



# RESPIRATORY PATHOGEN STATISTICS

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SPECIAL INTEREST GROUP OF THE SOUTH AFRICAN MEDICAL ASSOCIATION

4<sup>th</sup> Quarter 2024

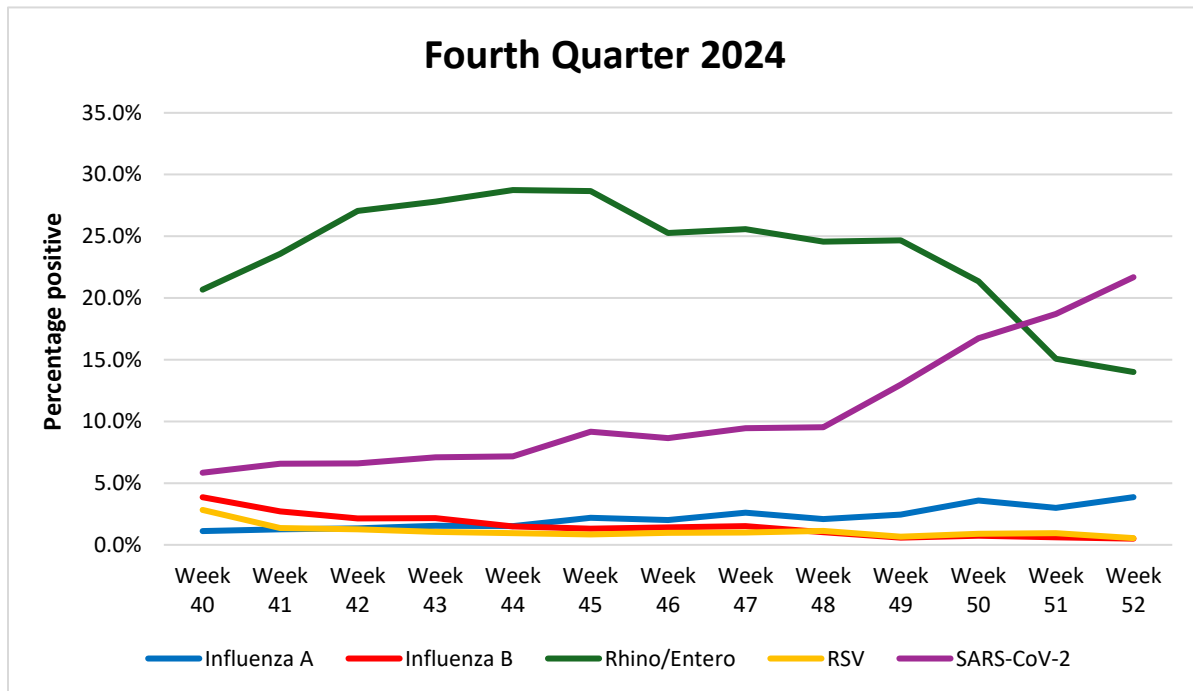
This report summarises respiratory pathogen PCR panel results for specimens submitted for testing to the private pathology practices that are members of the NPG from October to December 2024.

## Highlights

- Rhino/Enterovirus was the most prevalent virus (24.2%) during the fourth quarter of 2024.
- SARS-CoV-2 was the most prevalent virus in epidemiological weeks 51 and 52.
- Human metapneumovirus prevalence peaked at the end of the third quarter and remained below 10% from epidemiological week 45 onwards.
- More cases of *Chlamydomphila pneumoniae* were detected in the fourth quarter than cases of *Mycoplasma pneumoniae*.

