

WEEKLY RESPIRATORY PATHOGENS SURVEILLANCE REPORT

SOUTH AFRICA WEEK 36 2021

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CUMULATIVE DATA FROM



HIGHLIGHTS: WEEK 36

- RSV activity remains below seasonal threshold in both influenza-like illness (ILI) and pneumonia surveillance programmes.

- Nine new cases of influenza from North West (n=3), Gauteng (n=1) and Western Cape (n=5) surveillance sites were detected in week36. To date, 94 influenza cases have been detected from Gauteng, Western Cape, North West, Eastern Cape, Mpumalanga and KwaZulu-Natal sentinel surveillance sites. The influenza season has not started.

- From 2 March 2020 to 12 September 2021, a total of 2 830 COVID-19 cases were detected from all surveillance programmes. A decline in detection rate has been noted in both pneumonia surveillance programme and ILI programme in week36. Of the 1 851 hospitalised COVID-19 cases reported with available data on outcome, 312 (17%) died.

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PROGRAMME DESCRIPTIONS

Programme	Influenza-like illness (ILI)	Viral Watch	National syndromic surveillance for pneumonia
Start year	2012	1984	2009
Provinces*	KZ NW WC** MP***	EC FS GP LP MP NC NW WC	GP KZ MP NW WC
Type of site	Primary health care clinics	General practitioners	Public hospitals
Case definition	<p>ILI: An acute respiratory illness with a temperature ($\geq 38^{\circ}\text{C}$) and cough, & onset ≤ 10 days</p> <p>Suspected pertussis Any person with an acute cough illness lasting ≥ 14 days (or cough illness of any duration for children < 1 year), without a more likely diagnosis AND one or more of the following signs or symptoms:</p> <ul style="list-style-type: none"> • paroxysms of coughing, • or inspiratory “whoop”, • or post-tussive vomiting • or apnoea in children < 1 year; <p>OR</p> <p>Any person in whom a clinician suspects pertussis</p> <p>Suspected SARS-CoV-2 Any person presenting with an acute (≤ 14 days) respiratory tract infection or other clinical illness compatible with COVID-19[§]</p>	<p>ILI: An acute respiratory illness with a temperature ($\geq 38^{\circ}\text{C}$) and cough, & onset ≤ 10 days</p> <p>Suspected SARS-CoV-2 Any person presenting with an acute (≤ 14 days) respiratory tract infection or other clinical illness compatible with COVID-19[§]</p>	<p>SRI: Acute (symptom onset ≤ 10 days) or chronic (symptom onset > 10) lower respiratory tract infection</p> <p>Suspected pertussis Any person with an acute cough illness lasting ≥ 14 days (or cough illness of any duration for children < 1 year), without a more likely diagnosis AND one or more of the following signs or symptoms:</p> <ul style="list-style-type: none"> • paroxysms of coughing, • or inspiratory “whoop”, • or post-tussive vomiting • or apnoea in children < 1 year; <p>OR</p> <p>Any person in whom a clinician suspects pertussis.</p> <p>Suspected SARS-CoV-2 Any person admitted with a physician-diagnosis of suspected COVID-19 and not meeting SRI case definition.</p>
Specimens collected	Oropharyngeal & nasopharyngeal swabs	Throat and/or nasal swabs or Nasopharyngeal swabs	Oropharyngeal & nasopharyngeal swabs
Main pathogens tested****	INF RSV BP SARS-CoV-2	INF RSV BP SARS-CoV-2	INF RSV BP SARS-CoV-2

Epidemic Threshold

Thresholds are calculated using the Moving Epidemic Method (MEM), a sequential analysis using the R Language, available from: <http://CRAN.R-project.org/web/package=mem> designed to calculate the duration, start and end of the annual influenza epidemic. MEM uses the 40th, 90th and 97.5th percentiles established from available years of historical data to calculate thresholds of activity. Thresholds of activity for influenza and RSV are defined as follows: Below seasonal threshold, Low activity, Moderate activity, High activity, Very high activity. For influenza, thresholds from outpatient influenza like illness (Viral Watch Programme) are used as an indicator of disease transmission in the community and thresholds from pneumonia surveillance are used as an indicator of impact of disease.

* EC: Eastern Cape; FS: Free State; GP: Gauteng; KZ: KwaZulu-Natal; LP: Limpopo; MP: Mpumalanga; NC: Northern Cape; NW: North West; WC: Western Cape
**Started in 2019

***Started in November 2020

****INF: influenza virus; RSV: respiratory syncytial virus; BP: *Bordetella pertussis*; SARS-CoV-2: severe acute respiratory syndrome coronavirus 2

§Symptoms include ANY of the following respiratory symptoms: cough, sore throat, shortness of breath, anosmia (loss of sense of smell) or dysgeusia (alteration of the sense of taste), with or without other symptoms (which may include fever, weakness, myalgia, or diarrhoea)

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COMMENTS

Influenza

The influenza 2021 season has not started. Since the first influenza positive case of 2021 was detected in pneumonia surveillance in week 9 of 2021 (week ending on the 07 March 2021), sporadic cases have been reported from week 16 to date. Of the 94 influenza cases detected in surveillance sites in 2021, the majority (n=78, 83%) were influenza B/Victoria.

ILI programme: In 2021 to date, specimens from 1 314 patients meeting ILI case definition were received from 4 ILI sites. Influenza was detected in 20 (2%) patients, of which 15 (75%) were influenza B(Victoria), two (10%) influenza A(H3N2), two (10%) influenza B (lineage inconclusive) and one (5%) influenza B (pending lineage results). (Figure 1 and Table 1).

Viral Watch programme: In 2021 to date, specimens were received from 174 patients from Viral Watch sites in 5 of the 8 provinces participating in surveillance. Influenza was detected in nine (5%) patients, of which five (56%) were influenza B (Victoria), and four (44%) influenza B (lineage inconclusive) (Figure 5 and Table 4).

Pneumonia surveillance: Since the beginning of 2021, specimens from 4 465 patients with severe respiratory illness (SRI) were received from the 6 sentinel sites. Influenza was detected in 50 (1%) patients, of which two (4%) were influenza A(H1N1)pdm09, four (8%) influenza A(H3N2), 43 (86%) influenza B (Victoria) and one (2%) was influenza B (lineage inconclusive). (Figure 9 and Table 7).

In addition, influenza B (Victoria) was detected in 15 of 693 (2%) from patients who met suspected SARS-CoV-2 case definition but did not meet the pneumonia/ILI surveillance case definitions.

Respiratory syncytial virus

In 2021 to date, RSV detection has been reported from all surveillance programmes, activity remains below seasonal threshold.

ILI programme: In 2021 to date, 1 314 specimens were tested and RSV was detected in specimens of 73 (6%) patients.

Viral Watch programme: In 2021 to date, 174 specimens were tested and RSV was detected in specimens of six (3%) patients.

Pneumonia surveillance: Since the beginning of 2021, 4 465 specimens were tested and RSV was detected in specimens of 397 (9%) patients.

In addition, RSV was detected in 21 of 693 (3%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet the pneumonia/ILI surveillance case definitions.

SARS-CoV-2 (Severe acute respiratory syndrome coronavirus 2)

Testing for SARS-CoV-2 was initiated in all three surveillance programmes in week 10 of 2020 (week starting 2 March 2020).

ILI programme: From March 2020 to date, specimens from 2 625 patients were tested and SARS-CoV-2 was detected in 556 (21%) patients.

Viral Watch programme: From March 2020 to date, specimens were tested from 453 patients and SARS-CoV-2 was detected in 84 (19%) patients.

Pneumonia surveillance: From March 2020 to date, specimens from 8 480 patients with severe respiratory illness (SRI) were tested and SARS-CoV-2 was detected in 2 007 (24%) patients.

In addition, SARS-CoV-2 was detected in 183 of 896 (20%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet the pneumonia/ILI surveillance case definitions.

