

VIROLOGY ANNUAL REPORT 2003

(http://www.surv.esr.cri.nz/virology/virology_annual_report.php)

Table 1 summarises viral identification and mycoplasma infections in New Zealand in 2003. The information is based on weekly data collated from the virology laboratories of Auckland Healthcare, Healthcare Waikato, Canterbury Health Laboratories, Health Otago, Capital Coast Health, and ESR.

Year 2003	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
*Influenza A(not subtyped)	0	0	0	3	3	45	126	13	0	1	1	1	193
*Influenza A H3N2	0	0	7	7	24	302	516	51	1	1	2	0	911
*Influenza A H1N1	0	1	0	0	0	0	0	0	0	0	0	0	1
*Influenza B	0	1	0	0	0	0	0	0	0	1	1	0	3
Parainflunza type 1	0	0	0	0	1	0	0	0	1	3	0	0	5
Parainflunza type 2	0	0	0	3	1	1	3	1	0	0	0	0	9
Parainflunza type 3	2	2	1	0	2	1	2	22	40	34	13	1	120
Respiratory Syncytial Virus (RSV)	1	0	0	3	21	29	135	319	211	65	8	3	795
Rhinovirus	5	6	1	1	3	10	1	2	21	8	6	5	69
Mycoplasma	13	14	6	17	17	34	19	24	17	30	10	7	208
Varicella Zoster Virus (VZV)	38	38	41	27	44	43	33	57	23	64	63	64	535
Rotavirus	3	1	1	0	2	12	12	26	75	62	36	25	255
Measles	1	1	1	1	1	2	2	3	2	2	0	1	17
Mumps	0	1	1	3	1	0	1	0	1	0	0	1	9
Rubella	0	0	0	0	0	0	1	1	0	1	0	0	3
Adenovirus	27	10	9	13	23	9	17	17	19	27	19	12	202
Adenovirus type 1	2	2	0	2	3	0	1	2	6	5	2	1	26
Adenovirus type 2	2	0	2	1	4	0	5	5	4	0	1	3	27
Adenovirus type 3	8	4	2	0	13	4	6	5	4	9	9	2	66
Adenovirus type 4	0	0	0	0	1	0	0	0	1	0	0	0	2
Adenovirus type 5	0	0	0	0	0	0	0	0	1	2	0	1	4
Adenovirus type 6	0	0	0	0	0	0	0	0	0	0	1	0	1
Adenovirus type 7	1	1	1	0	1	0	1	0	0	0	1	0	6
Adenovirus type 8	0	1	0	0	0	0	0	0	1	0	0	0	2
Adenovirus type 9	0	0	0	0	0	1	0	0	0	0	0	0	1
Adenovirus type 13	0	0	0	0	0	1	0	0	0	0	0	0	1
Adenovirus type 14	0	0	0	0	0	0	0	0	0	1	0	0	1
Adenovirus type 15	0	0	0	1	0	1	0	0	0	1	1	0	4
Adenovirus type 19	0	1	0	0	2	1	8	2	0	0	0	0	14
Adenovirus type 20	0	1	0	0	0	0	0	0	0	0	0	0	1
Adenovirus type 21	1	0	0	0	0	0	0	0	0	0	0	0	1
Adenovirus type 22	0	0	0	0	1	0	0	0	0	1	0	2	4
untypable adenovirus	1	0	0	1	0	0	1	0	2	4	0	0	9
Enterovirus	15	6	6	5	12	4	8	6	5	7	14	9	97
Poliovirus type 2	0	0	0	0	0	0	0	0	1	0	0	0	1
Poliovirus type 3	0	0	0	0	0	0	0	0	0	0	1	0	1
Coxsackie B3	1	0	0	0	2	1	3	7	0	1	0	0	15
Coxsackie B4	0	0	0	0	1	0	0	0	0	0	0	0	1
Coxsackie B6	0	0	0	0	1	0	1	0	0	0	0	0	2
Coxsackie A9	0	0	0	0	1	0	0	2	1	0	1	3	8
Coxsackie A10	0	0	0	0	0	0	0	0	1	0	0	0	1
Coxsackie A16	0	0	1	0	1	0	4	0	0	0	0	0	6
Coxsackie A24	0	0	2	0	0	0	1	0	0	0	0	0	3
Echovirus type 1	0	0	0	0	1	0	0	0	0	0	0	0	1
Echovirus type 6	4	1	1	0	1	2	1	2	1	3	4	0	20
Echovirus type 9	2	1	0	0	0	2	0	0	0	0	0	0	5
Enterovirus type 70	0	0	0	0	1	0	0	0	0	0	0	0	1
Enterovirus type 71	0	0	0	0	0	0	0	0	0	1	1	0	2
Untypable enterovirus	2	0	2	0	0	0	0	0	0	1	0	2	7

RESPIRATORY VIRUSES

Influenza

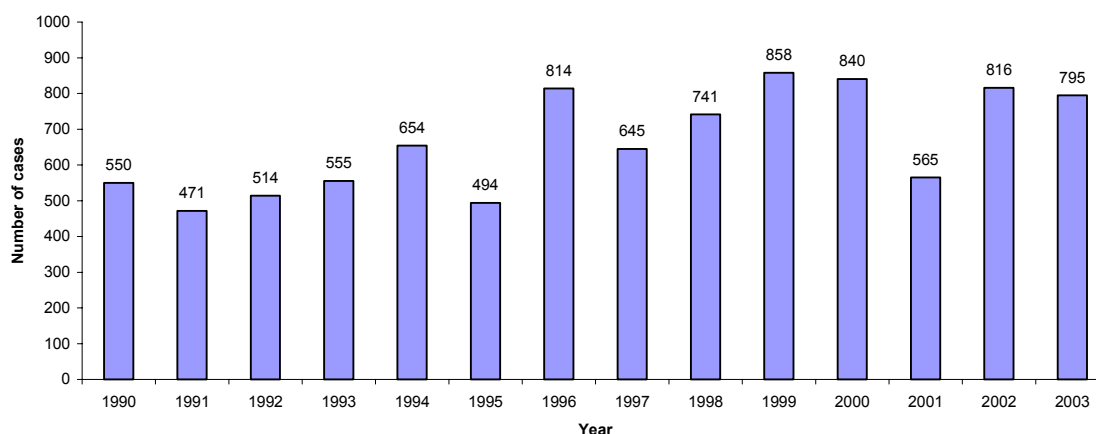
The influenza annual report in 2003 is available at the website:

http://www.surv.esr.cri.nz/virology/influenza_annual_report.php

Respiratory Syncytial Virus (RSV)

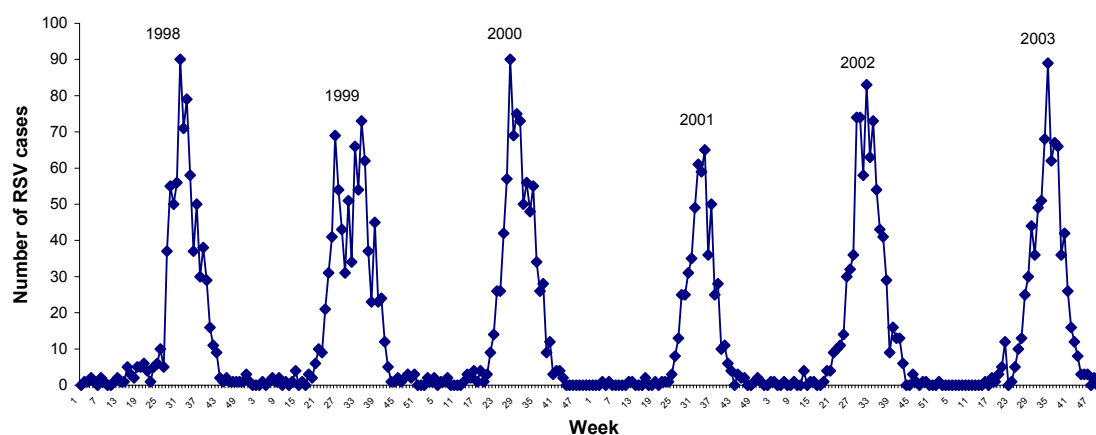
Based on laboratory-confirmed RSV cases reported to ESR, the RSV activity in 2003 was lower than 2002 (Figure 1). During January to December 2003, a total of 795 RSV infections were reported compared with 816 during the same period in 2002. The highest RSV activity occurred in 1999 with 858 cases reported.

Fig 1 Annual laboratory-confirmed RSV cases, 1990-2003



In 2003, the RSV activity started to increase in Week 26 (the end of June) and peaked in Week 34 (late August) (Figure 2). The RSV activity remained at the high level till Week 41 (early October). Since then, the number of RSV cases has declined to baseline level.

Fig 2 RSV laboratory confirmed cases by week, 1998-2003



ENTEROVIRUSES

The New Zealand enterovirus laboratory network comprises five laboratories: one public health virology laboratory (ESR, Wellington) and four hospital virology laboratories in Auckland, Christchurch, Waikato and Dunedin. These five virology laboratories cover 100%

of the population and all geographical areas of the country. The enterovirus surveillance is a year-round routine diagnostic surveillance for hospital in-patients and outpatients. Hospital laboratories report all enterovirus isolations and/or typing results weekly to ESR and this data is then available nationally. Untyped or untypable enteroviruses are referred to ESR for identification.

There were a total of 97 enteroviruses reported in 2003, compared with 219 in 2002. A total of 74 enteroviruses were serotyped. Echovirus type 6 was the most predominant serotype with 20 isolations (27%), compared with 7 in 2002 (6.5%). There were 15 isolations of Coxsackie B type 3 (21.6%), compared with 1 in 2002 (1%).

On 1-February 2002, inactivated polio vaccines replaced live-attenuated oral poliovirus vaccine (OPV) in New Zealand's immunisation schedule, allowing systematic monitoring of OPV virus circulation. For more details, please refer to the following publication: Huang et al "OPV virus circulation and evolution investigated in New Zealand" Polio Lab Network 2003 9(2):1-3.

A poliovirus type 2 (Sabin-like) was isolated from a case of transient bilateral conjunctivitis in a 10-month-old baby girl in August 2003. For the details of the case, please refer to the following publication: Jenkins et al "A case of conjunctivitis associated with oral poliovirus type 2 vaccine (OPV)" Pathology 2004, 36(5):505-506. In addition, a poliovirus type 3 (Sabin-like) was isolated from a rectal swab from a 3-month-old baby boy who had OPV vaccination in England 4 weeks prior to the specimen collection.

MEALSES, MUMPS AND RUBELLA(MMR)

For the MMR annual report in 2003, please refer to the report "Annual Surveillance Report 2003", available at http://www.surv.esr.cri.nz/surveillance/annual_surveillance.php?we_objectID=254

ADENOVIRUSES

There were a total of 202 adenovirus reported in 2003, compared with 223 in 2002. A total of 170 adenoviruses were serotyped. The predominant serotypes in 2003 were adenovirus type 3 (66 isolates, 38.8%), type 2 (27, 15.9%), type 1 (26, 15.3%), and type 19 (14, 8.3%). In comparison of 2002, there were 101 isolations of adenovirus type 3 (47.6%), 24 of type 2 (11.3%), 24 of adenovirus type 1 (11.3%), and 2 of type 19 (1%).