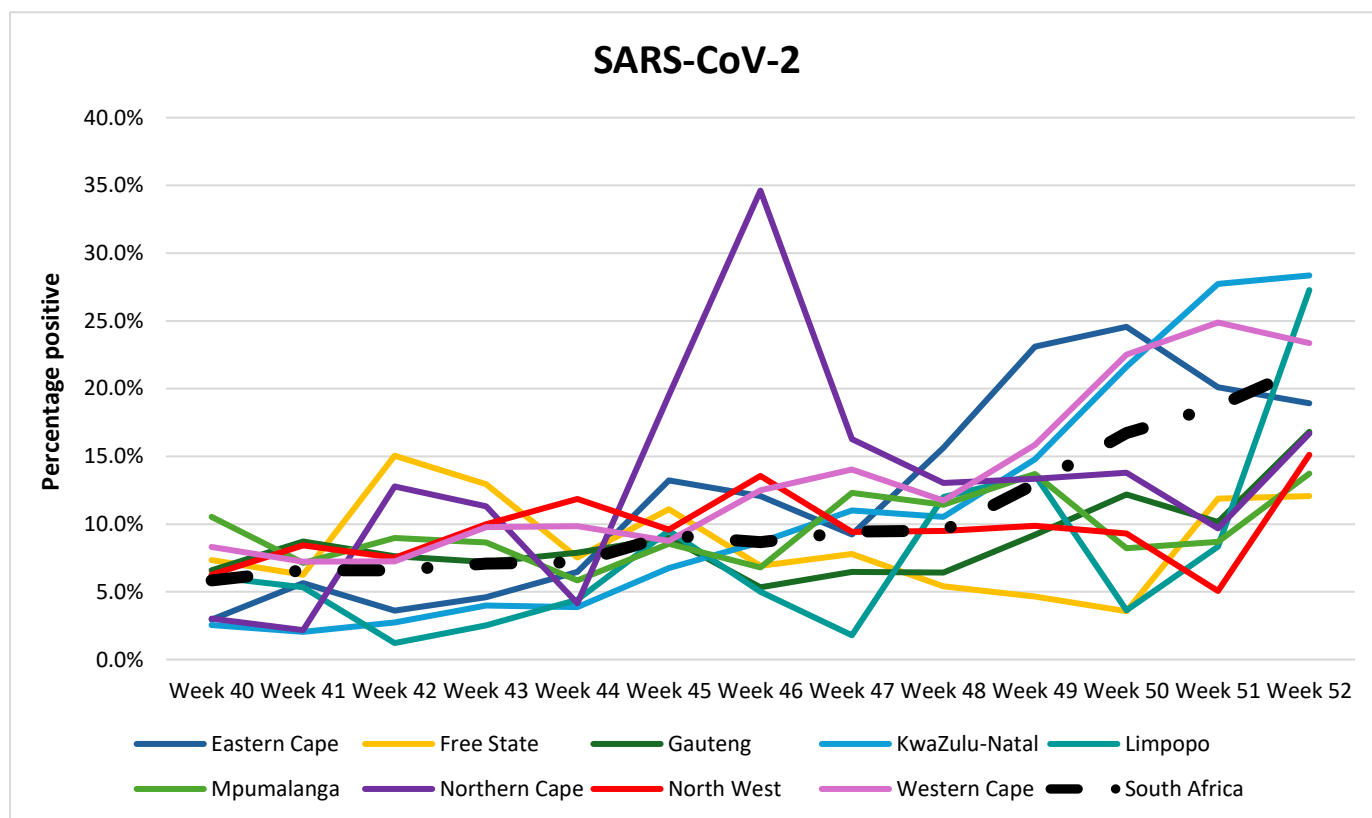
## Respiratory virus PCR panel

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.



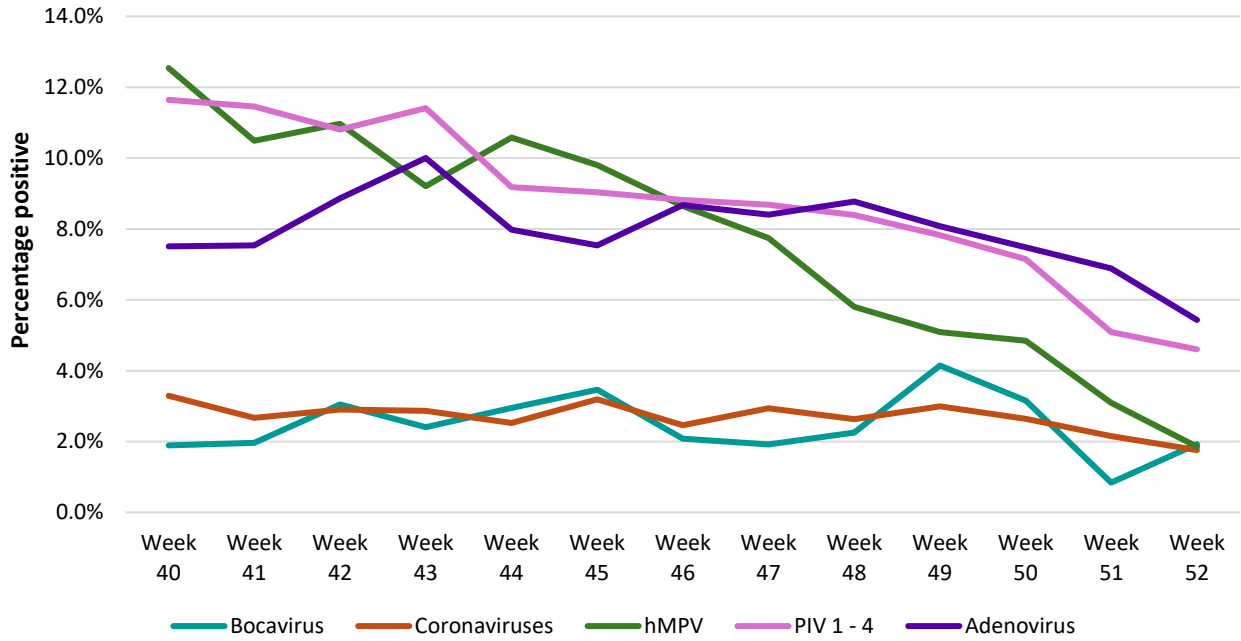
- Rhino/Enterovirus was the most prevalent virus (24.2%) detected in the fourth quarter of 2024, followed by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; 10.1%) and the parainfluenza viruses (9.1%).
- The prevalence of influenza A virus (2.1%) and influenza B virus (1.7%) was below 5% for the entire quarter. The majority of influenza A positive samples (80.0%) that were typed were influenza A/H3. All of the influenza B virus isolates successfully sequenced by the NICD during 2024 belonged to the Victoria lineage.<sup>1</sup>

