

PRIVATE CONSULTATIONS SURVEILLANCE EPIDEMIC THRESHOLD REPORT



NATIONAL INSTITUTE FOR
COMMUNICABLE DISEASES

Division of the National Health Laboratory Service

SOUTH AFRICA WEEK 13 2022

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HIGHLIGHTS: WEEK 13

- Total COVID-19 and respiratory admissions increased since the start of the fourth COVID-19 wave from week 45 of 2021, peaking in week 49 of 2021. However recently the numbers have been decreasing in age groups 5 years and older and all provinces to below/low threshold. Admission numbers in those aged <5 years increased from weeks 3 to 13 of 2022 reaching very high threshold, likely related to high levels of circulation of respiratory syncytial virus (RSV).
- Total COVID-19 and respiratory outpatient (general practitioner) consultations peaked in week 49 of 2021 in the fourth COVID-19 wave. Recently the number of consultations has been decreasing in all provinces and age groups excluding those aged 20-49 years to below/low threshold. Consultations among those aged 20-49 years slightly increased in recent weeks but remain at low threshold.
- Total COVID-19 and respiratory emergency department consultations peaked in week 49 of 2021 in the fourth COVID-19 wave. In the past few weeks, numbers have been decreasing in all age groups and provinces to below/low/moderate threshold.

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PROGRAMME DESCRIPTIONS

Inpatient data from a large national private hospital group and outpatient data from a general practitioner network linked to the same hospital group were received for the last week. Data were obtained from eight provinces (Eastern Cape, Free State, Gauteng, Limpopo, KwaZulu-Natal, Mpumalanga, North West, Western Cape). Sufficient numbers for province-level reporting were available for four of these (bold). Consultations and admissions were coded based on discharge diagnosis using the International Classification of Diseases and Related Health Problems, 10th revision (ICD-10). Data were analysed using the indicator: All respiratory and confirmed or suspected COVID-19 (J00-J99 & U07.1 & U07.2)/Total consultations. Data on the indicator Pneumonia and Influenza (J10-J18)/Total consultations are available on request but were not included in this report.

Data were categorised in the following age groups: All ages, <5 years, 5-19 years, 20-49 years, ≥50 years.

Epidemic Threshold

Thresholds were 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 historical data (2015-2019 for inpatients, 2016-2019 for outpatients) to calculate thresholds of activity, defined as follows:

- Epidemic threshold: Median of weekly values for all baseline years
- Low activity: Between epidemic threshold including 40th percentile
- Moderate activity: Between 40th and 90th percentile
- High activity: Between 90th and 97.5th percentile
- Very high activity: 97.5th percentile and above

Hospitalization data for recent weeks are adjusted for delayed reporting (diagnosis codes assigned on discharge delayed for prolonged hospitalisations). Adjustment accounts for the probability of being admitted, but not yet discharged at the time of data drawdown using the age- and syndrome-specific probability distribution of duration of admission obtained from all hospitalizations that occurred during 2015-2019 and applied to weeks reported.

Limitations

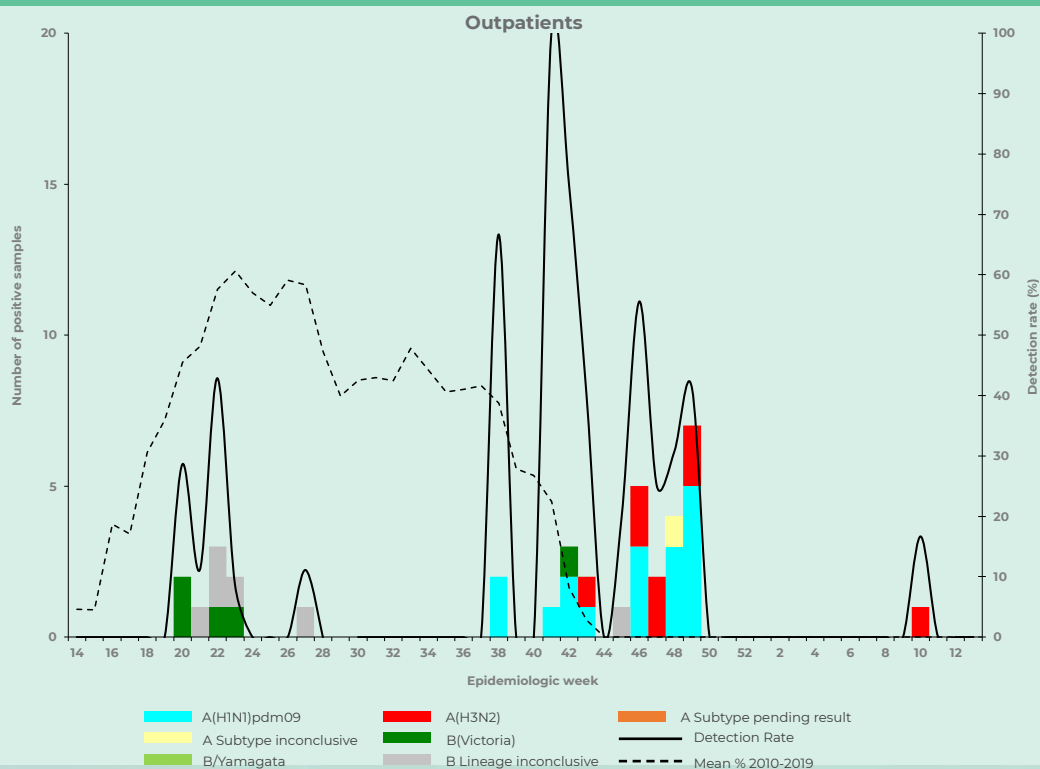
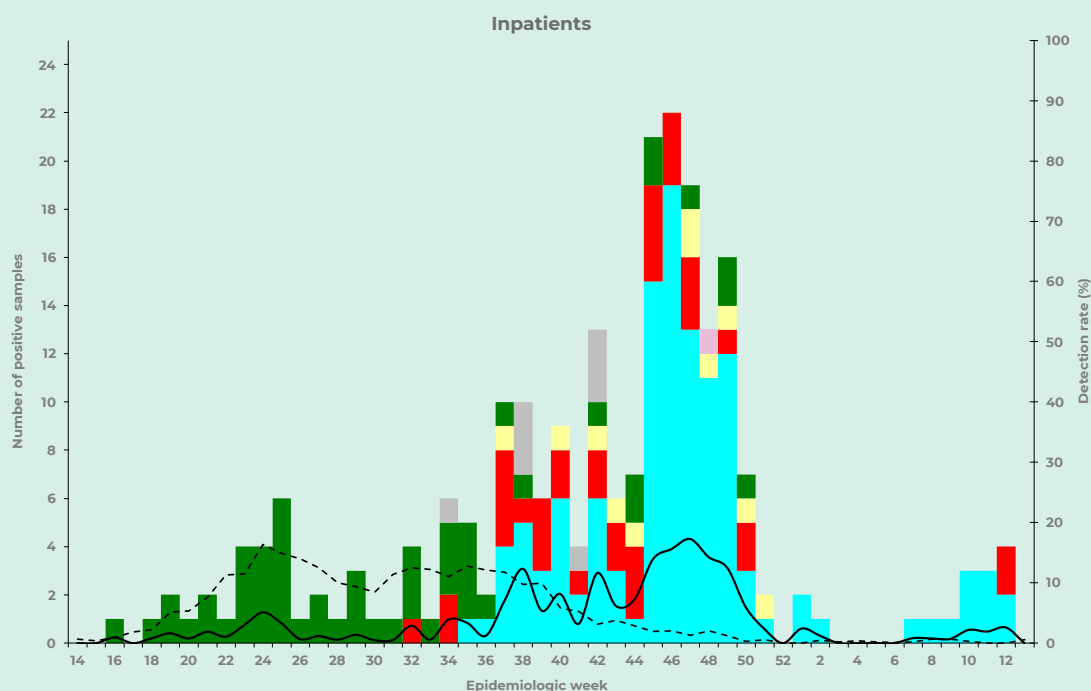
Thresholds are established based on the proportion of respiratory consultations. If the numbers of non-respiratory consultations drop substantially because of changes in health-seeking behaviour, this could lead to elevated respiratory proportions. Delays in the coding of consultations may lead to changes in data from previous weeks. Differences by province and age group should be interpreted with caution due to low numbers in some groups.

