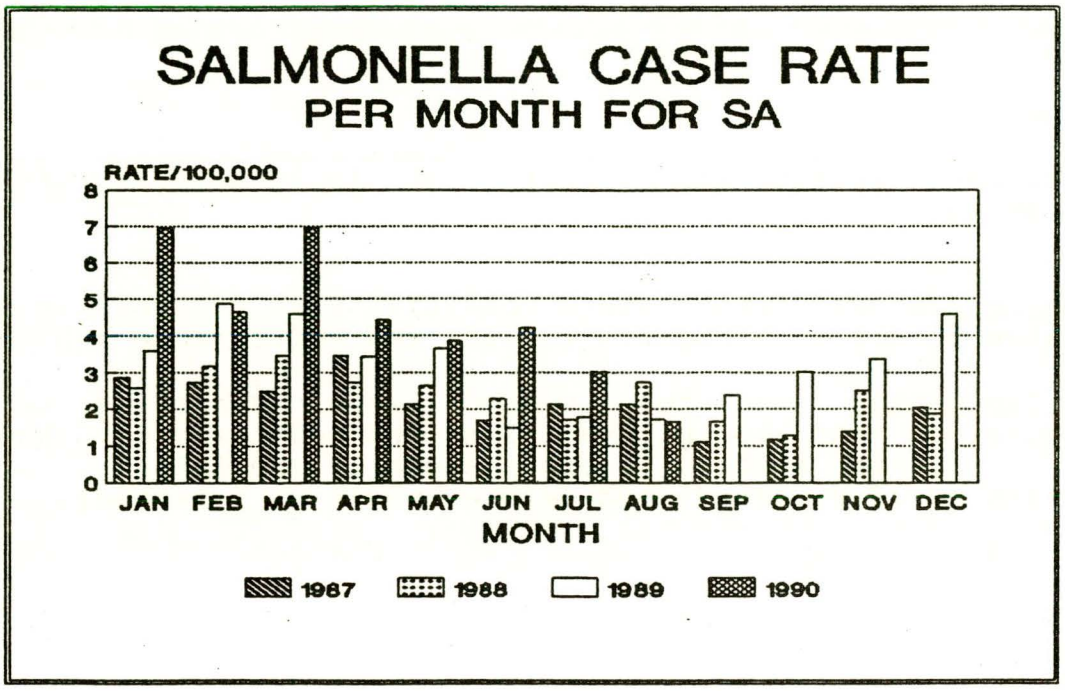
Two isolates were received from New South Wales, one from homous and one from sludge compost. This serotype is rare in Australia. There has been one other isolate in 1990 (see our March 1990 report).

Salmonella Typhi

Isolates were received from blood and faeces of a 7 year-old-girl in the Northern Territory, who had recently returned from Java.

South Australian Notifications

23 human cases of Salmonellosis were notified in South Australia during August. This represents a monthly case rate of 1.65 per 100,000 population.



PSEUDOMONAS SPP. BACTEREMIA IN VICTORIA

An editorial in a recent issue of 'Vicbug'* reports that in the eighteen months to the end of 1989, one hundred and forty five reports of bacteremia due to Pseudomonas spp were notified to the Victorian Hospital Pathogens Surveillance Scheme. Of these, 100 were P aeruginosa, 15 were P maltophila and 11 were P fluorescens. None of the reports gave 'burns' as a factor underlying pseudomonas bacteremia, which attests to the high standards of infection control practices employed in the Burns Units of contributing hospitals.

Sensitivity tests employed a wide range of antibiotics. However, P aeruginosa was never tested against carbenicillin and rarely against netilmicin and azlocillin. Sensitivity data for P aeruginosa are summarised in table 1.

Table 1 Antibiotic sensitivity of Pseudomonas aeruginosa isolates

ANTIBIOTIC	NO. TESTED	NO. SENSITIVE	PERCENT SENSITIVE
Ticarcillin	75	52	69.3
Piperacillin	39	38	97
Ceftazidime	30	27	90
Cefotaxime	45	6	13.3
Gentamicin	94	74	78.7
Tobramycin	59	59	100
Amikacin	27	27	100
Ciprofloxacin	33	33	100
Imipenem	14	11	79
Aztreonam	13	11	85

The Vicbug editorial stated that 'most' isolates were tested against gentamicin.

