

**Summary for 2017**

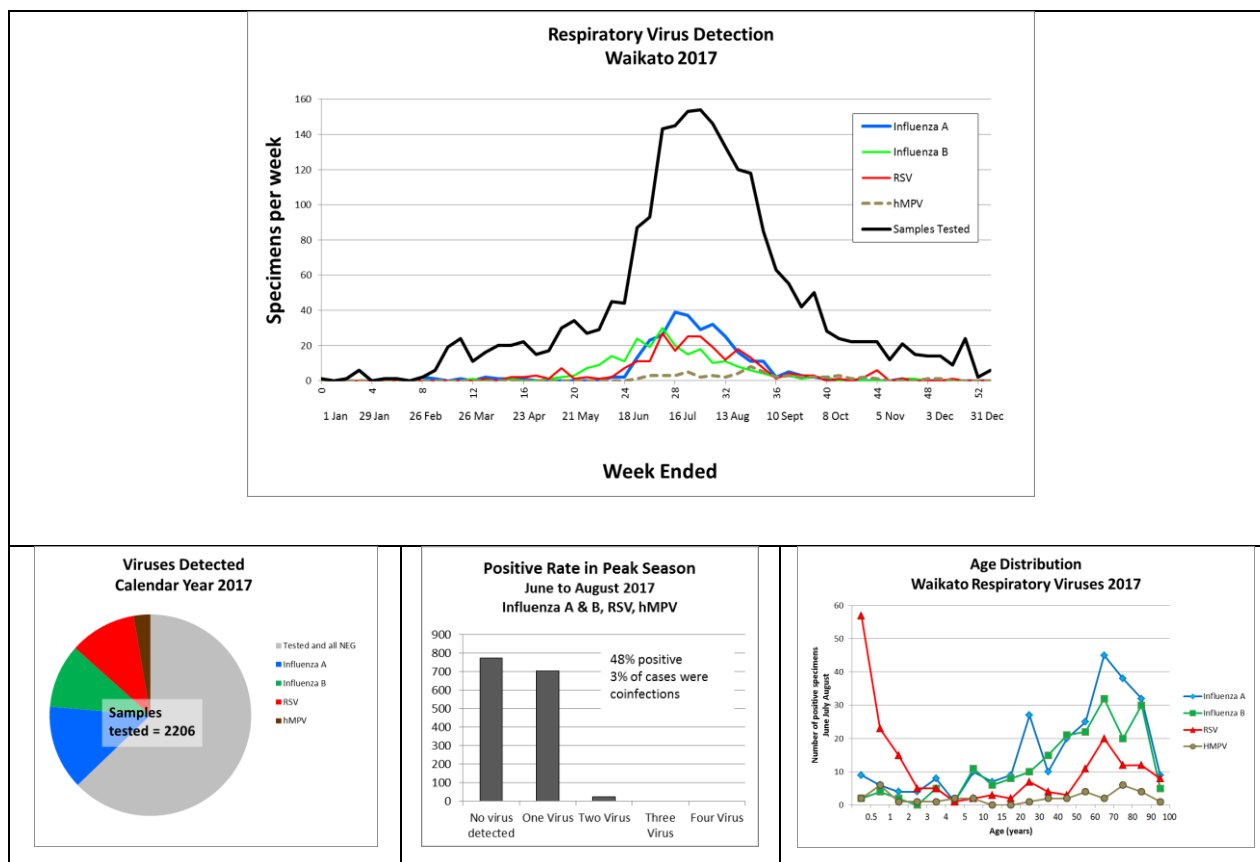
The Waikato region had concurrent seasonal epidemics of Influenza A (predominantly H3N2), Influenza B (predominantly Yamagata lineage) and Respiratory Syncytial Virus. Small numbers of human Metapneumovirus cases occurred later in the winter and into spring. Routine testing was for these four viruses only; testing selected patients for a wider range of viruses showed that Rhinovirus was actually the most common overall.

The main respiratory virus season ran for the 3 months, more or less over June, July and August, with more than 10 Influenza positives each week for 13 weeks from 5 June to 7 September. During this peak season, 48% of samples tested were positive for one of the 4 viruses.

Influenza A and B were found predominantly in patients over 40 years old, while RSV was strongly a disease of infants, with a more modest peak in those over 50 years. hMPV, while considered to cause similar disease to RSV, was most often found in older adults.

**Influenza Vaccine Effectiveness**

Recent strains of Influenza A H3N2 have been technically difficult to test in the lab for immunological closeness to the vaccine strains, although genetic analysis has found significant drift over the past two years [Ref1]. Directly assessing protection in real patients is also difficult but survey results are not reassuring, typically estimating 30-50% reduction in disease [Ref2]. The main strain of Influenza B in Waikato in 2017 was the Yamagata lineage, which was included in the quadrivalent vaccine issued to hospital staff but not in the trivalent vaccine available to the public [Ref3].



Waikato Hospital laboratory web site: <http://lab.waikatodhb.health.nz/>

Ref1 <https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/BloodVaccinesandOtherBiologics/VaccinesandRelatedBiologicalProductsAdvisoryCommittee/UCM525491.pdf>

Ref2 <http://apps.who.int/iris/bitstream/10665/259691/1/WER9250.pdf?ua=1&ua=1>

Ref3 [https://surv.esr.cri.nz/PDF\\_surveillance/Virology/FluWeekRpt/2017/MoH\\_Influenza\\_Report/FluWeekRpt201739.pdf](https://surv.esr.cri.nz/PDF_surveillance/Virology/FluWeekRpt/2017/MoH_Influenza_Report/FluWeekRpt201739.pdf)