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DATA FROM VIROLOGIC SURVEILLANCE PROGRAMMES TO AID IN INTERPRETATION OF CONSULTATION TRENDS

Number of influenza positive samples by subtype/lineage and detection rate by week

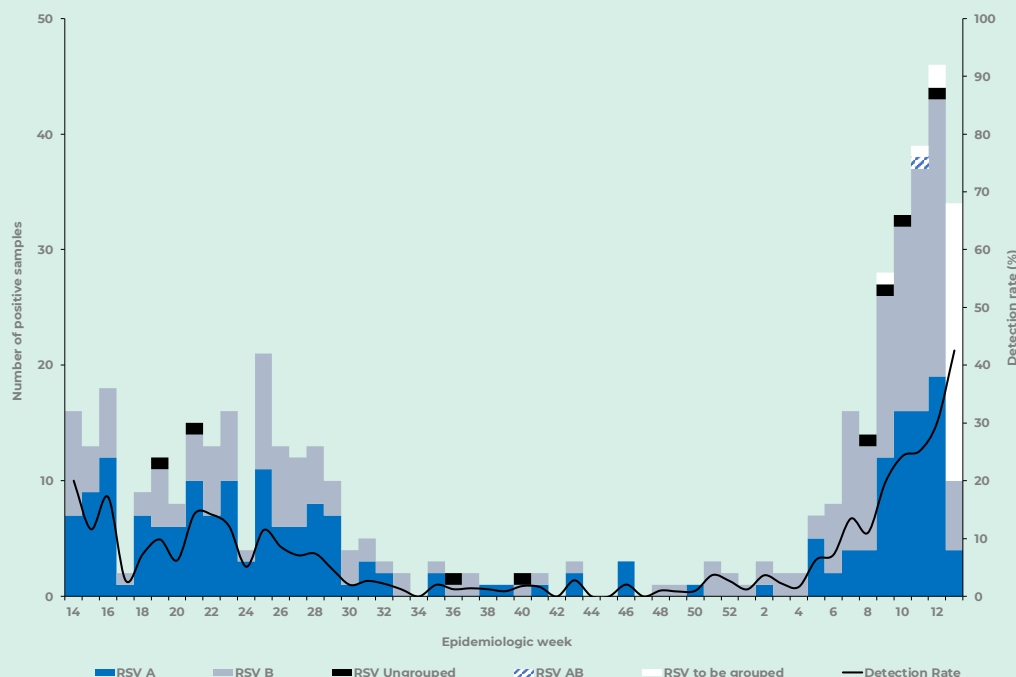


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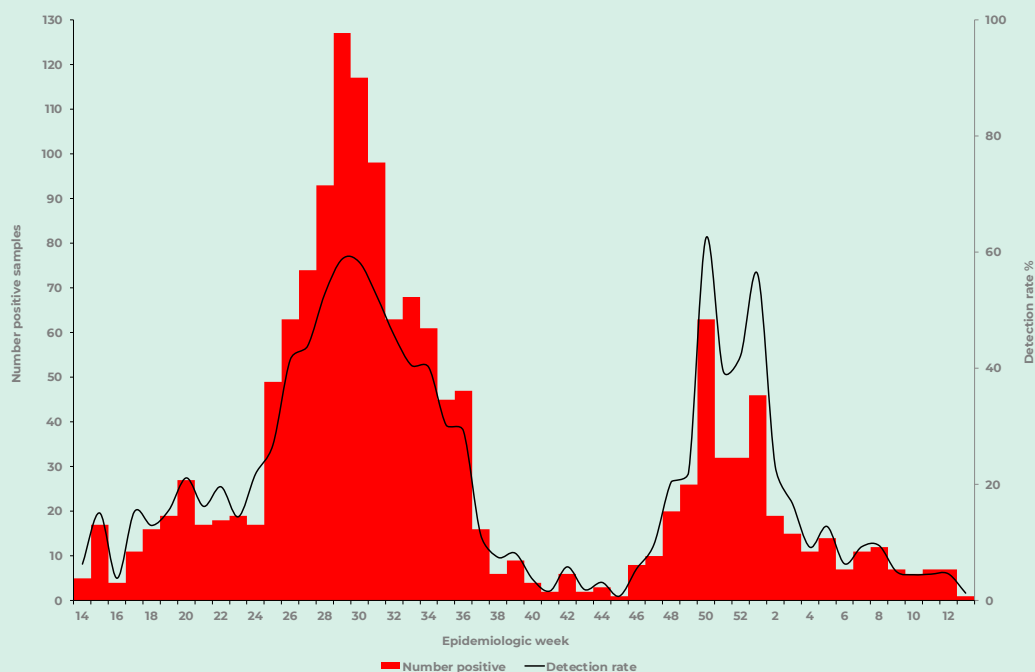
WEEK 13 2022

DATA FROM VIROLOGIC SURVEILLANCE PROGRAMMES TO AID IN INTERPRETATION OF CONSULTATION TRENDS

Number of respiratory syncytial virus positive by groups and subgroups per week (inpatients) and detection rate per week (inpatients)