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INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE PRIMARY HEALTH CARE CLINICS

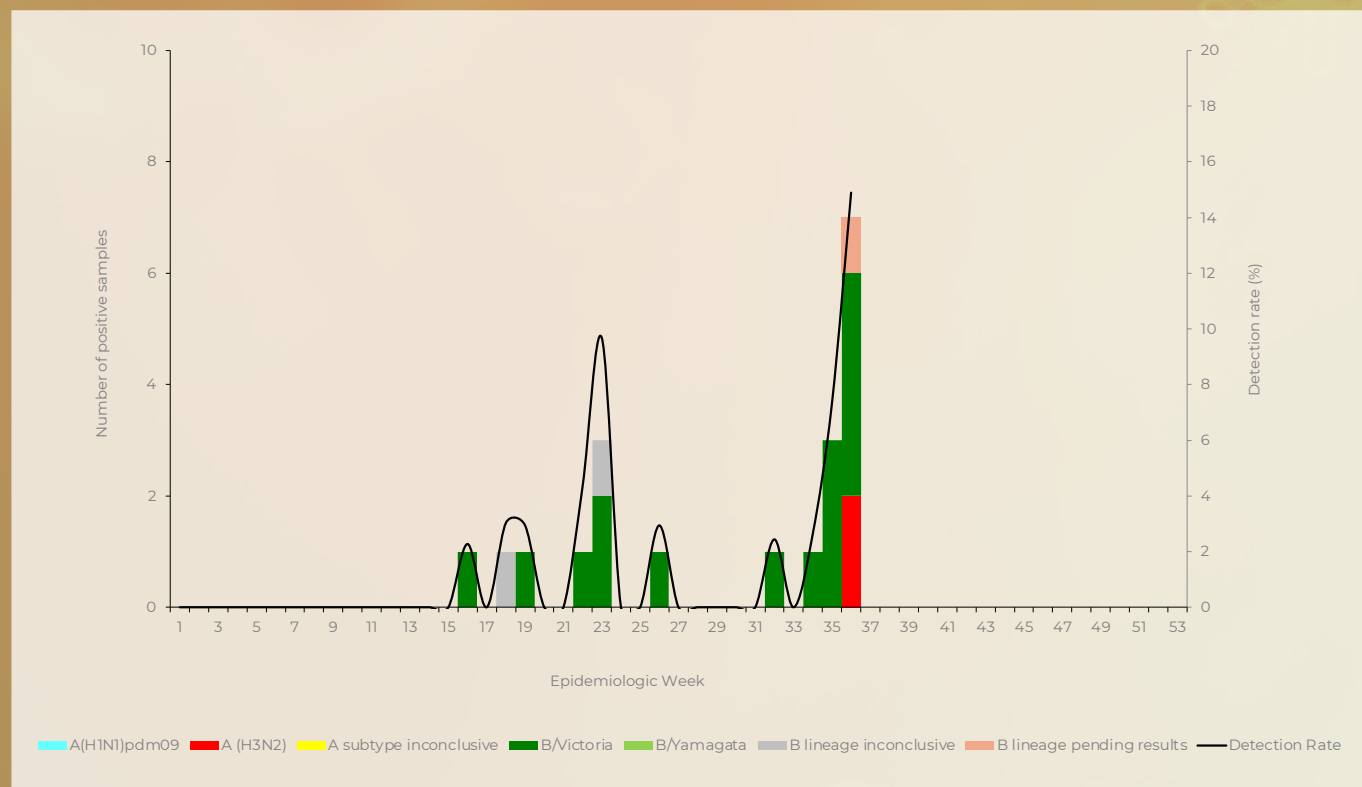


Figure 1. Number of positive samples* by influenza subtype and lineage** and detection rate*** by week

*Specimens from patients with influenza-like illnesses at 5 sentinel sites in 4 provinces

**Influenza was detected from 11 of 543 (2%), all were influenza B(Victoria) from patients who met suspected SARS-CoV-2 case definition but did not meet Influenza-like illness (ILI) case definition. These are not included in the epidemiological curve.

***Only reported for weeks with >10 specimens submitted

Inconclusive: insufficient viral load in sample and unable to characterise further

B lineage pending results: means influenza B results for lineage are pending

Table 1. Cumulative number of influenza subtype and lineage** and total number of samples tested by clinic and province

Clinic (Province)	A(H1N1) pdm09	A(H3N2)	A subtype inconclusive	B/ Victoria	B/ Yamagata	B lineage inconclusive	B lineage pending results***	Total samples
Agincourt (MP)	0	0	0	0	0	0	0	175
Eastridge (WC)	0	2	0	4	0	0	0	206
Edendale Gateway (KZ)	0	0	0	4	0	2	0	162
Jouberton (NW)	0	0	0	7	0	0	1	636
Mitchell's Plain (WC)	0	0	0	0	0	0	0	135
Total:	0	2	0	15	0	2	1	1 314

KZ: KwaZulu-Natal; NW: North West; WC: Western Cape; MP: Mpumalanga

Inconclusive: insufficient viral load in sample and unable to characterise further

**Influenza was detected from 11 of 543 (2%), all were influenza B(Victoria), patients who met suspected SARS-CoV-2 case definition but did not meet Influenza-like illness (ILI) case definition. These are not included in the table.

***influenza B lineage results are pending

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INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE PRIMARY HEALTH CARE CLINICS

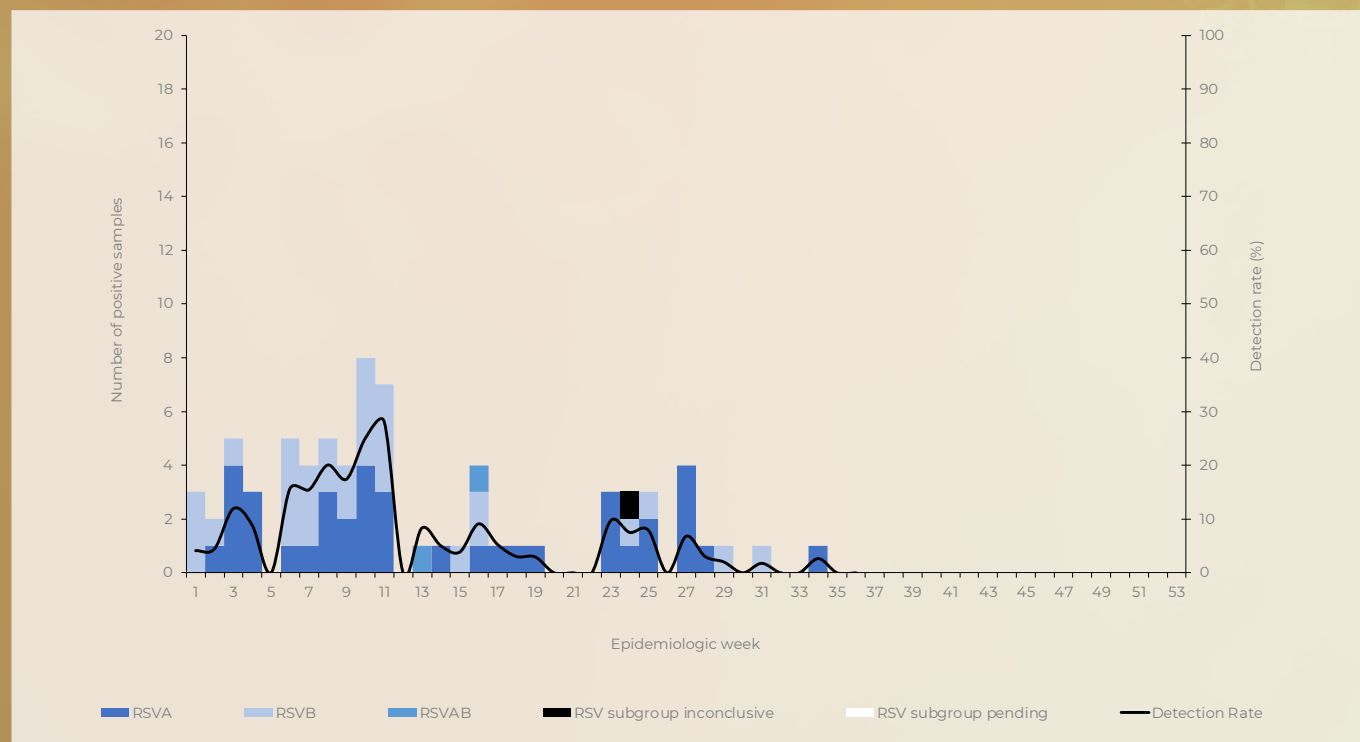


Figure 2. Number of samples testing positive for respiratory syncytial virus** by subgroup and detection rate by week

Inconclusive: insufficient viral load in sample and unable to characterise further
 RSV AB: Both RSV A and B subgroup identified
 RSV subgroup pending: means RSV results for subgroups are pending

**RSV was detected from 15 of 543 (3%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet influenza-like illness (ILI) case definition. These are not included in the epidemiological curve.

