



RESPIRATORY PATHOGEN STATISTICS

n a t i o n a l · p a t h o l o g y · g r o u p

SPECIAL INTEREST GROUP OF THE SOUTH AFRICAN MEDICAL ASSOCIATION

2nd Quarter 2023

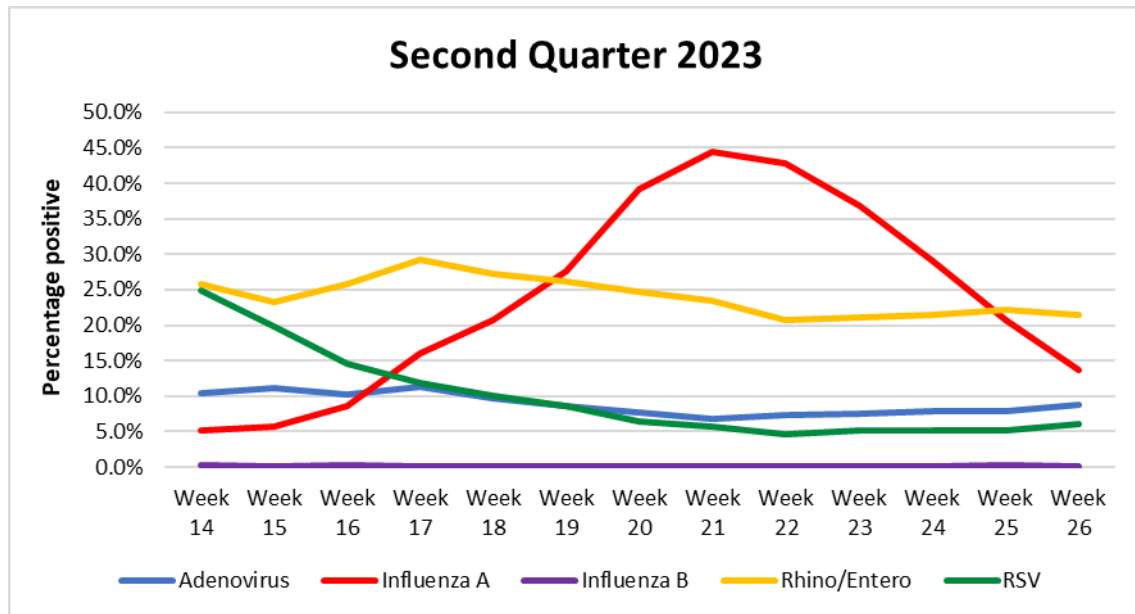
This report summarises respiratory pathogen PCR panel results for specimens submitted for testing to the private pathology practices that are members of the NPG from April to June 2023.

Highlights

- Influenza A virus was the most prevalent virus (28.5%) during the second quarter of 2023.
- The prevalence of SARS-CoV-2 fell below 10% in epidemiological week 20.
- The increase in the prevalence of *Mycoplasma pneumoniae* initially noted in the first quarter of 2023, continued in the second quarter.