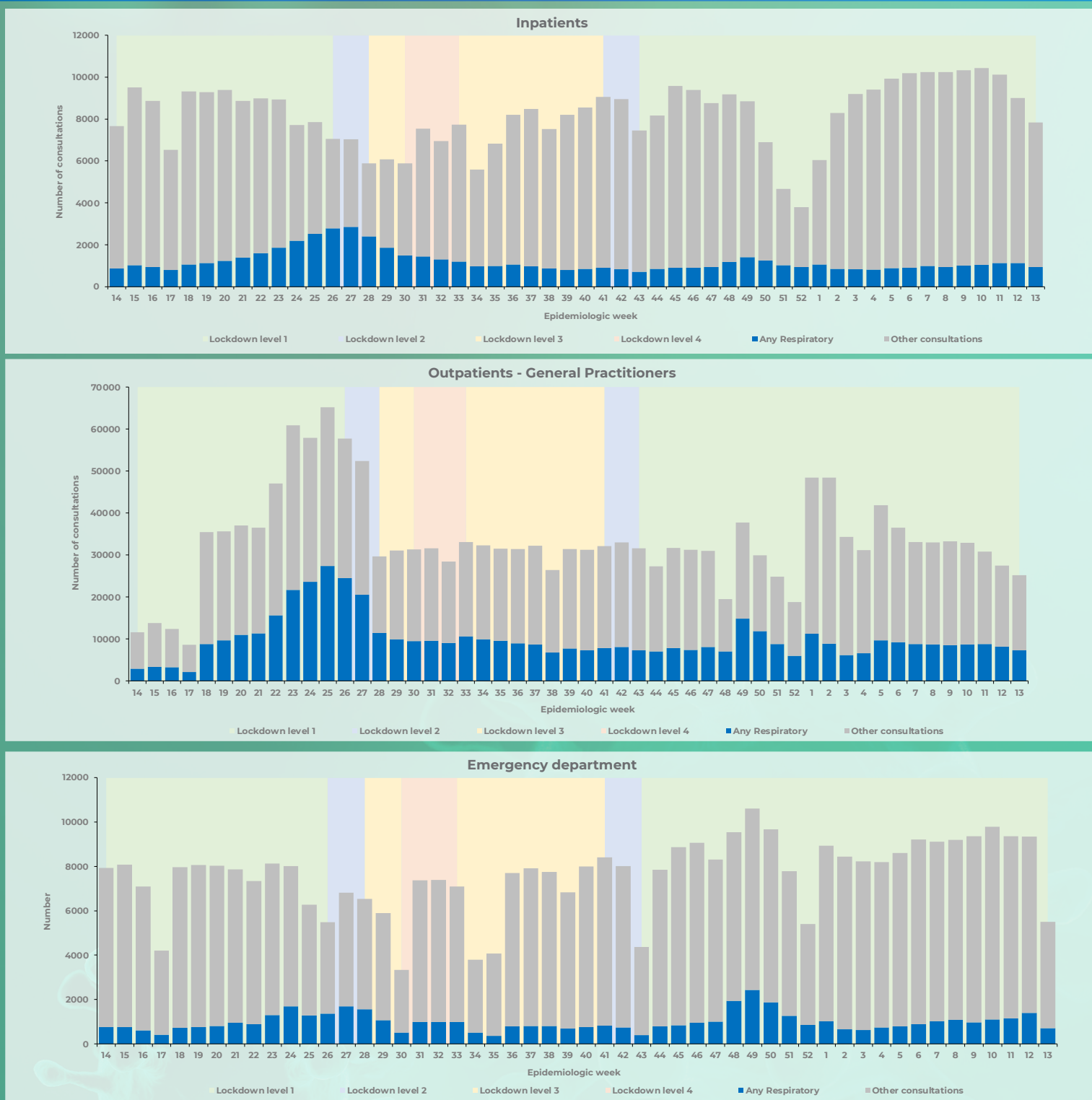
Number of SARS-COV-2 positive and detection rate per week (inpatients)



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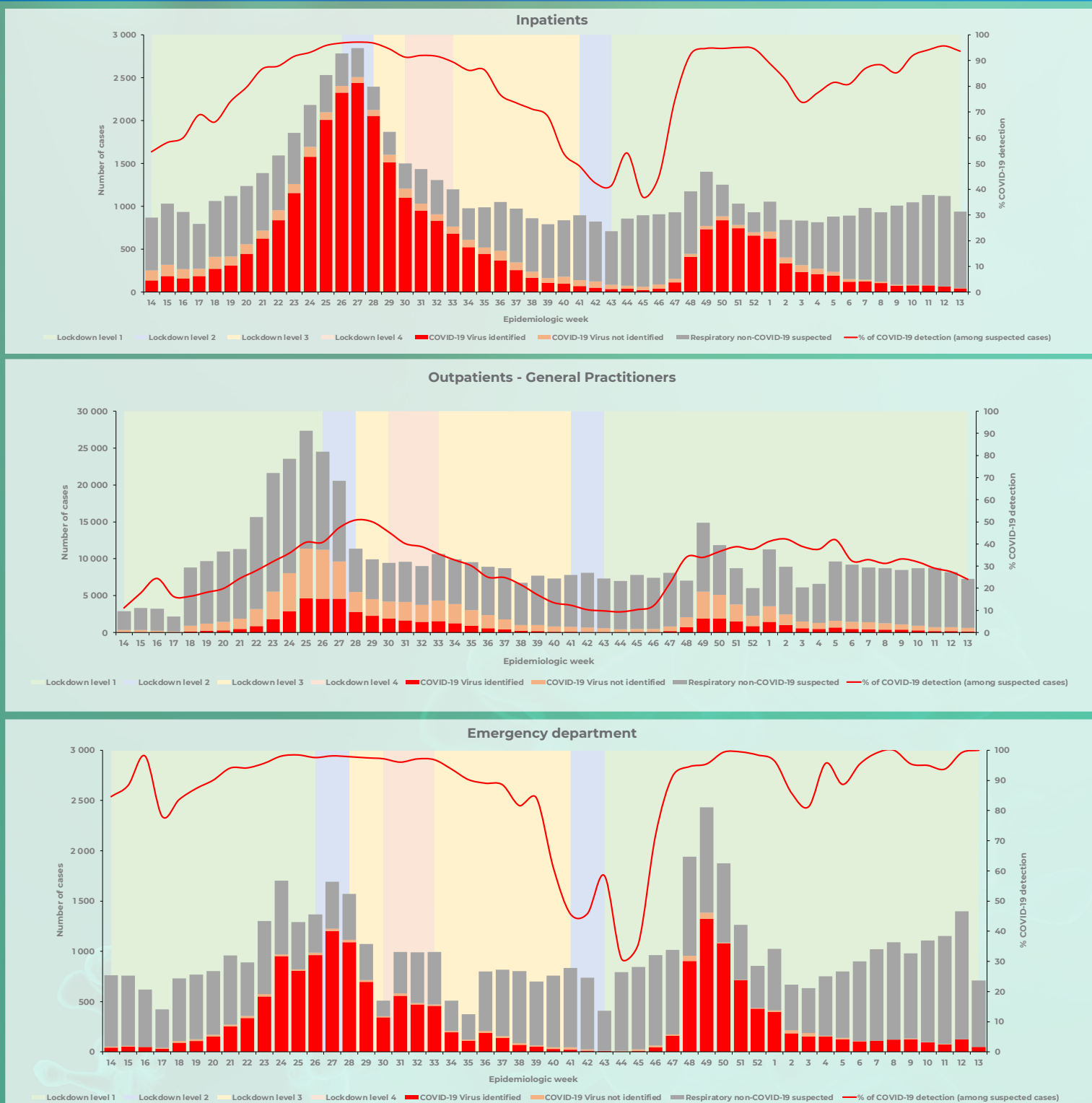
Number of consultations - all respiratory including confirmed or suspected COVID-19 and other consultations by week



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Number of consultations - all respiratory including confirmed or suspected COVID-19 and other consultations by week

