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Programme Description

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 (J00-J99)/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 & 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 up 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 the most recent weeks in 2020.

Interpretation of data presented in this report

Inpatient admissions

Total admissions reduced since week 13. The proportions of respiratory hospitalisations overall and by age group prior to this were similar to the average observed for the preceding five years.

Outpatient consultations

Total outpatient visits reduced since week 13. The proportion of outpatient consultations overall exceeds reported weekly numbers for previous years from week 10 (week ending 8 March), peaking in week 12 (ending 22 March) and decreased from week 13 (ending 29 March). The trends were similar in all age groups.

Provincial data

Trends in inpatient admissions and outpatient consultations were similar to the national picture in all four provinces with available data.

Assessment

Decreases in numbers of admissions in recent weeks after adjustment, likely reflect the effects of the lockdown. The increase in outpatient consultations for respiratory symptoms without a corresponding increase in hospitalisations probably reflects increases in awareness of respiratory illness as a result of the COVID-19 epidemic leading to increased healthcare-seeking behaviour. The dramatic reductions in respiratory outpatient consultations since week 13, likely are related to the national lockdown (implemented 27 March). It is possible that in addition, influenza activity in the Western Cape Province, now reduced, may have contributed to increased health seeking.

Summary bullets

- Little change from last week
- Marked reduction in total admissions and outpatient visits since week 13 likely related to national lockdown
- Proportion of respiratory outpatient consultations increased from week 10-12 (likely increased health seeking behaviour related to anxiety about COVID-19) and dropped from week 13 (likely related to lockdown)
- Proportion of respiratory hospitalisations dropped since week 13 likely related to lockdown and delays in reporting
- No evidence of substantial increase in hospitalisations or outpatient visits due to COVID-19-related illness to date which is in-keeping with evidence on the epidemic progression from other surveillance programmes

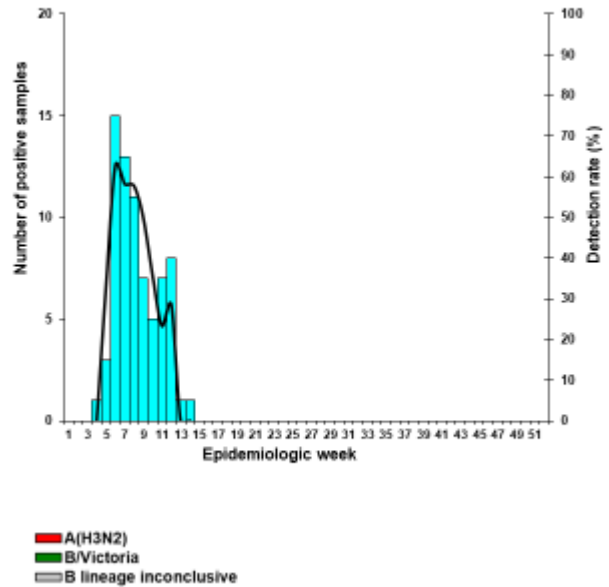
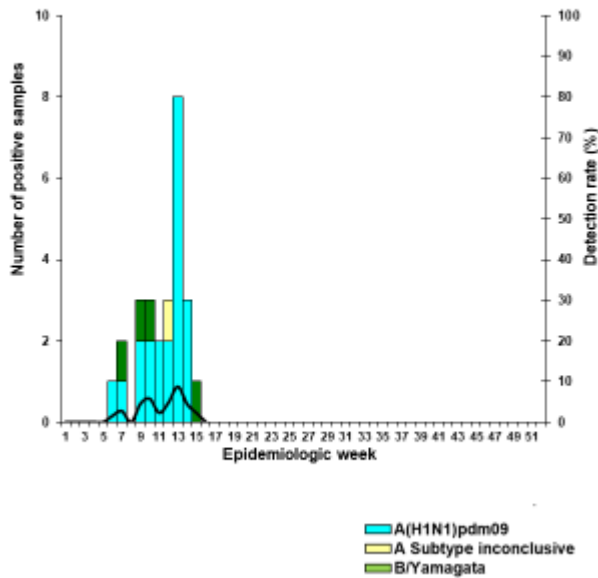
Private Consultations Surveillance

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

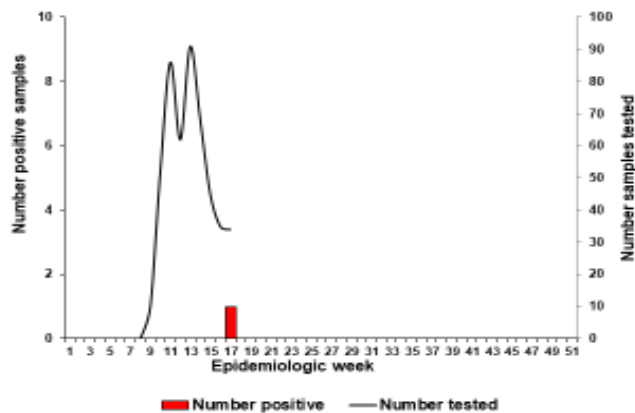
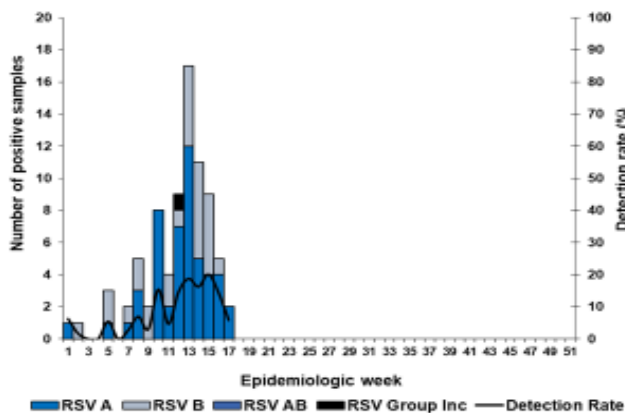
Inpatients