Table 2. Cumulative number of respiratory syncytial virus subgroups** identified and total number of samples tested by clinic and province

Clinic (Province)	RSVA	RSVB	RSVAB	RSV subgroup inconclusive	RSV subgroup pending*	Total samples
Agincourt (MP)	11	7	1	0	0	175
Eastridge (WC)	22	1	1	0	1	206
Edendale Gateway (KZ)	1	6	0	0	0	162
Jouberton (NW)	2	17	0	1	0	636
Mitchell's Plain (WC)	2	0	0	0	0	135
Total	38	31	2	1	1	1 314

KZ: KwaZulu-Natal; NW: North West; WC: Western Cape; MP: Mpumalanga
 Inconclusive: insufficient viral load in sample and unable to characterise further
 RSV AB: Both RSV A and B subgroup identified
 *RSV results for subgroups are pending

**RSV was detected from 15 of 543 (3%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet influenza-like illness (ILI) case definition. These are not included in the table.

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INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE PRIMARY HEALTH CARE CLINICS

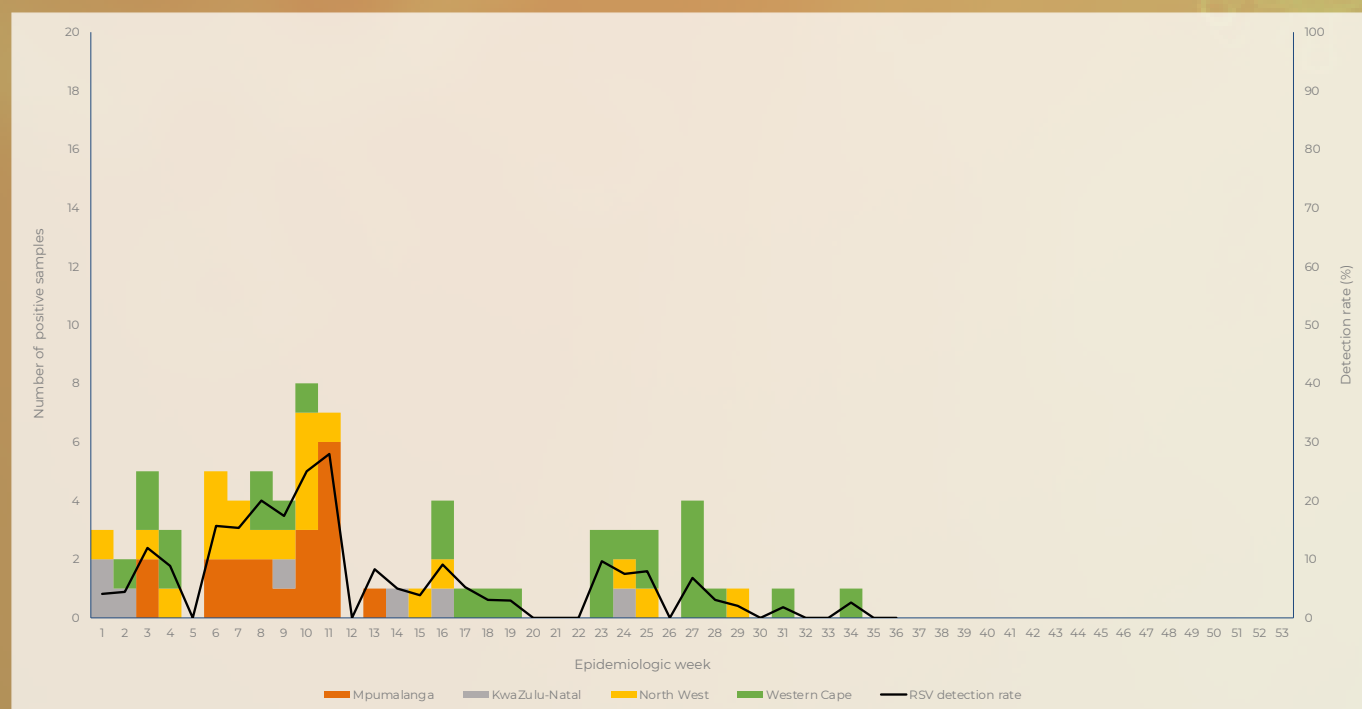


Figure 3. Number of samples testing positive for respiratory syncytial virus* by province and detection rate by week

*RSV was detected from 15 of 543 (3%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet influenza-like illness (ILI) case definition. These are not included in the epidemiological curve.

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INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE PRIMARY HEALTH CARE CLINICS

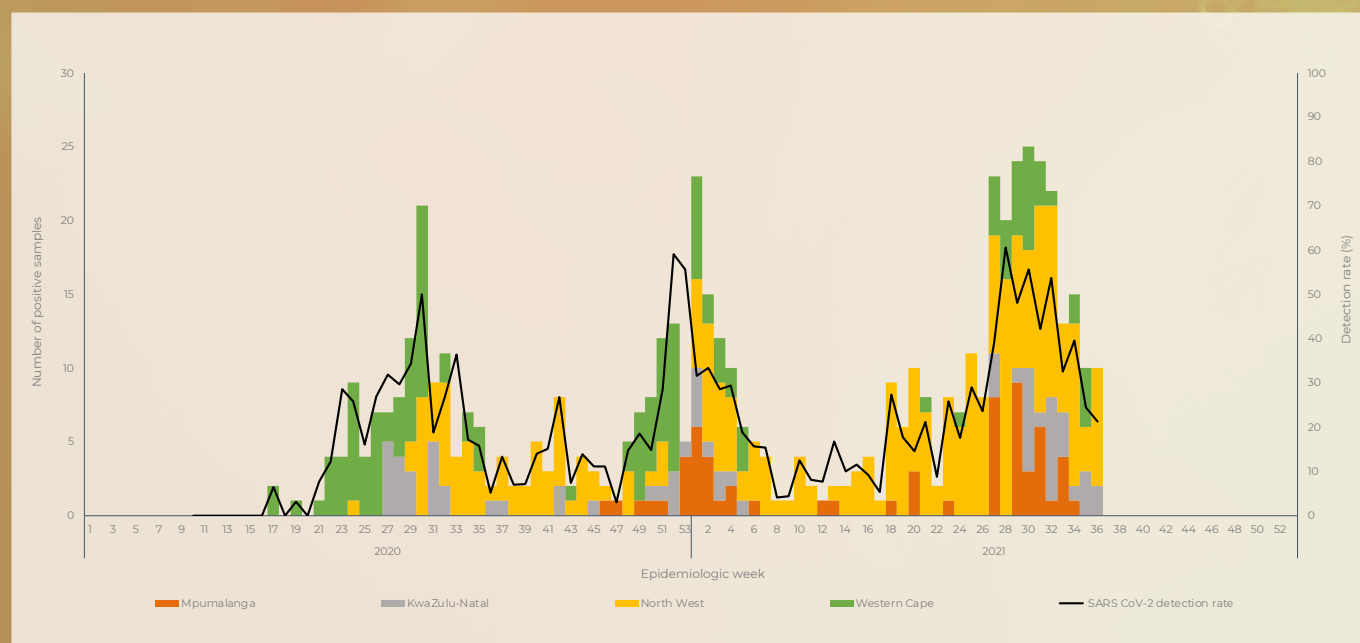


Figure 4. Number of samples testing positive for SARS-CoV-2*[§] by province and detection rate by week

*Specimens from patients with influenza-like illnesses at 5 sentinel sites in 4 provinces

[§]SARS-CoV-2 was detected in 146 of 675 (22%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet influenza-like illness (ILI) case definition. These are not included in the epidemiological curve.