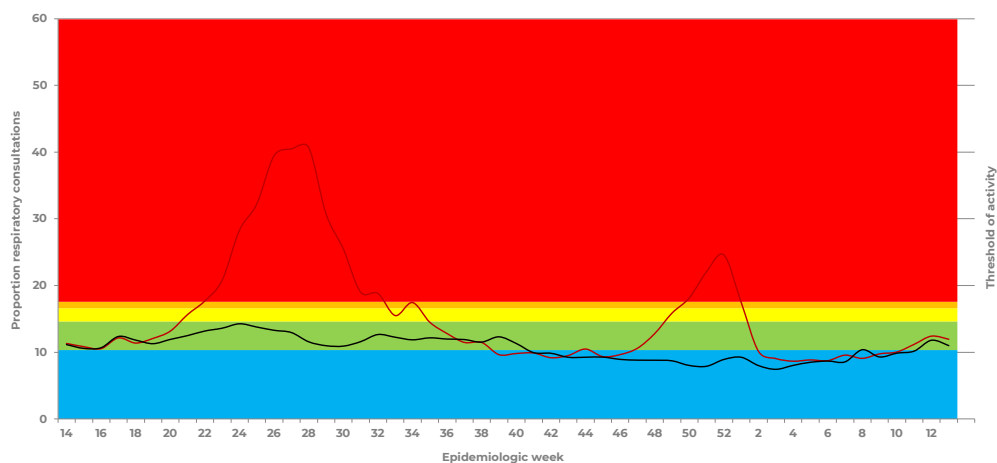


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ALL AGES

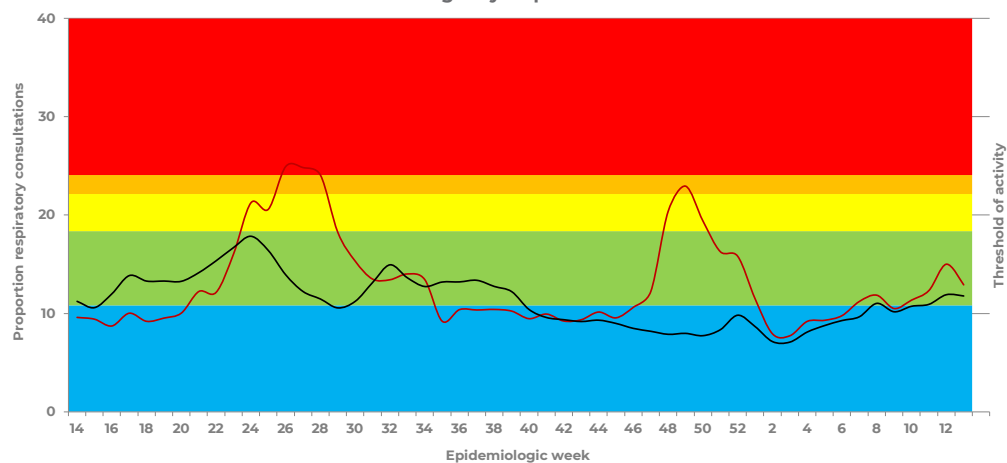
All Respiratory including confirmed or suspected COVID-19 (J00-J99 & U07) indicators - Inpatients



All Respiratory including confirmed or suspected COVID-19 (J00-J99 & U07) indicators - Outpatients
General Practitioners



Emergency Department



■ Below threshold
 ■ Low
 ■ Moderate
 ■ High
 ■ Very High
— % All Respiratory
— Mean % 2015-2019 (Inpatients/Casualty) 2016-2019 (General Practitioner)

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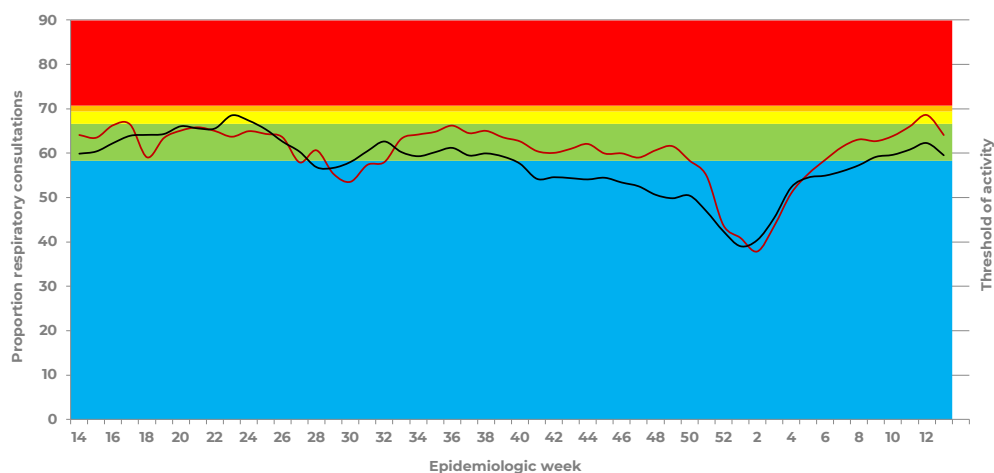
WEEK 13 2022

0-4 YEARS OF AGE

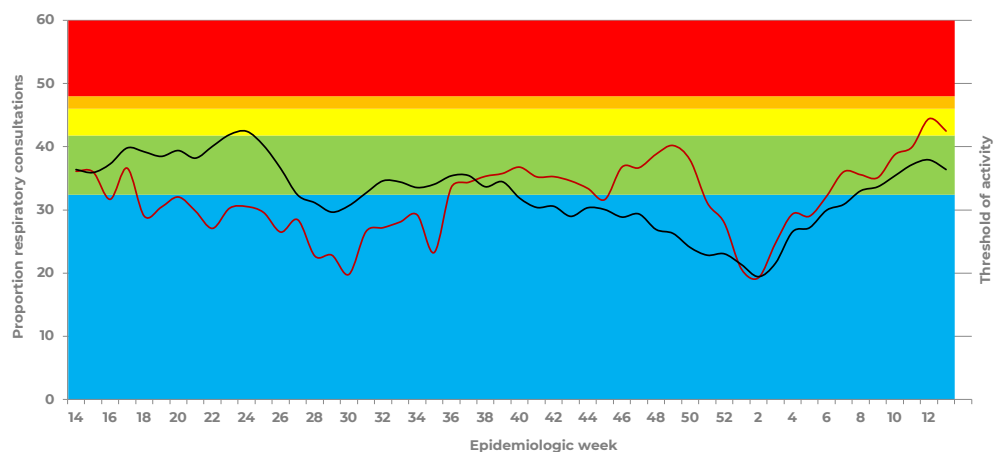
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Emergency Department



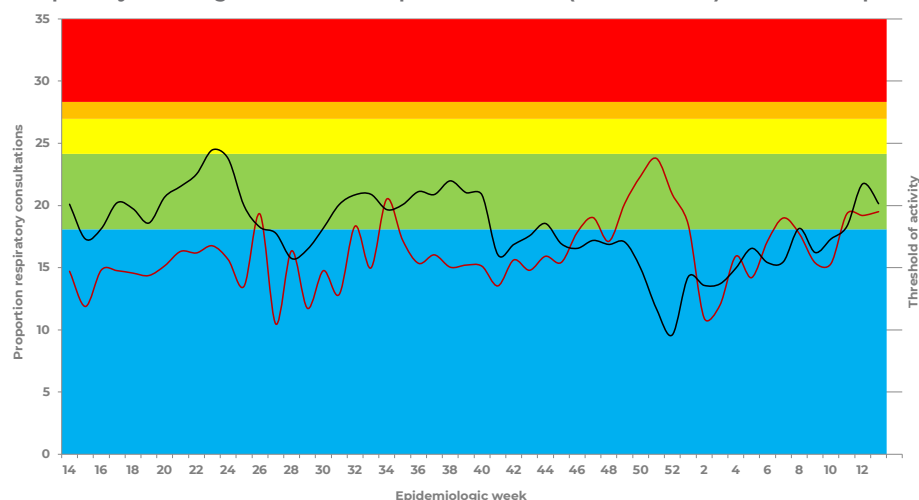
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WEEK 13 2022

