



## VIROLOGY ANNUAL REPORT 2012

([http://www.surv.esr.cri.nz/virology/virology\\_annual\\_report.php](http://www.surv.esr.cri.nz/virology/virology_annual_report.php))

The virology annual report is compiled by ESR by collating the data from six virology laboratories: one public health virology laboratory (ESR) and five hospital virology laboratories in Auckland (ADHB and CMDHB laboratories), Waikato and Christchurch and Wellington. The virological surveillance is mainly a passive surveillance for hospital inpatients and outpatients during routine viral diagnosis.

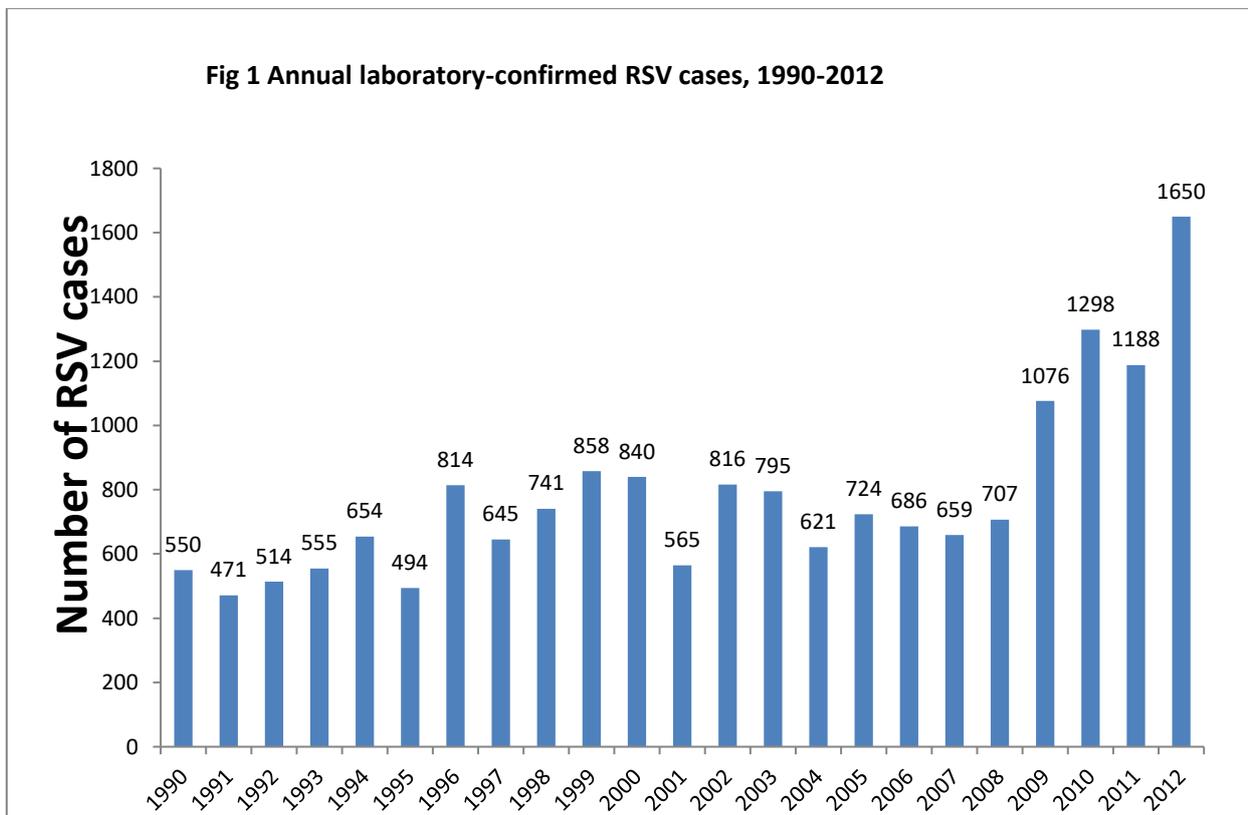