Table 3. Cumulative number of SARS-CoV-2** identified and total number of samples tested by clinic and province

Clinic (Province)	SARS-CoV-2 positive	Total samples tested
Agincourt (MP)	62	205
Eastridge (WC)	58	694
Edendale Gateway (KZ)	67	305
Jouberton (NW)	283	957
Mitchell's Plain (WC)	86	464
Total:	556	2 625

KZ: KwaZulu-Natal; NW: North West; WCP: Western Cape; MP: Mpumalanga (started enrolling on the 10th November 2020)

**SARS-CoV-2 was detected in 146 of 675 (22%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet influenza-like illness (ILI) case definition. These are not included in the table.

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INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE VIRAL WATCH

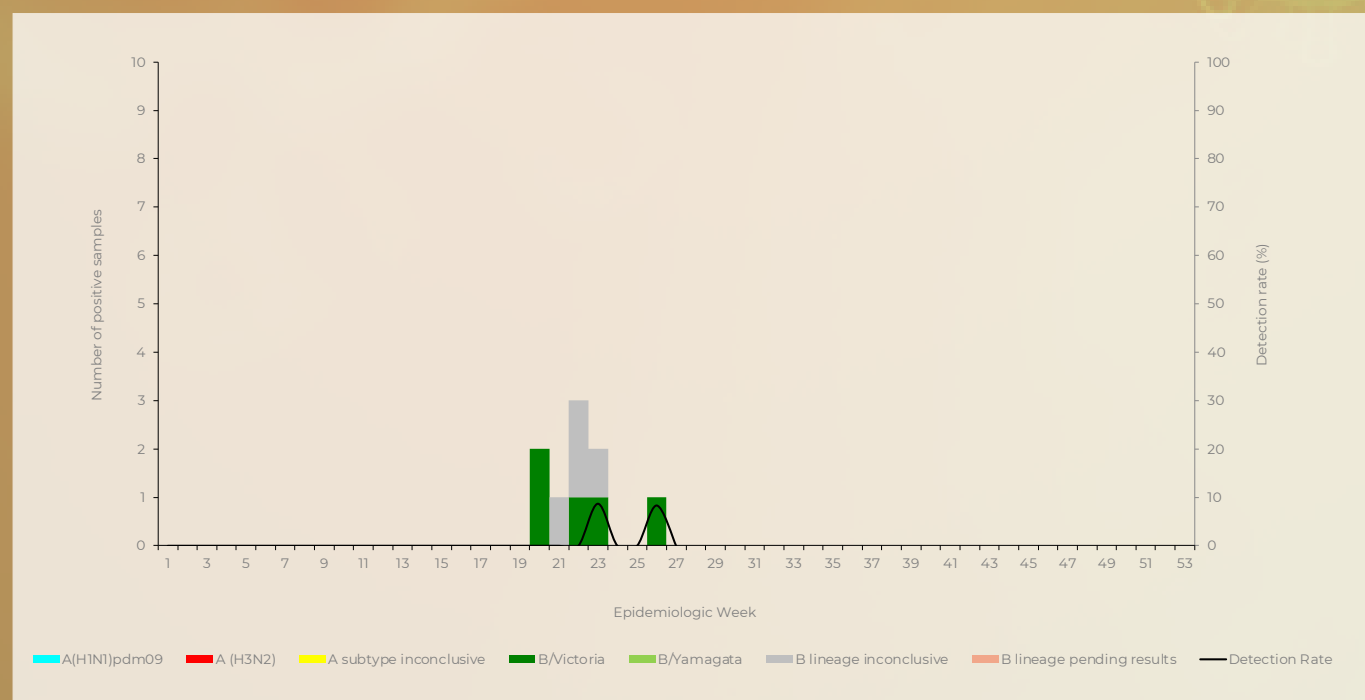


Figure 5. Number of positive samples* by influenza subtype and lineage and detection rate** by week

*Specimens from patients with Influenza-like illnesses at 92 sentinel sites in 8 provinces

** Only reported for weeks with >10 specimens submitted

Inconclusive: insufficient viral load in sample and unable to characterise further

Table 4. Cumulative number of influenza subtype and lineage and total number of samples tested by province

Province	A(H1N1) pdm09	A(H3N2)	A subtype inconclusive	B/ Victoria	B/ Yamagata	B lineage inconclusive	B lineage pending results*	Total samples
Eastern Cape	0	0	0	1	0	0	0	1
Free State	0	0	0	0	0	0	0	0
Gauteng	0	0	0	4	0	4	0	142
Limpopo	0	0	0	0	0	0	0	0
Mpumalanga	0	0	0	0	0	0	0	3
North West	0	0	0	0	0	0	0	2
Northern Cape	0	0	0	0	0	0	0	0
Western Cape	0	0	0	0	0	0	0	26
Total:	0	0	0	5	0	4	0	174

Inconclusive: insufficient viral load in sample and unable to characterise further

From 04 January 2021 to date, no patients were tested for influenza at the time of entry into South Africa following travel abroad.

Patients known to have acquired influenza abroad are not included in the table or epidemiological curve.

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INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE VIRAL WATCH



Figure 6. ILI surveillance (Viral Watch) percentage influenza detections and epidemic thresholds*

*Thresholds based on 2010-2019 data

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INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE VIRAL WATCH

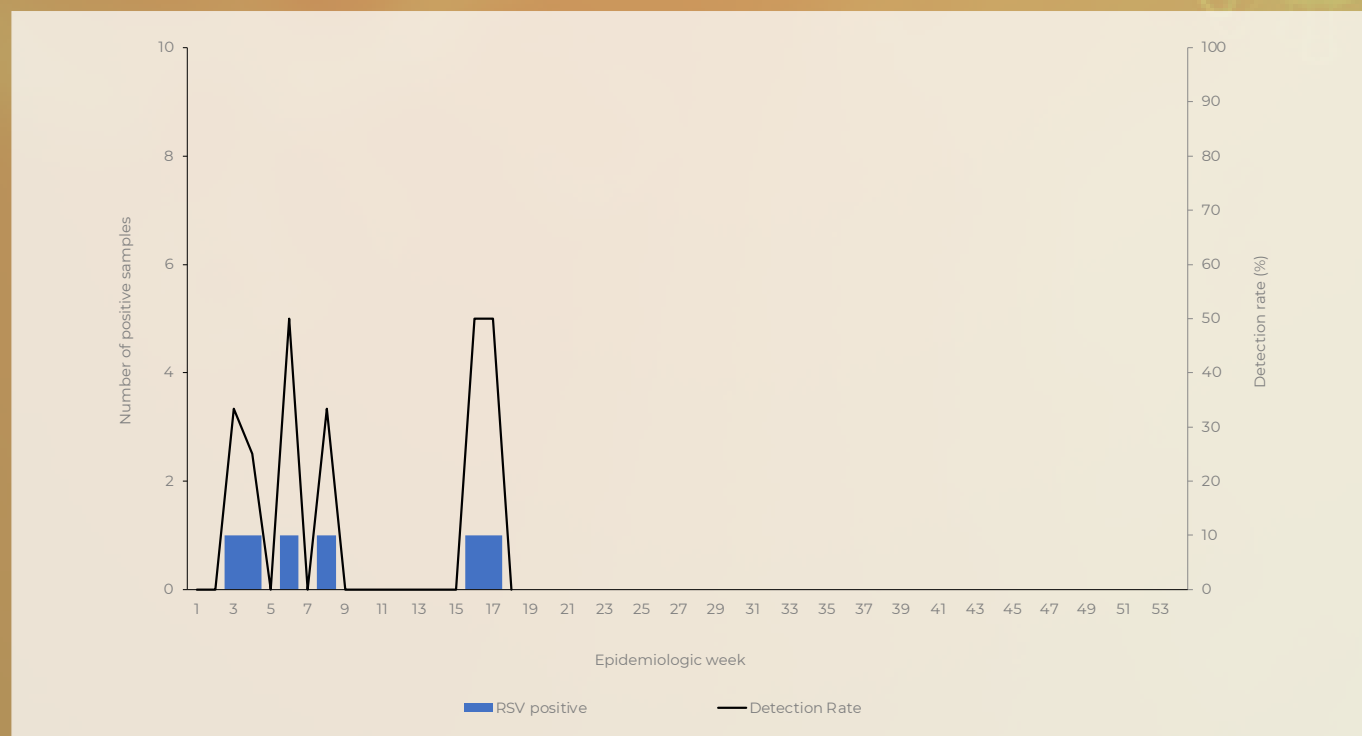


Figure 7. Number of samples testing positive for RSV*, and detection rate by week

