RESPIRATORY PATHOGEN STATISTICS

national · pathology · group

SPECIAL INTEREST GROUP OF THE SOUTH AFRICAN MEDICAL ASSOCIATION

2nd Quarter 2024

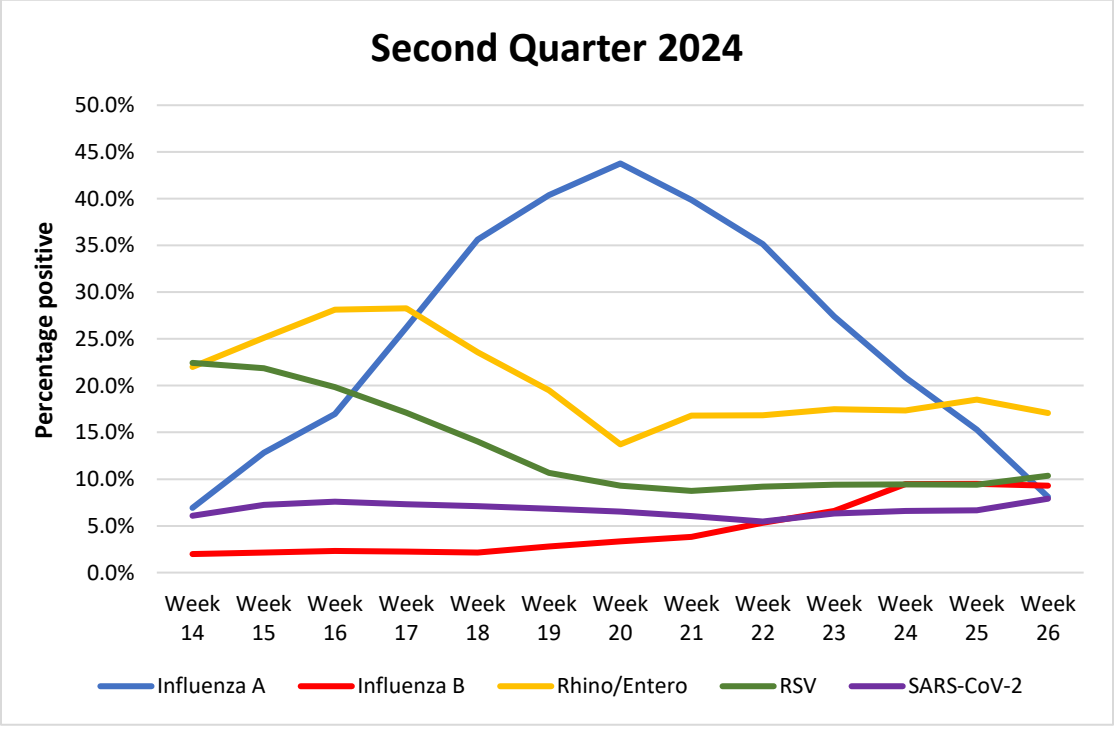
This report summarises respiratory pathogen PCR panel results for specimens submitted for testing to the private pathology practices that are members of the NPG from April to June 2024.

Highlights

- Influenza A virus was the most prevalent virus (30.2%) during the second quarter of 2024, and the majority of samples that were typed were influenza A/H1.
- Rhino/Enterovirus prevalence fell below 20% from epidemiological week 19 onwards.
- The prevalence of *Chlamydophila pneumoniae* continued to increase in the second quarter of 2024.