Outpatients



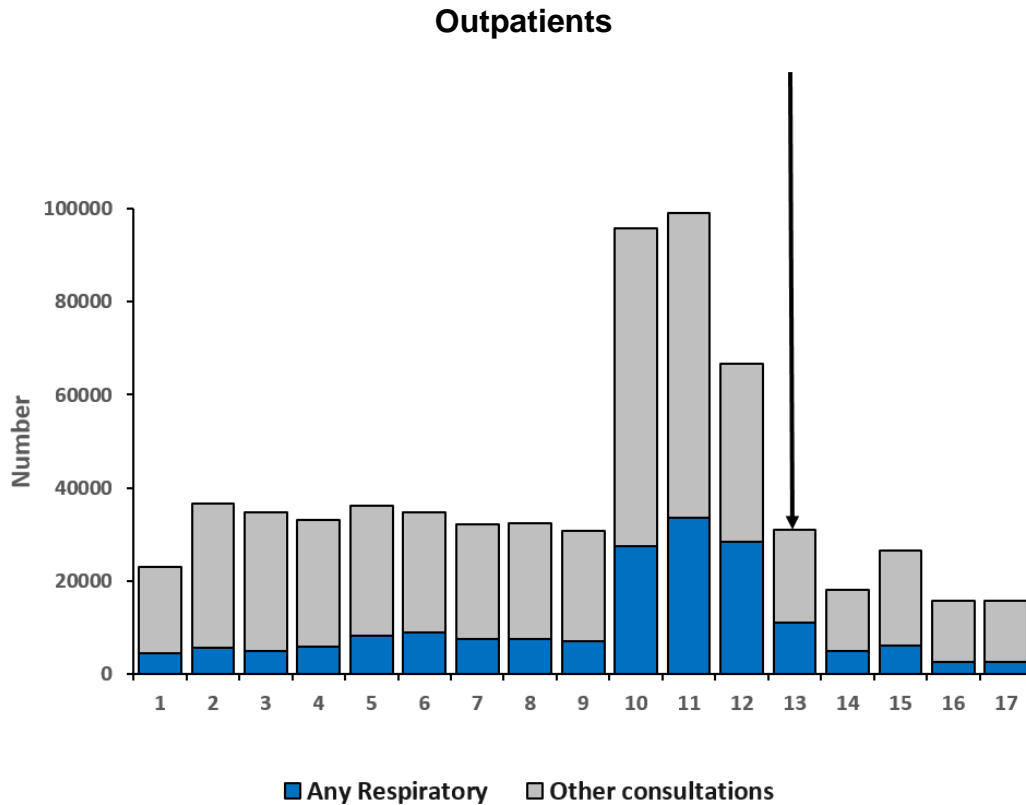
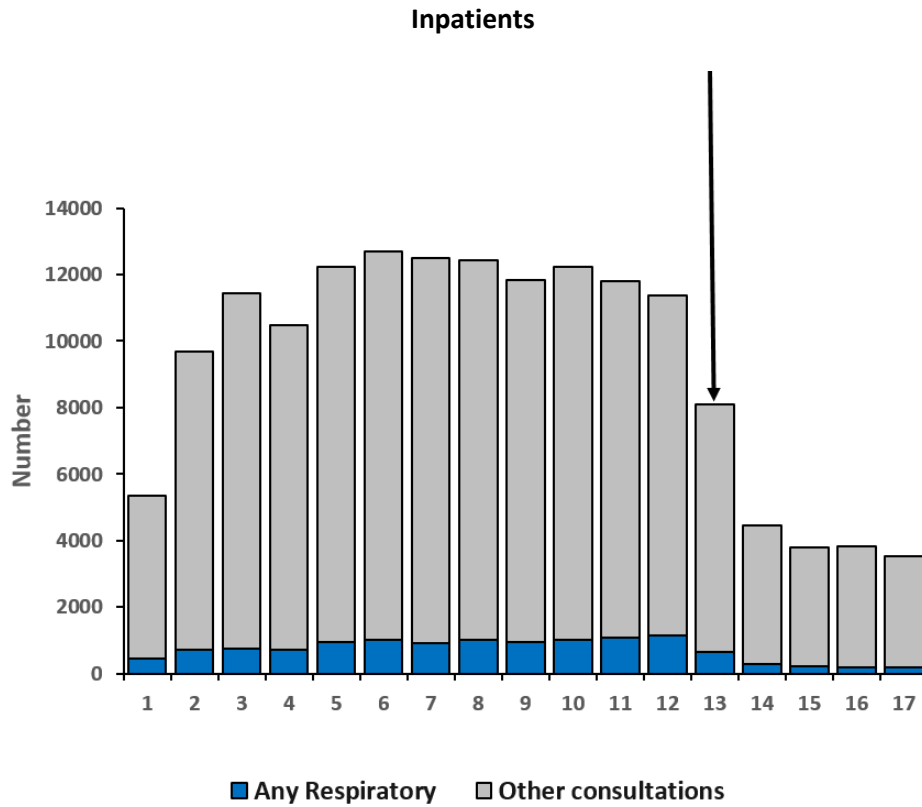
Number of respiratory syncytial virus positive by groups and subgroups per week (Inpatients)

Number of samples tested and results for SARS-COV-2 per week (Inpatients)



