



# 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

1<sup>st</sup> Quarter 2023

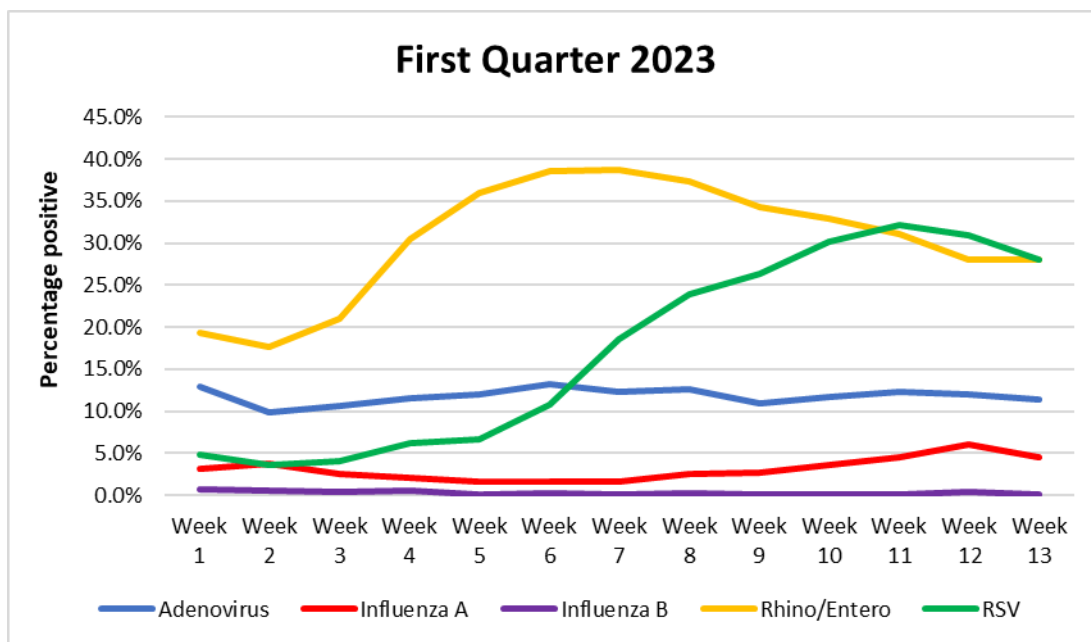
This report summarises respiratory pathogen PCR panel results for specimens submitted for testing to the private pathology practices that are members of the NPG from January to March 2023.

## Highlights

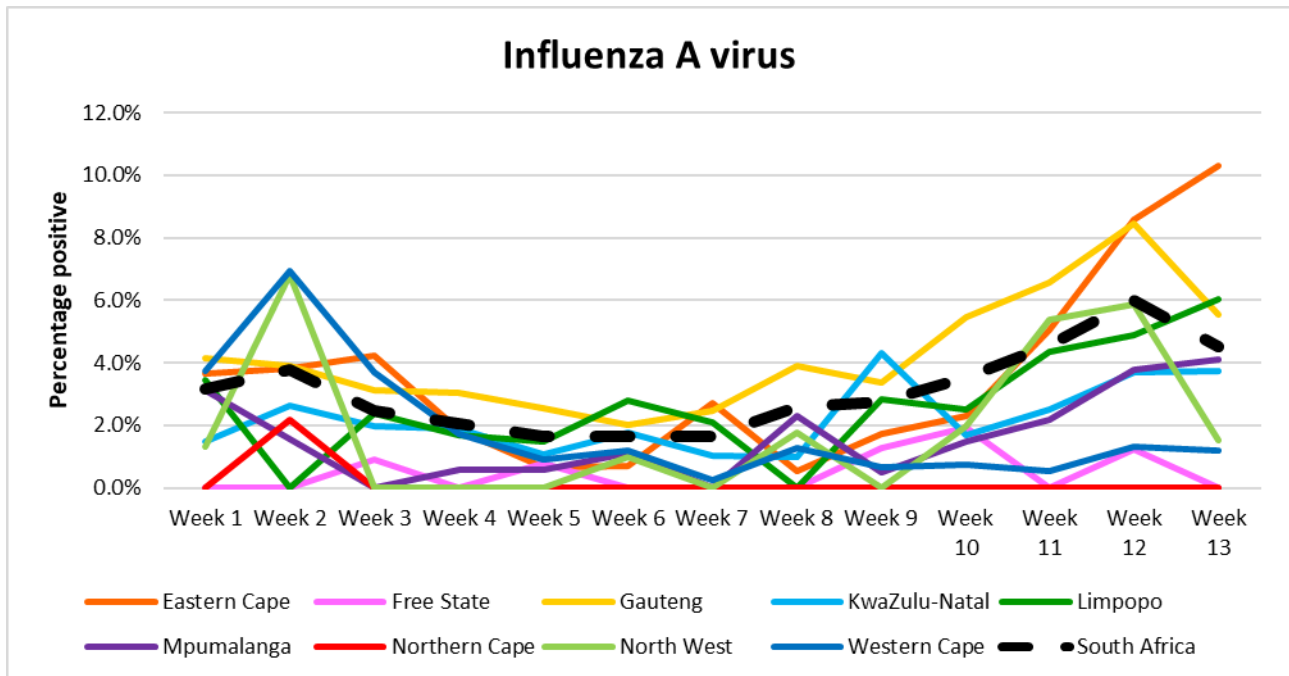
- Rhino/Enterovirus was the most prevalent virus during the first quarter of 2023.
- The prevalence of RSV started to increase in week 6 and was the most prevalent virus in week 11 – 13.
- The number of samples that tested positive for *Mycoplasma pneumoniae* also started to increase in epidemiological week 6.