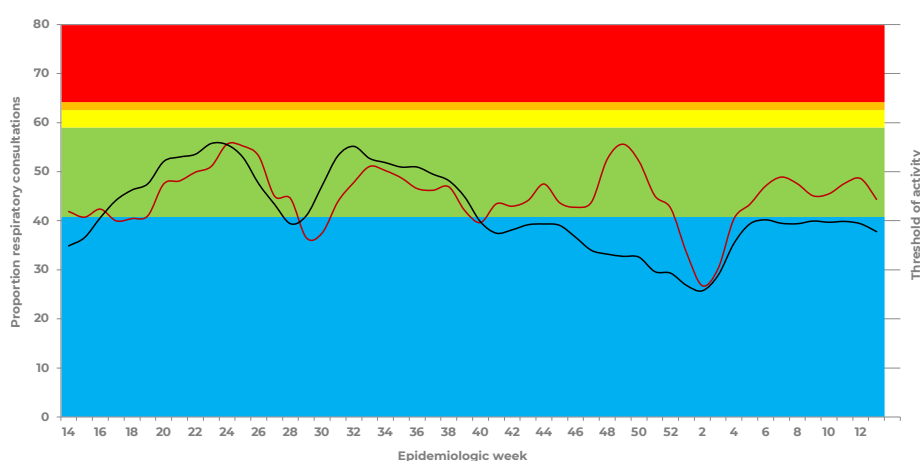
5-19 YEARS OF AGE

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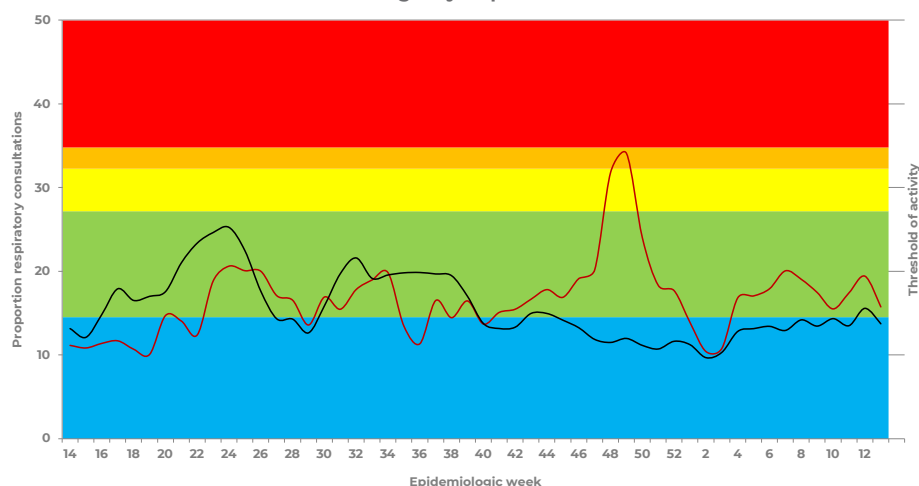


All Respiratory including confirmed or suspected COVID-19 (J00-J99 & U07) indicators – Outpatients

General Practitioners



Emergency Department



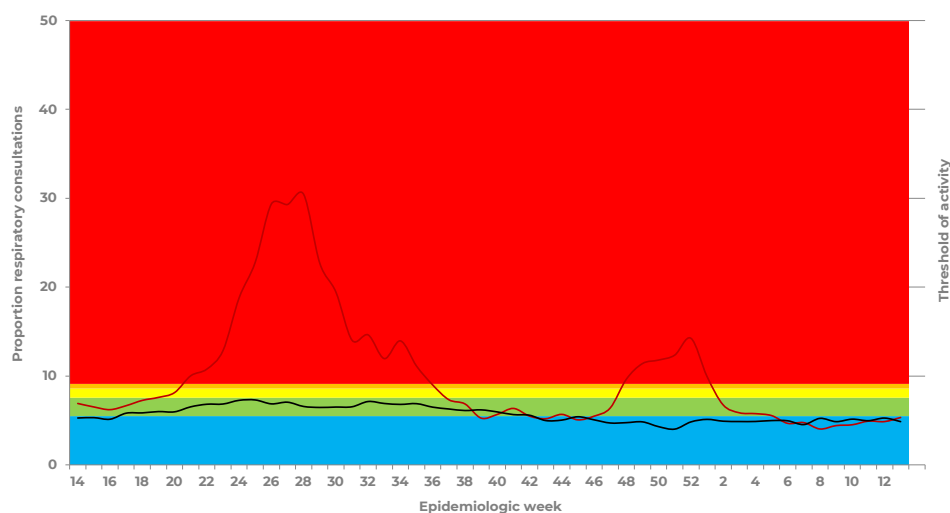
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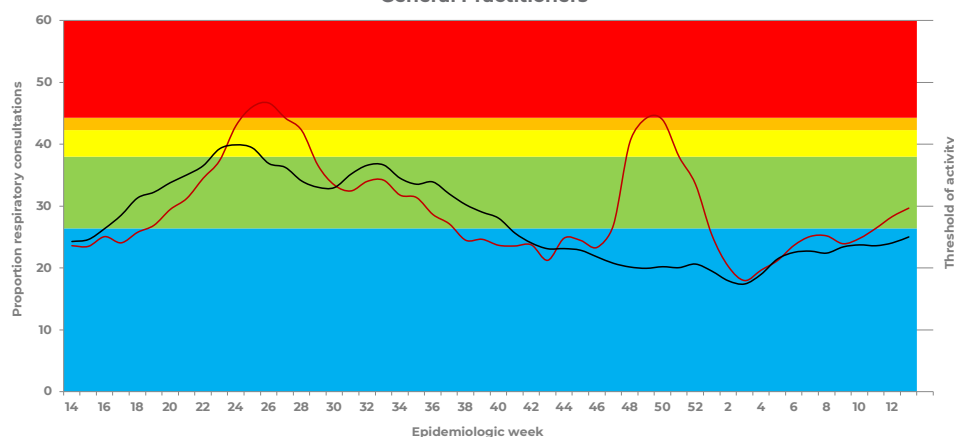
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20-49 YEARS OF AGE