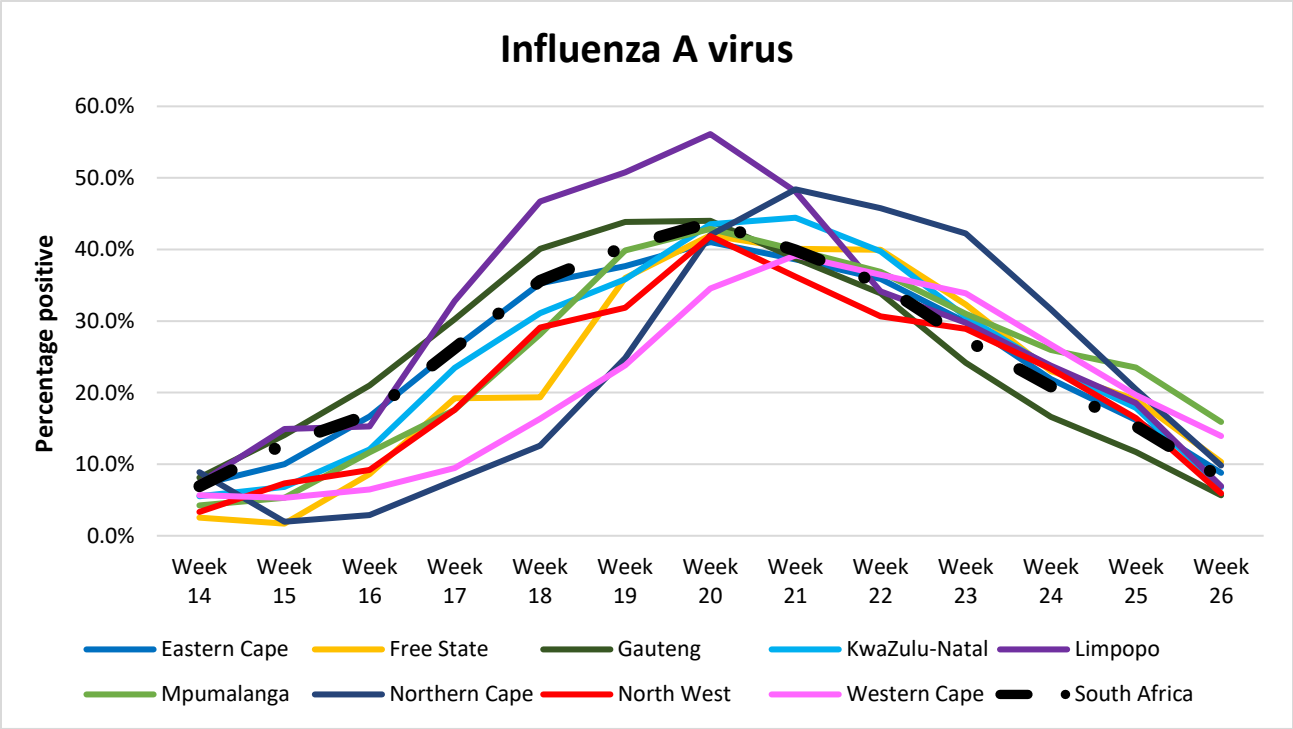
Respiratory virus PCR panel

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.



