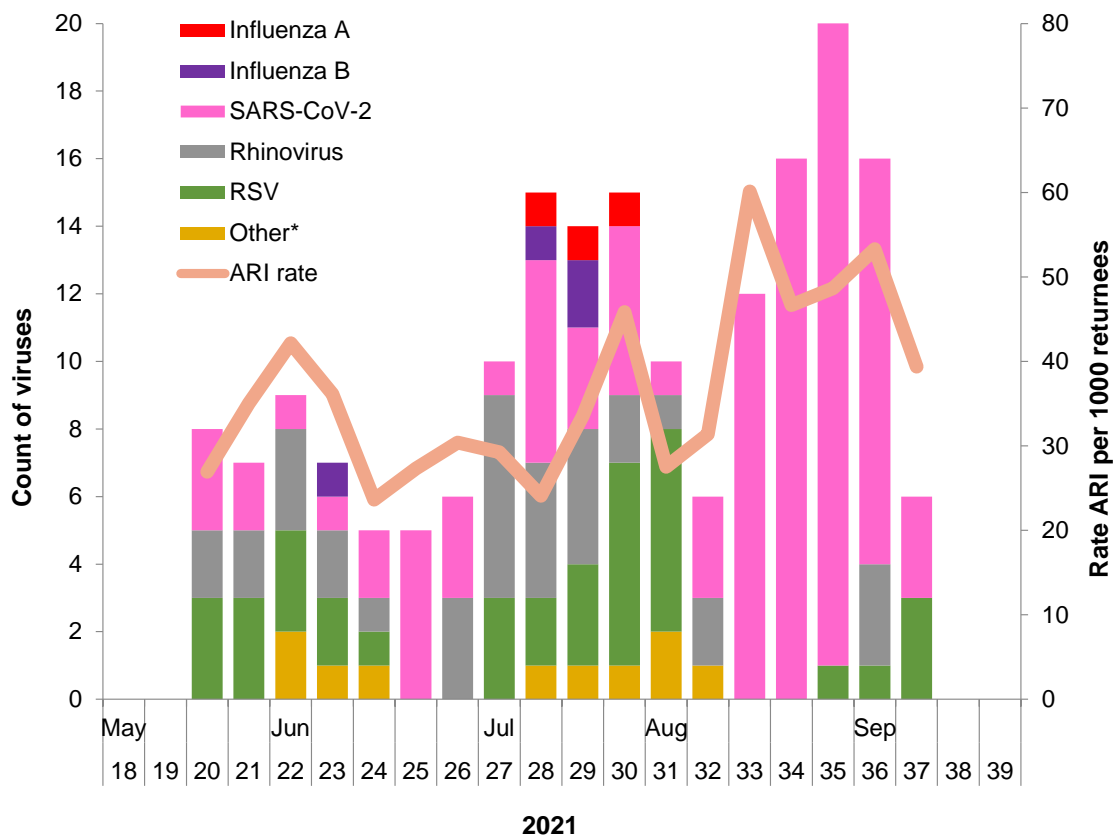


## SHIVERS-V weekly report on acute respiratory illness and associated viruses among overseas travellers

Week 37 ending 19 September, 2021

The SHIVERS-V surveillance for overseas travellers with acute respiratory illness (ARI) provides evidence to inform public health measures, to reduce the impact of influenza virus infection and other important respiratory pathogens in New Zealand. The report includes incidence and viruses among overseas travellers with ARI for the past week as well as the cumulative virus counts since 17 May 2021.

Figure 1 show the weekly rate of acute respiratory illness (ARI) and associated viruses detected among overseas travellers during the winter surveillance period.



\*Note: other viruses include enterovirus, adenovirus, parainfluenza virus types 1-3 and human metapneumovirus. The left axis indicates number of respiratory viruses detected among returnees with acute respiratory illnesses each week. The different coloured bars on the graph represent the count of the different respiratory viruses detected. The right axis shows weekly ARI rates - the orange line is the weekly rate of ARI reported by overseas travellers (per 1000), meeting the case definition<sup>1</sup>. The 2021 national lockdown at Level 4 has led to some laboratories prioritised testing for COVID-19 over influenza and other respiratory viruses (weeks 33-37).

<sup>1</sup> The case definition: any acute respiratory illness with at least one of the following symptoms (with or without fever): new or worsening cough, fever (at least 38°C), shortness of breath, sore throat, coryza (runny nose), anosmia (loss of sense of smell, dysgeusia (loss of sense of taste). Some people may present with less typical symptoms such as only fever, diarrhoea, headache, myalgia (muscle aches), nausea/vomiting, or confusion/irritability. For people with less typical symptoms, if there is not another more likely diagnosis, they should also be tested.

New Zealand's public health measures (including border restrictions) have eliminated COVID-19 infection in our communities during most of the time in 2020-2021. It is important to understand influenza and non-influenza respiratory virus transmission in our communities in the post-COVID-19 world. Table 1 below indicates all swabs tested for influenza and non-influenza respiratory viruses from week 20 (starting 17 May) to this week.

**Table 1 Respiratory viruses among overseas travellers with acute respiratory illnesses, since 17 May 2021**

<i>Respiratory viruses</i>	<i>Cases tested</i>	<i>Cases positive</i>	<i>Positivity rate (%)</i>
Influenza A	698	3	0.4
Influenza B	698	4	0.6
SARS-CoV-2	1320	102	7.7
Respiratory Syncytial Virus (RSV)	698	27	3.9
Parainfluenza 1 (PIV 1)	283	0	0.0
Parainfluenza 2 (PIV2)	283	0	0.0
Parainfluenza 3 (PIV3)	283	6	2.1
Rhinovirus (RV)	283	37	13.1
Adenovirus (AdV)	238	2	0.8
Human metapneumovirus (hMPV)	283	2	0.7

## APPENDIX

SHIVERS-V is a study to understand the impact of border restrictions and other public health measures on the transmission and disease burden of influenza and other respiratory viruses in New Zealand.

Led by University of Auckland, SHIVERS-V is a multi-centre and multi-disciplinary collaboration between University of Auckland, ESR, UniServices, Counties Manukau District Health Board and the Immunisation Advisory Centre. SHIVERS-V is the fifth iteration of research programmes into influenza viruses and vaccines called SHIVERS (Southern Hemisphere Influenza and Vaccine Effectiveness Research and Surveillance).

ESR leads an objective of SHIVERS-V – surveillance of influenza and other respiratory viral infections among overseas travellers with acute respiratory illness at managed isolation facilities. The aim is to measure the impact of non-pharmaceutical interventions such as border restrictions on disease burden and viral transmission, seasonality and predominant strains of influenza, respiratory syncytial virus (RSV) and other respiratory viruses in NZ. This sub-study is also a multi-centre and multi-disciplinary collaboration among ESR, Auckland DHB, Counties Manukau DHB, Wellington Southern Community Laboratory, PathLab and Canterbury Health Laboratories. These laboratories began to provide test results for those returnees with ARI at different time points between 17 May to 21 June 2021.

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