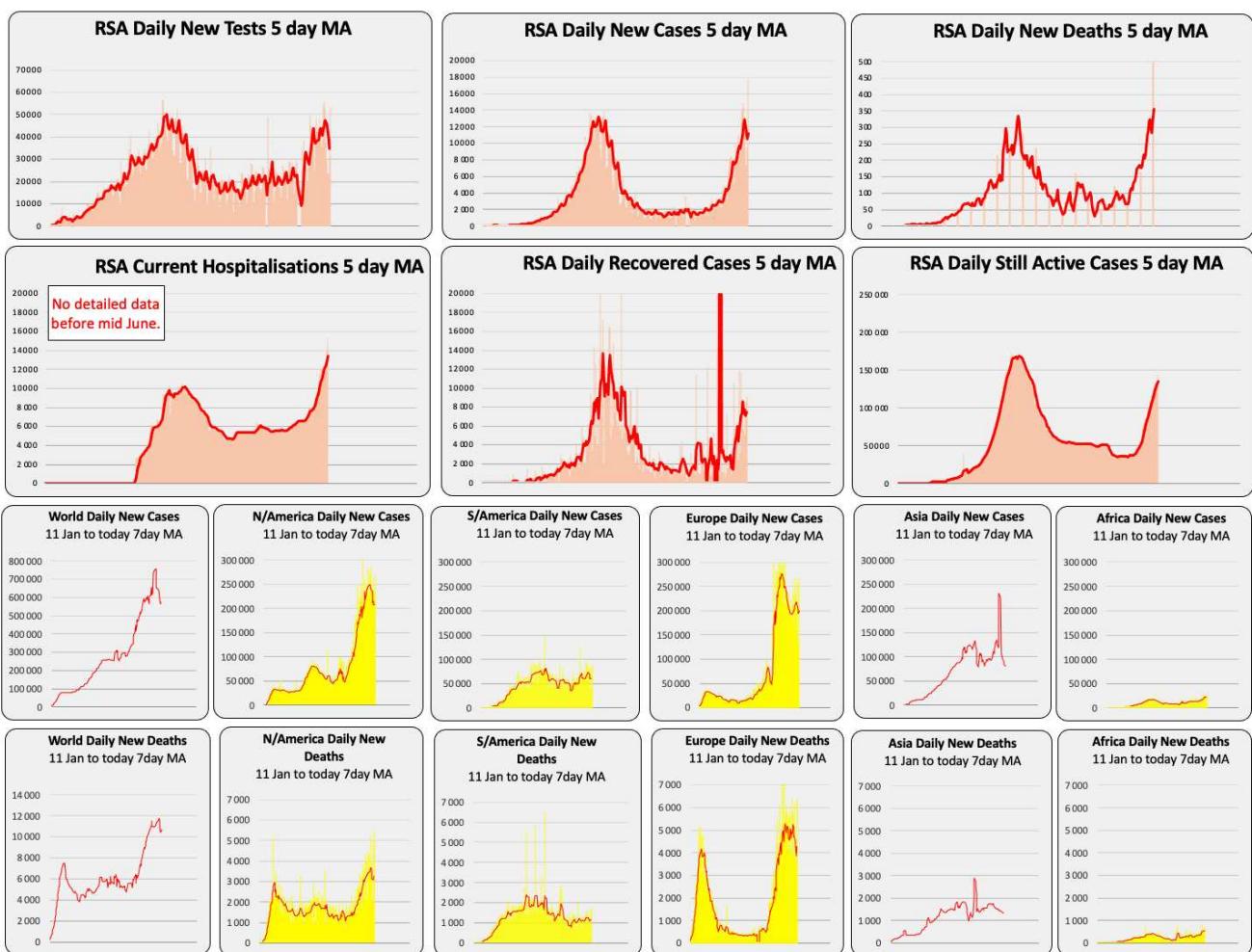
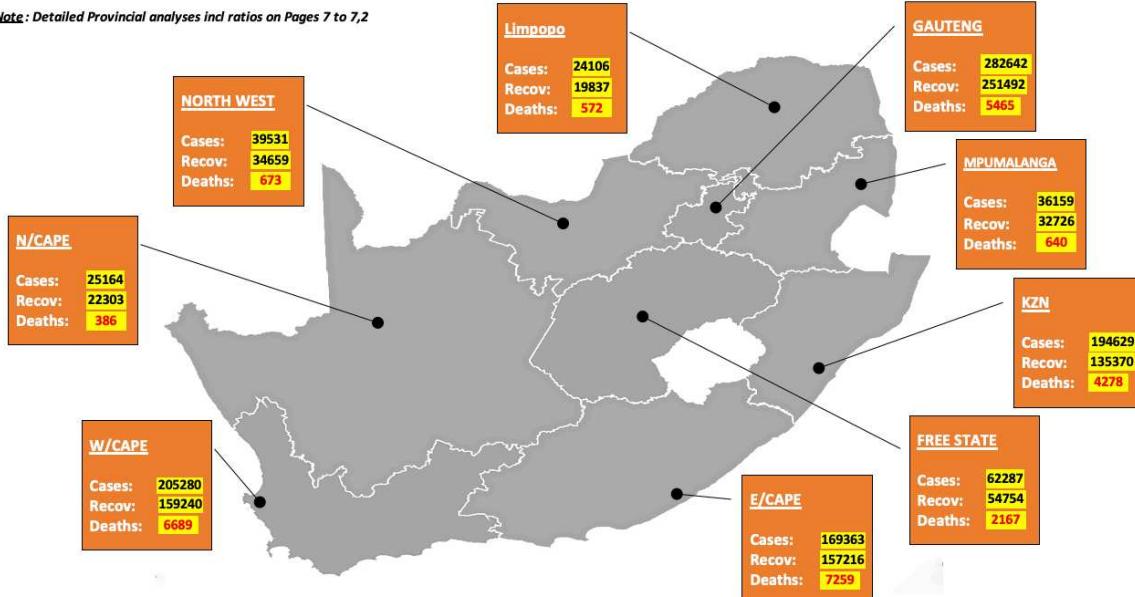
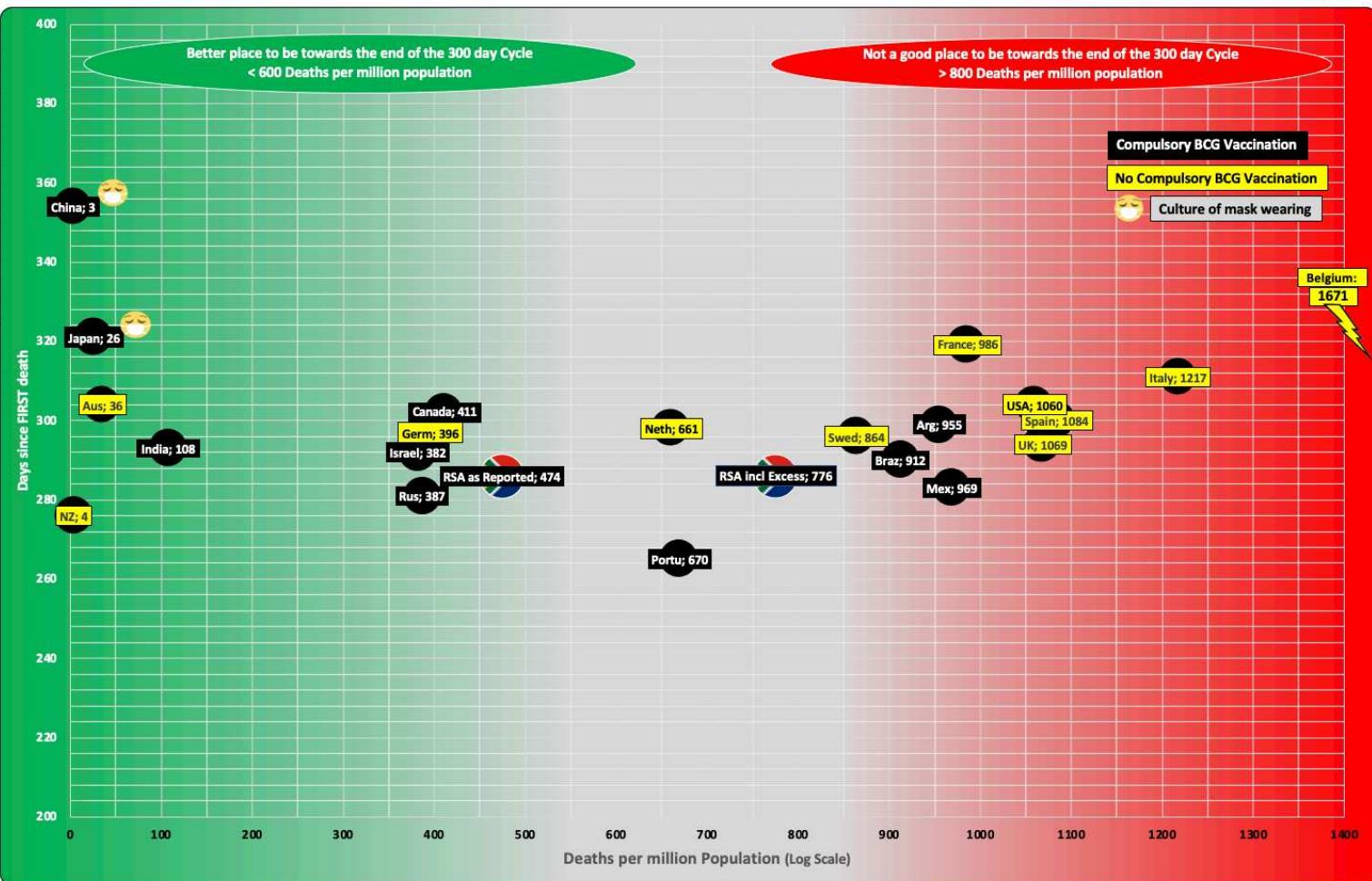


Note: Detailed Provincial analyses incl ratios on Pages 7 to 7,2

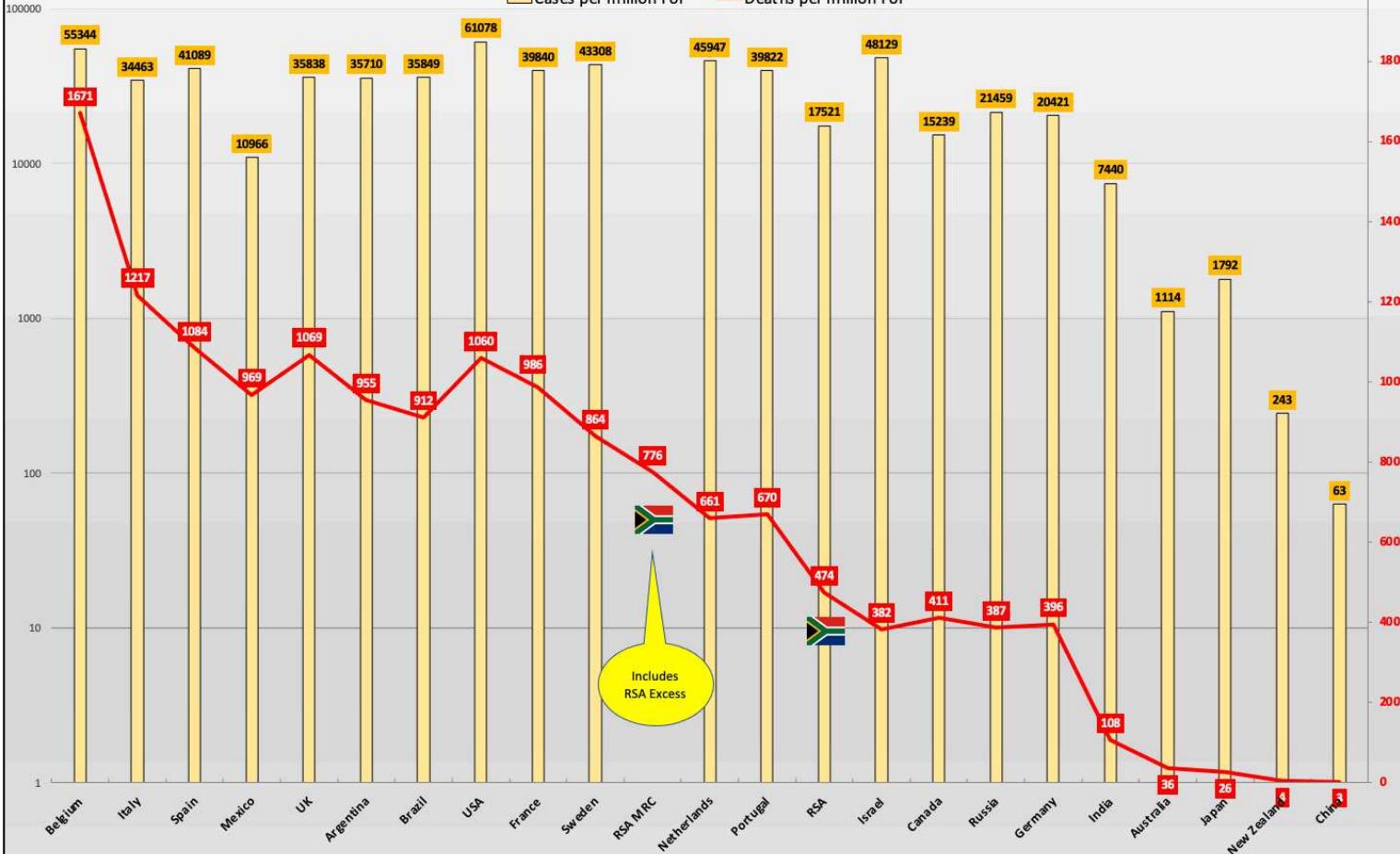




Current Cum Cases & Cum Deaths per million PoP

(Two axes primary Y Log 2nd Y Linear)