## Respiratory virus PCR panel

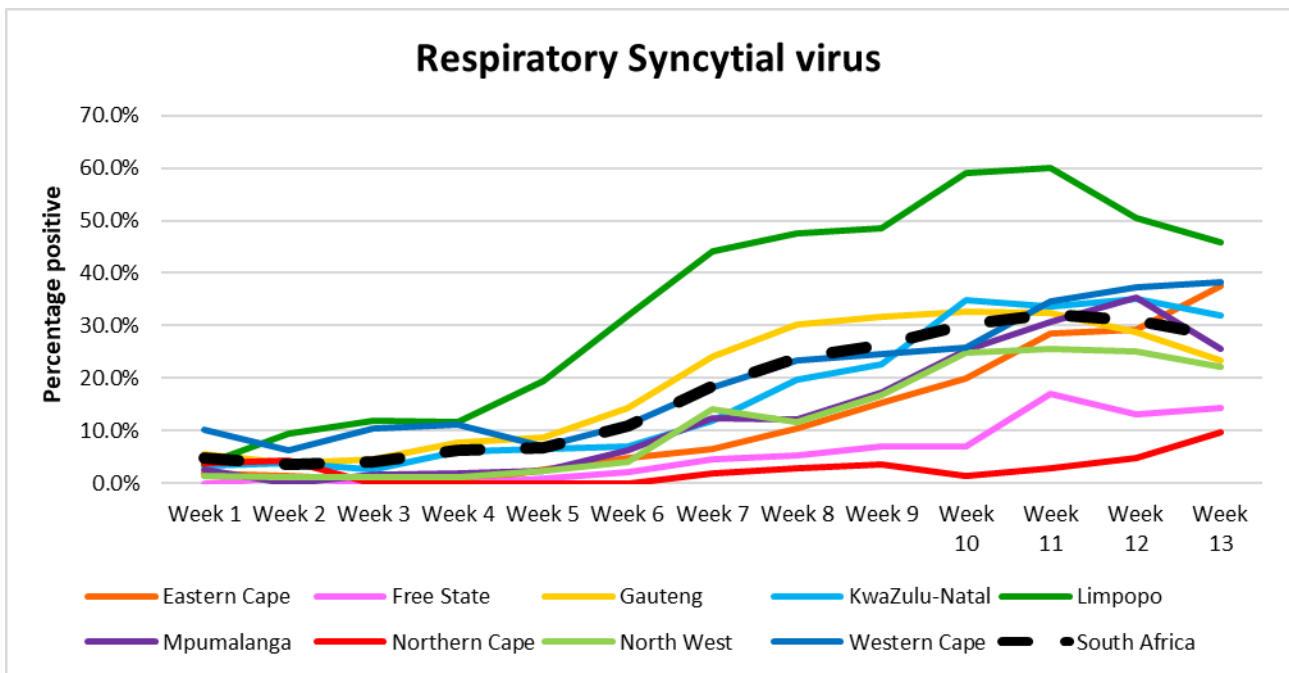
A variety of multiplex PCR panels are used across NPG-associated practices. For data analysis, all parainfluenza virus types (PIV 1 – 4), all seasonal human coronaviruses (hCoV-OC43, hCoV-HKU1, hCoV-229E, and hCoV-NL63), and rhinovirus, parechovirus and enterovirus were combined. The graphs below represent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