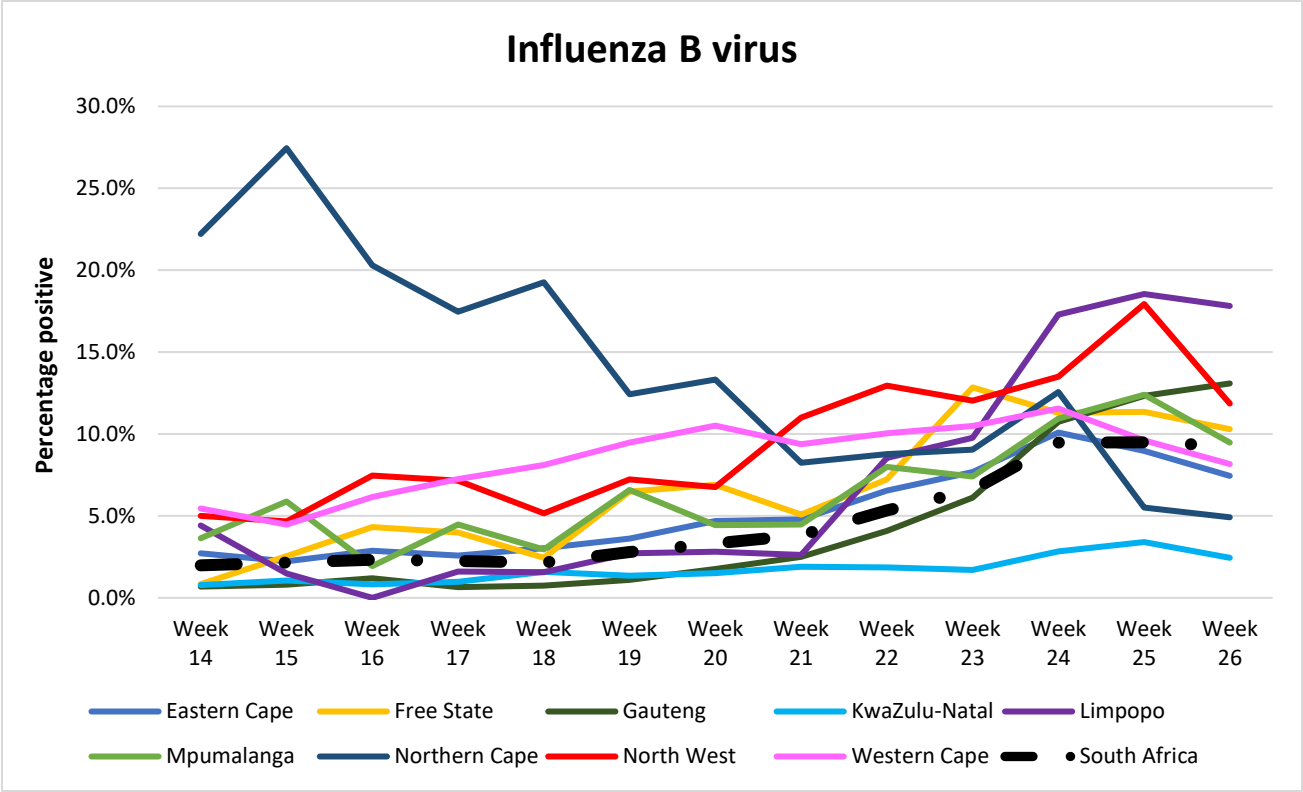
- Influenza A virus was the most prevalent virus (30.2%) detected in the second quarter of 2024, followed by Rhino/Enterovirus (19.8%) and respiratory syncytial virus (RSV; 11.8%).
- The prevalence of influenza A virus rose above 10% in epidemiological weeks 15 (7 – 13 April), peaked in week 20 (12 – 18 May) at 43.8%, and remained above 10% until week 25 (16 – 22 June). The majority of samples (99.4%) that were typed were influenza A/H1. This correlates with data from the NICD, who found that 96.1% of typed samples were influenza A/H1.[1]

- The prevalence of influenza B virus rose above 5% from epidemiological week 22 onwards but did not rise above 10% nationally in the second quarter of 2024.
- Rhino/Enterovirus prevalence fell below 20% from epidemiological week 19 onwards.
- Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was not detected in more than 10% of submitted samples during the second quarter of 2024, with the highest prevalence (7.9%) recorded in week 26.
- RSV prevalence remained above 10% from week 14 (22.4%) to week 19 (10.7%), continued between 8% to 9% until week 25, and rose above 10% again in week 25 (10.3%).