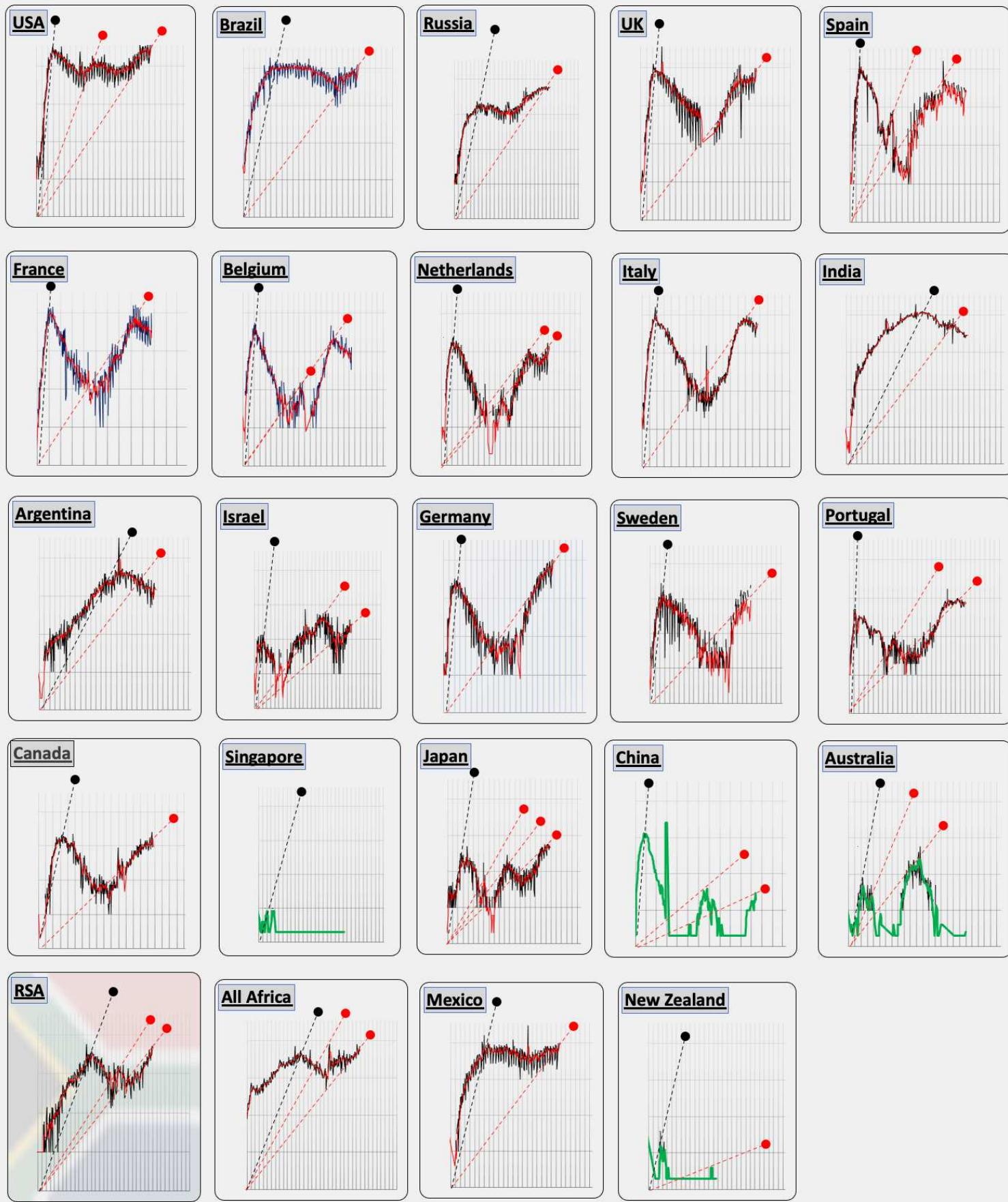
Cases per million PoP Deaths per million PoP

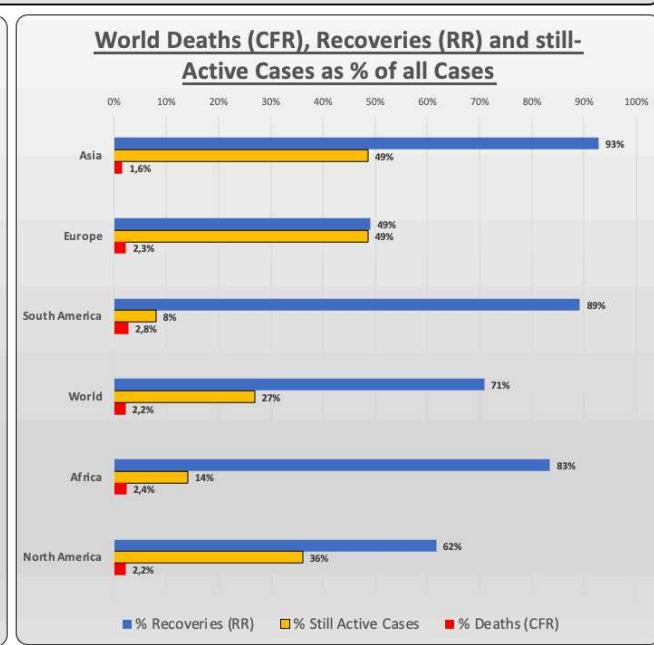
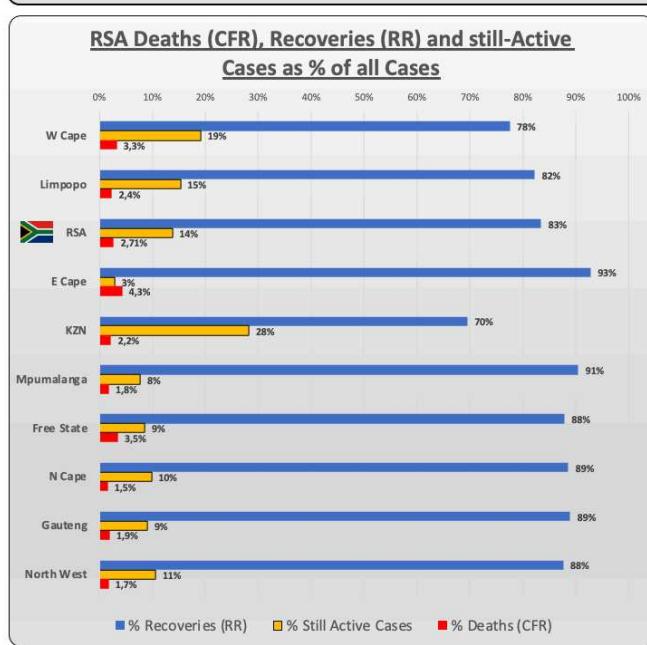
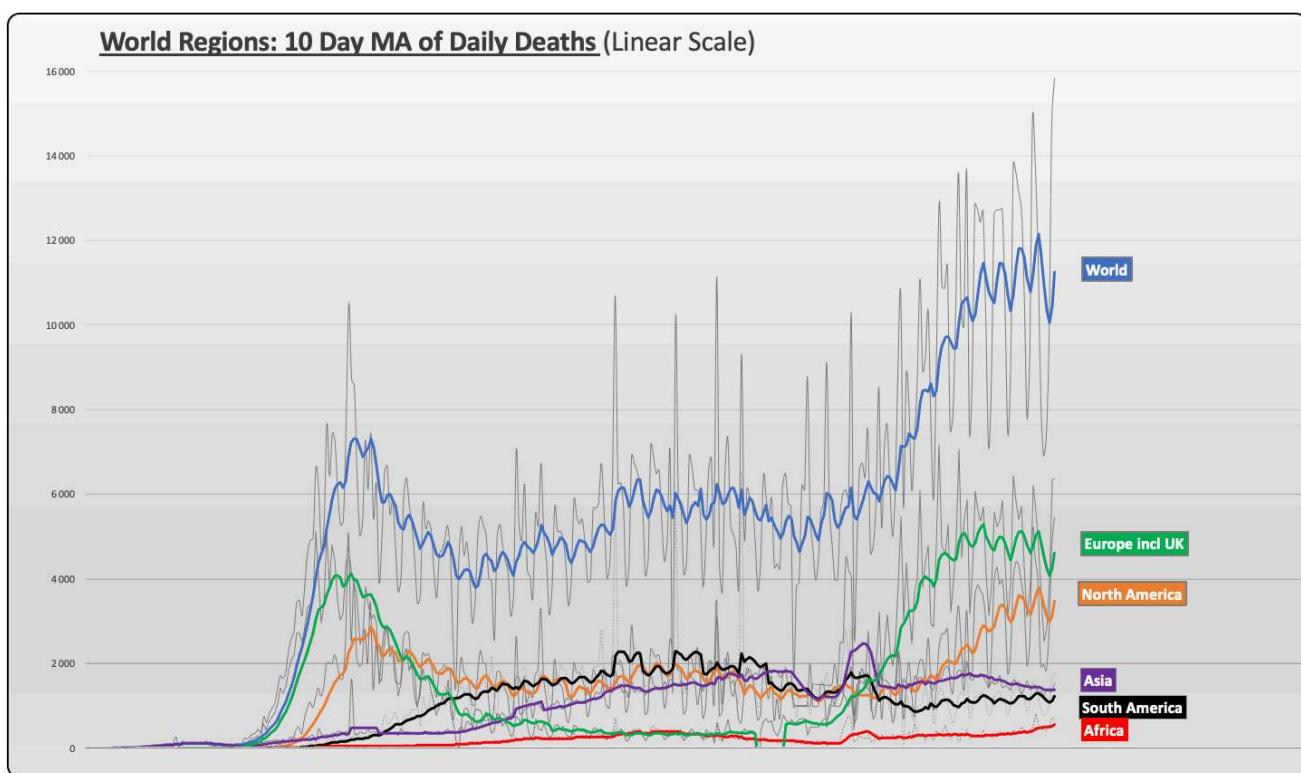
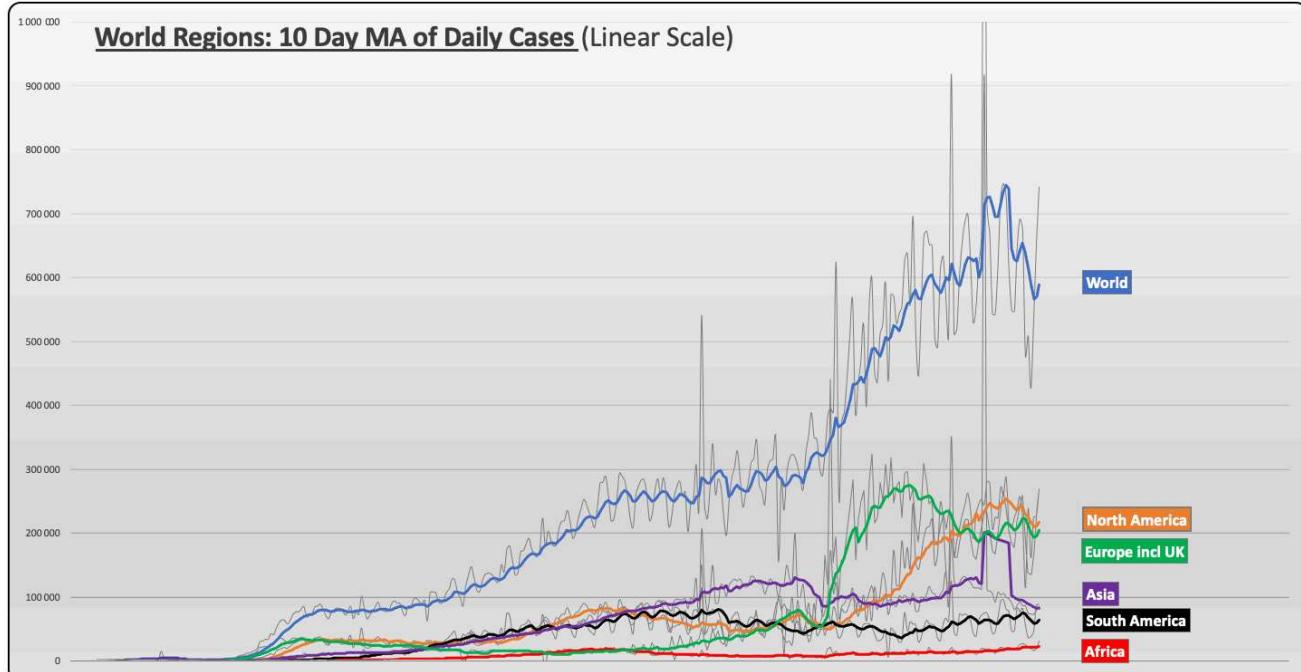