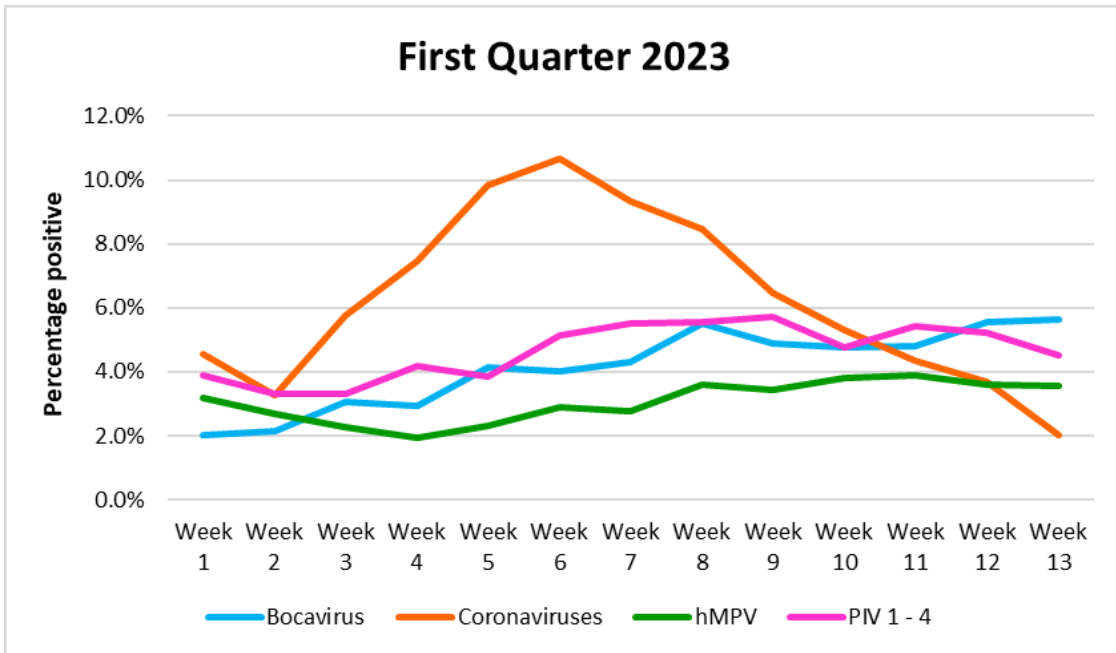
- Rhino/enterovirus was the most prevalent virus detected from weeks 1 to 10, whereafter it was surpassed by RSV.
- The prevalence of RSV exceeded 10% from week 6 onwards, in concert with the start of the RSV season according to the NICD.<sup>1</sup>
- Influenza A virus was detected in 3.1% of samples. The majority (87.0%) of influenza A virus that were typed were influenza A/H3. This correlates with what was observed by the NICD.<sup>1</sup>
- A specific seasonality was not observed for either influenza B virus or adenovirus.