P. aeruginosa showed intermediate sensitivity to ticarcillin (22.7% of isolates tested), cefotaxime (37.8%) and ceftriaxone (35.7%).

All P florescens isolates tested were sensitive to the aminoglycosides and to piperacillin and ceftazidime. However, strains of this species were generally resistant to both ticarcillin (8 of 8 tested) and cefotaxime (4 of 5 tested).

P. maltophila was generally resistant to the aminoglycosides, cephalosporins and imipenem. This species was, however, generally sensitive to ciprofloxacin.

P. cepacia (4 isolates) was resistant to the aminoglycosides but generally sensitive to the cephalosporins.

The Vicbug editorial also noted that 7.6% of Pseudomonas strains were reported as 'Pseudomonas spp', and advised that the Microbiological Diagnositic Unit, University of Melbourne can provide assistance in the identification of difficult strains.

* 'Vicbug' is a newsletter produced by the Microbiological Diagnostic Unit, University of Melbourne.

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES
BASED ON DATE OF REPORTING

PERIOD 27/09/90 TO 10/10/90

CODE 019 - FAIRFIELD HOSPITAL, MELBOURNE (VIC)
CODE 066 - PRINCESS MARGARET HOSPITAL, PERTH (WA)
CODE 110 - INSTITUTE OF MEDICAL & VETERINARY SCIENCE, ADELAIDE (SA)
CODE 112 - INSTITUTE OF CLINICAL PATHOLOGY & MEDICAL RESEARCH, WESTMEAD (NSW)
CODE 113 - PRINCE HENRY/PRINCE OF WALES HOSPITALS, SYDNEY (NSW)
CODE 114 - ROYAL ALEXANDRA HOSPITAL FOR CHILDREN, CAMPERDOWN (NSW)
CODE 115 - STATE HEALTH LABORATORY, BRISBANE (QLD)
CODE 116 - WODEN VALLEY HOSPITAL, GARRAN (ACT)