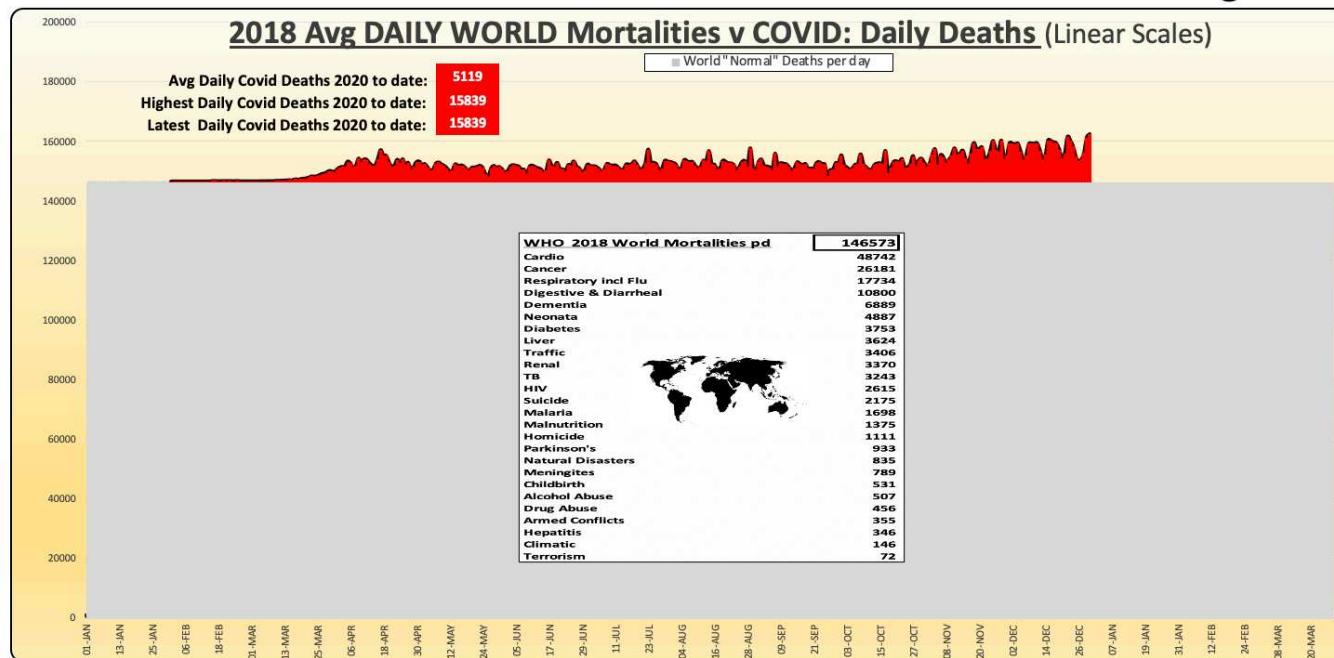
Daily Deaths Curves & Rate of Onset/next Wave "Inclinometers"

5 day MA Trendline from date of 1st death (all on Log Scale)

- Peaked but spiking again
- Passed peak but could rebound OR next wave
- Well past peak, unlikely to rebound
- Onset/1st wave
- 2nd & 3rd waves





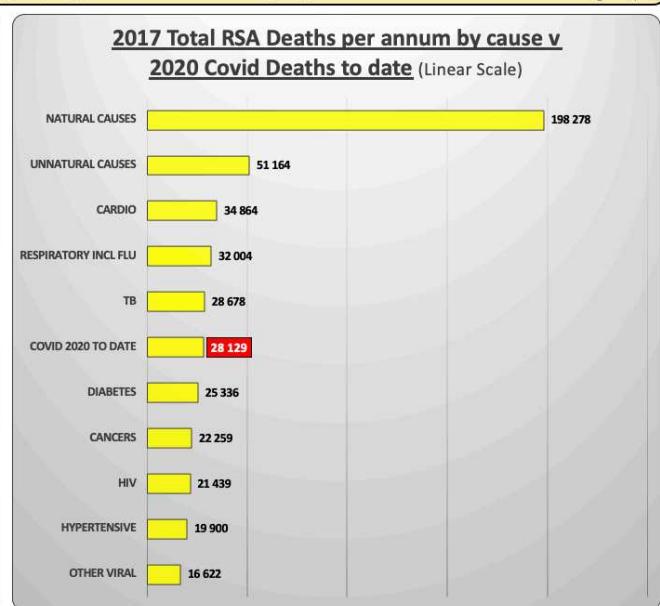
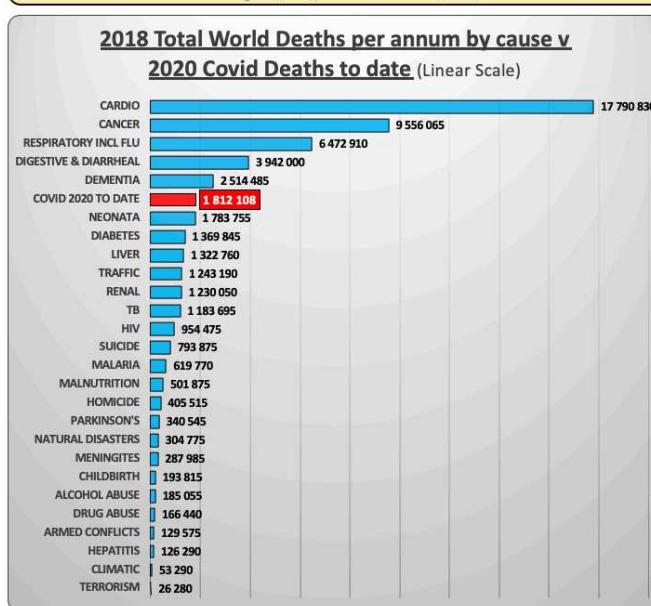
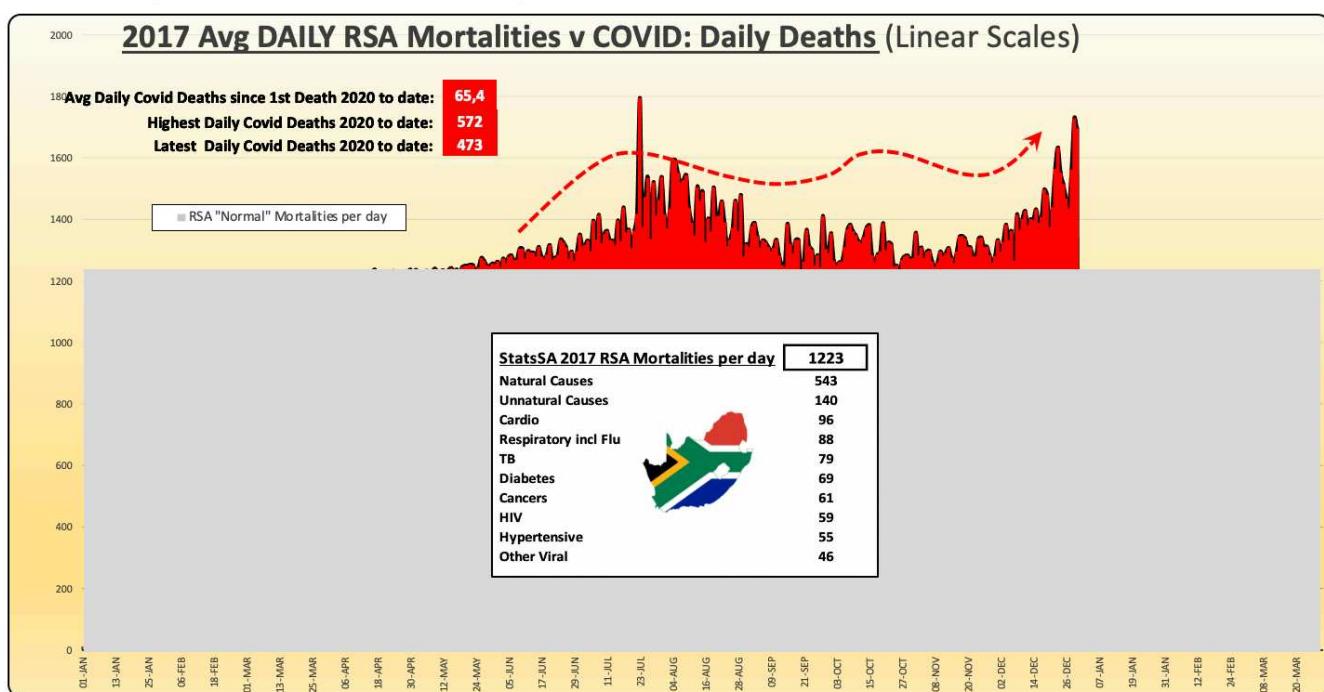


The two graphs WORLD (above) and RSA (below) attempt to put the number of Covid Deaths into some sort of perspective graphically.

The big GREY blocks are TOTAL Daily Avg Deaths from ALL causes over a full calendar year.

The RED area/lines on top of the Grey blocks are the INCREMENTAL Actual Daily Deaths due to Covid.

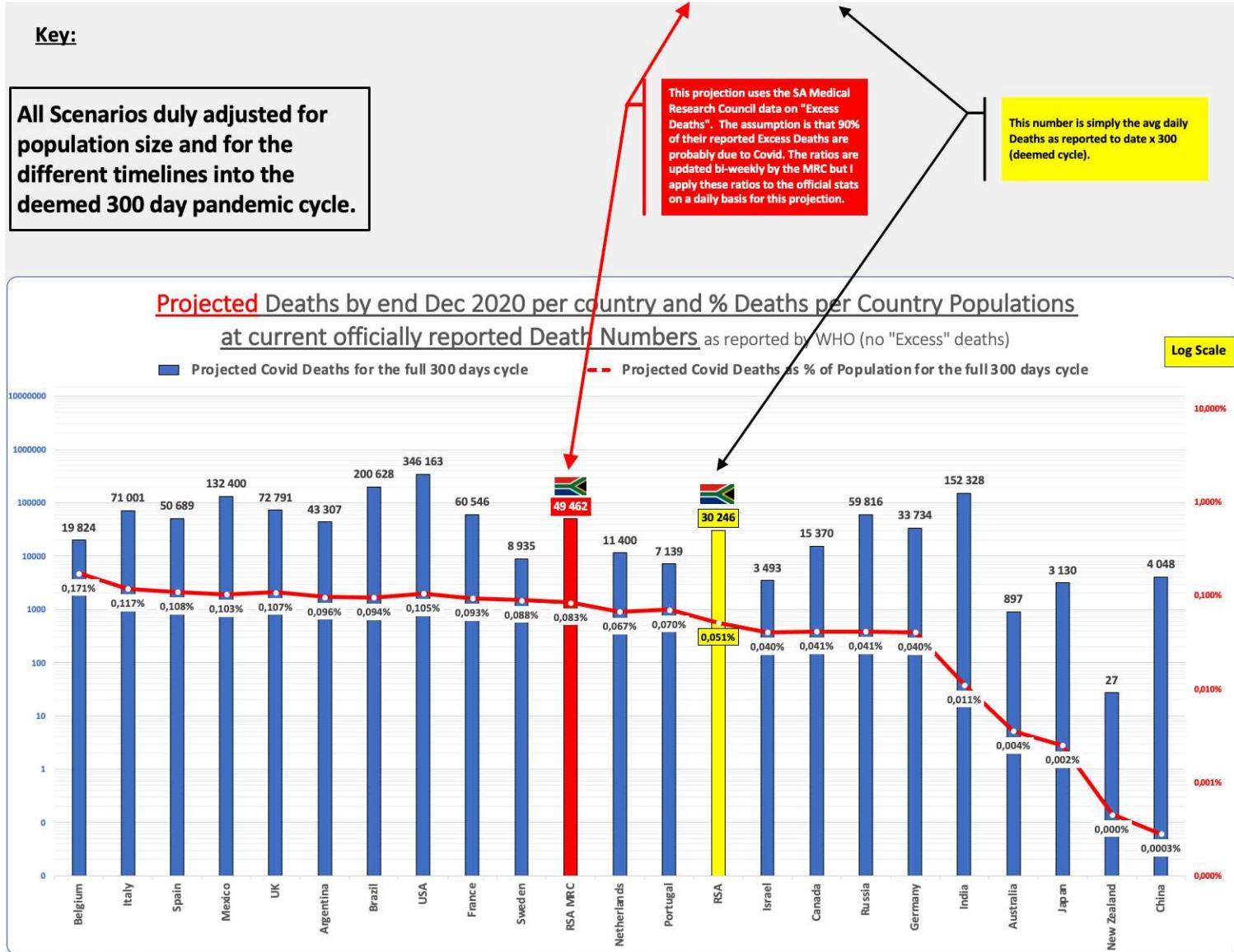
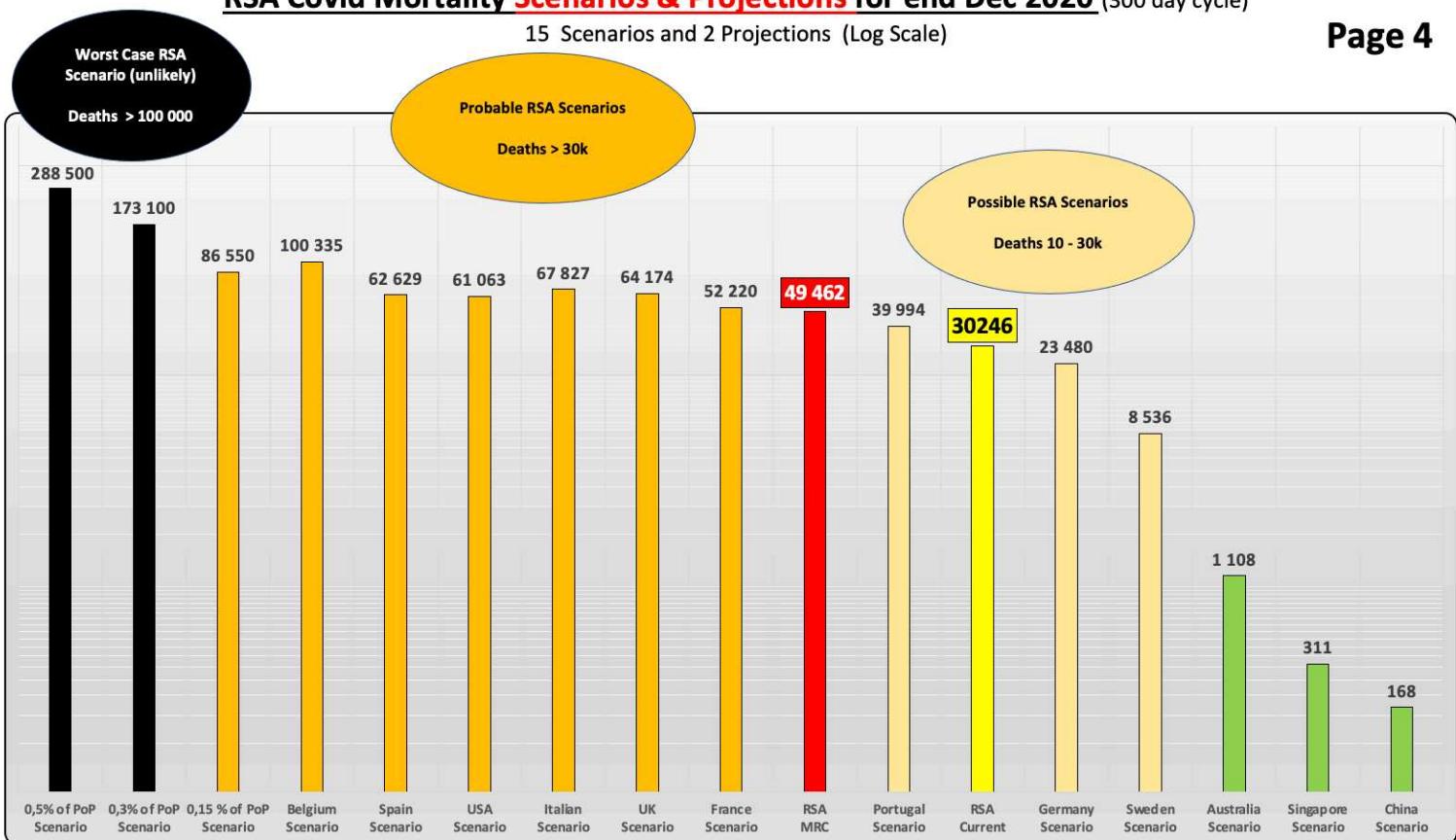
Obviously some of the Covid Deaths will "overlap" with the "normal" Deaths due to comorbidities.