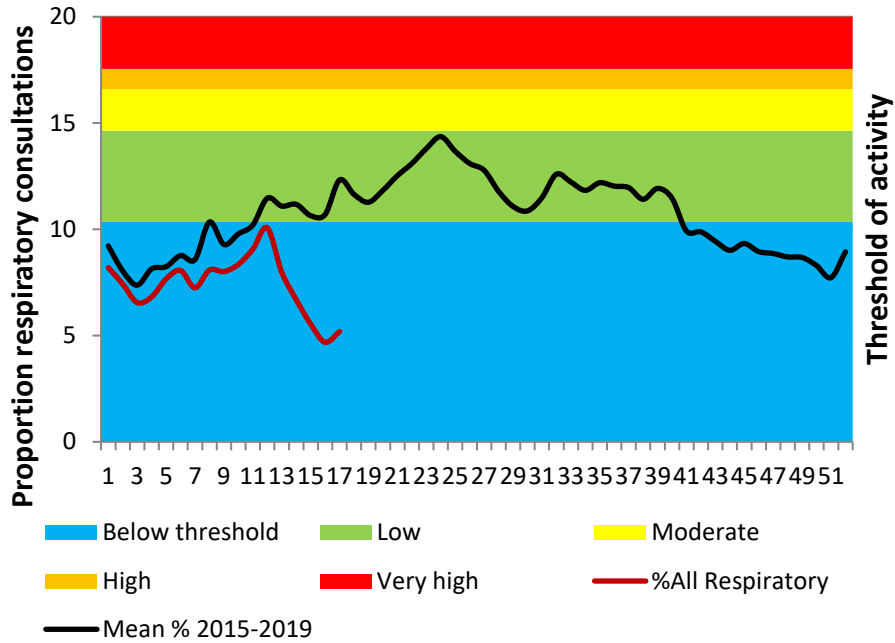
Private Consultations Surveillance

Number of consultations - all respiratory and other by week
(Arrow indicates first week of lockdown)