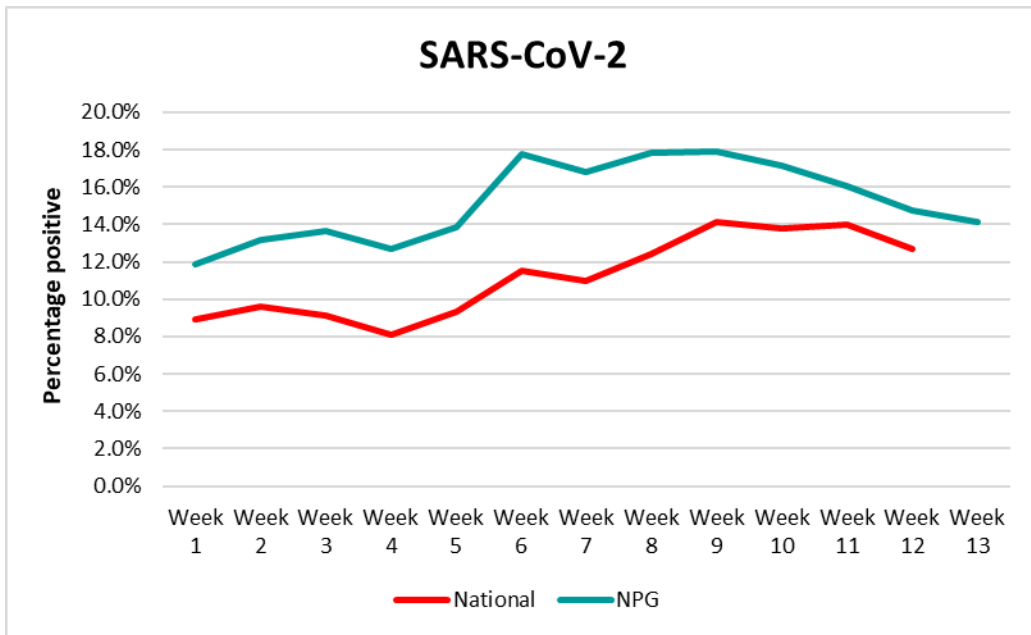
- The prevalence of influenza A virus started to increase from week 10 in Gauteng, and a week later in the Eastern Cape, Limpopo and the North West. The prevalence was above 10% in week 13 in the Eastern Cape.



- The prevalence of RSV rose above 10% in week 3 in Limpopo and the Western Cape, but only in week 6 in Gauteng, and a week later in Kwa-Zulu Natal, Mpumalanga and the North West. RSV prevalence only increased in week 11 in the Free State, and never rose above 10% in the Northern Cape in the first quarter of 2023.
- RSV prevalence peaked in week 10 in Gauteng, a week later in Limpopo, Free State and the North West, and in week 12 in Kwa-Zulu Natal and Mpumalanga. Epidemiological week 13 had the highest RSV prevalence in the Northern, Western and Eastern Cape.

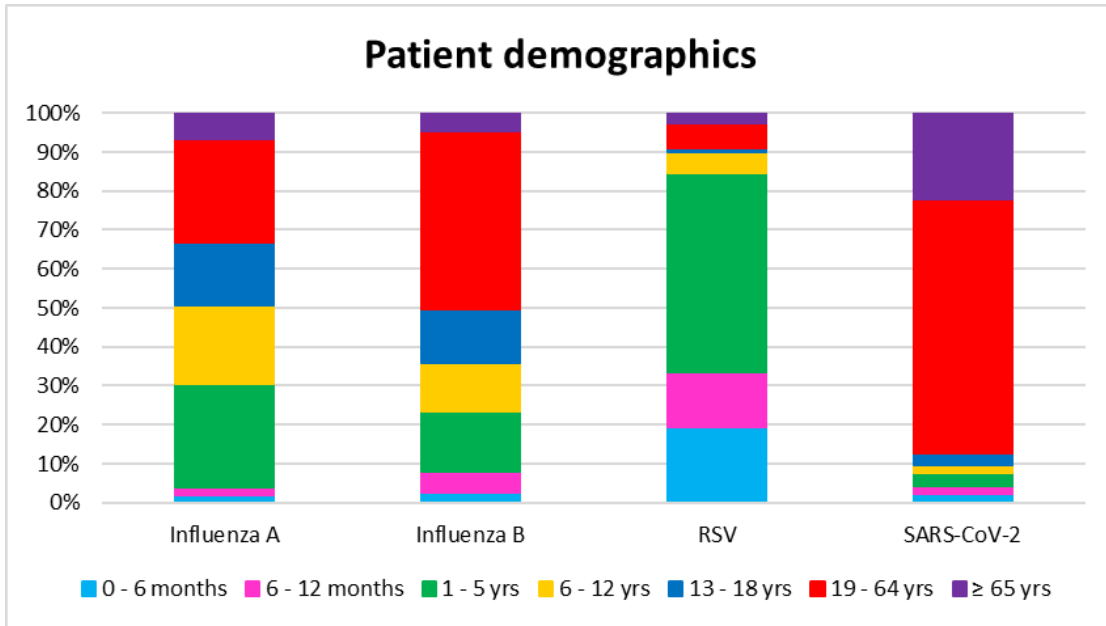


- The prevalence of the seasonal coronaviruses rose above 10% in week 6 only.
- Bocavirus, human metapneumovirus, and the parainfluenza viruses never rose above 10% during the first quarter of 2023.



