



RESPIRATORY PATHOGEN STATISTICS

national · pathology · group

SPECIAL INTEREST GROUP OF THE SOUTH AFRICAN MEDICAL ASSOCIATION

1st Quarter 2024

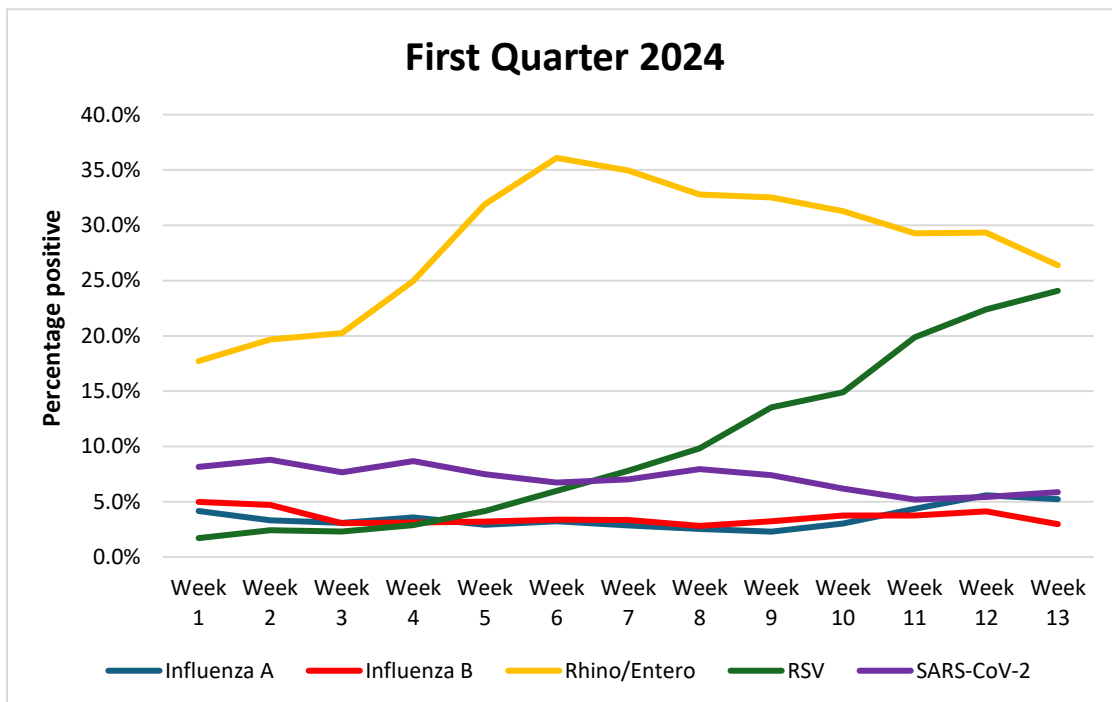
This report summarises respiratory pathogen PCR panel results for specimens submitted for testing to the private pathology practices that are members of the NPG from January to March 2024.

Highlights

- Rhino/enterovirus was the most prevalent virus (29.2%) during the first quarter of 2024.
- The prevalence of neither influenza A virus, nor influenza B virus, nor SARS-CoV-2 increased to above 10% in the first quarter.
- RSV was the second most prevalent virus (11.3%), rising above 10% from epidemiological week 9 onwards.
- More cases of *C. pneumoniae* were detected in the first quarter of 2024 than in the entire 2023.