RSA Covid Mortality Scenarios & Projections for end Dec 2020 (300 day cycle)

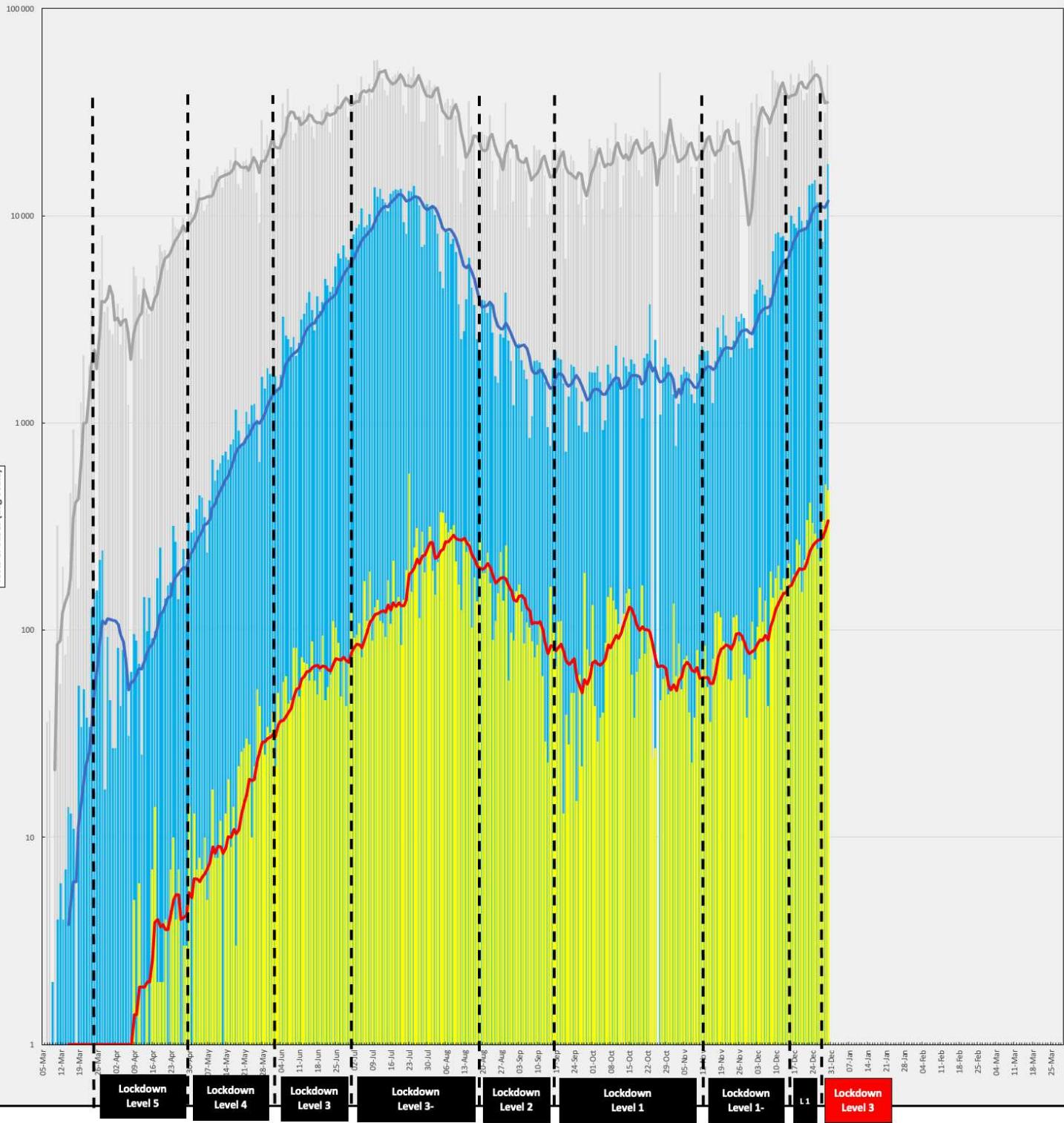
15 Scenarios and 2 Projections (Log Scale)

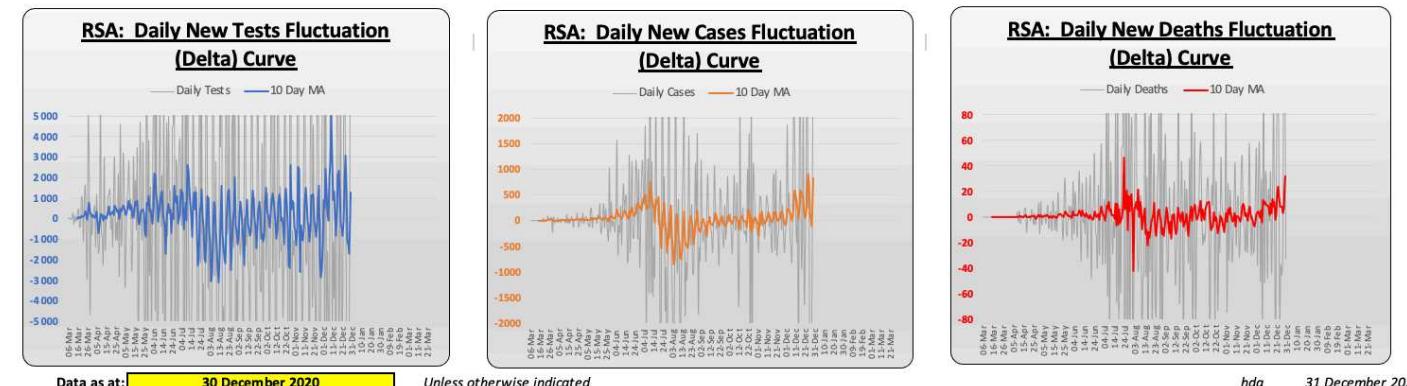
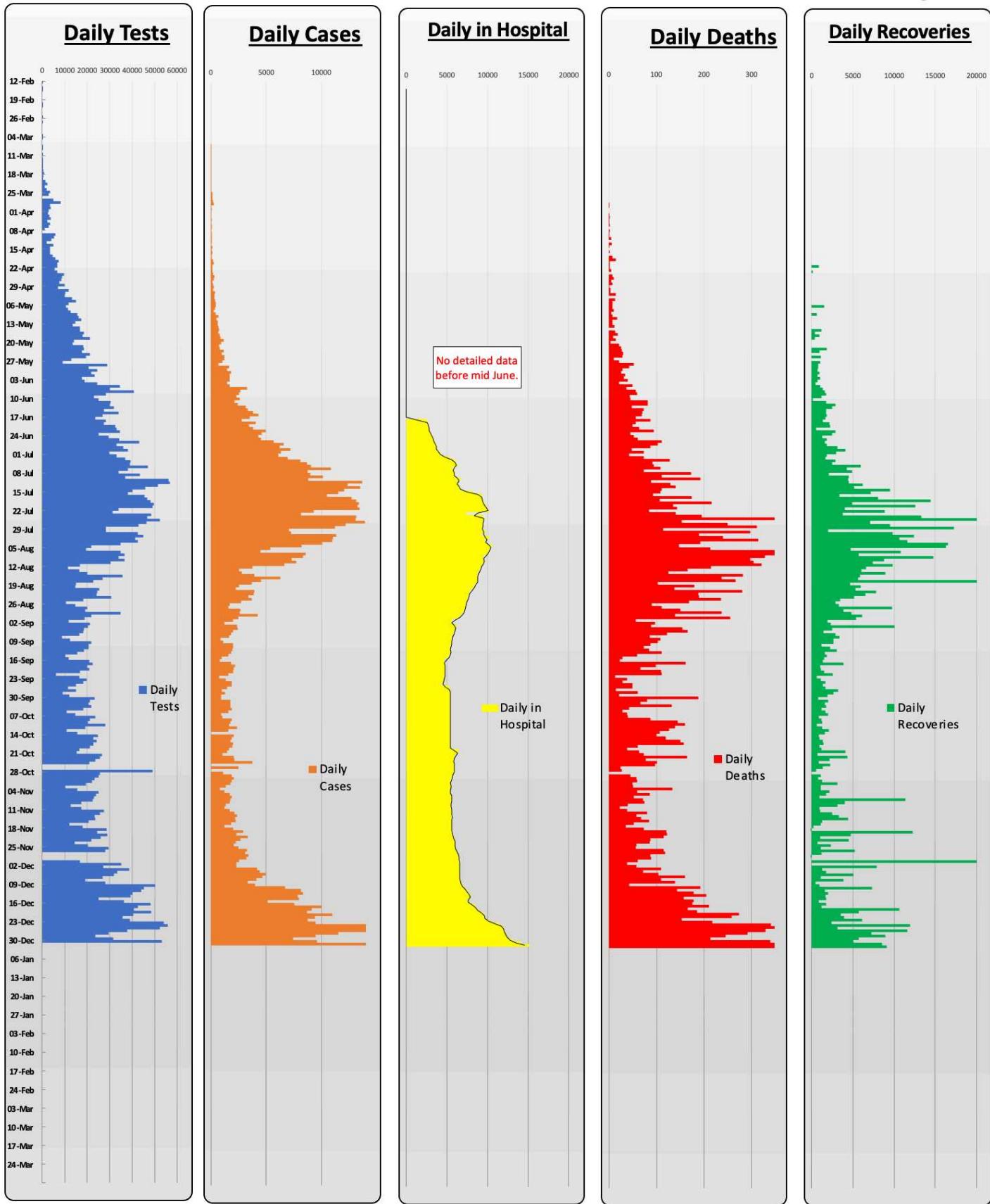
Page 4