*Specimens from patients with Influenza-like illnesses at 92 sentinel sites in 8 provinces

Table 5. Cumulative number of RSV positive cases identified and total number of samples tested by province

Province	RSV positive	Total samples tested
Eastern Cape	0	1
Free State	0	0
Gauteng	4	142
Limpopo	0	0
Mpumalanga	0	3
North West	0	2
Northern Cape	0	0
Western Cape	2	26
Total:	6	174

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INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE VIRAL WATCH

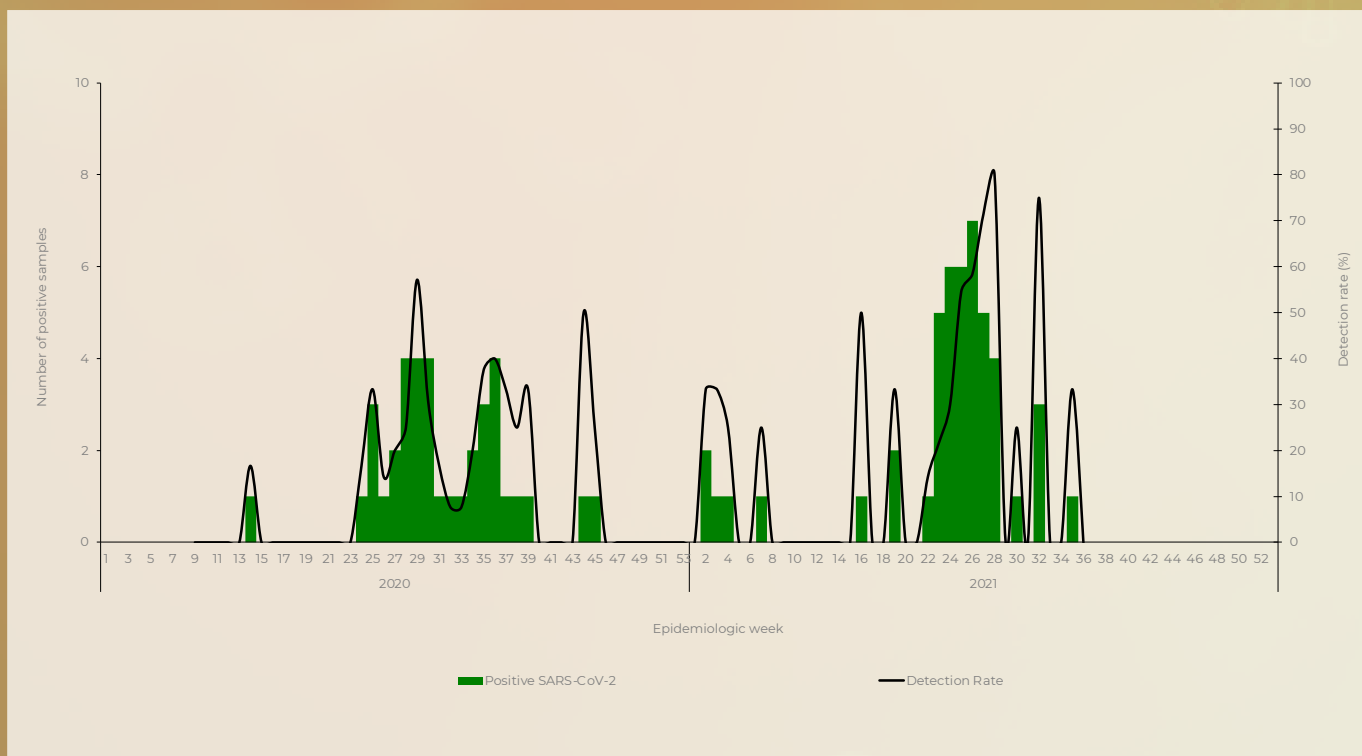


Figure 8. Number of samples testing positive for SARS-CoV-2*, and detection rate by week

*Specimens from patients with Influenza-like illnesses at 92 sentinel sites in 8 provinces

Table 6. Cumulative number of SARS-CoV-2 identified and total number of samples tested by province

Hospital (Province)	SARS-CoV-2 positive	Total samples
Eastern Cape	1	5
Free State	1	14
Gauteng	65	302
Limpopo	0	2
Mpumalanga	1	8
North West	0	2
Northern Cape	0	2
Western Cape	16	118
Total:	84	453

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NATIONAL SYNDROMIC SURVEILLANCE FOR PNEUMONIA

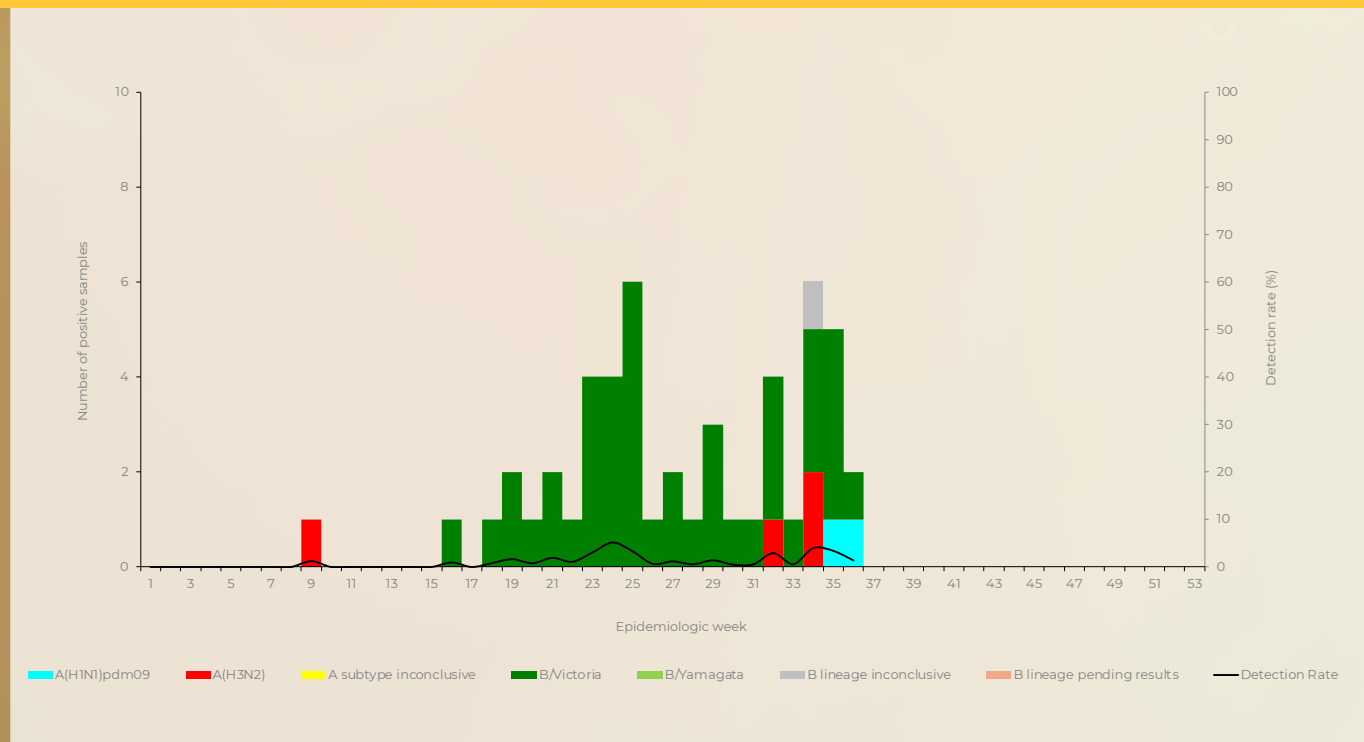


Figure 9. Number of positive samples* by influenza subtype and lineage** and detection rate*** by week

*Specimens from patients hospitalised with pneumonia at 7 sentinel sites in 5 provinces

**Influenza B (Victoria) was detected in four (3%) of 150 specimens from patients who met suspected SARS-CoV-2 case definition but did not meet pneumonia (SRI) case definition. These are not included in the epidemiological curve.