- Respiratory syncytial virus (RSV) prevalence also remained below 5% for the entire quarter, with the highest prevalence (2.8%) in epidemiological week 40.
- Rhino/Enterovirus prevalence fell below 20% in epidemiological weeks 51 (15.1%) and 52 (14.0%) only.
- SARS-CoV-2 prevalence increased to above 10% from epidemiological week 49 until the end of 2024, and it was the most common virus detected in epidemiological weeks 51 (18.7%) and 52 (21.7%).



- In the fourth quarter, SARS-CoV-2 prevalence was above 10% in the Northern Cape from epidemiological week 42 onwards, except for weeks 44 and 51, with the highest prevalence in week 46 at 34.6%.
  - SARS-CoV-2 prevalence increased to above 10% in epidemiological week 45 in the Eastern Cape, a week later in the Western Cape, and a further week later in Kwa-Zulu Natal. In all three provinces, SARS-CoV-2 prevalence peaked 5 weeks after it initially rose above 10% in each province. Peak prevalence was 24.6% in the Eastern Cape, 24.9% in the Western Cape, and 28.4% in Kwa-Zulu Natal.
  - In Gauteng, the prevalence of SARS-CoV-2 only increased to above 10% from epidemiological week 50 onwards.
  - SARS-CoV-2 prevalence did not remain above 10% for more than three consecutive weeks in the 4<sup>th</sup> quarter in any of the other provinces.
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- The seasonal coronaviruses were detected in 2.7% of samples, and bocavirus in 2.5% of samples submitted for testing during the fourth quarter of 2024.
  - During this period, adenovirus was detected in between 5.4% (epidemiological week 52) and 10.0% (week 43) of samples submitted for testing.
  - The increase in the prevalence of the parainfluenza viruses, first noticed in epidemiological week 36 in the third quarter of 2024, continued until epidemiological week 43. The increased prevalence appears to be due to an increase in the detection of PIV-3.
  - Human metapneumovirus (hMPV) was detected in 8.2% of samples submitted for testing during the fourth quarter. hMPV prevalence first fell below 10% in epidemiological week 43 (9.2%) with a minor increase the following week (10.6%) but remained below 10% thereafter.