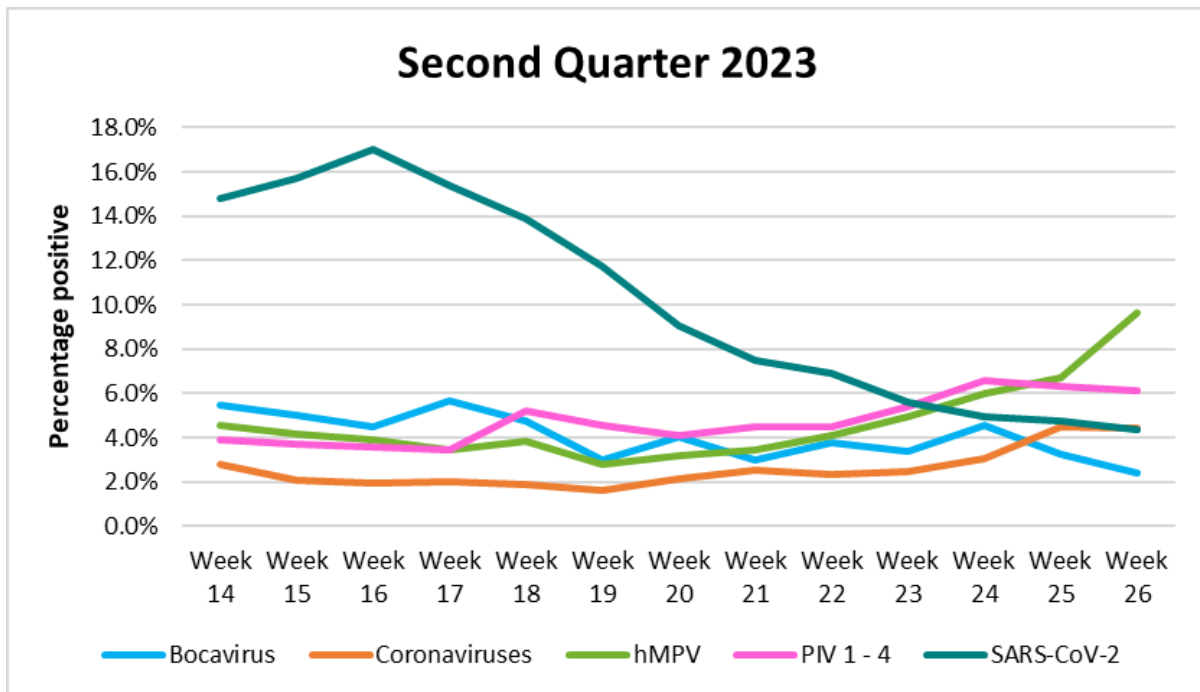
Respiratory virus PCR panel

A variety of multiplex PCR panels are used across NPG-associated practices. For data analysis, all parainfluenza virus types (PIV 1 – 4), all seasonal human coronaviruses (hCoV-OC43, hCoV-HKU1, hCoV-229E, and hCoV-NL63), and rhinovirus, parechovirus and enterovirus were combined. The graphs below represent the viruses detected as the percentage positive per epidemiological week.



- Rhino/enterovirus was the most prevalent virus detected from epidemiological week 14 to 18, and again in weeks 25 & 26.
- Influenza A virus was the most prevalent virus from epidemiological week 19 to 24, peaking in week 21 at 44.5%. The majority (98.7%) of influenza A virus that were typed were influenza A/H3. This correlates with what was observed by the NICD.¹
- The prevalence of RSV exceeded 10% from epidemiological week 6 to 18.
- Influenza B virus was detected in only 0.1% of samples submitted for testing during the second quarter of 2023.
- A specific seasonality was not observed for either influenza B virus or adenovirus.

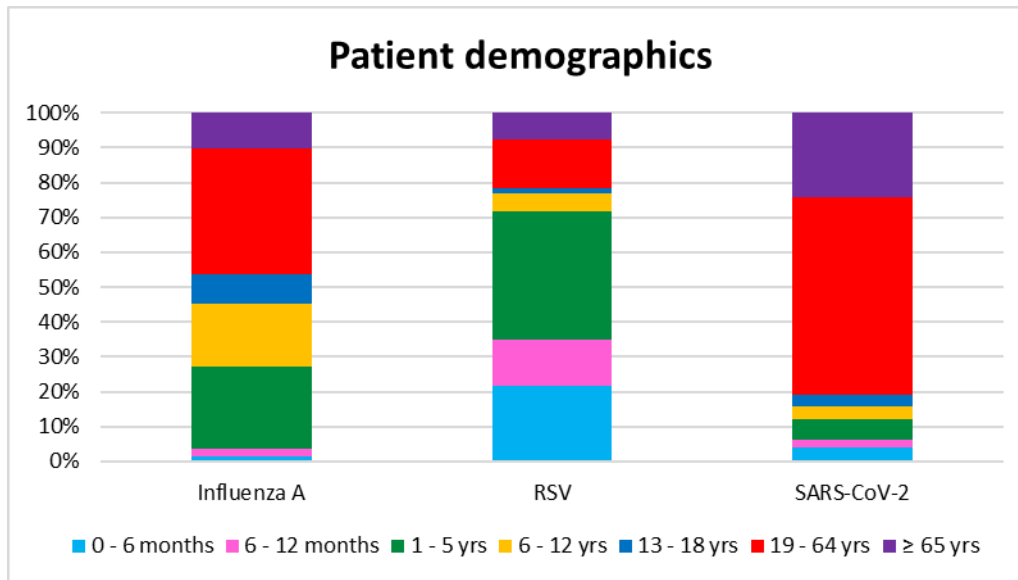
- According to the NICD, the RSV season began in epidemiological week 6, peaked in week 12 and ended in week 21.^{1,2} Based on NPG data, RSV prevalence peaked in week 10, and fell below 10% in week 19 in the private healthcare sector.
- In Limpopo, the RSV season started in week 3, and peaked at 60.0% prevalence in week 11. The prevalence of RSV fell below 10% in week 17 in Gauteng and Mpumalanga, and a week later in North West. RSV prevalence decreased below 10% in the Western Cape and KwaZulu-Natal in week 20, and only in week 22 in the Eastern Cape.
- In the Northern Cape, RSV prevalence only started to increase in epidemiological week 13, dipped below 10% in week 16 before it started to increase again, and rose to 28.4% in epidemiological week 26. RSV prevalence in Free State only started to increase in epidemiological week 11, and never fell below 10% in the second quarter of 2023.