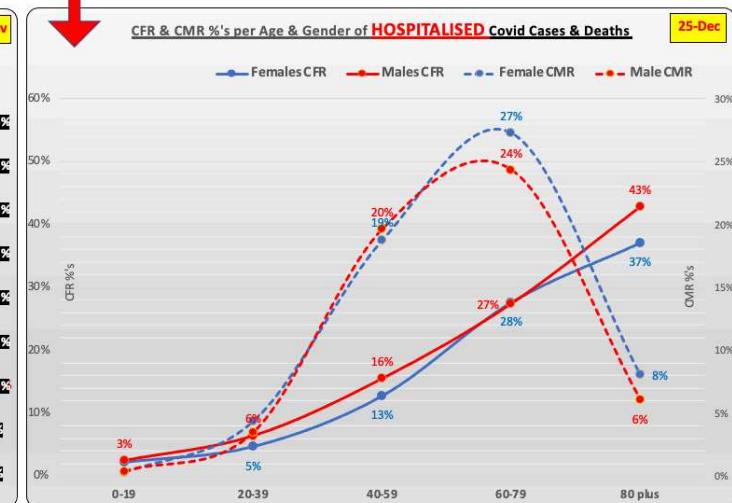
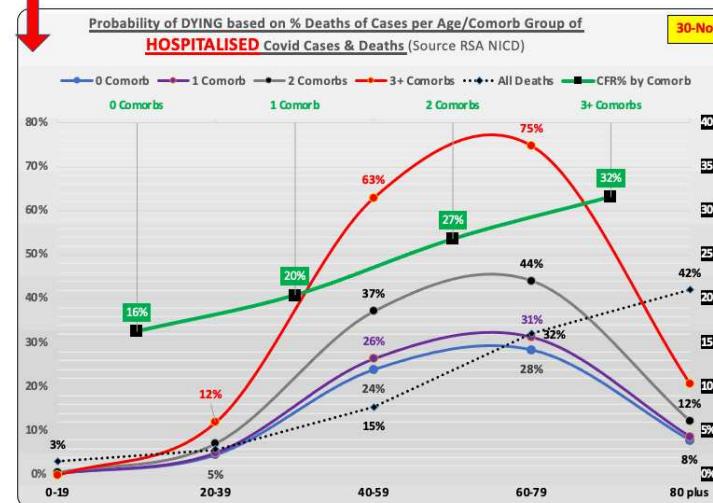
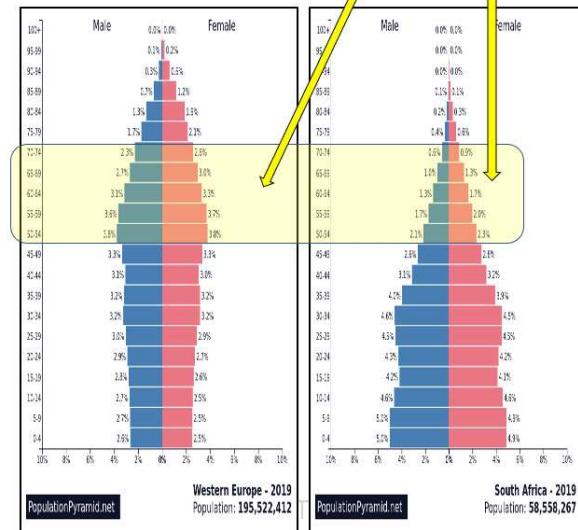
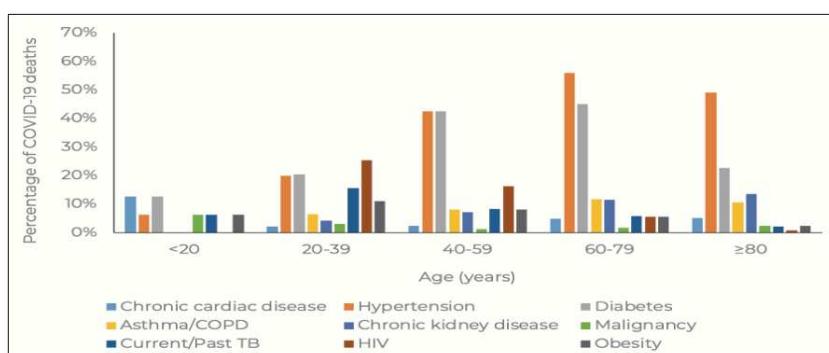
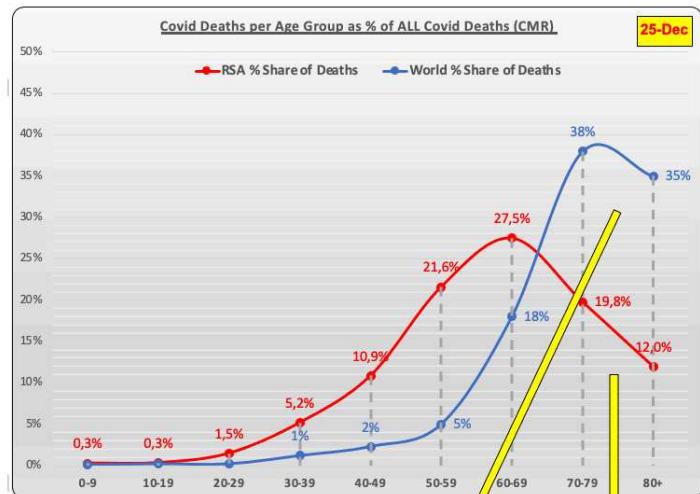
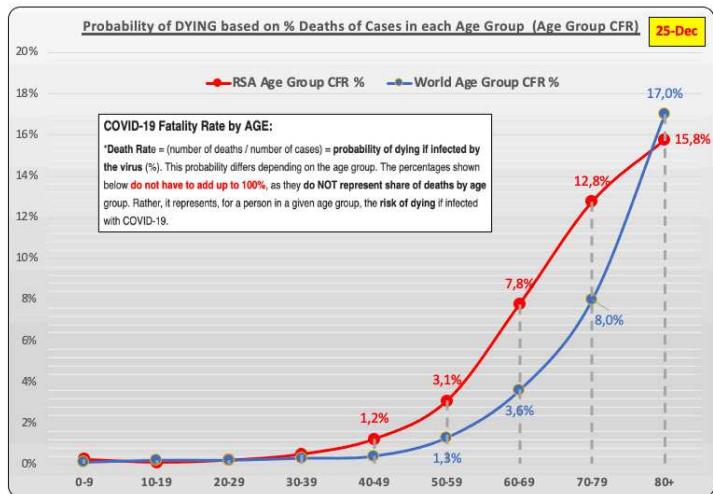
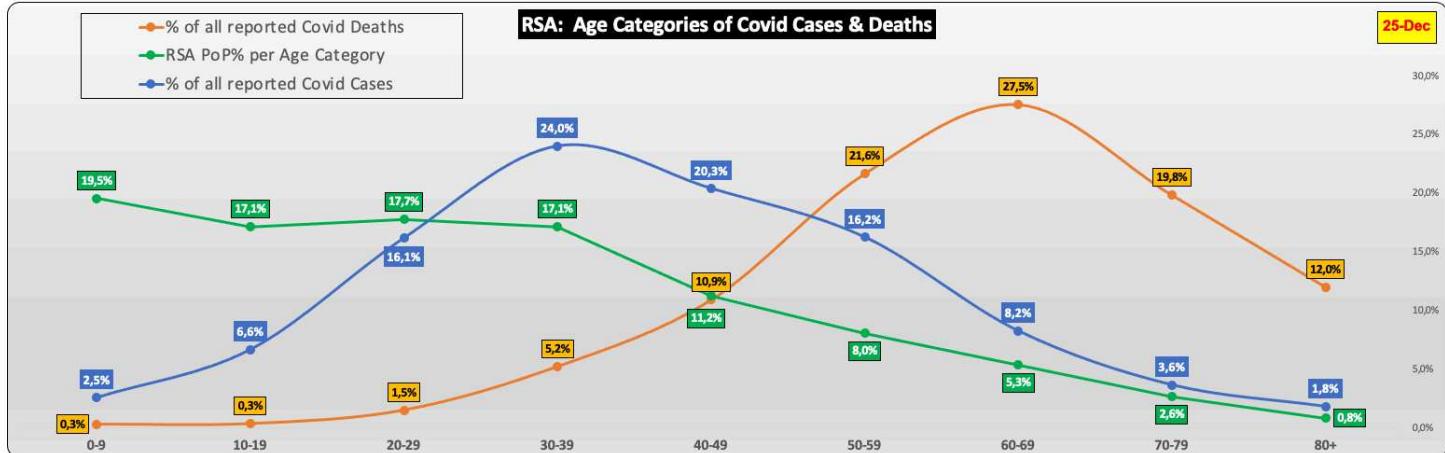


RSA Daily Testing v Daily Cases v Daily Deaths 5 Day MA log scales

■ Daily Tests ■ Daily Cases ■ Daily Deaths





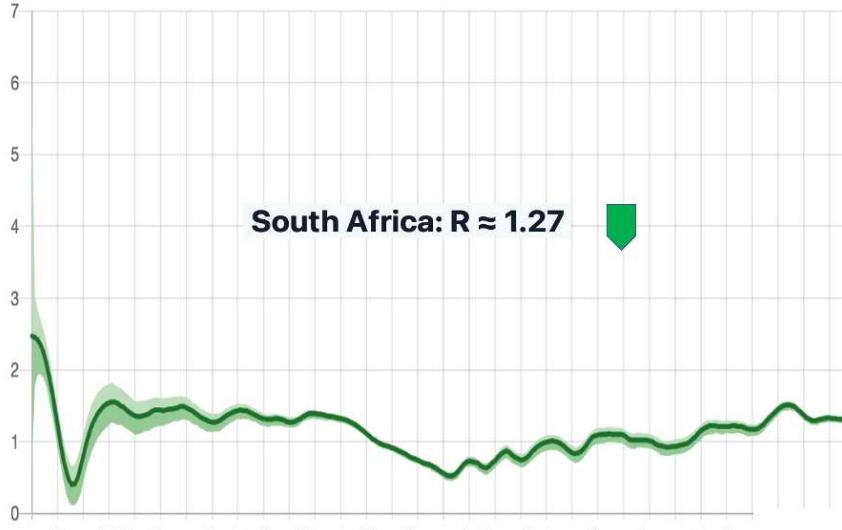


Covid REPRODUCTIVE NUMBER (Rt) in RSA & Province

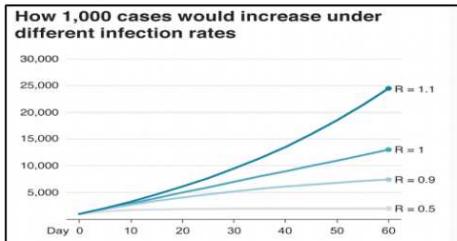
Page 5.3

The Reproduction Number, R, derived from Currently Infectious estimates, see below

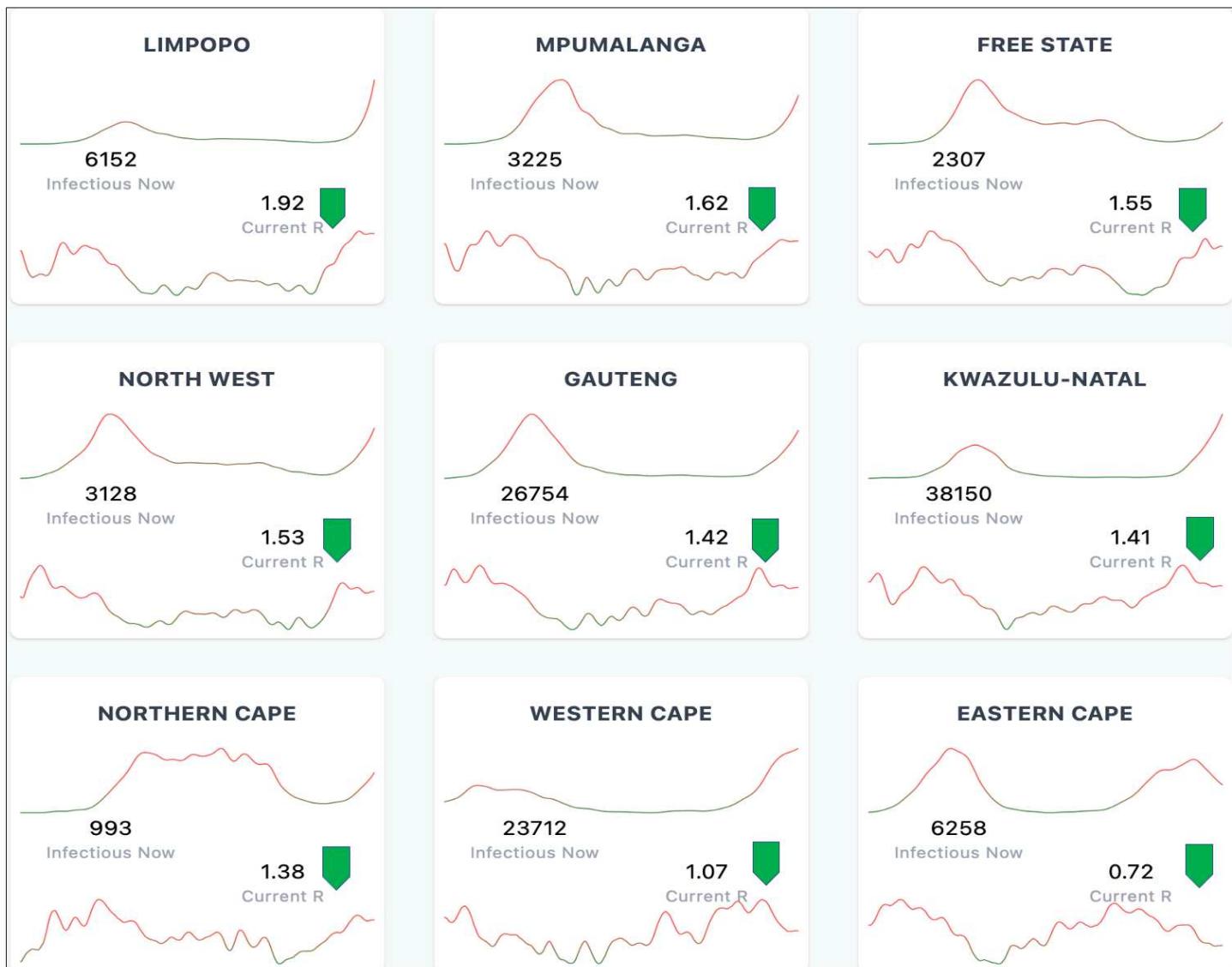
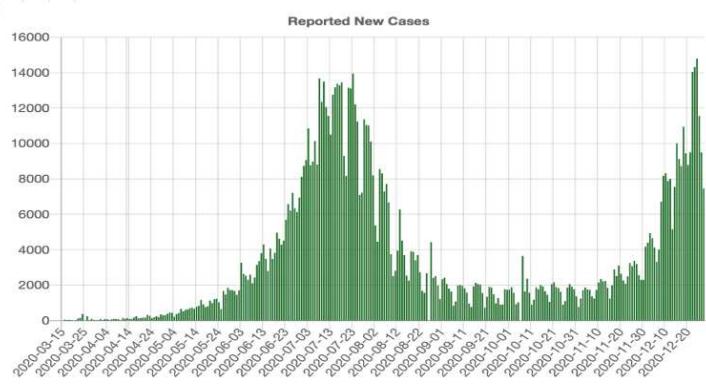
Rt numbers rely on regular, recent & quality data inputs. This is not always the case in RSA and hence the Rt numbers below, although accurate, do not reflect the current situation. It is based on various inputs some of which is up to two weeks old.