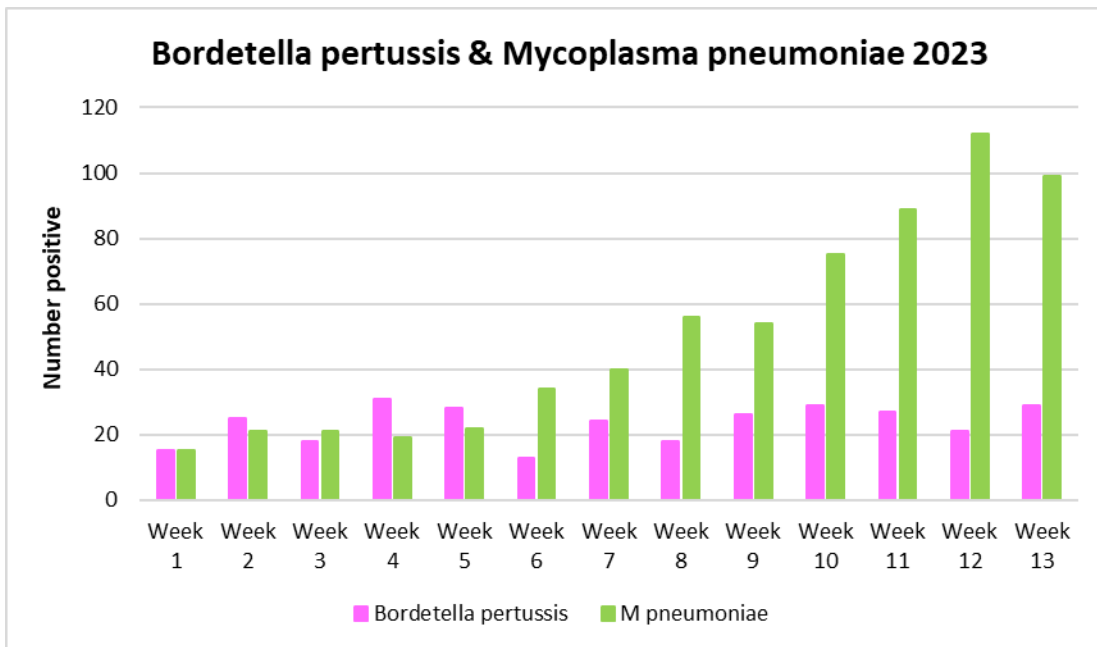
- The prevalence of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) remained above 10% in the first quarter of 2023 according to NPG data, but only rose above 10% in epidemiological week 6 according to the public and private sector combined data from the NICD.<sup>2</sup> SARS-CoV-2 prevalence peaked in epidemiological week 9 according to both data sets.

## Patient demographics



- A third of patients who tested positive for influenza A virus (33.3%) were older than 18 years of age.
- Half of the patients who tested positive for influenza B virus (50.5%) were 19 years of age and older.
- The majority of patients who tested positive for RSV were less than 6 years of age (84.6%).
- In contrast, most of the patient who tested positive for SARS-CoV-2 were adults older than 18 years of age (87.3%).

## Bacteria



- The number of samples that tested positive for *Mycoplasma pneumoniae* was more than double those that tested positive for *Bordetella pertussis* during the first quarter of 2023. The prevalence of *Mycoplasma pneumoniae* started to increase in epidemiological week 6 and peaked in epidemiological week 12.

## References

1. National Institute of Communicable Diseases. Weekly respiratory pathogen report, week 14 of 2023.
2. National Institute of Communicable Diseases. COVID-19 weekly testing summary, week 12 of 2023.