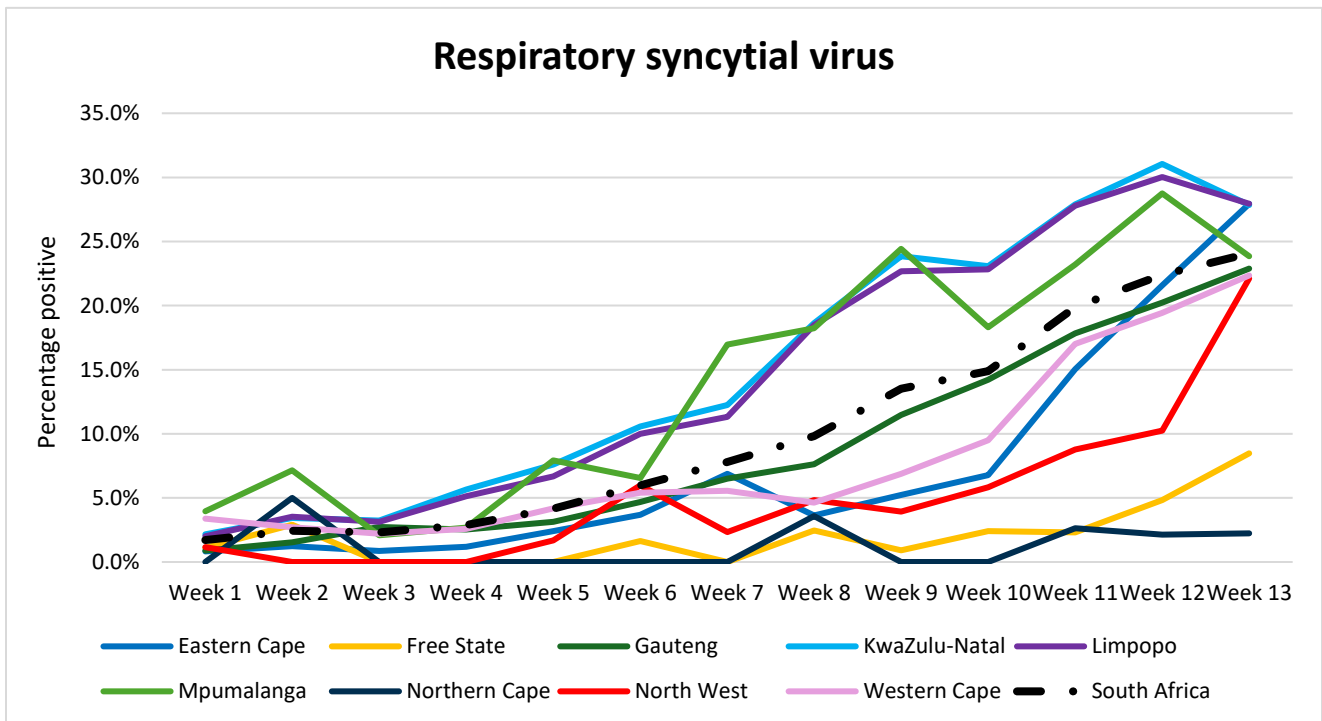
Respiratory virus PCR panel

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, while bacteria are visually represented as the number detected per epidemiological week.

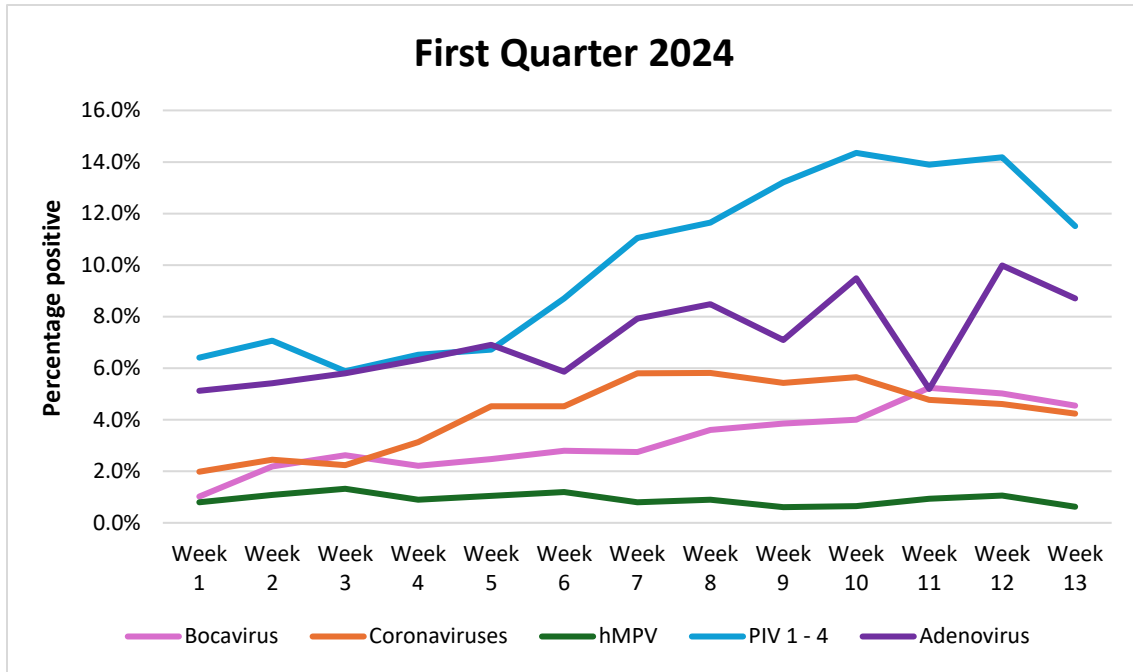


- Rhino/enterovirus was the most prevalent virus (29.2%) detected in the first quarter of 2024, only falling below 20% prevalence in epidemiological weeks 1 and 2 (1 – 13 Jan).