		019	066	110	112	113	114	115	116	TOTAL
0100	ADENOVIRUS NOT TYPED	0	5	0	7	6	1	24	0	43
0101	ADENOVIRUS TYPE 1	0	0	1	3	0	0	0	0	4
0102	ADENOVIRUS TYPE 2	1	0	3	3	0	1	0	0	8
0103	ADENOVIRUS TYPE 3	2	0	0	0	0	0	0	1	3
0104	ADENOVIRUS TYPE 4	5	0	0	3	0	0	0	0	8
0105	ADENOVIRUS TYPE 5	0	0	0	3	0	1	0	2	6
0108	ADENOVIRUS TYPE 8	2	0	1	1	0	0	0	0	4
0111	ADENOVIRUS TYPE 11	0	0	0	6	0	0	0	0	6
0115	ADENOVIRUS TYPE 15	0	0	1	0	0	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	0	0	0	0	2	1	0	0	3
0201	INFLUENZA A VIRUS	0	0	0	1	1	0	5	0	7
0202	INFLUENZA A VIRUS SUBTYPE H3N2	3	0	0	0	0	0	14	0	17
0203	INFLUENZA B VIRUS	0	0	0	0	0	0	3	0	3
0301	PARAINFLUENZA VIRUS TYPE 1	2	2	0	0	0	0	0	0	4
0303	PARAINFLUENZA VIRUS TYPE 3	1	1	0	4	0	1	3	0	10
0399	PARAINFLUENZA VIRUS TYPING PEN	0	0	0	0	0	0	6	0	6
0400	RESPIRATORY SYNCYTIAL VIRUS (R	28	41	49	1	1	4	5	2	131
0500	RHINOVIRUS (ALL TYPES)	4	0	0	6	0	0	1	0	11
0600	MYCOPLASMA PNEUMONIAE	0	0	2	1	0	0	1	0	4
0700	ORNITHOSIS-PSITTACOSIS	0	0	0	0	0	0	0	1	1
0809	COXSACKIEVIRUS A9	0	0	0	1	0	0	0	0	1
0816	COXSACKIEVIRUS A16	3	0	0	0	0	0	0	0	3
0904	COXSACKIEVIRUS B4	4	0	0	0	0	0	0	0	4
1004	ECHOVIRUS TYPE 4	0	0	0	1	0	0	0	0	1
1009	ECHOVIRUS TYPE 9	0	0	0	1	0	0	0	0	1
1017	ECHOVIRUS TYPE 17	0	0	0	1	0	0	0	0	1
1022	ECHOVIRUS TYPE 22	0	0	0	1	0	0	0	0	1
1025	ECHOVIRUS TYPE 25	0	0	1	0	0	1	0	0	2
1100	POLIOVIRUS NOT TYPED	0	0	0	0	8	0	0	0	8
1101	POLIOVIRUS TYPE 1	1	0	0	0	0	0	0	0	1
1102	POLIOVIRUS TYPE 2	0	0	0	1	0	0	0	0	1
1104	POLIOVIRUS - MIXED VACCINAL ST	0	0	0	2	0	0	0	0	2
1200	MUMPS VIRUS	0	0	0	1	1	0	0	0	2
1300	HERPES VIRUS GROUP - NOT TYPED	0	0	0	1	0	0	0	7	8
1301	HERPES SIMPLEX VIRUS - NOT TYP	0	1	0	32	0	1	4	0	38
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	5	0	20	1	0	1	9	1	37
1303	VARICELLA-ZOSTER VIRUS	3	0	1	3	0	0	2	0	9
1306	HERPES SIMPLEX TYPE 1	39	0	5	0	10	3	46	0	103
1307	HERPES SIMPLEX TYPE 2	47	0	8	11	18	0	33	0	117
1401	COXIELLA BURNETII	0	0	0	2	2	0	6	0	10
1502	PICORNIA VIRUS - NOT TYPED = E	0	0	0	0	10	0	8	0	18
1521	MEASLES VIRUS	2	0	0	0	0	0	1	1	4
1522	RUBELLA VIRUS	2	0	4	0	0	0	1	1	8
1532	HEPATITIS B ANTIGEN	14	0	24	32	4	2	13	0	89
1535	HEPATITIS A ANTIBODY	0	0	7	0	0	0	0	0	7
1541	CHLAMYDIA A - C. TRACHOMATIS	0	0	23	14	1	0	14	7	59
1556	CMV - CYTOMEGALOVIRUS	42	14	4	6	8	1	24	0	99
1564	ROTAVIRUS	3	9	28	32	50	6	0	0	128
1565	CALICI VIRUS	0	0	0	1	0	0	0	0	1
1566	NORWALK AGENT	0	0	0	2	5	0	0	0	7
1599	ENTEROVIRUS TYPING PENDING	0	0	0	0	13	2	0	0	15
9992	ROSS RIVER VIRUS	0	0	0	0	0	0	8	0	8
9993	ASTROVIRUS	0	0	0	5	0	0	0	0	5
9994	SMALL VIRUS (LIKE) PARTICLE	0	0	0	3	0	0	0	0	3
9995	DENGUE	0	0	0	0	0	0	4	0	4
TOTAL		213	73	182	193	140	26	235	23	1085

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES BY STATE OF CONTRIBUTING LABORATORY

PERIOD 27/09/90 TO 10/10/90

NSW: ICPMR; PHH/POW; RACH; ST GEORGE HOSP, KOGARAH; ROYAL NEWCASTLE HOSP.
VIC: FAIRFIELD; RCH; MDU, UNI MELB.
QLD: STATE LAB, BRIS; TOOWOOMBA PATH LAB; ROYAL BRIS HOSP; DR TB LYNCH, PATHOLOGIST, ROCKHAMPTON.
WA: STATE LAB, PERTH; PMH.
SA: IMVS.
TAS: ROYAL HOBART HOSP; DIAGNOSTIC SERVICES, LAUNCESTON; LAUNCESTON GEN HOSP; DIAGNOSTIC SERVICES, HOBART; HOBART PATH; MERSEY GEN HOSP, LATROBE.
ACT: WVH.