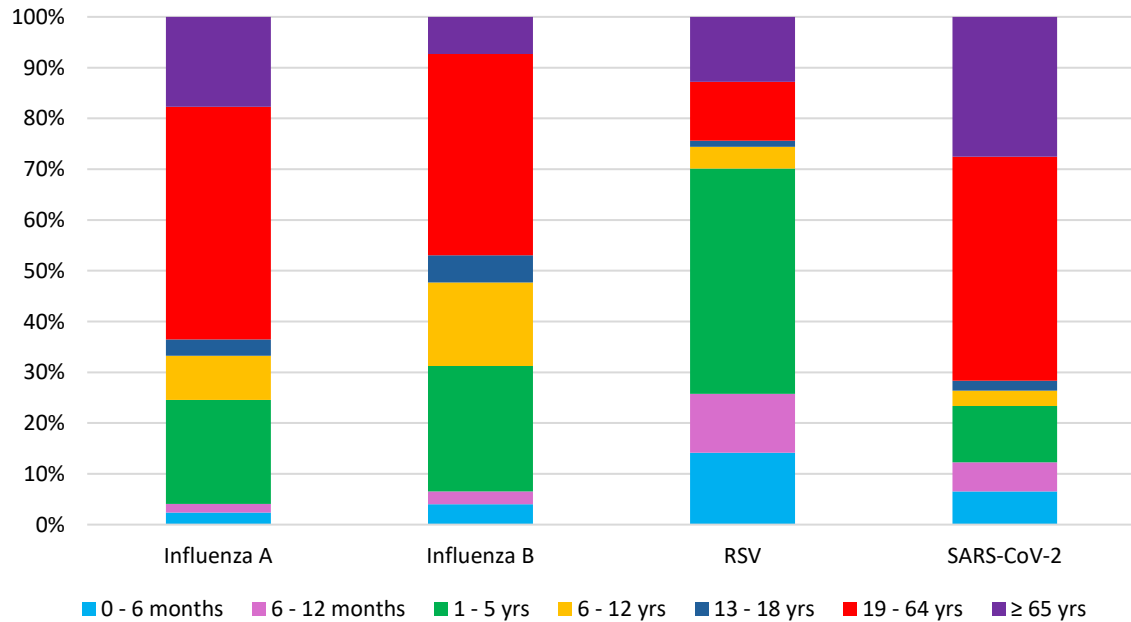
## Fourth Quarter 2024



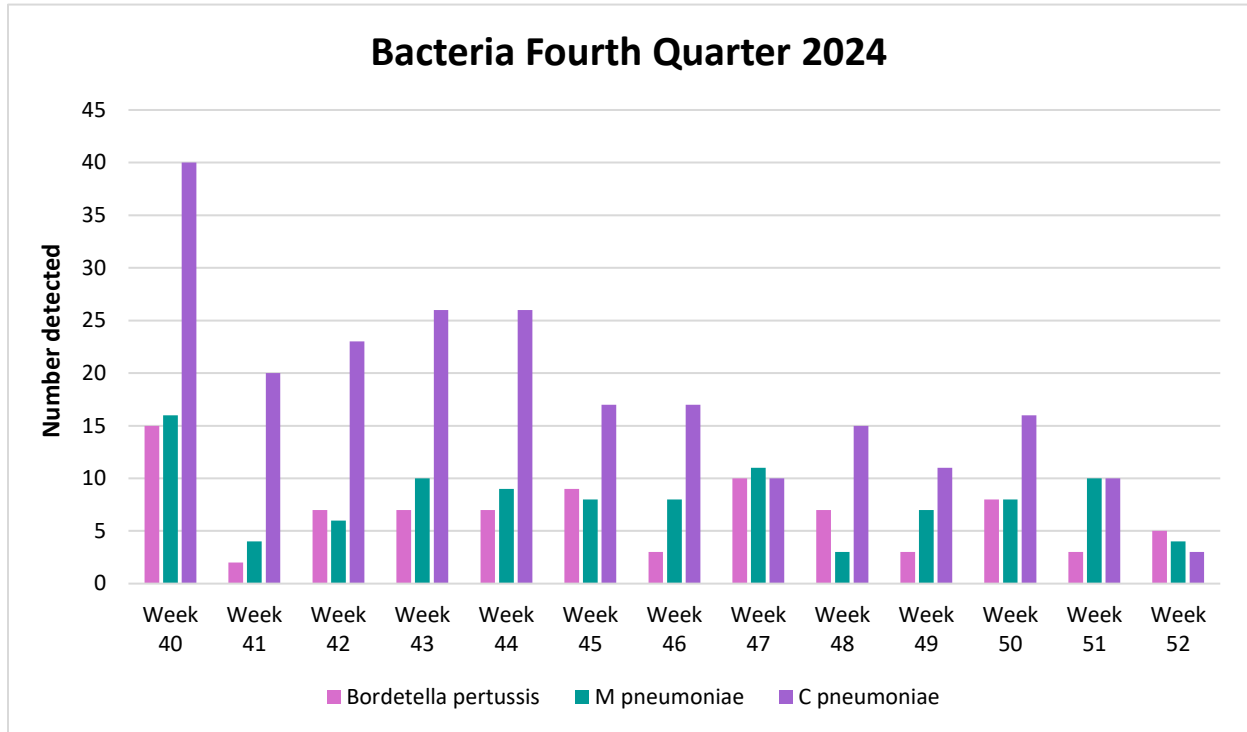
### Patient demographics

- More than half of patients who tested positive for influenza A virus were older than 18 years of age (63.5%), while most patients who tested positive for influenza B virus were 18 years of age or younger (53.1%).
- The majority of patients who tested positive for RSV were less than 6 years of age (70.2%).
- In contrast, most of the patients who tested positive for SARS-CoV-2 were adults older than 18 years of age (71.6%).

### Patient demographics



## Bacteria



- Similar to what was observed in the previous two quarters, more cases of *Chlamydomphila pneumoniae* (234 cases) were detected in the fourth quarter than cases of *Mycoplasma pneumoniae* (104 cases).
- Eighty-six samples tested positive for *Bordetella pertussis* in the fourth quarter of 2024.
- Only fourteen cases of *Legionella pneumophila* and four cases of *B. parapertussis* were reported during the entire quarter (not represented graphically).

## Reference

1. National Institute of Communicable Diseases. Sentinel Surveillance in South Africa Respiratory Pathogens Report, Week 52 of 2024.