***Only reported for weeks with >10 specimens submitted

Inconclusive: insufficient viral load in sample and unable to characterise further

B lineage pending results: influenza B results for lineage are pending

Table 7. Cumulative number of identified influenza subtype and lineage** and total number of samples tested by hospital

Province	A(H1N1) pdm09	A(H3N2)	A subtype inconclusive	B/ Victoria	B/ Yamagata	B lineage inconclusive	B lineage pending results***	Total samples
Edendale (KZ)	0	0	0	8	0	0	0	687
Helen Joseph-Rahima Moosa (GP)	2	3	0	17	0	1	0	1136
Klerksdorp-Tshepong (NW)	0	0	0	4	0	0	0	745
Mapulaneng-Matikwana (MP)	0	0	0	1	0	0	0	445
Red Cross (WC)	0	0	0	11	0	0	0	580
Mitchell's Plain (WC)	0	1	0	1	0	0	0	694
Tintswalo (MP)	0	0	0	1	0	0	0	178
Total:	2	4	0	43	0	1	0	4 465

GP: Gauteng; KZ: KwaZulu-Natal; NW: North West; MP: Mpumalanga (Tintswalo started enrolling on the 10th Feb 2021); WC: Western Cape
Inconclusive: insufficient viral load in sample and unable to characterise further

**Influenza B (Victoria) was detected in four (3%) of 150 specimens from patients who met suspected SARS-CoV-2 case definition but did not meet pneumonia (SRI) case definition. These are not included in the table.

***influenza B lineage results are pending

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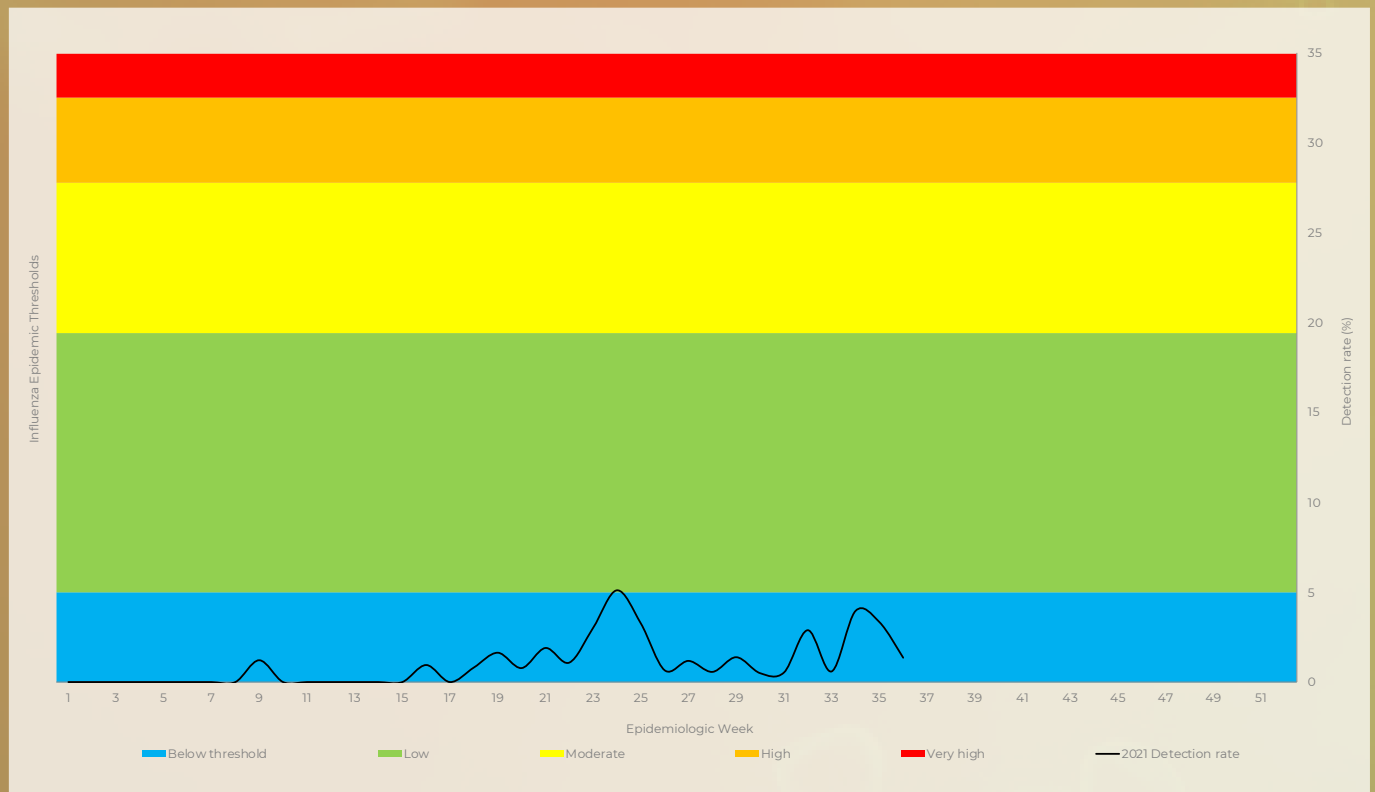


Figure 10. National syndromic surveillance for pneumonia percentage influenza detections and epidemic thresholds*