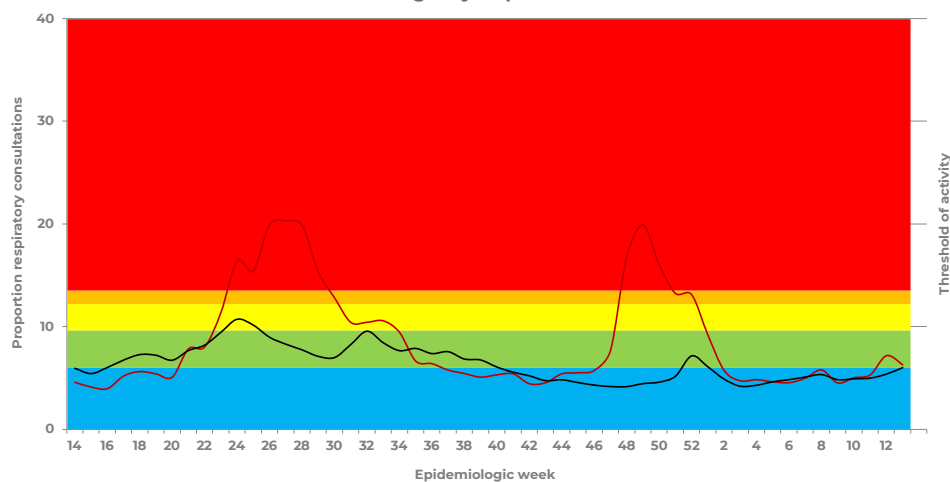
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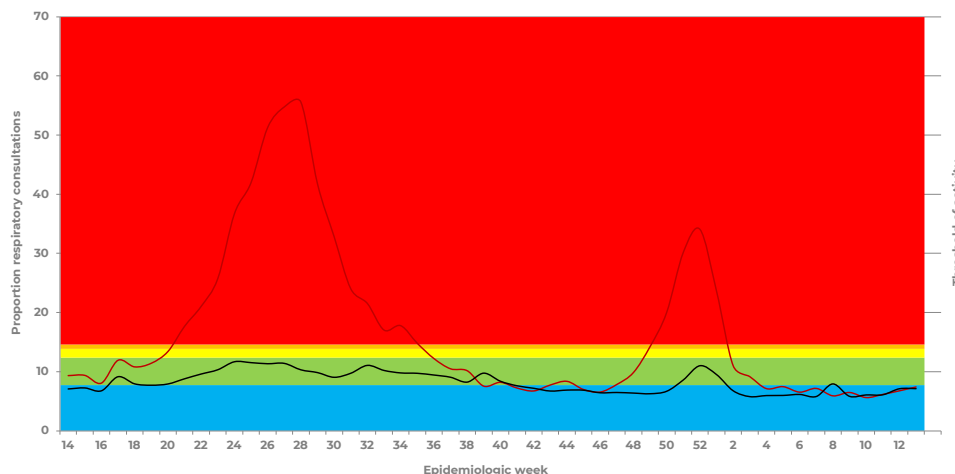
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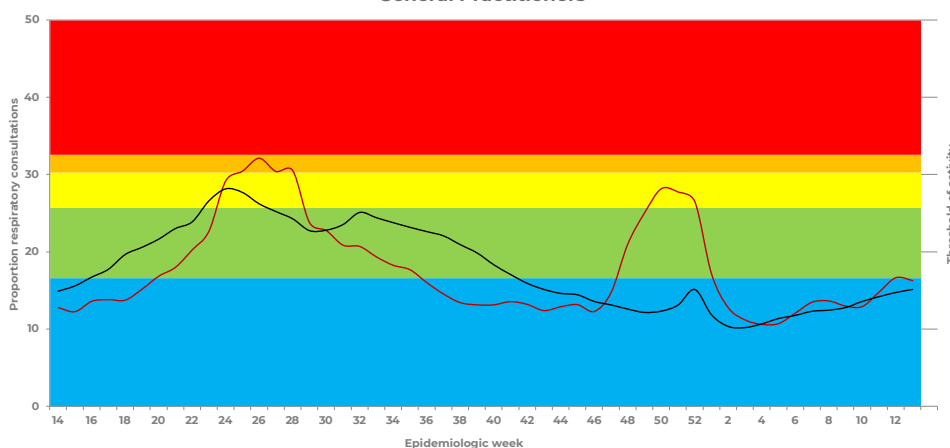
≥50 YEARS OF AGE

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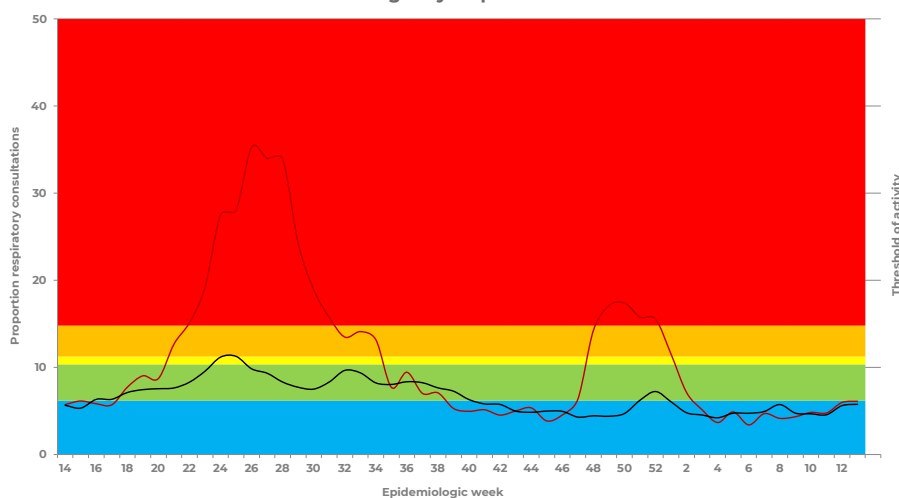


All Respiratory including confirmed or suspected COVID-19 (J00-J99 & U07) indicators – Outpatients

General Practitioners



Emergency Department



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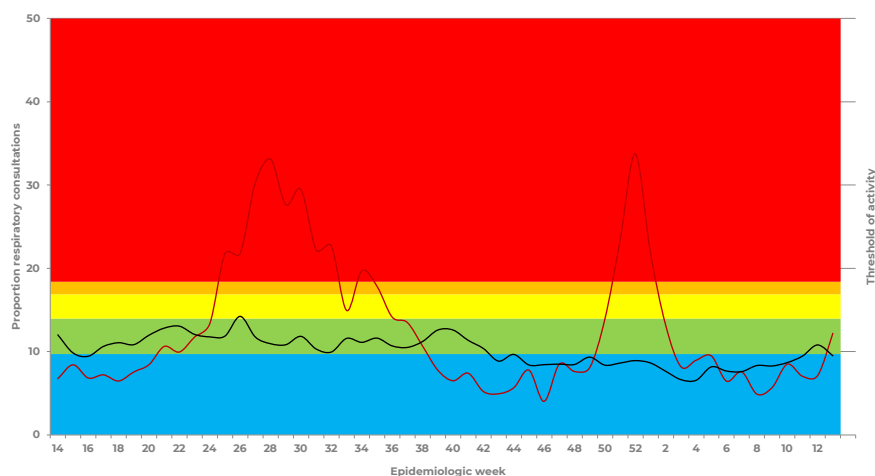
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EASTERN CAPE PROVINCE

All Respiratory including confirmed or suspected COVID-19 (J00-J99 & U07) indicators – Inpatients

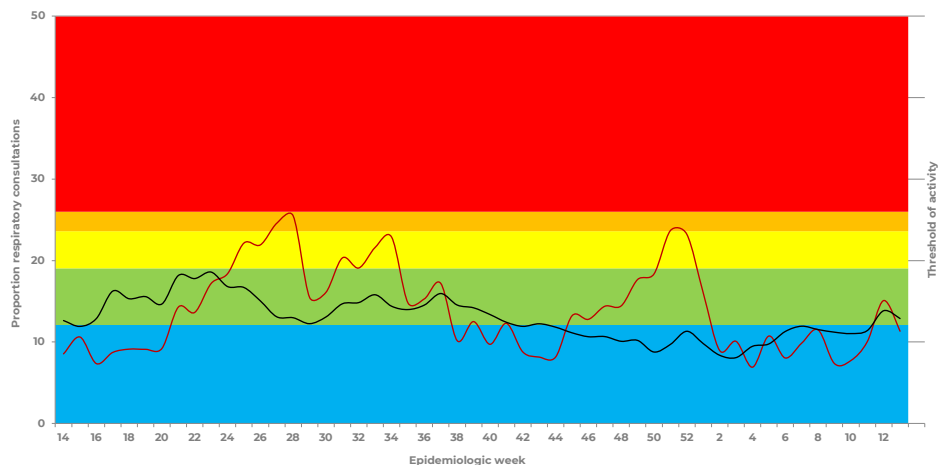


All Respiratory including confirmed or suspected COVID-19 (J00-J99 & U07) indicators – Outpatients