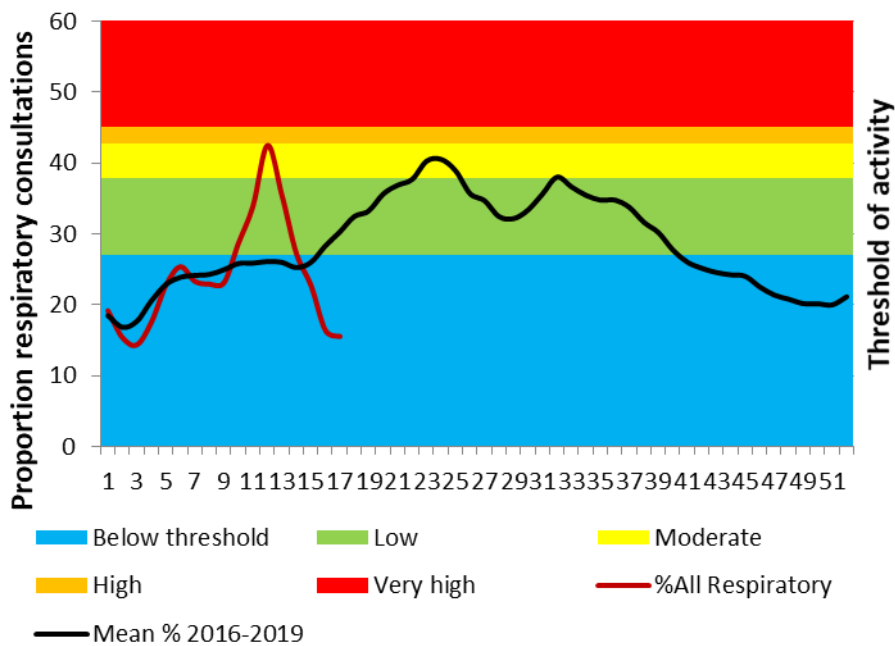


All ages

All Respiratory (J00-J99) indicator – Inpatients

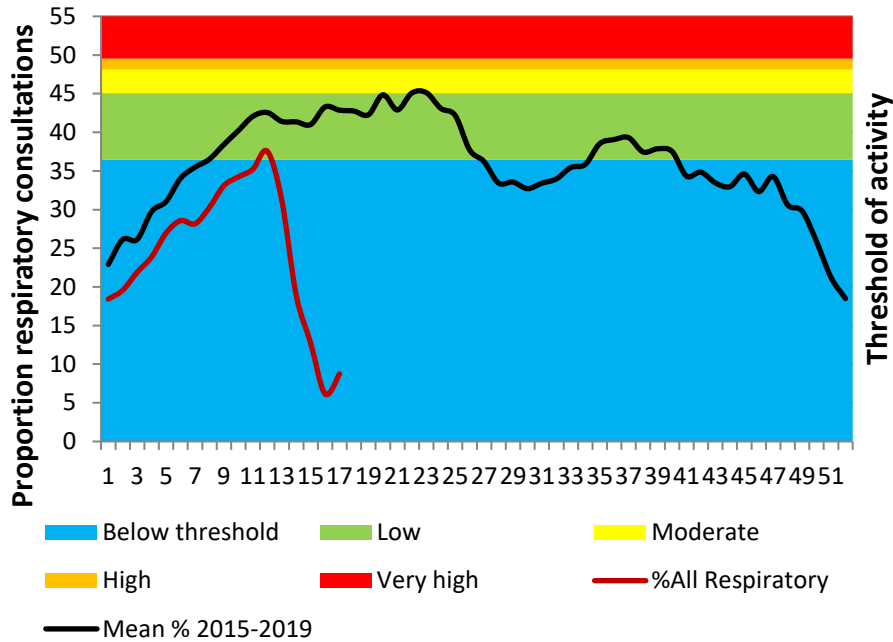


All Respiratory (J00-J99) indicator – Outpatients

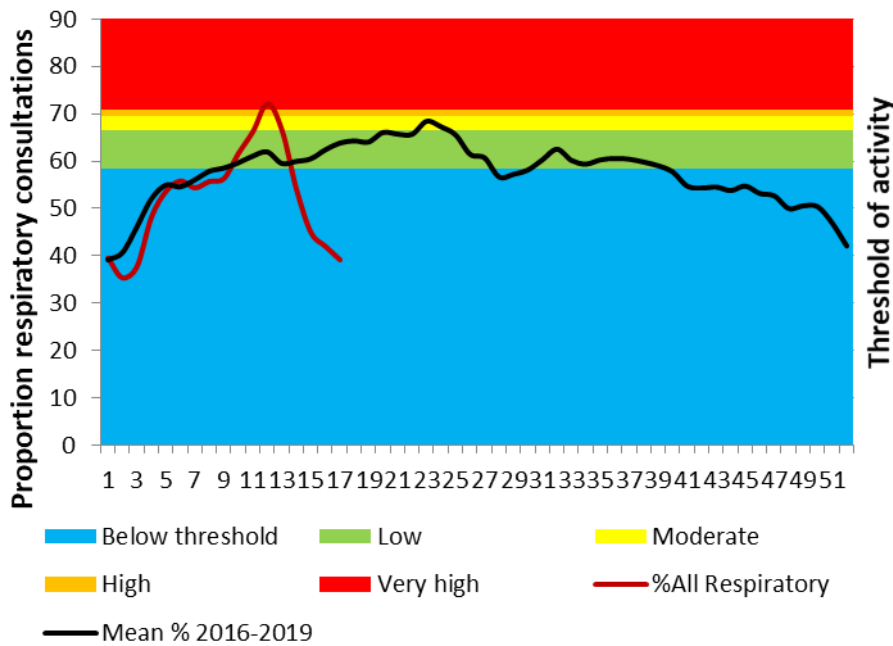


0-4 years of age