A Rt below 1 suggests that the number of cases is shrinking, possibly allowing societies to open back up. A Rt above 1 indicates that the number of cases is growing, perhaps necessitating renewed lockdowns or other measures.



Red arrow: Movement from previous reporting



Data as at:

Latest Available

Unless otherwise indicated

Rt graphs from:



<https://reproduction.live/world/ZA>

hdg

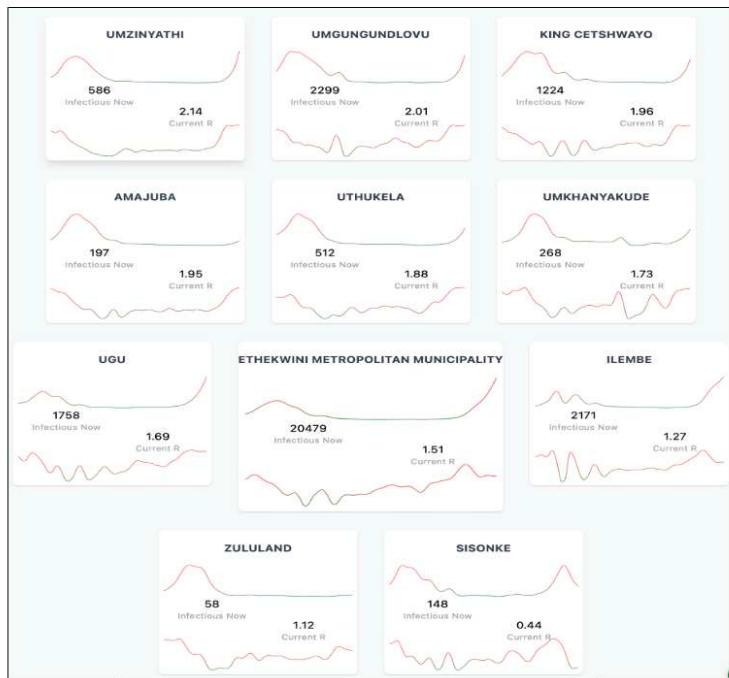
31 December 2020

Major Provinces: Rt #'s & Active Cases by District

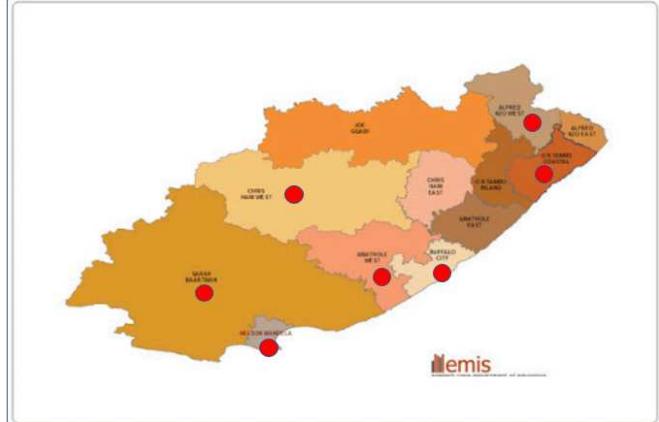
Govt designated Covid Hotspots as at: 31 December 2020

Page 5.4

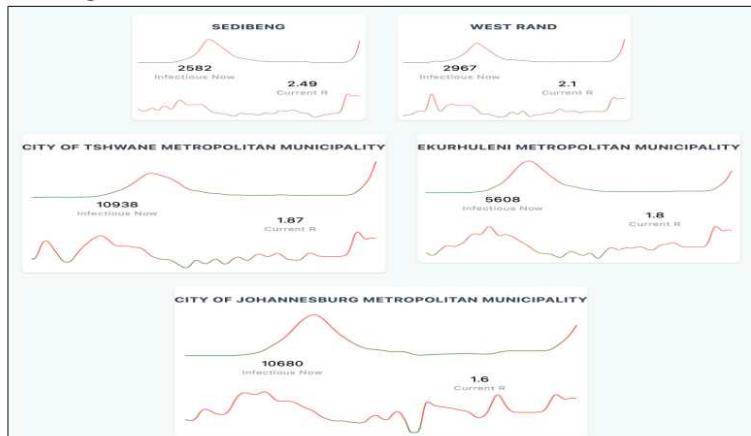
KZN



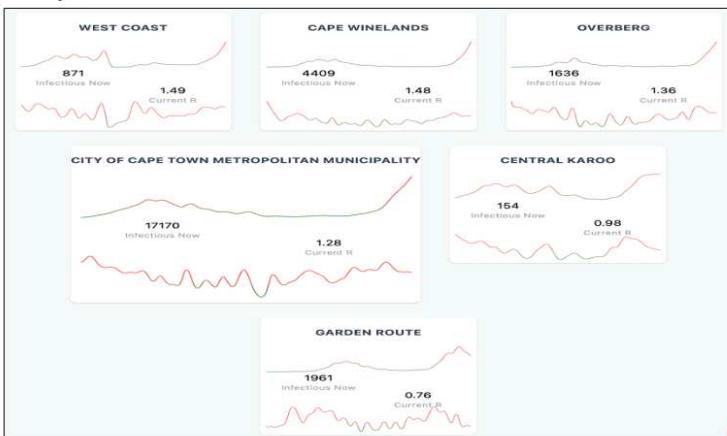
ECape



Gauteng



WCape



Data as at:

Latest Available

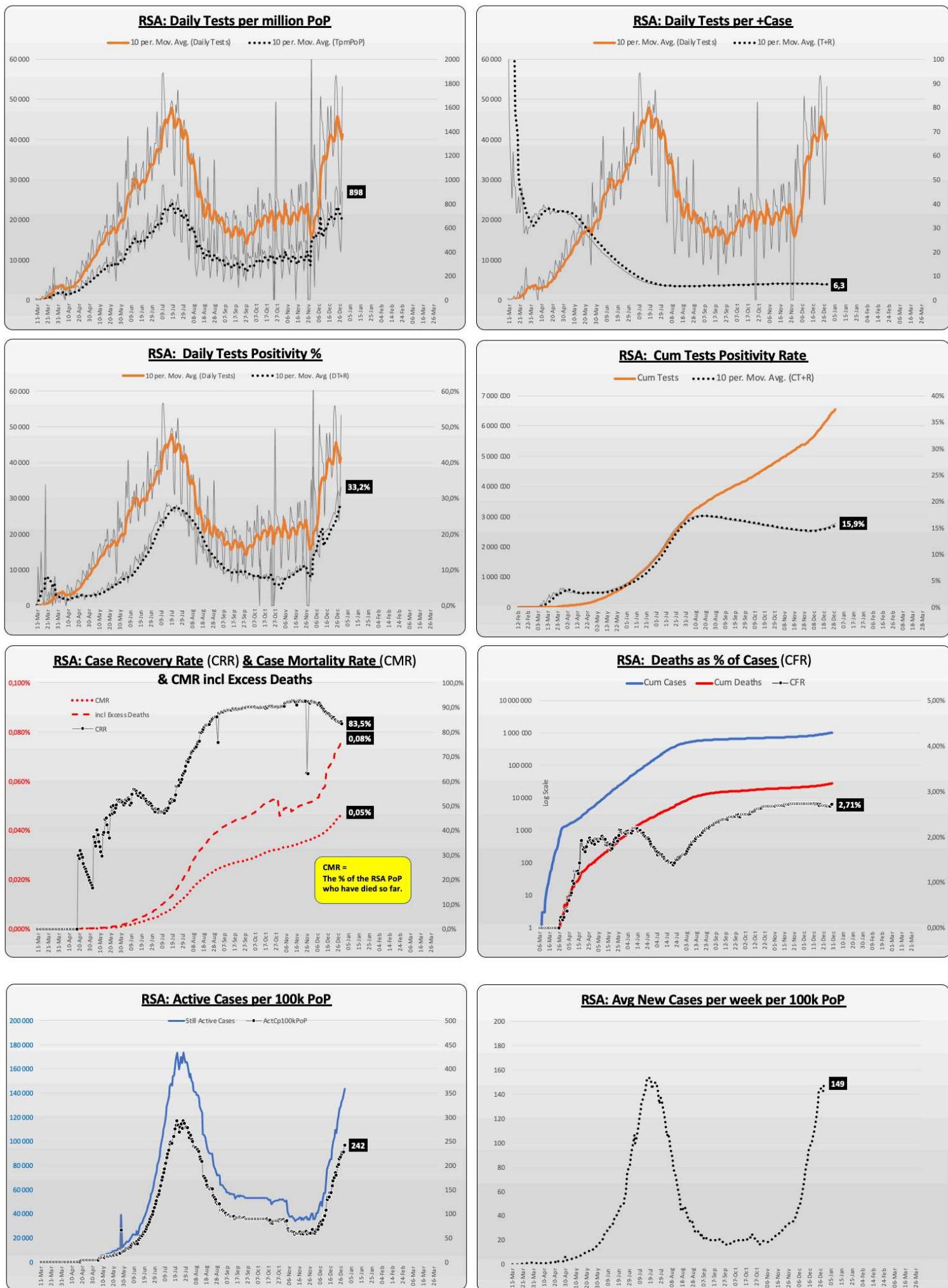
Rt graphs from:

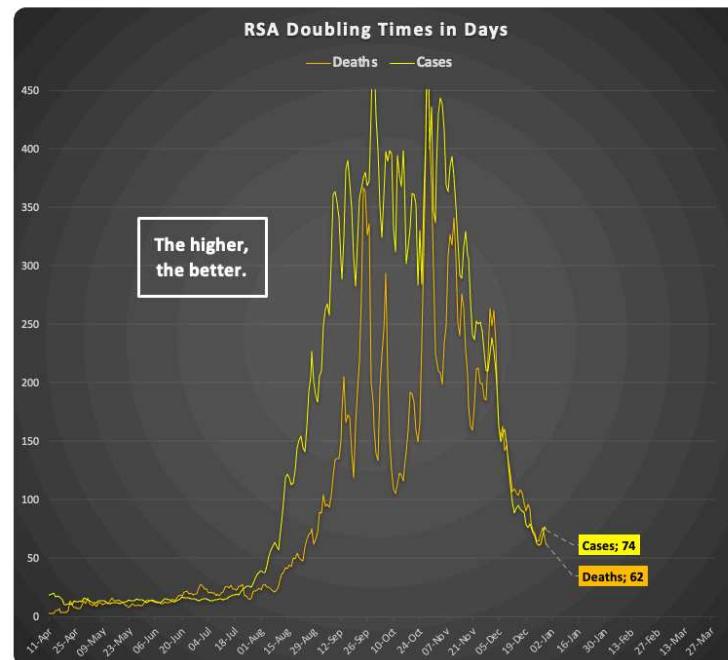
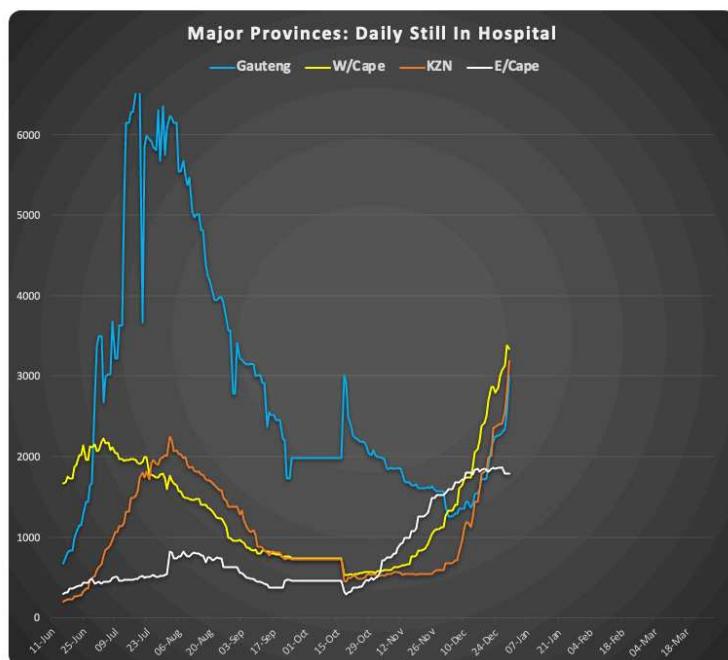
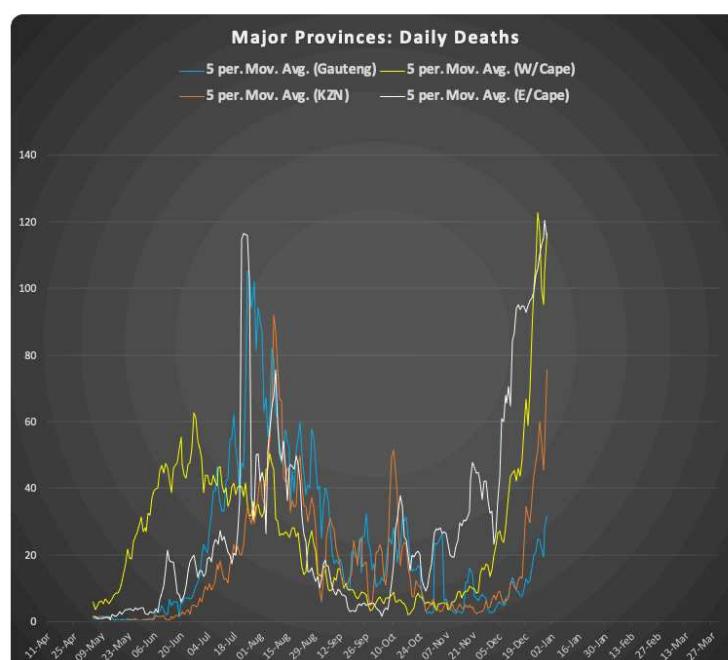
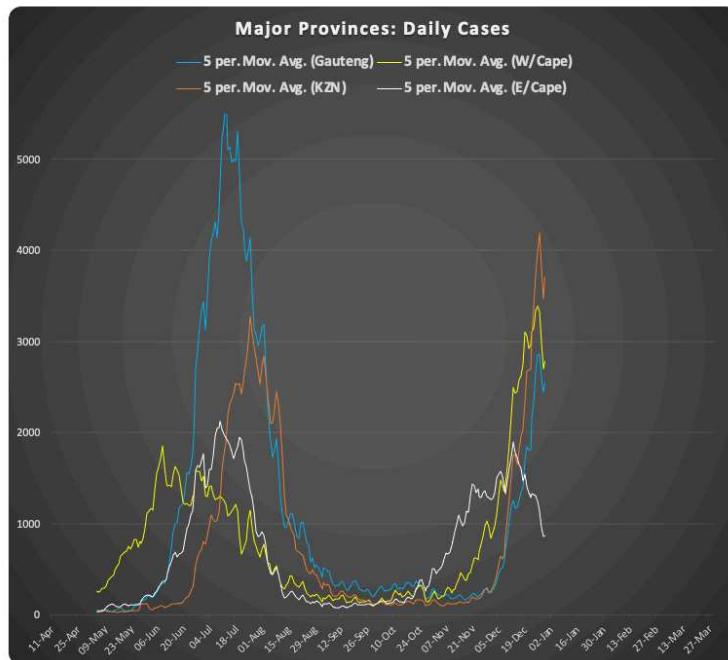
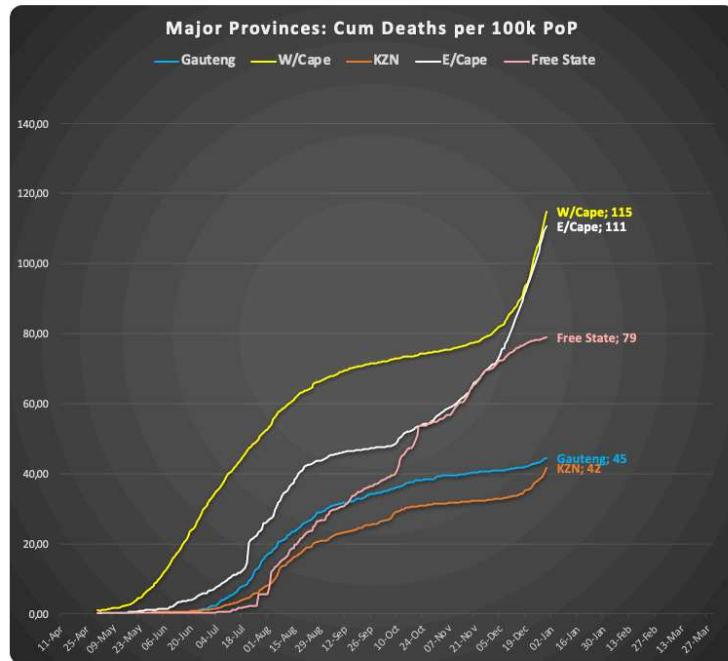
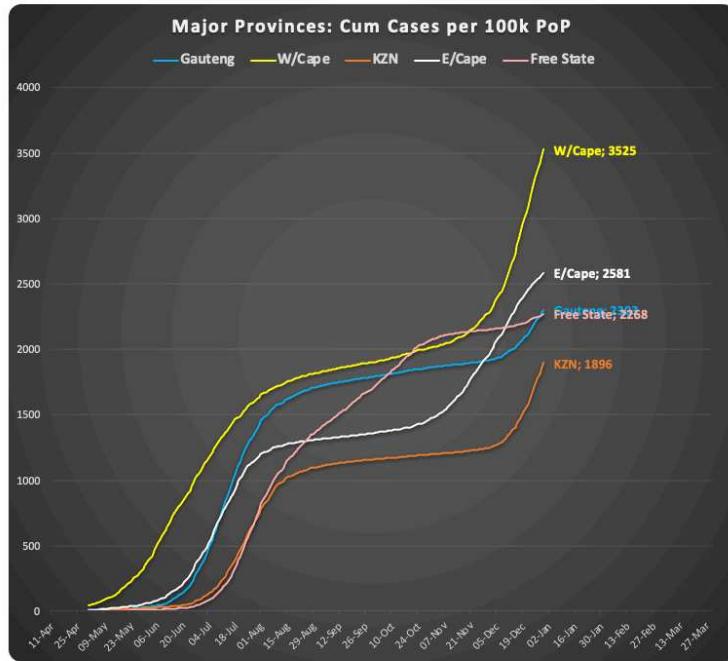


<https://reproduction.live/world/ZA>

hdg

31 December 2020



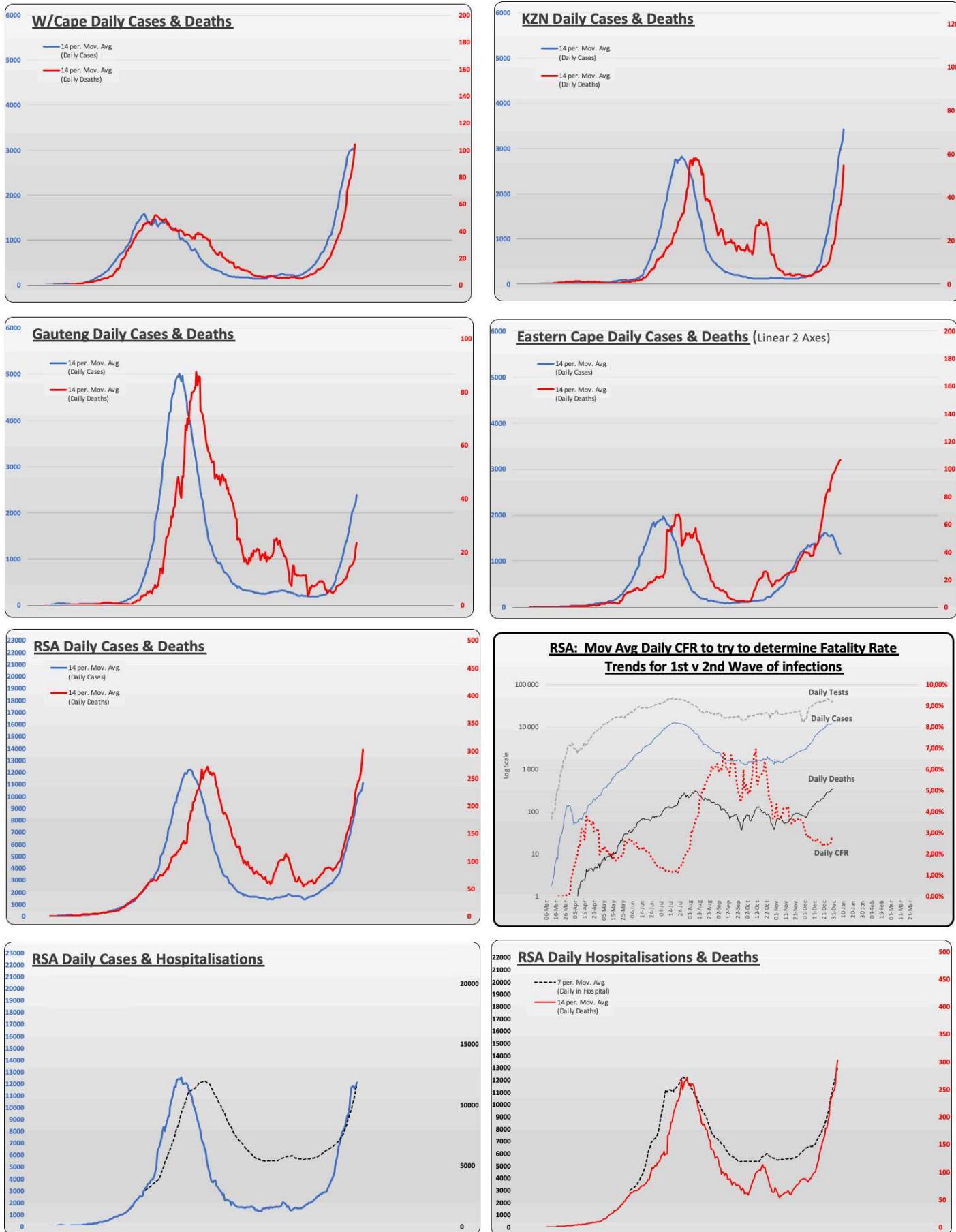


RSA & Major Provinces:

1st Wave v 2nd Wave

The Y-axes scales have been adjusted in order to get the 1st Wave Cases/Hospitalisations & Deaths peaks aligned. The unfolding 2nd Wave curves should therefore give a good indication of the 2nd Wave's rate of infection spread and severity resulting in fatalities.