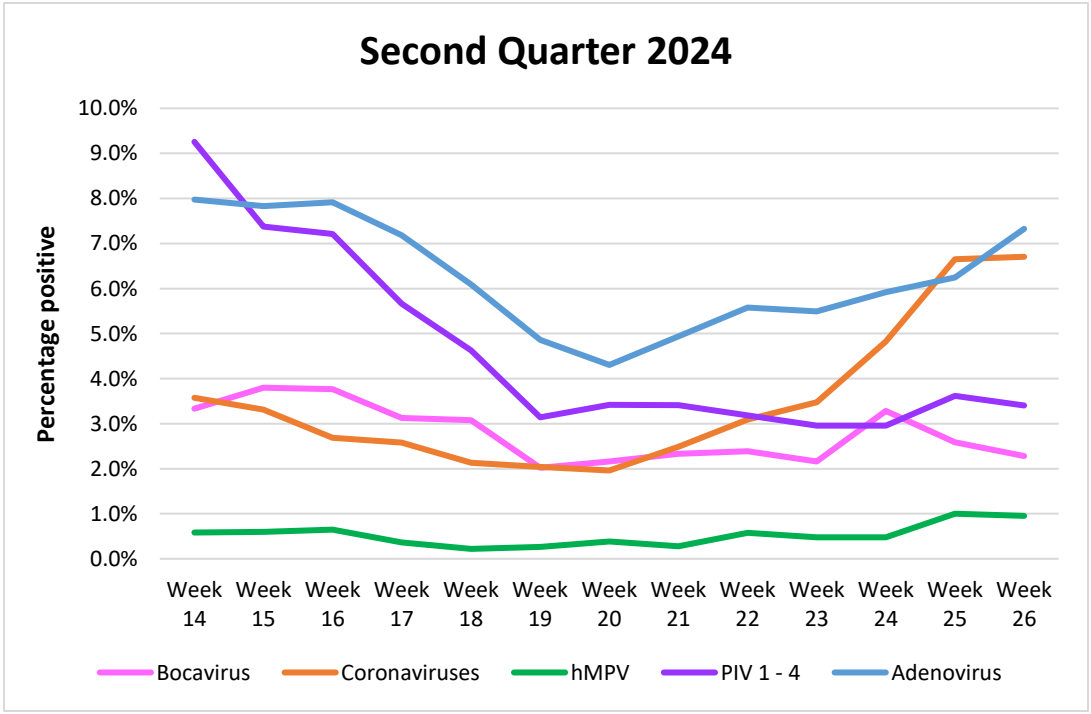


- Influenza A virus prevalence first rose above 10% in Eastern Cape, Gauteng and Limpopo provinces in epidemiological week 15 (7 – 13 April), and a week later in KwaZulu-Natal and Mpumalanga.
- Influenza A virus prevalence peaked in epidemiological week 20 (12 – 18 May) in the Eastern Cape (41.0%), Free State (42.0%), Gauteng (44.0%), Limpopo (56.1%), Mpumalanga (42.9%) and the North West (41.9%), and a week later (19 – 25 May) in KwaZulu-Natal (44.4%), Northern Cape (48.4%) and Western Cape (39.2%).

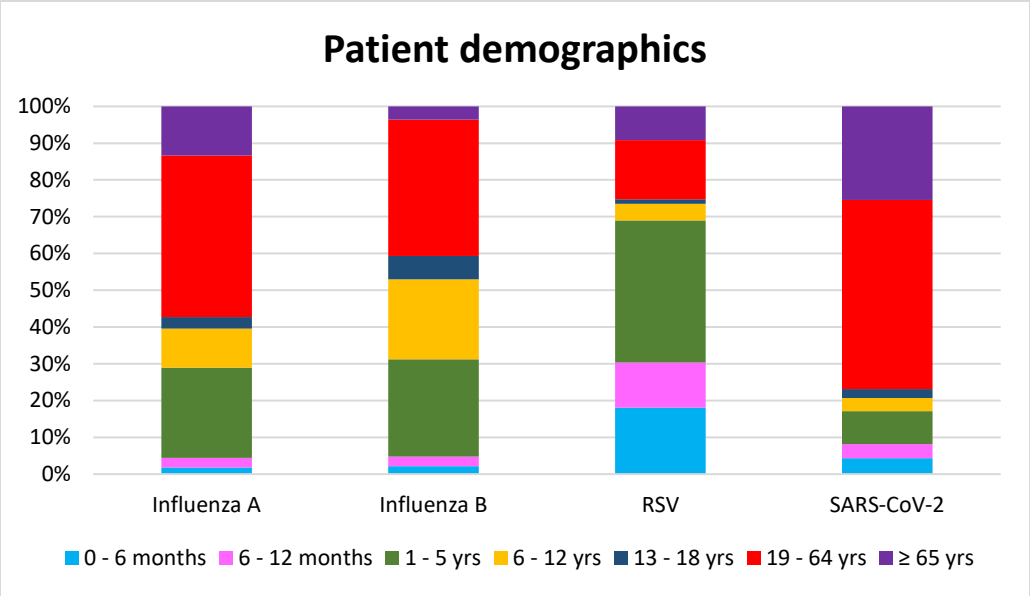
- The prevalence of influenza B virus increased to above 10 % during the latter part of the second quarter in most provinces. In the Eastern Cape, influenza B virus prevalence rose above 10% in epidemiological week 24 alone (10.1%), and in week 24 (10.9%) and 25 (12.4%) in Mpumalanga.
- The influenza B season started in epidemiological week 20 (12 – 18 May) in the Western Cape and a week later in North West province. In the Free State, prevalence increased to above 10% from week 23 (2 – 8 June) onwards, and a week later in Gauteng and Limpopo.
- The prevalence of influenza B virus never increased above 5% in KwaZulu-Natal during the entire quarter.
- Influenza B virus prevalence was high during the first part of the quarter in the Northern Cape, with the highest prevalence in epidemiological week 15 (7 – 13 April) at 27.5%.