All Respiratory (J00-J99) indicator – Inpatients

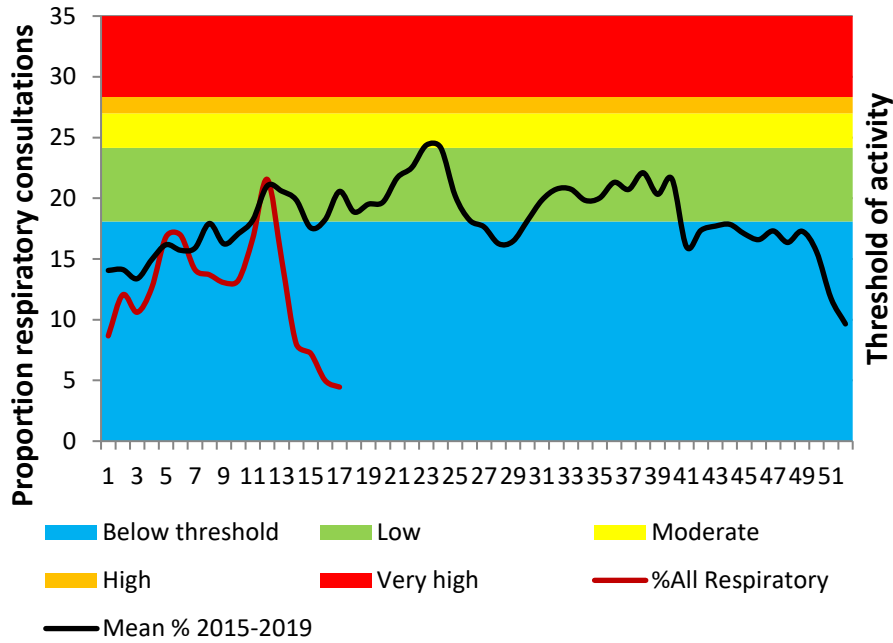


All Respiratory (J00-J99) indicator – Outpatients

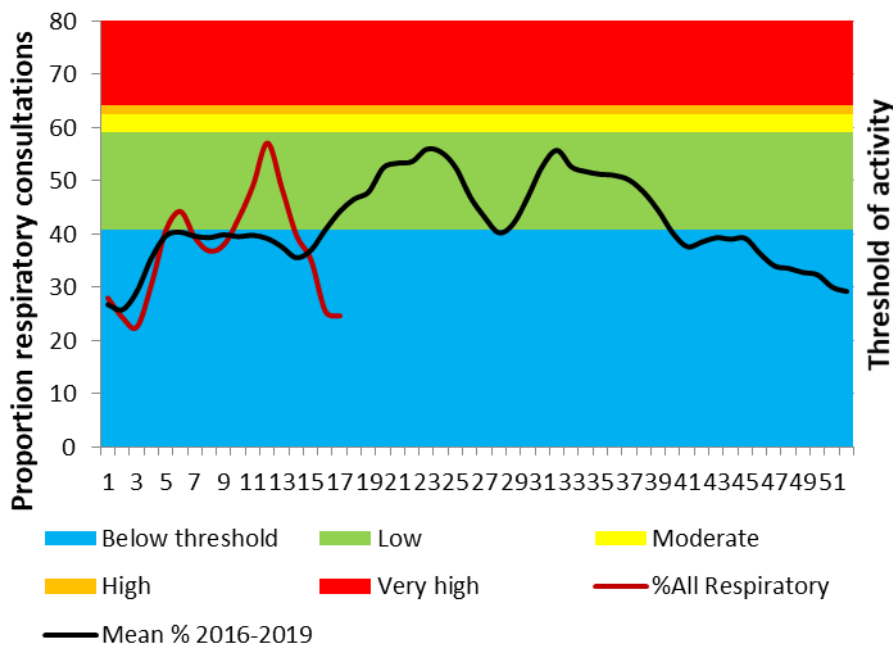


5-19 years of age

All Respiratory (J00-J99) indicator – Inpatients

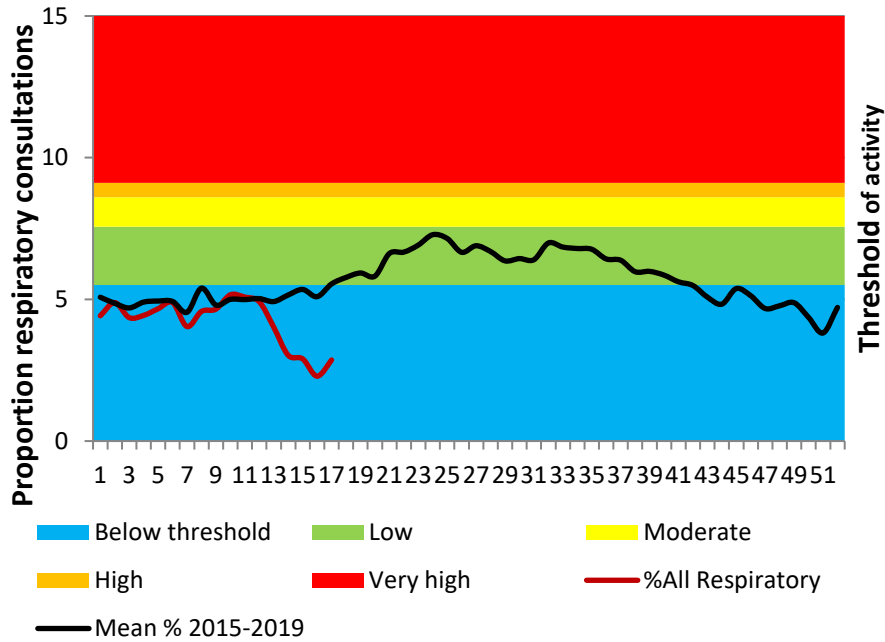