*Thresholds based on 2010-2019 data

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NATIONAL SYNDROMIC SURVEILLANCE FOR PNEUMONIA

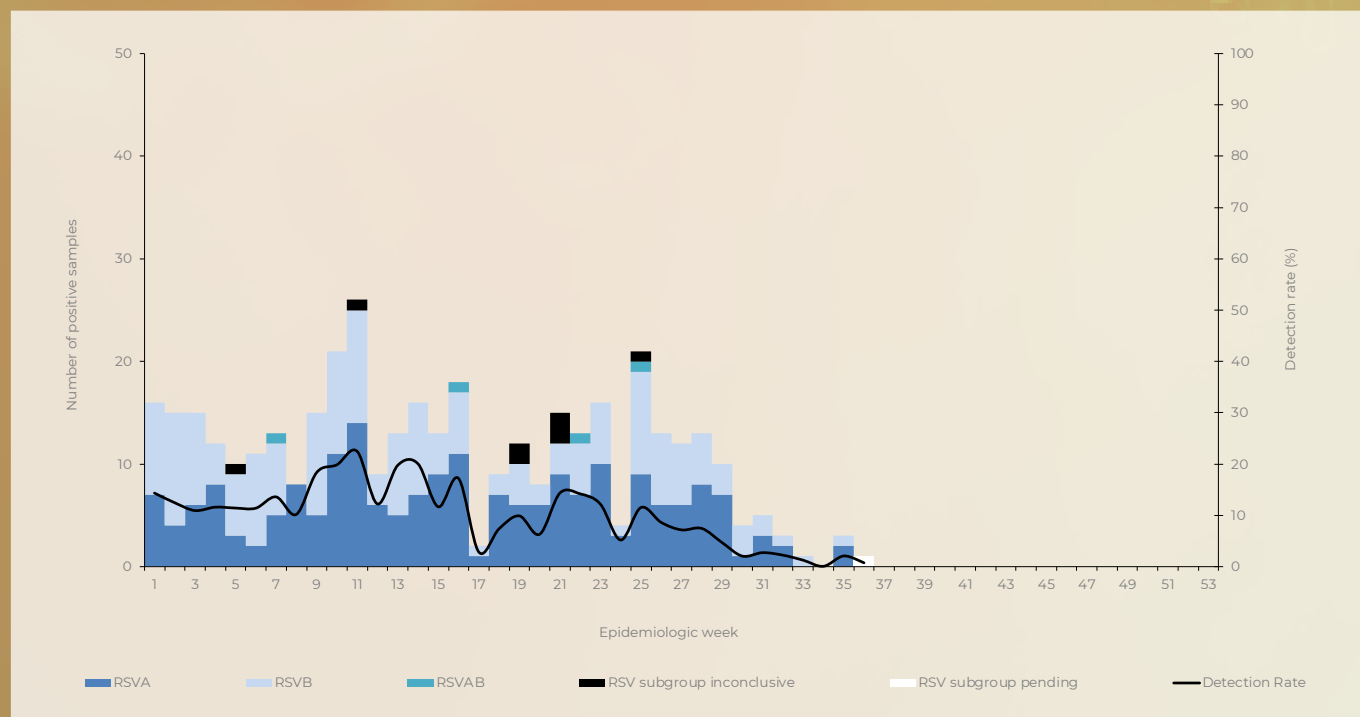


Figure 11. Number of samples testing positive for respiratory syncytial virus* by subgroup and detection rate by week

Inconclusive: insufficient viral load in sample and unable to characterise further

RSV AB: Both RSV A and B subgroup identified

RSV subgroup pending: means RSV results for subgroups are pending

*RSV was detected in six of 150 (4%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet pneumonia (SRI) case definition. These are not included in the epidemiological curve.

Table 8: Cumulative number of respiratory syncytial virus** subgroups identified and total number of samples tested by hospital

Hospital (Province)	RSVA	RSVB	RSVAB	RSV subgroup inconclusive	RSV subgroup pending*	Total samples
Edendale (KZ)	5	29	0	0	0	687
Helen Joseph-Rahima Moosa (GP)	37	42	0	0	0	1136
Klerksdorp-Tshepong (NW)	8	44	0	2	0	745
Mapulaneng-Matikwana (MP)	20	7	1	0	0	445
Red Cross (WC)	84	45	2	5	1	580
Mitchell's Plain (WC)	40	10	1	1	0	694
Tintswalo (MP)	10	3	0	0	0	178
Total:	204	180	4	8	1	4 465

GP: Gauteng; KZ: KwaZulu-Natal; NW: North West; MP: Mpumalanga (Tintswalo started enrolling on the 10th Feb 2021); WC: Western Cape

Inconclusive: insufficient viral load in sample and unable to characterise further

RSV AB: Both RSV A and B subgroup identified

*RSV results for subgroups are pending

**RSV was detected in six of 150 (4%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet pneumonia (SRI) case definition. These are not included in the table.

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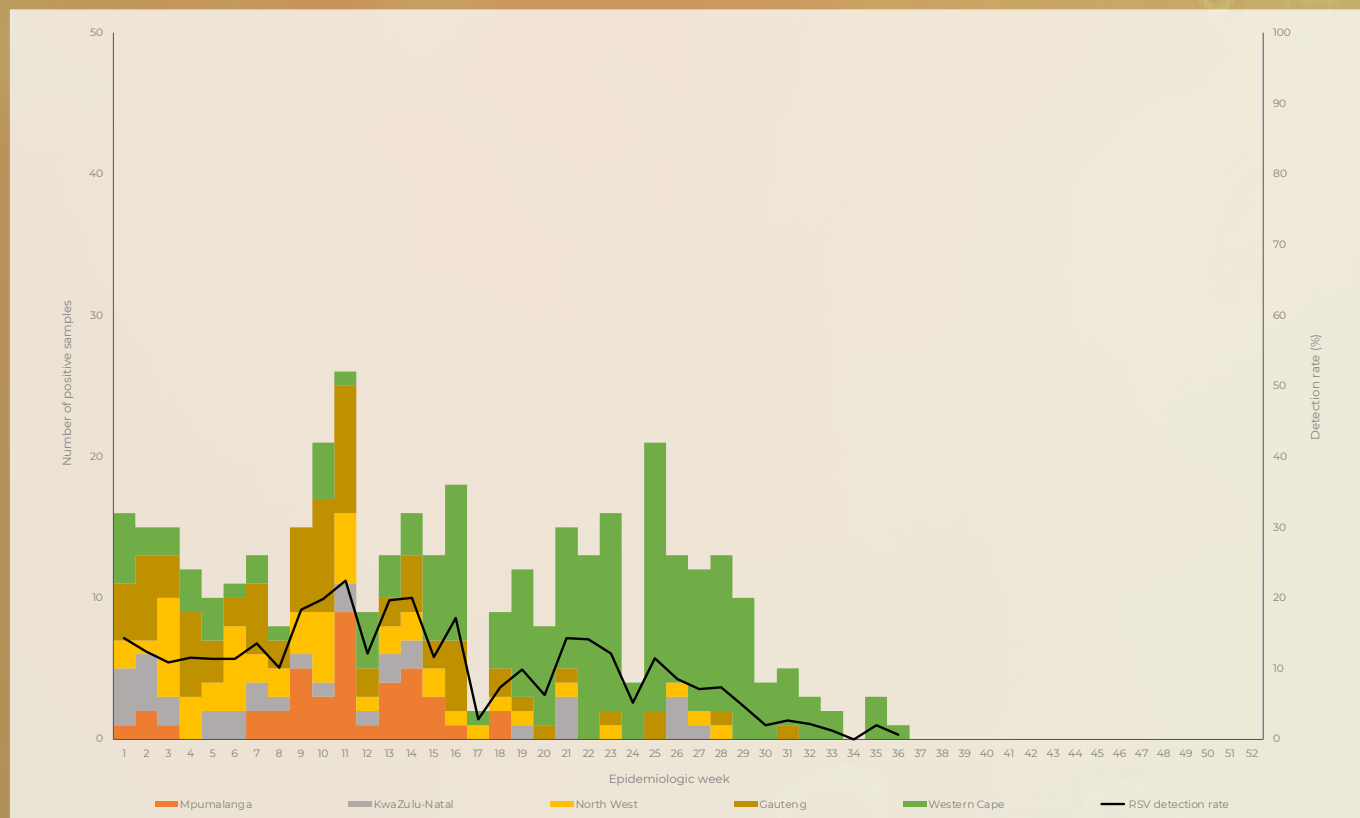


Figure 12. Number of samples testing positive for respiratory syncytial virus* by province and detection rate by week

*RSV was detected in six of 150 (4%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet pneumonia (SRI) case definition. These are not included in the epidemiological curve.