General Practitioners



Emergency Department



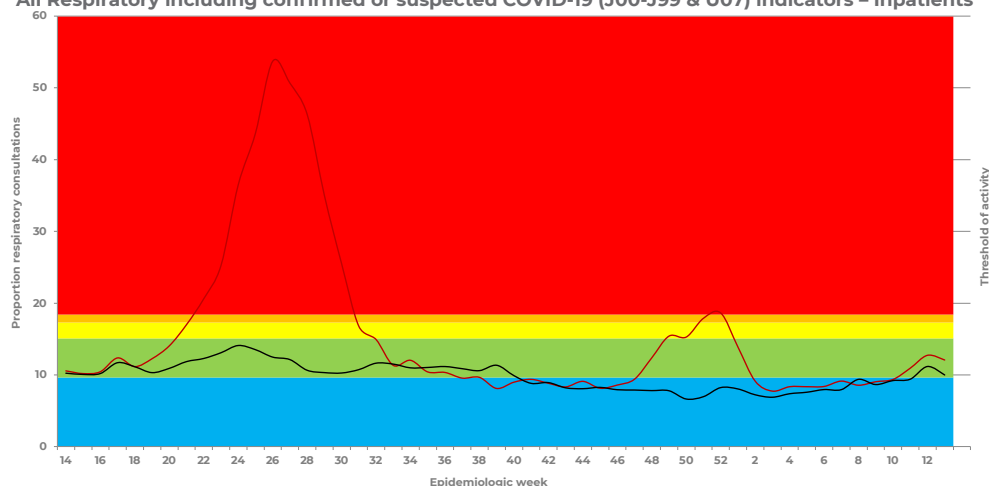
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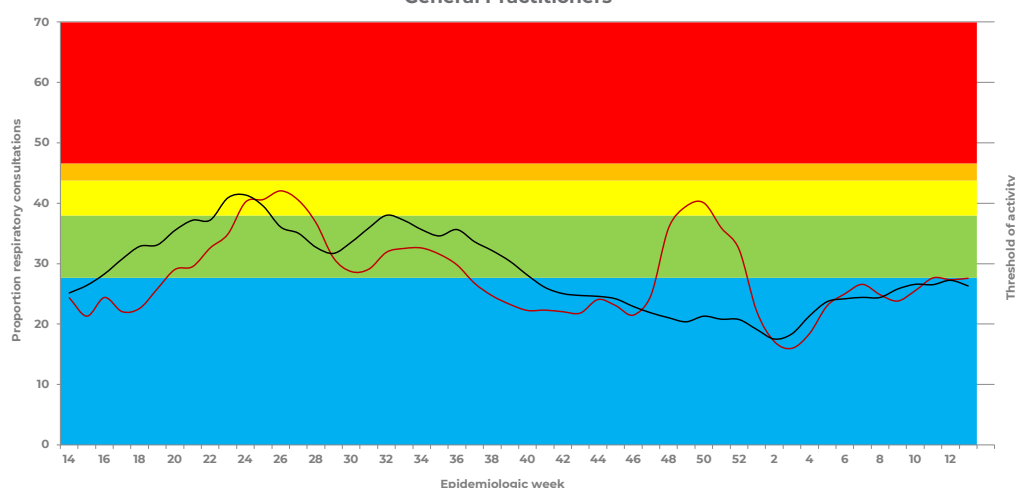
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GAUTENG

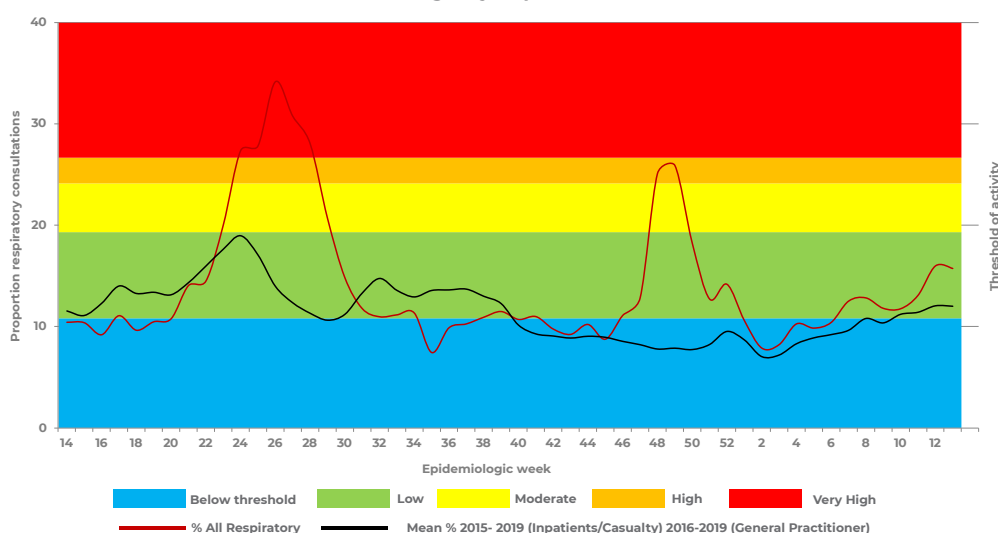
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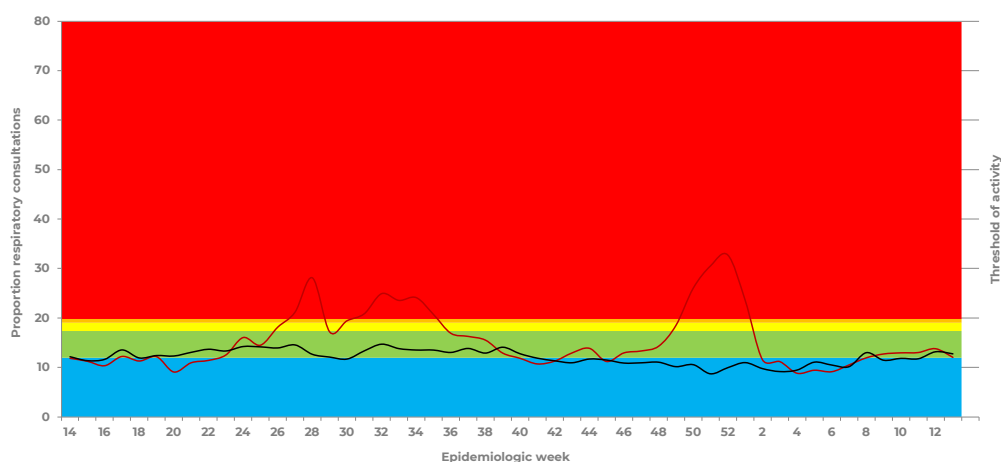