All Respiratory (J00-J99) indicator – Outpatients

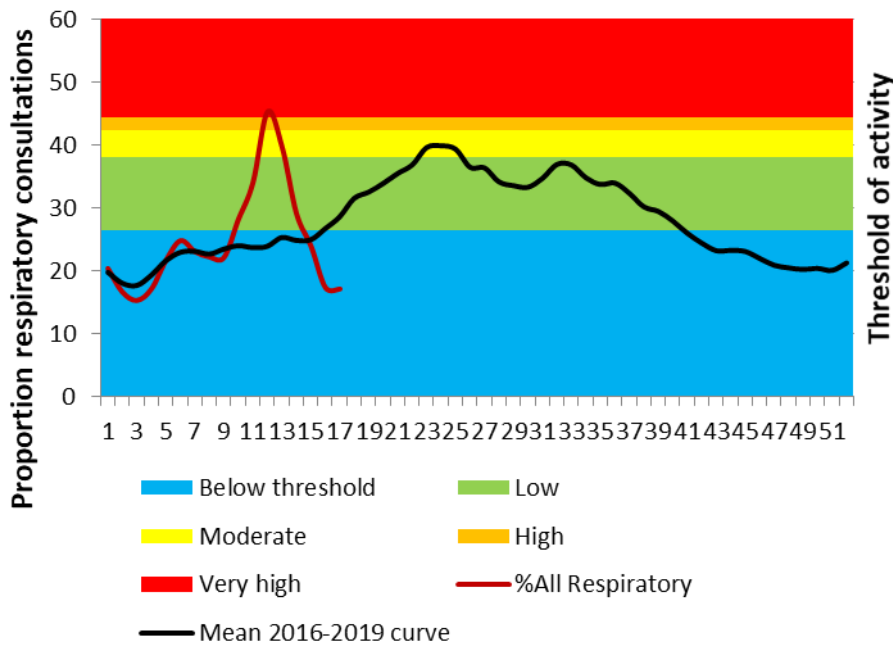


20-49 years of age

All Respiratory (J00-J99) indicator – Inpatients



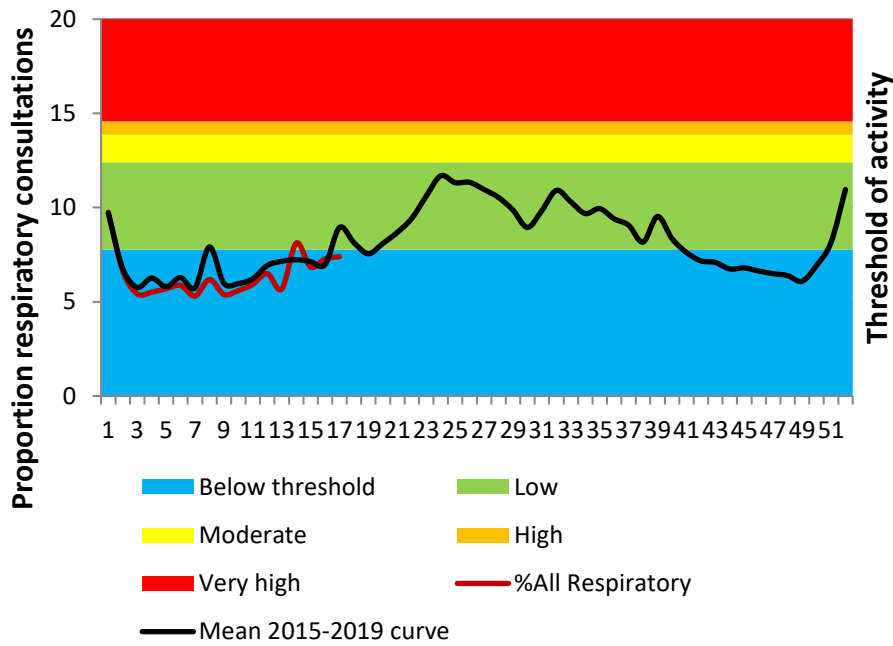
All Respiratory (J00-J99) indicator – Outpatients