		NSW	VIC	QLD	WA	SA	ACT	TOTAL
0100	ADENOVIRUS NOT TYPED	14	0	24	5	0	0	43
0101	ADENOVIRUS TYPE 1	3	0	0	0	1	0	4
0102	ADENOVIRUS TYPE 2	4	1	0	0	3	0	8
0103	ADENOVIRUS TYPE 3	0	2	0	0	0	1	3
0104	ADENOVIRUS TYPE 4	3	5	0	0	0	0	8
0105	ADENOVIRUS TYPE 5	4	0	0	0	0	2	6
0108	ADENOVIRUS TYPE 8	1	2	0	0	1	0	4
0111	ADENOVIRUS TYPE 11	6	0	0	0	0	0	6
0115	ADENOVIRUS TYPE 15	0	0	0	0	1	0	1
0199	ADENOVIRUS TYPING PENDING	3	0	0	0	0	0	3
0201	INFLUENZA A VIRUS	2	0	5	0	0	0	7
0202	INFLUENZA A VIRUS SUBTYPE H3N2	0	3	14	0	0	0	17
0203	INFLUENZA B VIRUS	0	0	3	0	0	0	3
0301	PARAINFLUENZA VIRUS TYPE 1	0	2	0	2	0	0	4
0303	PARAINFLUENZA VIRUS TYPE 3	5	1	3	1	0	0	10
0399	PARAINFLUENZA VIRUS TYPING PEN	0	0	6	0	0	0	6
0400	RESPIRATORY SYNCYTIAL VIRUS (R	6	28	5	41	49	2	131
0500	RHINOVIRUS (ALL TYPES)	6	4	1	0	0	0	11
0600	MYCOPLASMA PNEUMONIAE	1	0	1	0	2	0	4
0700	ORNITHOSIS-PSITTACOSIS	0	0	0	0	0	1	1
0809	COXSACKIEVIRUS A9	1	0	0	0	0	0	1
0816	COXSACKIEVIRUS A16	0	3	0	0	0	0	3
0904	COXSACKIEVIRUS B4	0	4	0	0	0	0	4
1004	ECHOVIRUS TYPE 4	1	0	0	0	0	0	1
1009	ECHOVIRUS TYPE 9	1	0	0	0	0	0	1
1017	ECHOVIRUS TYPE 17	1	0	0	0	0	0	1
1022	ECHOVIRUS TYPE 22	1	0	0	0	0	0	1
1025	ECHOVIRUS TYPE 25	1	0	0	0	1	0	2
1100	POLIOVIRUS NOT TYPED	8	0	0	0	0	0	8
1101	POLIOVIRUS TYPE 1	0	1	0	0	0	0	1
1102	POLIOVIRUS TYPE 2	1	0	0	0	0	0	1
1104	POLIOVIRUS - MIXED VACCINAL ST	2	0	0	0	0	0	2
1200	MUMPS VIRUS	2	0	0	0	0	0	2
1300	HERPES VIRUS GROUP - NOT TYPED	1	0	0	0	0	7	8
1301	HERPES SIMPLEX VIRUS - NOT TYP	33	0	4	1	0	0	38
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	2	5	9	0	20	1	37
1303	VARICELLA-ZOSTER VIRUS	3	3	2	0	1	0	9
1306	HERPES SIMPLEX TYPE 1	13	39	46	0	5	0	103
1307	HERPES SIMPLEX TYPE 2	29	47	33	0	8	0	117
1401	COXIELLA BURNETII	4	0	6	0	0	0	10
1502	PICORNIA VIRUS - NOT TYPED = E	10	0	8	0	0	0	18
1521	MEASLES VIRUS	0	2	1	0	0	1	4
1522	RUBELLA VIRUS	0	2	1	0	4	1	8
1532	HEPATITIS B ANTIGEN	38	14	13	0	24	0	89
1535	HEPATITIS A ANTIBODY	0	0	0	0	7	0	7
1541	CHLAMYDIA A - C. TRACHOMATIS	15	0	14	0	23	7	59
1556	CMV - CYTOMEGALOVIRUS	15	42	24	14	4	0	99
1564	ROTAVIRUS	88	3	0	9	28	0	128
1565	CALICI VIRUS	1	0	0	0	0	0	1
1566	NORWALK AGENT	7	0	0	0	0	0	7
1599	ENTEROVIRUS TYPING PENDING	15	0	0	0	0	0	15
9992	ROSS RIVER VIRUS	0	0	8	0	0	0	8
9993	ASTROVIRUS	5	0	0	0	0	0	5
9994	SMALL VIRUS (LIKE) PARTICLE	3	0	0	0	0	0	3
9995	DENGUE	0	0	4	0	0	0	4
TOTAL		359	213	235	73	182	23	1085

NOTE: DIRECT COMPARISION BETWEEN STATES IS NOT POSSIBLE SINCE:
- SOME STATES HAVE MORE THAN ONE CONTRIBUTING LABORATORY; AND
- INTERSTATE REFERRRALS OCCUR REGULARLY.