### RESPIRATORY VIRUSES

#### *Influenza*

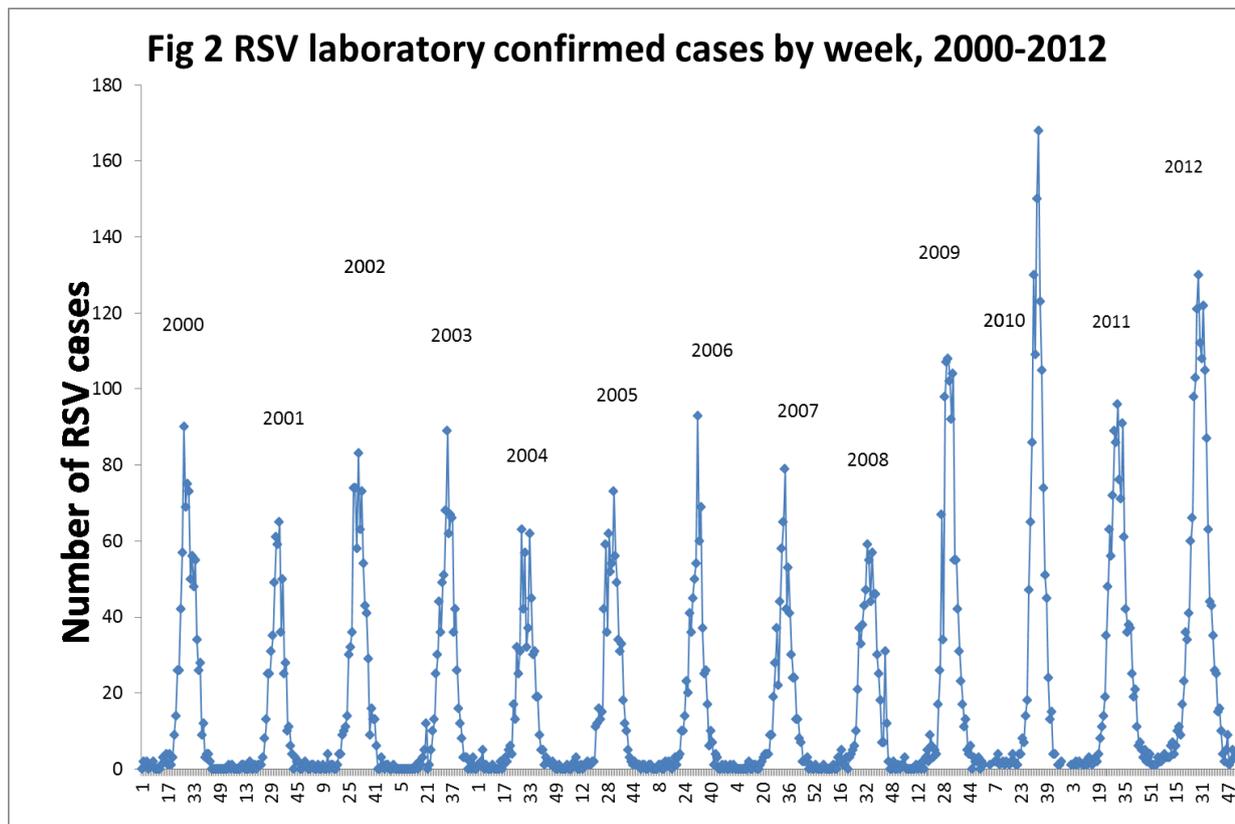
The influenza annual report in 2012 is available at the website:  
[http://www.surv.esr.cri.nz/virology/influenza\\_annual\\_report.php](http://www.surv.esr.cri.nz/virology/influenza_annual_report.php)

#### *Respiratory Syncytial Virus (RSV)*

Based on laboratory-confirmed RSV cases reported to ESR, the RSV activity in 2012 was higher than last year (Figure 1). During January to December 2012, a total of 1650 RSV infections were reported compared with 1188 cases reported during the same period in 2011.