- The prevalence of influenza A virus rose above 5% in epidemiological weeks 12 and 13 (17 – 30 Mar) only. The majority of samples (85.0%) that were typed were influenza A/H1. This correlates with data from the NICD, who found that 82.9% of typed samples were influenza A/H1.¹
- The prevalence of influenza B virus was highest in epidemiological week 1 at 5.0%.
- Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was not detected in more than 10% of submitted samples during the first quarter of 2024, with the highest prevalence (8.8%) recorded in epidemiological week 2.
- Respiratory syncytial virus (RSV) was the second most prevalent virus (11.3%) during the first quarter. Prevalence increased in almost all weeks in comparison to the previous week, rising above 10% from epidemiological week 9 (25 Feb – 2 Mar) onwards.

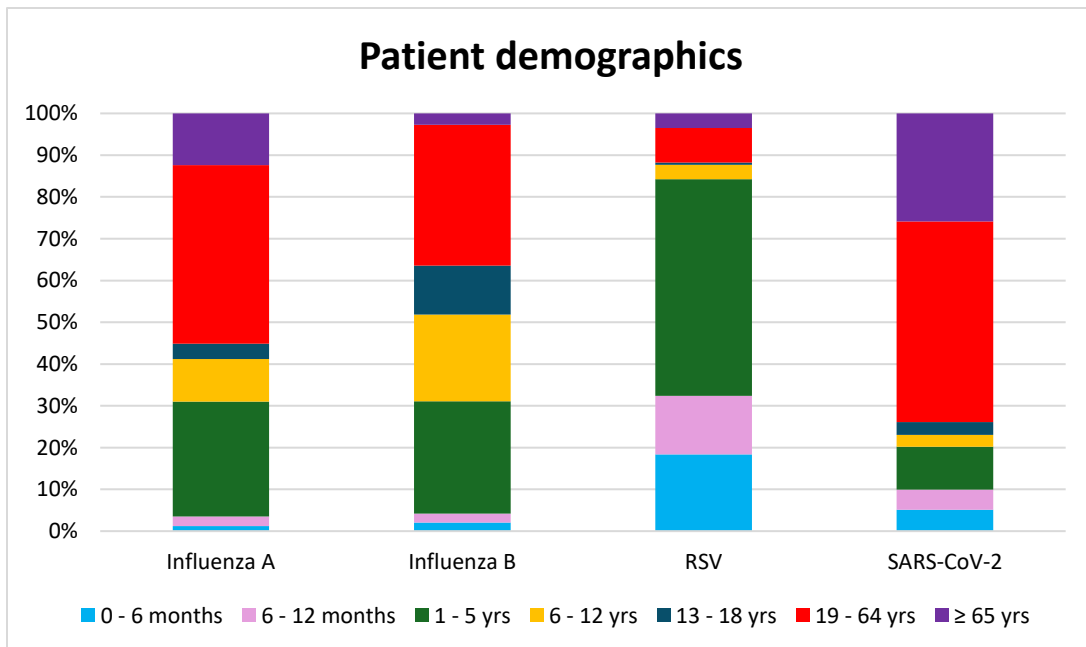


- RSV prevalence first rose above 10% in KwaZulu-Natal and Limpopo provinces, both in epidemiological week 6 (4 – 10 Feb) and peaked in week 12 (17 – 23 Mar) at 31.0% in KwaZulu-Natal and 30.0% in Limpopo. In Mpumalanga, RSV prevalence was above 10% from week 7 (11 – 17 Feb) onwards, also peaking in week 12 at 28.8%.
- RSV prevalence increased to above 10% from epidemiological week 12 onwards in Gauteng. The RSV season started two weeks later in both the Western and Eastern Cape and a week later in North-West.
- RSV prevalence never increased to above 10% during the first quarter in the Free State or Northern Cape provinces.