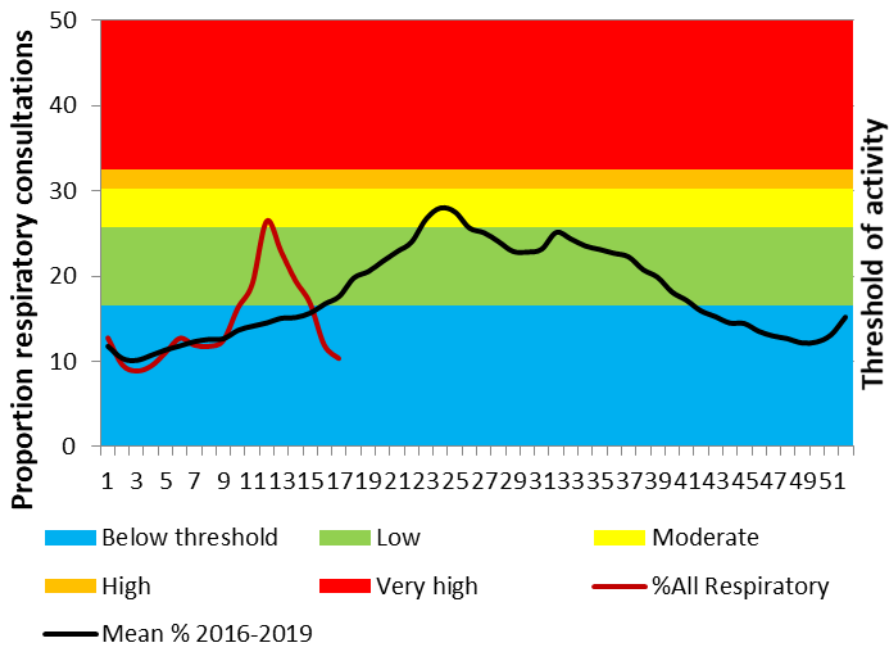
Private Consultations Surveillance

≥50 years of age

All Respiratory (J00-J99) indicator – Inpatients

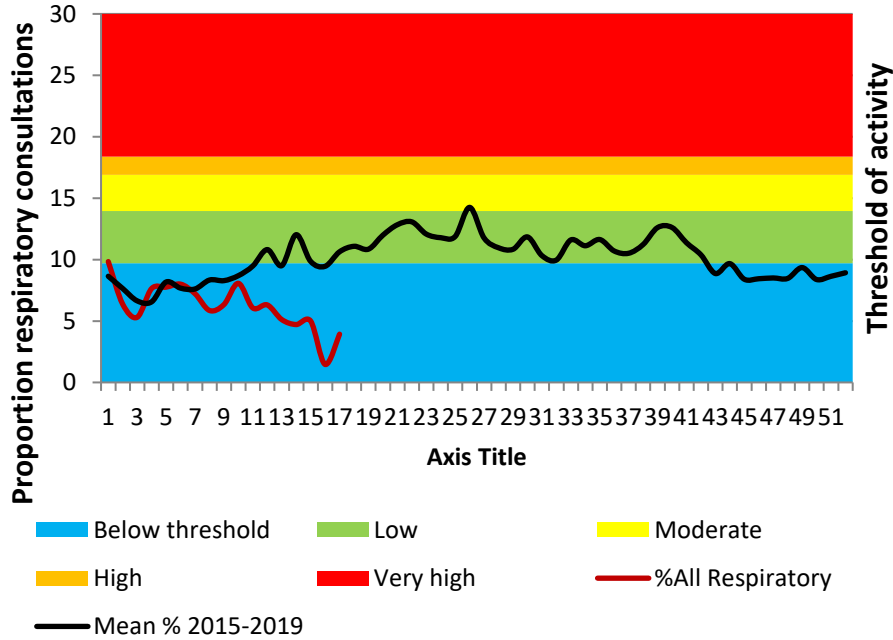


All Respiratory (J00-J99) indicator – Outpatients

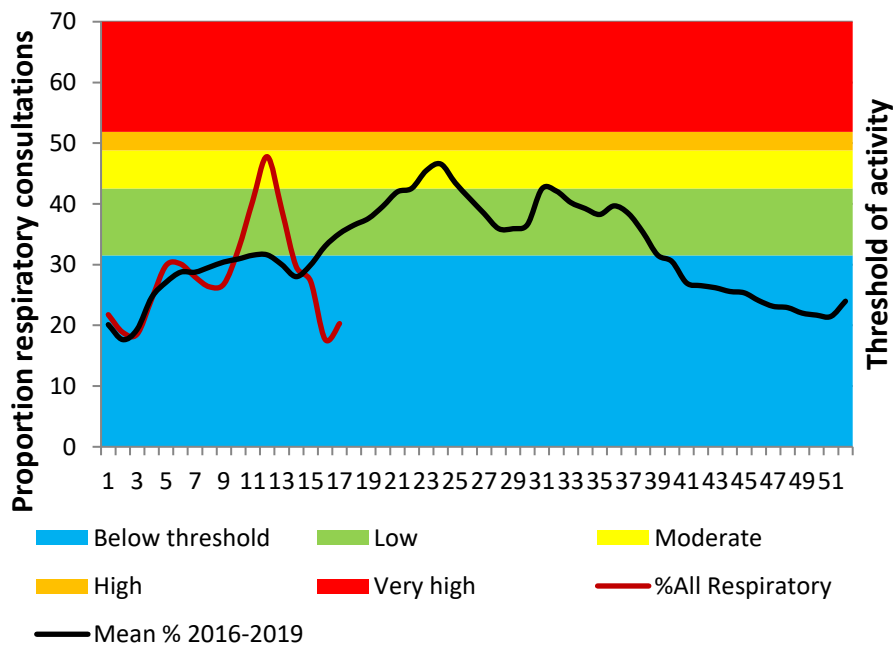


Eastern Cape Province

All Respiratory (J00-J99) indicator – Inpatients



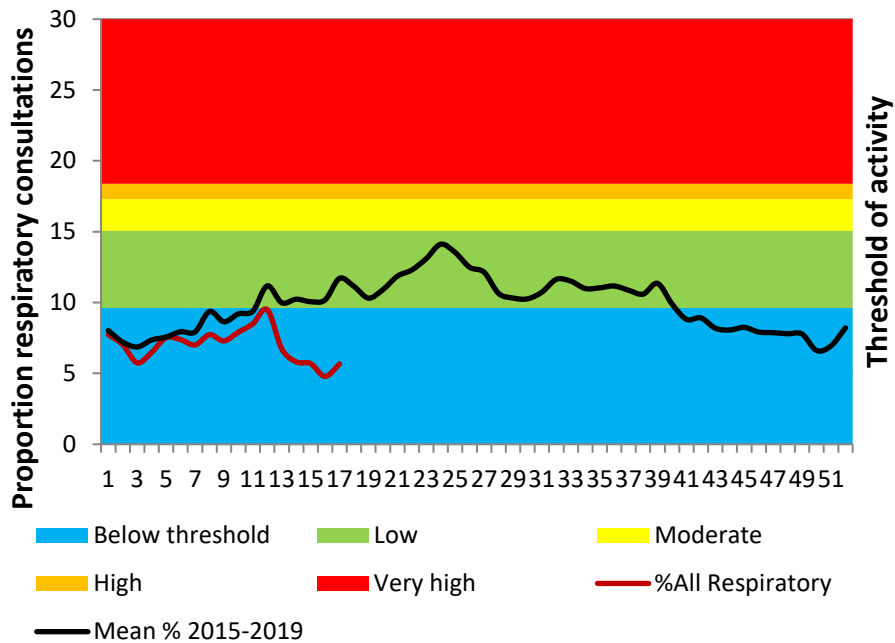
All Respiratory (J00-J99) indicator – Outpatients