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 1

PERIOD 27/09/90 TO 10/10/90

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	21	0	0	0	18	0	0	0	0	39
0101	ADENOVIRUS TYPE 1	2	1	0	0	0	1	0	0	0	0	4
0102	ADENOVIRUS TYPE 2	1	2	0	0	0	4	0	0	0	0	7
0103	ADENOVIRUS TYPE 3	0	1	0	0	0	0	0	0	0	0	1
0104	ADENOVIRUS TYPE 4	1	1	1	0	0	2	0	0	0	0	5
0105	ADENOVIRUS TYPE 5	0	5	0	1	0	0	0	0	0	0	6
0108	ADENOVIRUS TYPE 8	0	1	0	0	0	0	0	0	0	0	1
0111	ADENOVIRUS TYPE 11	0	0	0	0	0	4	0	0	0	0	4
0115	ADENOVIRUS TYPE 15	0	0	0	0	0	1	0	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	0	1	0	0	0	2	0	0	0	0	3
0201	INFLUENZA A VIRUS	1	5	0	0	0	0	0	0	0	1	7
0202	INFLUENZA A VIRUS SUBTYPE H3N2	0	17	0	0	0	0	0	0	0	0	17
0203	INFLUENZA B VIRUS	0	3	0	0	0	0	0	0	0	0	3
0301	PARAINFLUENZA VIRUS TYPE 1	0	4	0	0	0	0	0	0	0	0	4
0303	PARAINFLUENZA VIRUS TYPE 3	1	8	0	0	1	0	0	0	0	0	10
0399	PARAINFLUENZA VIRUS TYPING PEN	0	5	0	0	1	0	0	0	0	0	6
0400	RESPIRATORY SYNCYTIAL VIRUS (R	1	124	0	0	0	0	0	0	0	0	125
0500	RHINOVIRUS (ALL TYPES)	1	10	0	0	0	0	0	0	0	0	11
0600	MYCOPLASMA PNEUMONIAE	1	0	0	0	0	0	0	0	0	0	1
0700	ORNITHOSIS-PSITTACOSIS	1	0	0	0	0	0	0	0	0	0	1
0809	COXSACKIEVIRUS A9	1	0	0	0	0	0	0	0	0	0	1
0816	COXSACKIEVIRUS A16	0	0	0	0	0	0	0	0	0	3	3
0904	COXSACKIEVIRUS B4	0	1	0	2	0	0	0	0	0	0	3
1004	ECHOVIRUS TYPE 4	1	0	0	0	0	0	0	0	0	0	1
1009	ECHOVIRUS TYPE 9	0	0	0	1	0	0	0	0	0	0	1
1017	ECHOVIRUS TYPE 17	0	0	0	0	0	1	0	0	0	0	1
1022	ECHOVIRUS TYPE 22	0	1	0	0	0	0	0	0	0	0	1
1025	ECHOVIRUS TYPE 25	0	1	0	0	0	0	0	0	0	0	1
1100	POLIOVIRUS NOT TYPED	0	0	0	0	0	8	0	0	0	0	8
1101	POLIOVIRUS TYPE 1	0	1	0	0	0	0	0	0	0	0	1
1102	POLIOVIRUS TYPE 2	1	0	0	0	0	0	0	0	0	0	1
1104	POLIOVIRUS - MIXED VACCINAL ST	2	0	0	0	0	0	0	0	0	0	2
1200	MUMPS VIRUS	1	0	0	0	0	0	0	0	0	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	0	0	0	0	0	0	0	0	0	2	2
1301	HERPES SIMPLEX VIRUS - NOT TYP	6	0	1	0	1	0	0	0	0	9	17
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	9	2	0	0	0	0	0	0	0	1	12
1303	VARICELLA-ZOSTER VIRUS	1	0	0	0	0	0	0	0	0	6	7
1306	HERPES SIMPLEX TYPE 1	2	9	0	0	0	0	1	0	3	55	70
1307	HERPES SIMPLEX TYPE 2	3	1	0	0	0	0	0	0	0	21	25
1401	COXIELLA BURNETII	3	0	0	0	0	0	1	0	0	0	4
1502	PICORNIA VIRUS - NOT TYPED = E	0	3	0	0	1	14	0	0	0	0	18
1521	MEASLES VIRUS	0	0	1	0	0	0	0	0	0	2	3
1522	RUBELLA VIRUS	1	0	0	0	0	0	0	0	0	4	5
1532	HEPATITIS B ANTIGEN	37	0	0	0	0	0	37	0	0	0	74
1535	HEPATITIS A ANTIBODY	0	0	0	0	0	0	7	0	0	0	7
1541	CHLAMYDIA A - C. TRACHOMATIS	6	1	0	0	0	0	0	0	0	0	7
1556	CMV - CYTOMEGALOVIRUS	4	29	0	0	0	1	1	2	8	2	47
1564	ROTAVIRUS	0	0	0	0	0	127	0	0	0	0	127
1565	CALICI VIRUS	0	0	0	0	0	1	0	0	0	0	1
1566	NORWALK AGENT	2	0	0	0	0	5	0	0	0	0	7
1599	ENTEROVIRUS TYPING PENDING	0	2	0	0	1	12	0	0	0	0	15
9992	ROSS RIVER VIRUS	4	0	0	0	0	0	0	0	0	0	4
9993	ASTROVIRUS	0	0	0	0	0	5	0	0	0	0	5
9994	SMALL VIRUS (LIKE) PARTICLE	0	0	0	0	0	3	0	0	0	0	3
9995	DENGUE	2	0	0	0	0	1	0	0	0	0	3
TOTAL		96	260	3	4	5	210	47	2	11	106	744