In 2012, the RSV activity started to increase in June and peaked in Week 29 (middle of August), 2 weeks earlier than the peak in 2011 (Figure 2). The RSV activity remained high until Week 38 (late September). Since then, the number of RSV cases declined to a baseline level.



## ENTEROVIRUSES AND ADENOVIRUSES

The New Zealand enterovirus and adenovirus laboratory network comprises five laboratories: one public health virology laboratory (ESR, Wellington) and four hospital virology laboratories in Auckland (ADHB and CMDHB laboratories), Waikato and Christchurch. These five virology laboratories cover 100% of the population and all geographical areas of the country. The enterovirus and adenovirus surveillance is a year-round routine diagnostic surveillance for hospital in-patients and out-patients. Hospital laboratories report all enterovirus and adenovirus detections and/or typing results weekly to ESR and this data is then available nationally. Untyped or untypable enteroviruses and adenoviruses are referred to ESR for further identification.

### *Enteroviruses*

There were a total of 346 enteroviruses reported in 2012, compared with 447 in 2011. A total of 62 (18%) enterovirus viruses were identified by serotyping. Among serotyped enteroviruses (62), Coxsackievirus Group B type 4 and Coxsackievirus Group B type 5 (11 each, 18%) were the most predominant serotype, while there were 3 of Coxsackievirus Group B type 4 and 6 of Coxsackievirus Group B type 5 in 2011. There were 3 of enterovirus type 68 (EV68) (5%, 3/62), compared with none of EV68 detected last year.

### *Adenoviruses*

There were a total of 754 adenoviruses reported in 2012, higher than 533 in 2011. Of these, 255 (34%) adenoviruses were identified by serotyping. The predominant serotypes in 2012 were adenovirus type 4 (66, 26%), type 3 (47, 18%) and type 1 (46, 18%).

## MEASLES, MUMPS AND RUBELLA(MMR)

The MMR annual report in 2012 is available in the report “Annual Surveillance Summary 2012” at

[http://www.surv.esr.cri.nz/PDF\\_surveillance/AnnualRpt/AnnualSurv/2012/2012AnnualSurvRpt.pdf](http://www.surv.esr.cri.nz/PDF_surveillance/AnnualRpt/AnnualSurv/2012/2012AnnualSurvRpt.pdf)

In summary, viral and mycoplasma pneumoniae infections in New Zealand in 2012 are shown in Table 1. The information is based on weekly data collated from the virology laboratories of Auckland Healthcare, Healthcare Waikato, Canterbury Health, Capital Coast Health, Middlemore Hospital and ESR.

Table 1. Summary of viral and Mycoplasma pneumoniae infections in 2011 in New Zealand