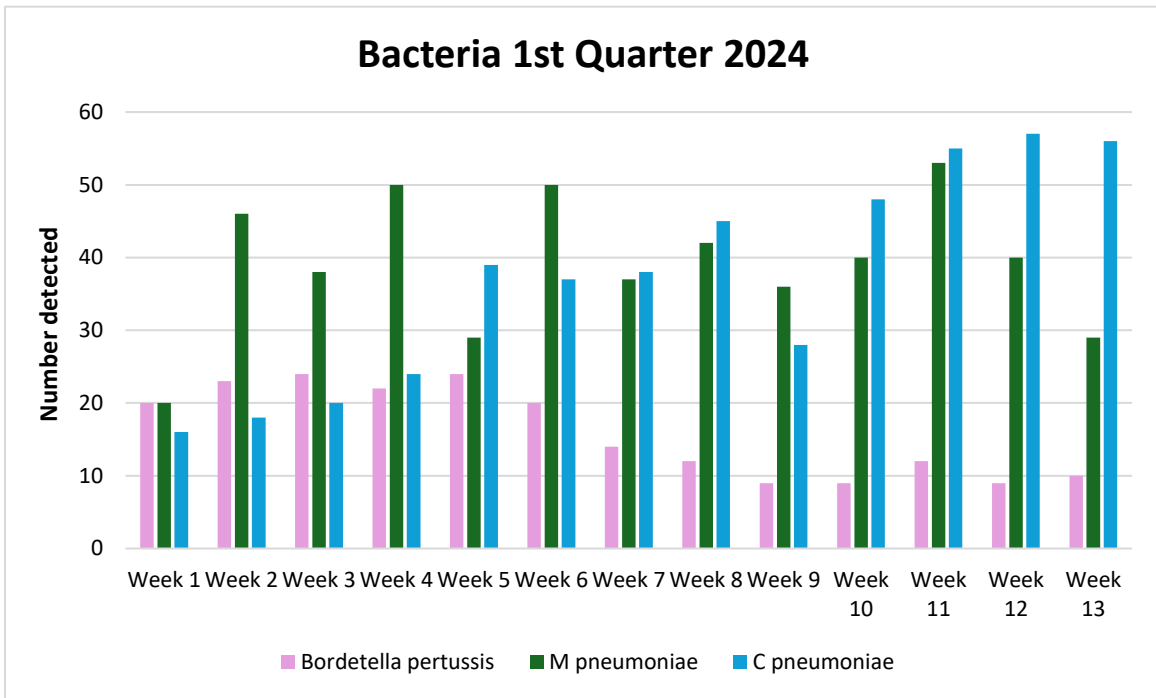
- The seasonal coronaviruses were detected in 4.5%, and bocavirus in 3.4% of samples submitted for testing during the first quarter of 2024.
- Human metapneumovirus (hMPV) was detected in only 0.9% of samples submitted for testing.
- The prevalence of the parainfluenza viruses was above 10% from epidemiological week 7 onwards, and appears to be mainly due to an increase in the prevalence of PIV-2 and PIV-4.
- During the first quarter of 2024, adenovirus was detected in between 5.1% (epidemiological week 1) and 10.0% (week 12) of samples submitted for testing.

Patient demographics



- Half of patients who tested positive for influenza A virus were older than 18 years of age (55.2%), while most patients who tested positive for influenza B virus were younger than 18 years of age (63.6%).
- The majority of patients who tested positive for RSV were less than 6 years of age (84.2%).
- In contrast, most of the patients who tested positive for SARS-CoV-2 were adults older than 18 years of age (73.9%).

Bacteria



- The prevalence of *Mycoplasma pneumoniae* almost halved in the first quarter of 2024 in comparison to the fourth quarter of 2023. Fifty or more cases were detected in epidemiological weeks 4, 6 and 11.
- In contrast the prevalence of *Chlamydomphila pneumoniae* more than doubled in the first quarter of 2024 in comparison to the final quarter of 2023. In fact, more cases of *C. pneumoniae* were detected in the first quarter of 2024 than in the entire 2023 combined.
- Less than 20 samples tested positive for *Bordetella pertussis* from epidemiological week 7 onwards.

Reference

1. Centre for Respiratory Diseases and Meningitis, National Institute of Communicable Diseases. Sentinel Surveillance in South Africa. Respiratory Pathogens Report, week 16 of 2024.