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NATIONAL SYNDROMIC SURVEILLANCE FOR PNEUMONIA

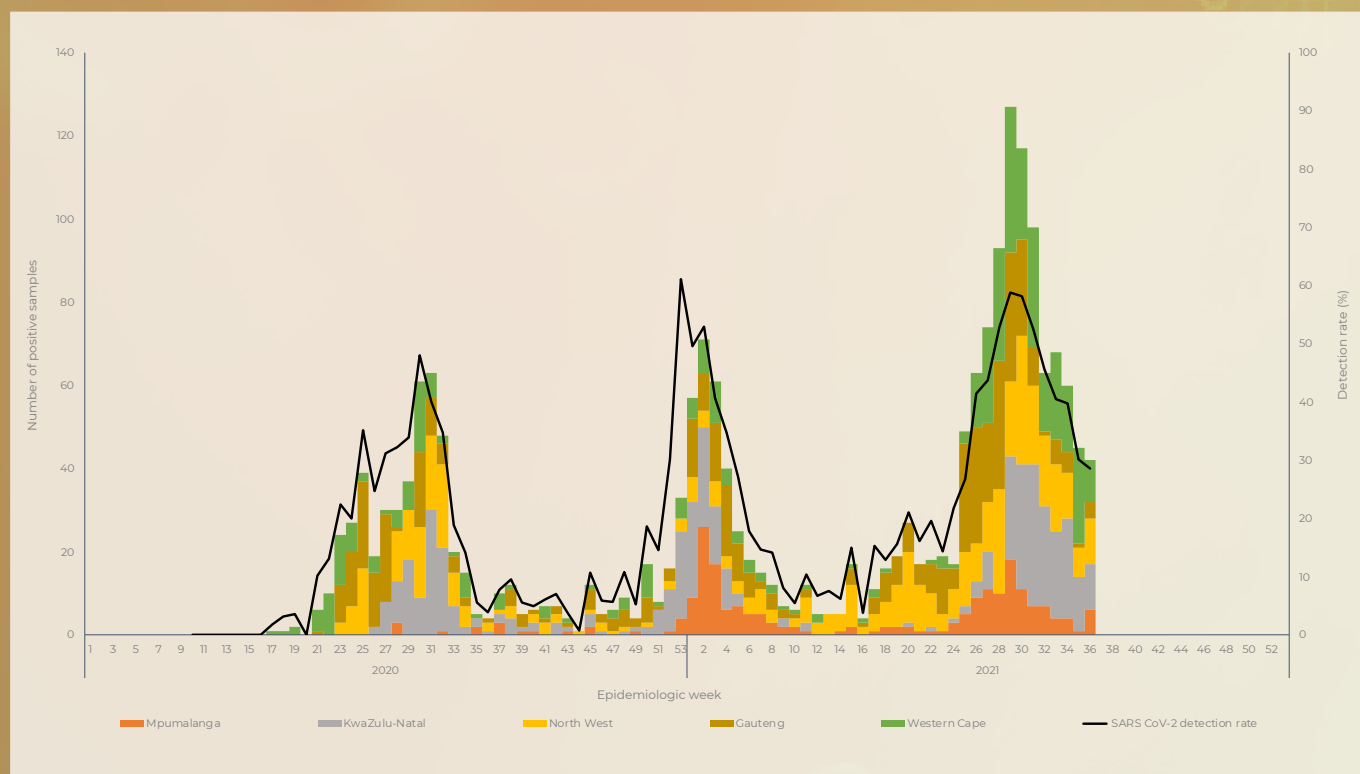


Figure 13. Number of samples testing positive for SARS-CoV-2** by province and detection rate by week

*Specimens from patients hospitalised with pneumonia at 7 sentinel sites in 5 provinces

**SARS-CoV-2 was detected in 37 of 221 (17%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet pneumonia (SRI) case definition. These are not included in the epidemiological curve.

Table 9. Cumulative number of identified SARS-CoV-2** and total number of samples tested by hospital

Hospital (Province)	SARS-CoV-2 positive	Total samples tested
Edendale (KZ)	445	1 534
Helen Joseph-Rahima Moosa (GP)	478	1 982
Klerksdorp-Tshepong (NW)	466	1 338
Mapulaneng-Matikwana (MP)	162	747
Red Cross (WC)	60	1 538
Mitchell's Plain (WC)	346	1 164
Tintswalo (MP)	50	177
Total:	2 007	8 480

GP: Gauteng; KZ: KwaZulu-Natal; NW: North West; MP: Mpumalanga (Tintswalo started enrolling on the 10th Feb 2021); WC: Western Cape

**SARS-CoV-2 was detected in 37 of 221 (17%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet pneumonia (SRI) case definition. These are not included in the table.

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SUMMARY OF LABORATORY CONFIRMED SARS-COV-2 CASES

Table 10. Characteristics of laboratory-confirmed cases of COVID-19, enrolled in influenza-like illness (ILI) and pneumonia surveillance programmes, South Africa, 02 March 2020 – 12 September 2021

Characteristic	Influenza-like illness (ILI), public-sector, n=702 (%)	Pneumonia, n=2 044 (%)
Age group		
0-9	52/702 (7)	1832/2044 (6)
10-19	51/702 (7)	12/2044 (1)
20-39	327/702 (47)	365/2044 (18)
40-59	218/702 (31)	771/2044 (37)
60-79	52/702 (7)	689/2044 (34)
≥80	2/702 (<1)	75/2044 (4)
Sex-female	427/702 (61)	1246/2044 (61)
Province*		
Gauteng	N/A	479/2044 (23)
KwaZulu-Natal	111/702 (16)	450/2044 (22)
Mpumalanga**	85/702 (12)	243/2044 (12)
North West	358/702 (51)	466/2044 (23)
Western Cape	148/702 (21)	406/2044 (20)
Race		
Black	529/697 (76)	1595/2024 (79)
Coloured	137/697 (20)	322/2024 (16)
Asian/Indian	4/697 (1)	49/2024 (2)
White	21/697 (3)	40/2024 (2)
Other	6/697 (1)	18/2024 (<1)
Presentation		
Fever	548/697 (79)	939/2024 (46)
Cough	678/697 (97)	1944/2024 (96)
Shortness of breath	254/697 (36)	1584/2024 (78)
Chest pain	305/697 (44)	822/2024 (41)
Diarrhoea	52/697 (7)	126/2024 (6)

INFLUENZA, RESPIRATORY SYNCYTIAL VIRUS AND SARS-CoV-2 SURVEILLANCE REPORT

WEEK 36 2021

REPORTING PERIOD 2 MARCH 2020 TO 12 SEPTEMBER 2021

Characteristic	Influenza-like illness (ILI), public-sector, n=702 (%)	Pneumonia, n=2 044 (%)
Underlying conditions		
Hypertension [§]	17/601 (3)	249/1780 (14)
Cardiac	2/697 (<1)	47/2024 (2)
Lung disease	0/697 (0)	3/2024 (<1)
Diabetes	16/697 (2)	421/2024 (21)
Cancer	2/697 (<1)	13/2024 (1)
Tuberculosis	11/697 (2)	51/2024 (3)
HIV-infection	130/697 (19)	435/2024 (21)
Other ***	12/697 (2)	90/2024 (4)
Management		
Oxygen therapy	9/697 (1)	1539/2024 (76)
ICU admission	N/A	42/2024 (2)
Ventilation	N/A	52/2024 (3)
Outcome***		
Died	0/686 (0)	312/1851 (17)

[§]ILI surveillance not conducted in Gauteng province

**Mpumalanga (ILI site started enrolling on the 10th November 2020 and an additional SARI site started enrolling on the 10th February 2021)

***Chronic lung, liver and kidney disease, organ transplant, pregnancy, malnutrition, obesity, tracheostomy, prematurity, seizure, stroke, anaemia, asplenia, burns, Systemic lupus erythematosus, seizures

****Outcome includes patients who are still hospitalised, have been discharged or referred, and those who died

[§]Data on hypertension was not collected on all cases.

Note: Children may be over-represented amongst hospitalised patients due to the inclusion of a large paediatric hospital in Cape Town.

Of the 312 patients who died, three were in <20 age group, 22 in the 20-39 year age group, 105 in the 40-59 year age group, and 182 were ≥60 years; 179/312 (57%) were female.

Of the 1063 hospitalised cases with COVID19 vaccine status, 91 (9%) received vaccine. 9 (10%) received Johnson & Johnson, 69 (76%) received the first dose of Pfizer-BioNTech, 3 (3%) Astra Zeneca and 10 (11%) could not remember the vaccine type received. 16 (18%) of the 91 cases had full vaccination (n=9, J&J and n=7, Pfizer-BioNTech). Cases age varied from 35 years to >60 years old and the majority (73%, 66/91) were >60 years old. Females were a majority 58% (53/91) and 12% (11/91) cases were HIV infected.