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Influenza A	0	0	1	2	6	35	152	217	86	11	2	4	516
Influenza A H1N1 swl	1	0	0	0	2	25	121	54	7	0	1	0	211
Influenza A H3N2	0	0	12	2	4	79	725	476	70	16	1	2	1387
Influenza B	0	2	4	4	8	21	79	81	59	35	9	6	308
Metapneumovirus	6	5	4	3	7	20	42	74	90	80	26	11	368
Mycoplasma Pneumoniae	7	10	7	5	9	8	22	51	97	99	29	33	377
Parainfluenza 1	1	0	1	6	12	27	45	22	7	4	1	2	128
Parainfluenza 2	1	0	1	0	0	0	9	4	0	1	1	1	18
Parainfluenza 3	4	2	3	3	7	15	78	189	119	97	30	21	568
Parainfluenza 4	0	0	0	0	0	0	9	11	9	5	1	5	40
Parvovirus	6	7	6	1	3	9	2	2	3	1	2	3	45
Picornavirus	0	0	0	0	62	84	127	249	138	174	147	99	1080
Respiratory Syncytial Virus (RSV)	6	11	22	31	119	265	466	485	148	70	17	13	1653
Rhinovirus	15	13	25	20	159	137	51	82	60	60	43	37	702
Rotavirus	35	36	29	26	26	23	29	35	35	44	30	13	361
Varicella Zoster Virus (VZV)	62	48	87	51	79	43	51	57	65	73	55	54	725
Adeno Total	24	41	41	27	41	67	89	97	81	101	82	63	754
Entero Total	27	35	18	16	20	17	22	24	30	67	27	43	346
Measles	29	13	8	7	5	2	2	0	2	3	3	0	74
Mumps	2	1	1	0	2	0	0	2	1	2	2	2	15
Rubella	0	2	2	0	0	0	0	0	0	0	0	0	4
Adenovirus Type 1	5	5	1	0	2	4	2	9	8	5	5	0	46
Adenovirus Type 2	4	6	1	2	5	2	3	2	8	1	8	2	44
Adenovirus Type 3	4	8	6	0	1	8	4	3	2	1	3	7	47
Adenovirus Type 4	3	4	4	6	4	8	5	6	3	6	9	8	66
Adenovirus Type 5	2	2	2	0	0	1	0	0	0	1	0	2	10
Adenovirus Type 6	0	0	0	0	0	0	0	0	0	0	0	1	1
Adenovirus Type 8	1	1	8	5	2	2	3	3	3	0	0	1	29
Adenovirus Type 11/35	0	1	1	1	0	0	0	0	1	0	0	0	4
Adenovirus Type 14	1	0	0	0	0	0	0	0	0	0	0	0	1
Adenovirus Type 19	0	0	0	0	0	0	0	0	0	0	0	1	1
Adenovirus Type 22	0	0	0	0	0	0	0	0	1	0	0	0	1
Adenovirus Type 37	0	0	0	0	1	0	1	1	2	0	0	0	5
Enterovirus Coxsackievirus Group A type 4	0	0	0	0	0	0	0	0	0	1	0	0	1
Enterovirus Coxsackievirus Group A type 6	0	0	0	0	0	0	0	0	0	0	0	1	1
Enterovirus Coxsackievirus Group A type 8	0	0	0	0	2	0	0	0	0	0	0	0	2
Enterovirus Coxsackievirus Group A type 9	0	0	0	0	0	0	0	0	0	1	0	2	3
Enterovirus Coxsackievirus Group B type 2	0	0	0	1	0	0	0	0	0	0	0	0	1
Enterovirus Coxsackievirus Group B type 3	0	2	0	0	0	0	0	0	0	0	0	2	4
Enterovirus Coxsackievirus Group B type 4	0	0	0	0	0	0	0	1	0	4	1	5	11
Enterovirus Coxsackievirus Group B type 5	0	6	0	0	1	0	0	1	0	2	0	1	11
Enterovirus Echovirus type 6	0	0	0	0	0	0	0	0	0	0	0	1	1
Enterovirus Echovirus type 7	0	1	0	0	0	0	0	0	0	0	0	0	1
Enterovirus Echovirus type 11	0	0	0	0	0	0	4	0	0	1	0	5	10
Enterovirus Echovirus type 18	0	0	3	0	0	0	1	0	0	0	0	0	4
Enterovirus Echovirus type 19	0	1	0	0	1	0	2	0	0	4	0	0	8
Enterovirus Echovirus type 30	0	0	0	0	0	0	0	0	0	0	0	1	1
Enterovirus Enterovirus type 68	0	0	0	0	0	0	0	0	0	3	0	0	3
Bocavirus	0	0	0	0	1	0	6	6	5	17	6	5	46
Coronavirus	0	0	0	0	0	6	0	0	0	0	0	0	6
Coronavirus type 229E	0	0	0	0	3	0	0	0	0	0	0	0	3
Coronavirus type HKU1	0	0	0	0	2	0	0	0	0	0	0	0	2
Coronavirus type NL62	0	0	0	0	2	0	0	0	0	0	0	0	2
Parechovirus	0	0	0	0	0	0	0	2	3	3	1	1	10
Measles genotype D4	0	3	0	0	0	0	0	0	0	0	0	0	3

\*Note: Viruses designated with an asterisk were reported based on the specimen taken date, whereas other viruses were based on the lab reporting date.