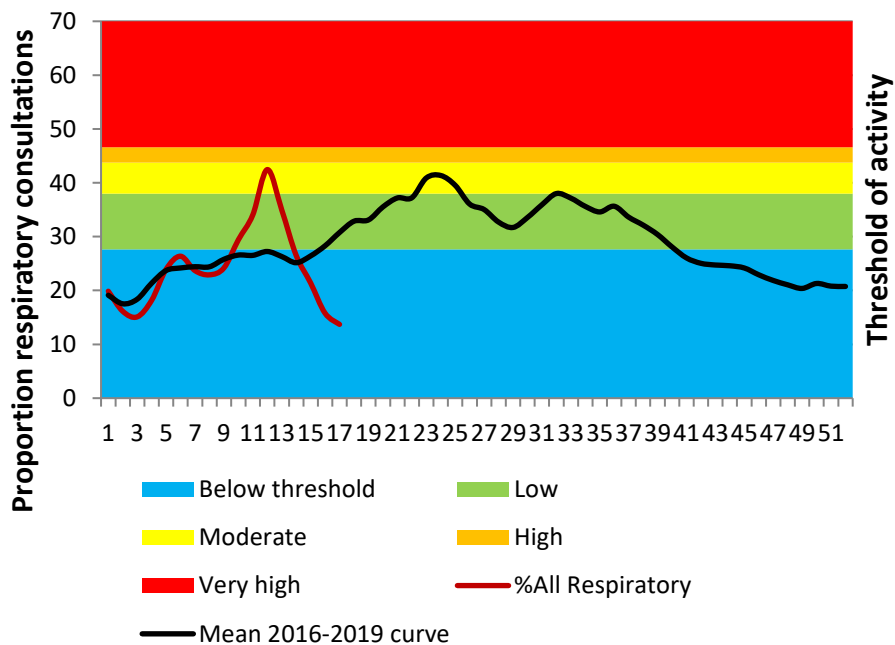
Private Consultations Surveillance

Gauteng

All Respiratory (J00-J99) indicator – Inpatients

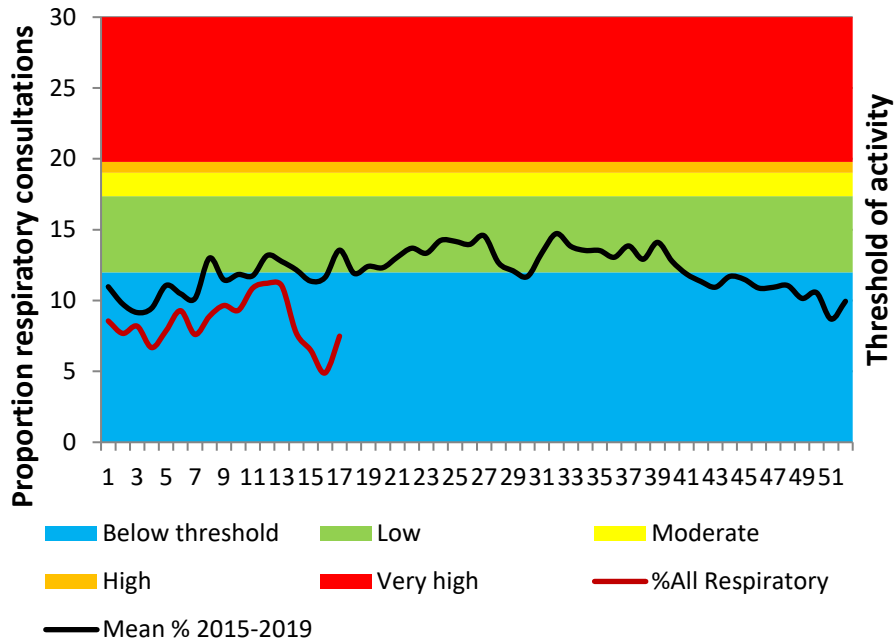


All Respiratory (J00-J99) indicator – Outpatients

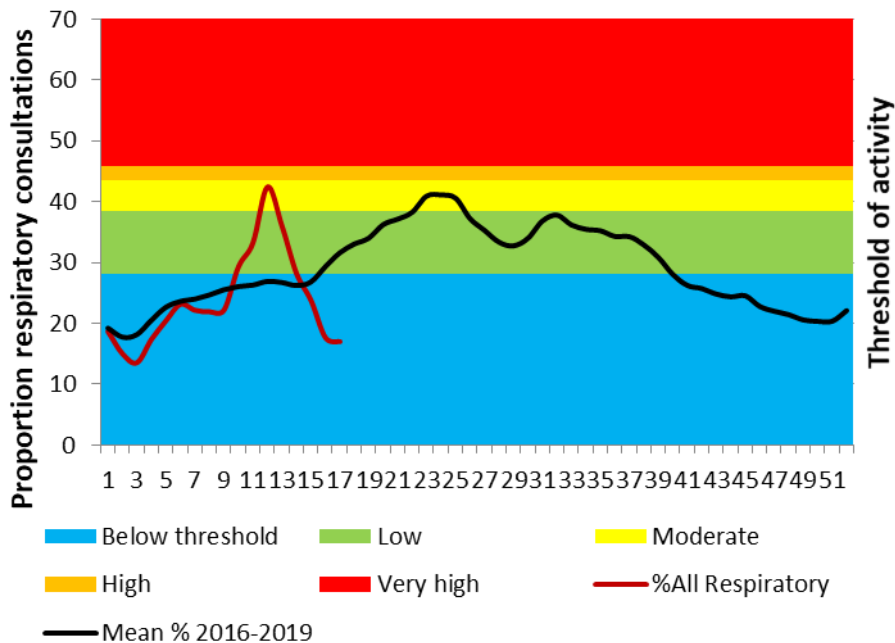


KwaZulu-Natal

All Respiratory (J00-J99) indicator – Inpatients

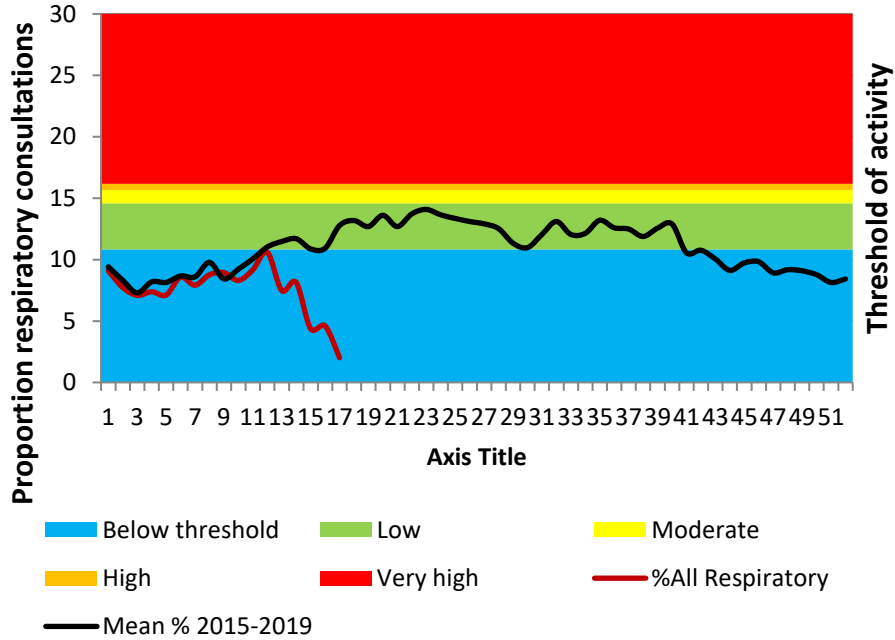


All Respiratory (J00-J99) indicator – Outpatients



Western Cape Province

All Respiratory (J00-J99) indicator – Inpatients



All Respiratory (J00-J99) indicator – Outpatients