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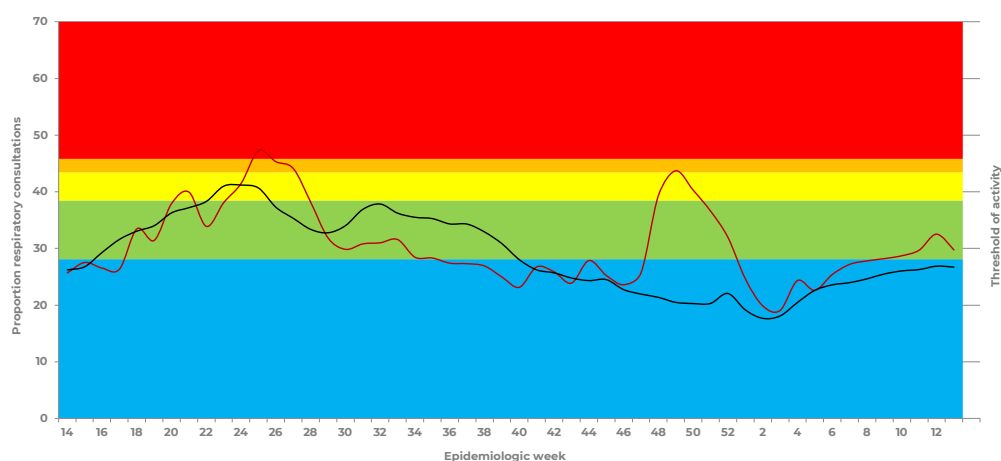
KWAZULU-NATAL

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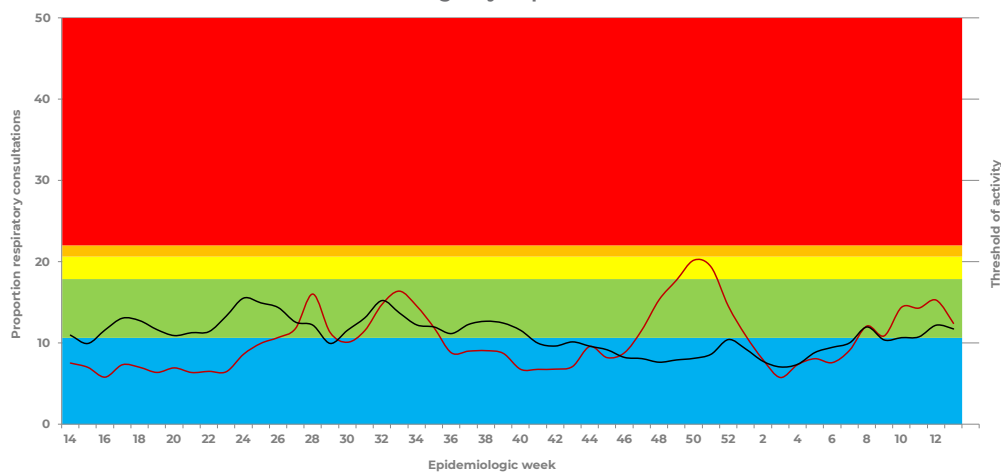


All Respiratory including confirmed or suspected COVID-19 (J00-J99 & U07) indicators – Outpatients

General Practitioners



Emergency Department



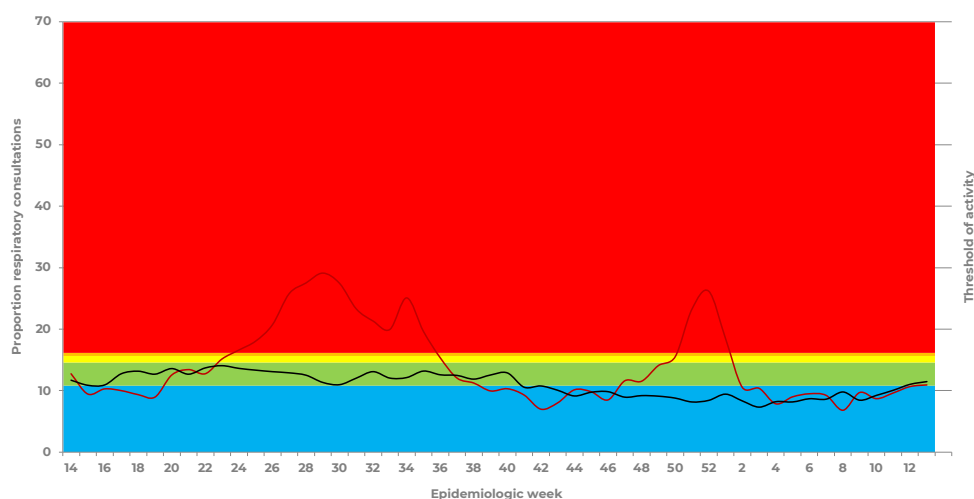
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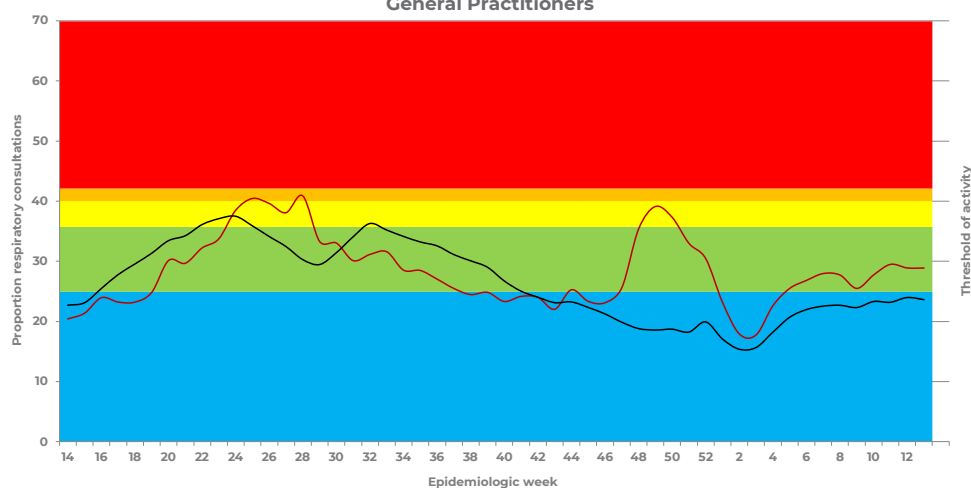
WESTERN CAPE PROVINCE

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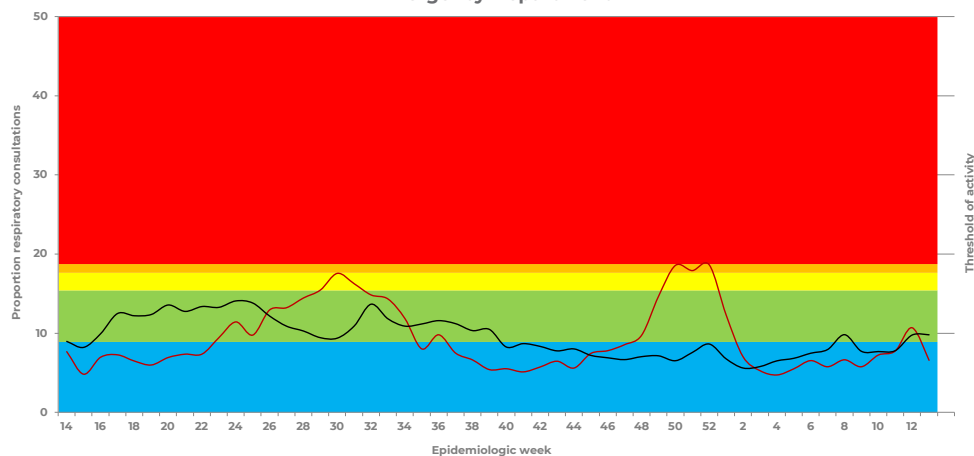


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General Practitioners



Emergency Department



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