- The seasonal coronaviruses were detected in 3.2% submitted for testing during the second quarter of 2024. The increase in prevalence to above 5% in the last two weeks of the quarter appears to be due to increased detection of hCoV-HKU1 and hCoV-OC43.
- The prevalence of bocavirus (2.7%) and the parainfluenza viruses (4.2%) was below 10% from the entire quarter.
- During the second quarter of 2024, adenovirus was detected in between 4.3% (epidemiological week 20) and 8.0% (week 14) of samples submitted for testing.
- Human metapneumovirus (hMPV) was detected in only 0.5% of samples submitted for testing.

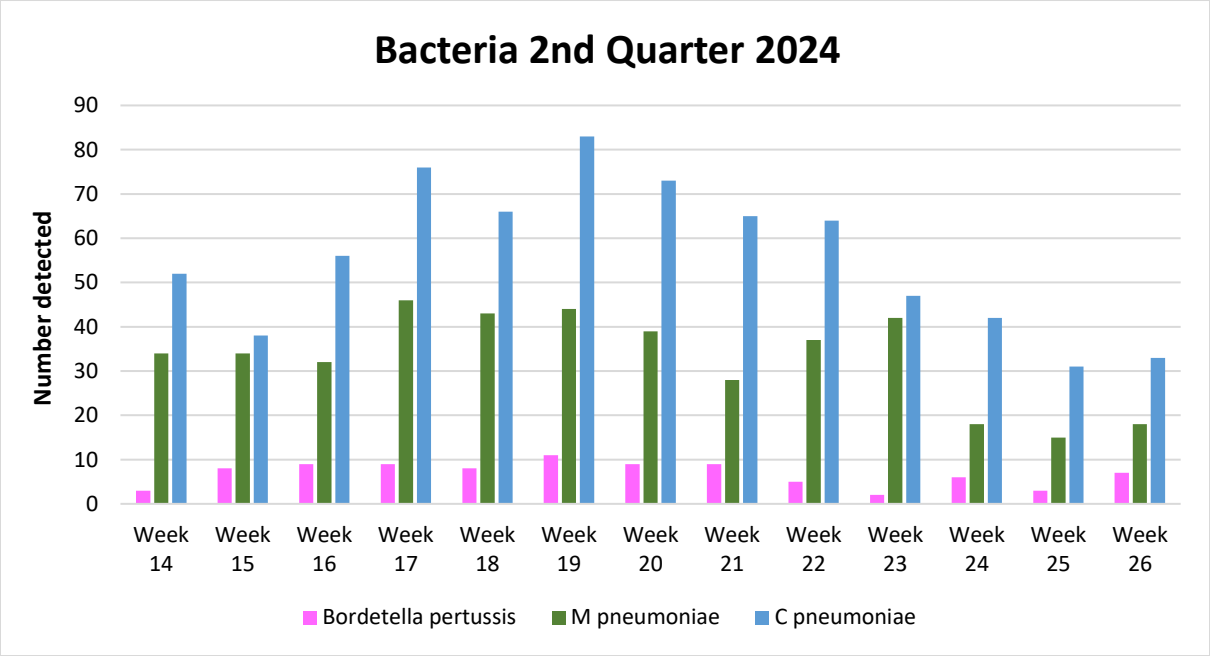


Patient demographics



- Half of patients who tested positive for influenza A virus were older than 18 years of age (57.3%), while most patients who tested positive for influenza B virus were younger than 18 years of age (53.0%).
- The majority of patients who tested positive for RSV were less than 6 years of age (69.0%).
- In contrast, most of the patients who tested positive for SARS-CoV-2 were adults older than 18 years of age (76.9%).

Bacteria



- The decrease in the prevalence of *Mycoplasma pneumoniae* noticed in the first quarter of 2024, continued in the second quarter. The most cases were detected in week 17 (46 cases) and the least in week 25 (15 cases).
- In contrast, the increased prevalence of *Chlamydophila pneumoniae* noticed in the first quarter, continued in the second quarter of 2024. The most cases were detected in week 19 (83 cases) and the least in week 25 (31 cases).
- Less than 10 samples tested positive for *Bordetella pertussis* in the entire quarter.

Reference

1. Centre for Respiratory Diseases and Meningitis, National Institute of Communicable Diseases. Sentinel Surveillance in South Africa. Respiratory Pathogens Report, week 26 of 2024.