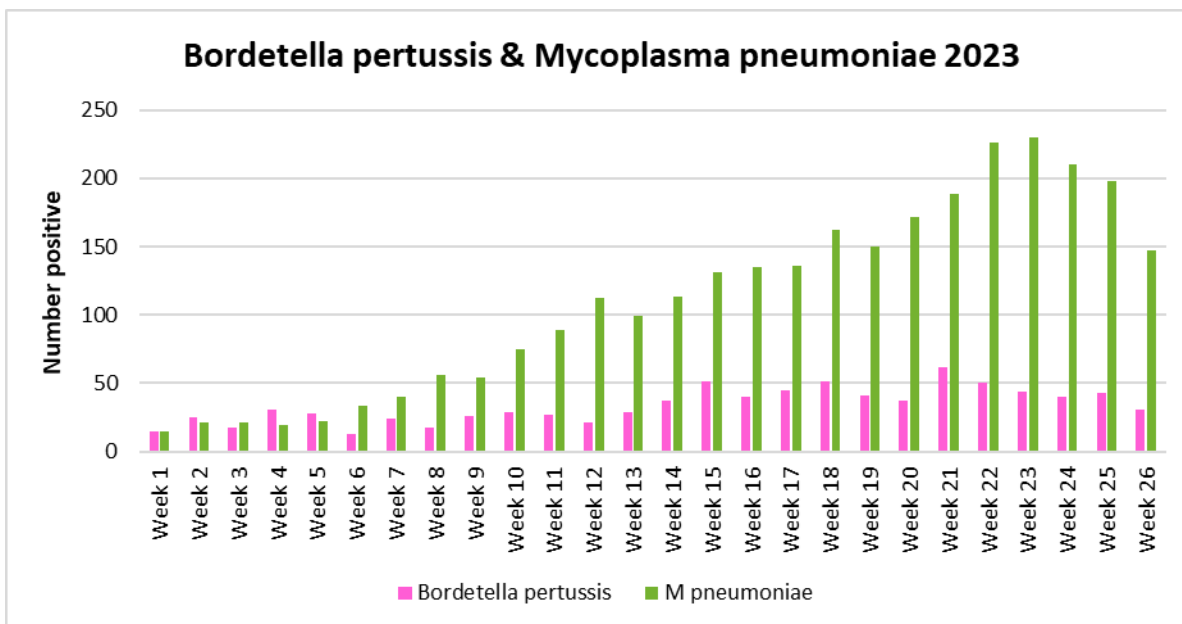
- The prevalence of the seasonal coronaviruses, bocavirus, human metapneumovirus, and the parainfluenza viruses remained below 10% during the second quarter of 2023.
- Regarding severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the NICD stopped publishing weekly testing data in epidemiological week 12 (19 – 25 March). Thereafter, trends will be followed using their syndromic surveillance programmes. According to this data, the detection rate of SARS-CoV-2 was above 10% during epidemiological weeks 16 to 19 by the three week moving average model.¹ NPG data indicated that SARS-CoV-2 prevalence was above 10% at the start of the second quarter of 2023, peaked at 17.0% in week 16 and fell below 10% in epidemiological week 20.

Patient demographics

- The majority of patients who tested positive for influenza A virus were either 1 – 12 years of age (41.6%) or older than 18 years of age (46.2%).
- The majority of patients who tested positive for RSV were less than 6 years of age (71.7%).
- In contrast, most of the patient who tested positive for SARS-CoV-2 were adults older than 18 years of age (80.9%).



Bacteria



- The increase in the prevalence of *Mycoplasma pneumoniae* initially noted in the first quarter of 2023, continued in the second quarter.
- There was a threefold increase in the number of samples that tested positive for *Mycoplasma pneumoniae* compared to those that tested positive for *Bordetella pertussis* during the second quarter of 2023.

Reference

1. National Institute of Communicable Diseases. Weekly respiratory pathogen report, week 27 of 2023.
2. National Institute of Communicable Diseases. Weekly respiratory pathogen report, week 10 of 2023.