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 2

PERIOD 27/09/90 TO 10/10/90

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	15	16	17	18	19	20	21	TOTAL
0100	ADENOVIRUS NOT TYPED	2	0	0	0	0	0	0	2	0	0	4
0102	ADENOVIRUS TYPE 2	0	0	0	0	0	0	0	0	1	0	1
0103	ADENOVIRUS TYPE 3	1	0	0	0	0	0	1	0	0	0	2
0104	ADENOVIRUS TYPE 4	2	0	0	0	0	0	0	1	0	0	3
0108	ADENOVIRUS TYPE 8	3	0	0	0	0	0	0	0	0	0	3
0111	ADENOVIRUS TYPE 11	0	0	0	0	0	0	0	0	2	0	2
0400	RESPIRATORY SYNCYTIAL VIRUS (R	0	0	0	0	0	0	0	1	4	1	6
0600	MYCOPLASMA PNEUMONIAE	0	0	0	0	0	0	0	1	2	0	3
0904	COXSACKIEVIRUS B4	0	0	0	0	0	0	0	1	0	0	1
1025	ECHOVIRUS TYPE 25	0	0	0	0	0	0	0	0	1	0	1
1200	MUMPS VIRUS	0	0	0	0	0	0	1	0	0	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	0	6	0	0	0	0	0	0	0	0	6
1301	HERPES SIMPLEX VIRUS - NOT TYP	0	20	0	0	0	0	0	0	1	0	21
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	0	0	21	2	0	0	0	0	2	0	25
1303	VARICELLA-ZOSTER VIRUS	0	0	0	0	0	0	0	0	2	0	2
1306	HERPES SIMPLEX TYPE 1	6	24	0	0	0	0	0	0	3	0	33
1307	HERPES SIMPLEX TYPE 2	0	92	0	0	0	0	0	0	0	0	92
1401	COXIELLA BURNETII	0	0	0	0	0	0	1	4	1	0	6
1521	MEASLES VIRUS	0	0	0	0	0	0	0	1	0	0	1
1522	RUBELLA VIRUS	0	0	0	0	0	0	0	0	3	0	3
1532	HEPATITIS B ANTIGEN	0	0	0	0	0	0	0	0	15	0	15
1541	CHLAMYDIA A - C. TRACHOMATIS	0	50	0	0	0	1	0	0	1	0	52
1556	CMV - CYTOMEGALOVIRUS	0	1	0	1	0	2	0	9	38	1	52
1564	ROTAVIRUS	0	0	0	0	0	0	0	0	1	0	1
9992	ROSS RIVER VIRUS	0	0	0	0	2	0	0	0	2	0	4
9995	DENGUE	0	0	0	0	0	0	0	0	1	0	1
TOTAL		14	193	21	3	2	3	3	20	80	2	341