Page 5.7

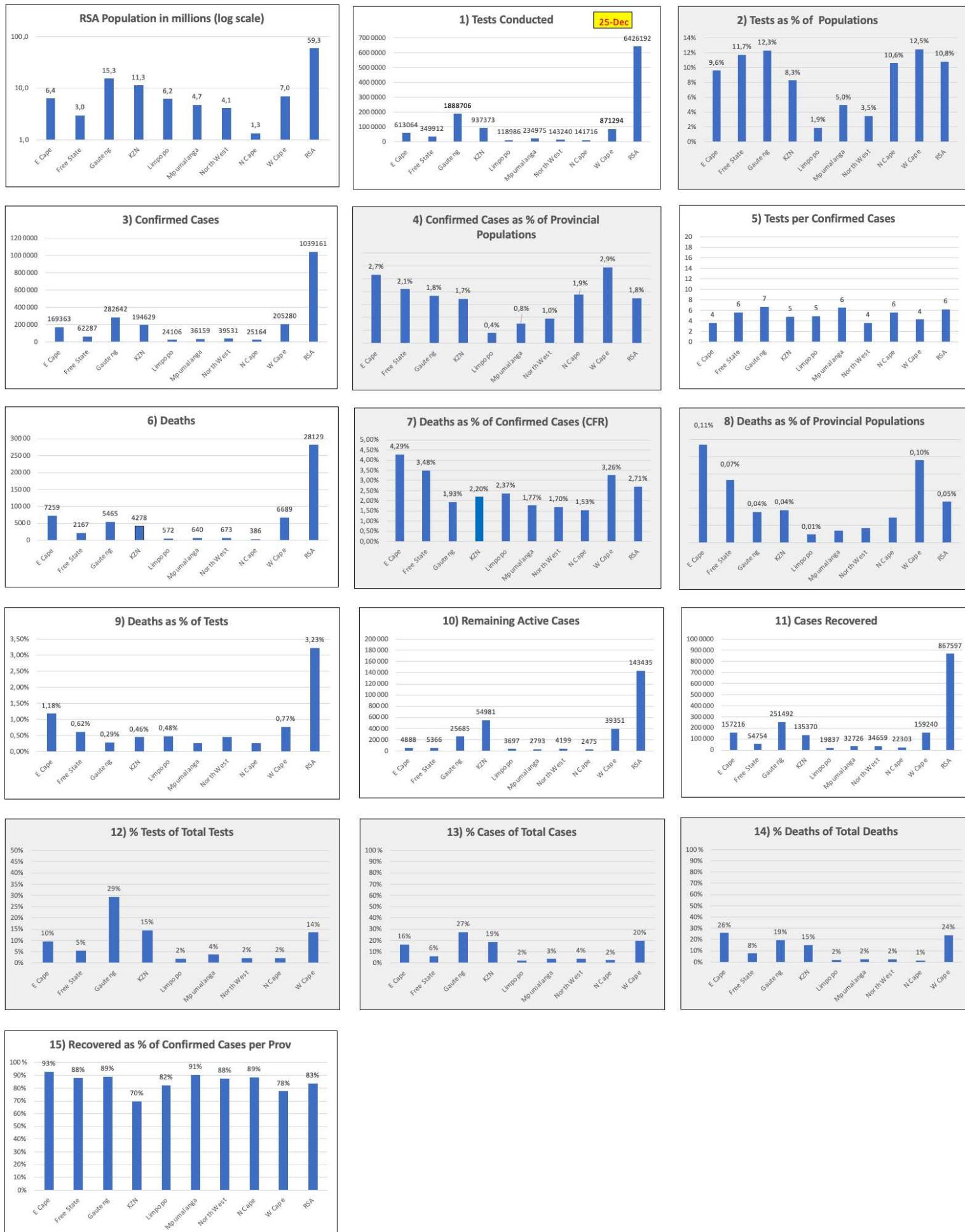


What are these graphs telling us ? (Ignore the numbers, look purely at the inclines and amplitudes).

- 1) The Cases and Deaths curves are almost identical, except for the approx 2 week delay in Deaths occurring.
- 2) There is possibly a problem with the ECape Case reporting. Their Deaths Curve is way ahead of their Cases Curve. Could be due to full hospitals and patients being referred to WC & KZN, but Deaths still attributed to ECape ? If the ECape Cases numbers are correct then the CFR (Fatality Rate) for the 2nd Wave is extremely high !! This is not borne out by the WCape and/or KZN data.
- 3) The WCape & KZN and even the Gauteng curves are exactly as one would expect, unfortunately their relative amplitudes does not bode well for Gauteng and the rest of the country.
- 4) The bottom right graph shows Hospital Capacity under serious strain.

RSA Covid Stats: National & Provincial Analysis

Page 6



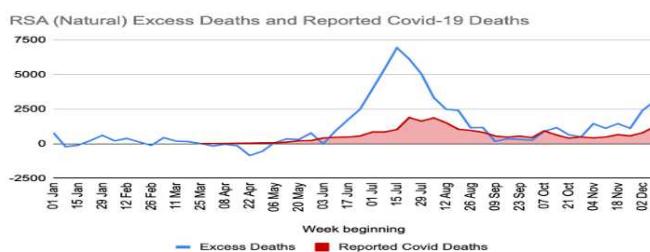
RSA Excess Deaths as per SA Medical Research Council

Data as at:

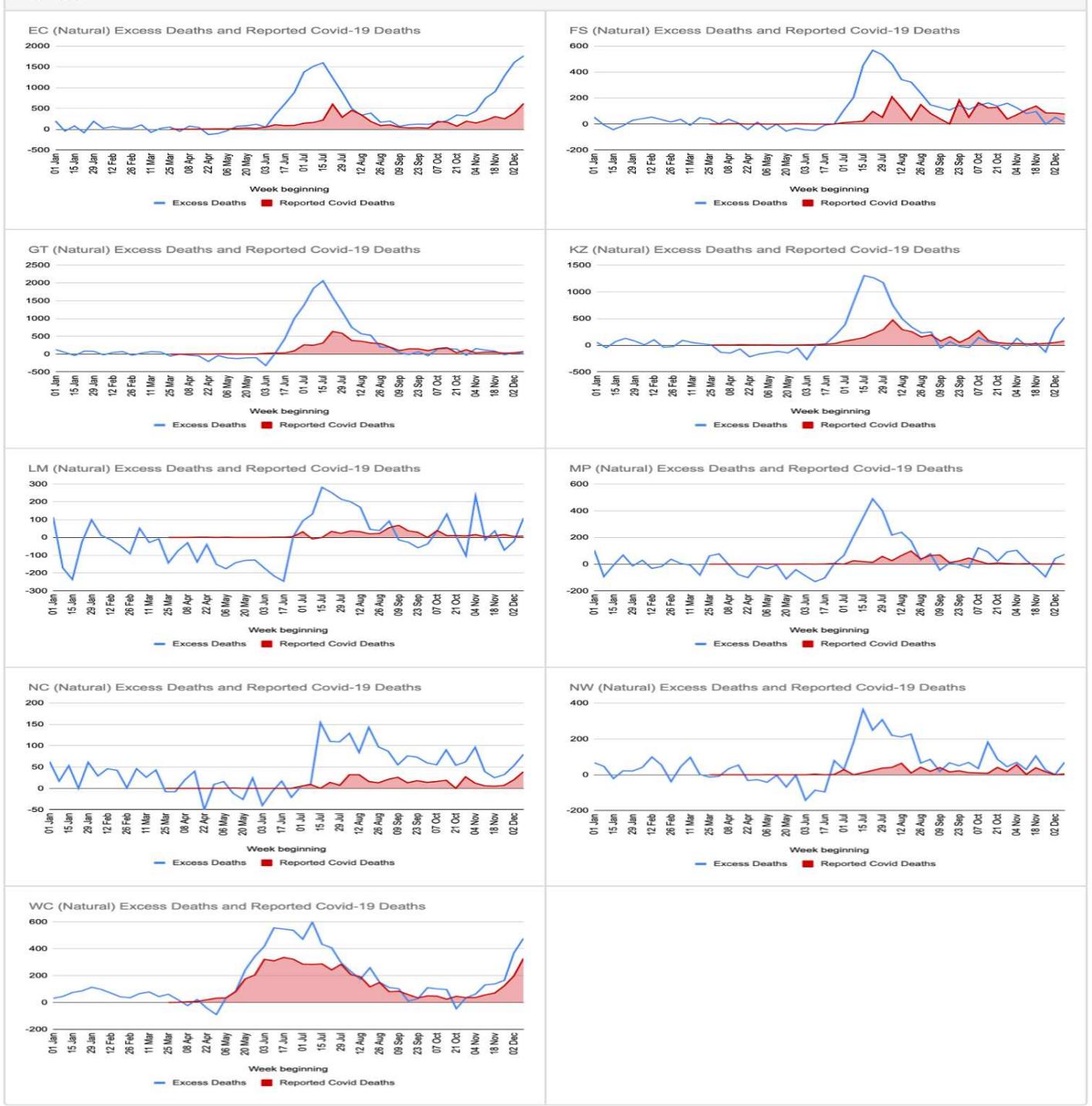
09 December 2020

Page 6.1

One approach to aid understanding of the emerging COVID-19 mortality is to compare the estimated weekly excess deaths with the number of COVID-19 deaths reported by the Minister of Health as shown in the figure below. This comparison is hampered to some degree by the fact that the excess deaths are classified by week in which the death occurred; the reported COVID-19 deaths are classified by date the numbers are reported to the Department. If all excess natural deaths were due to COVID-19, and all COVID-19 deaths were perfectly identified and reported, the two series would be identical. The number of estimated excess deaths has begun to decrease, consistent with the trend in the number of confirmed COVID-19 deaths. Although more data are needed on the underlying causes of death, this observation is strongly supportive that a significant proportion of the current excess mortality being observed in South Africa is likely to be attributable to COVID-19.



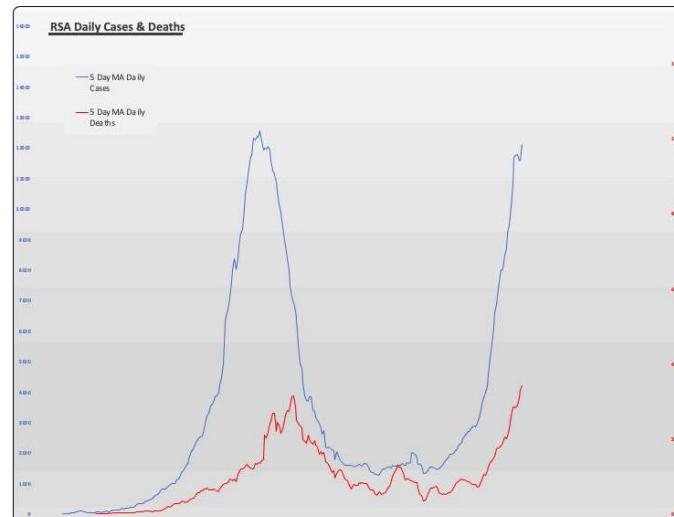
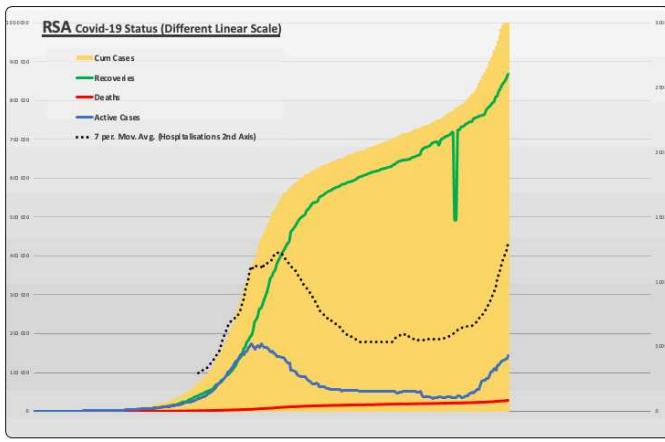
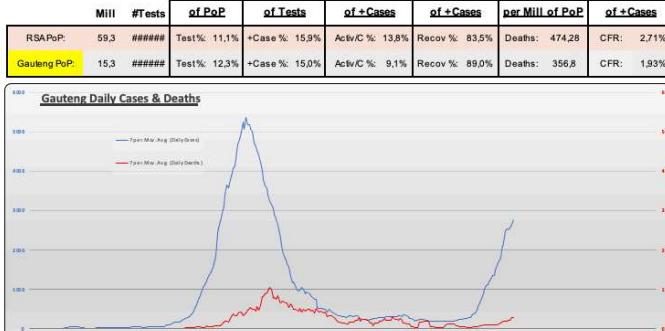
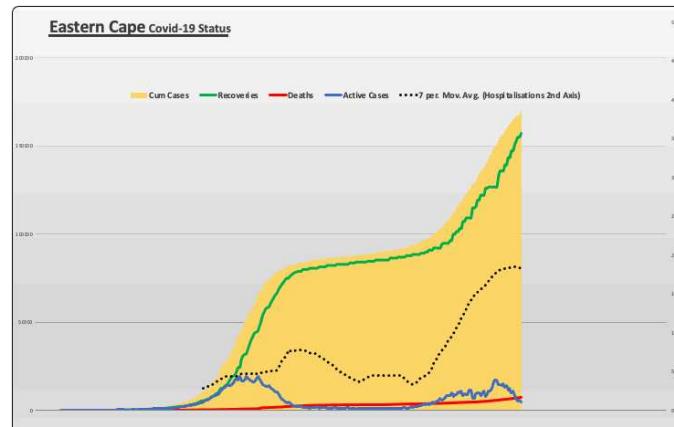
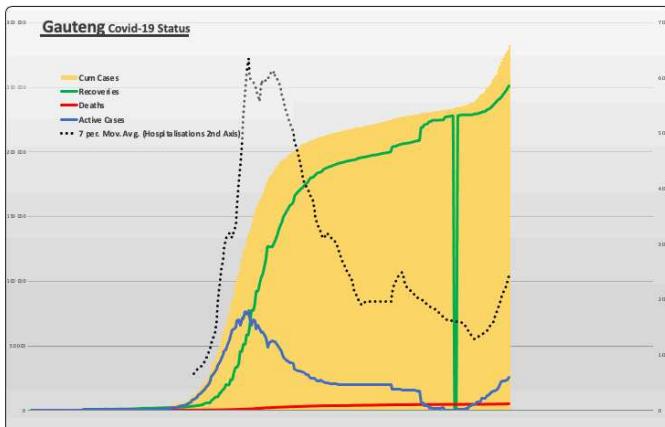
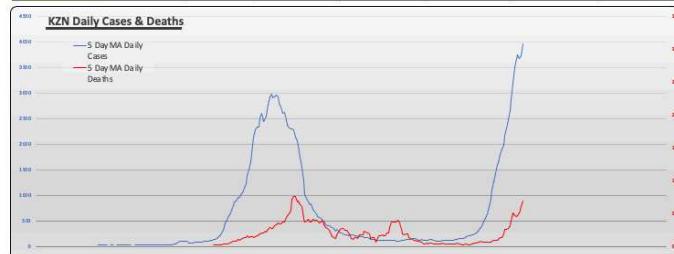
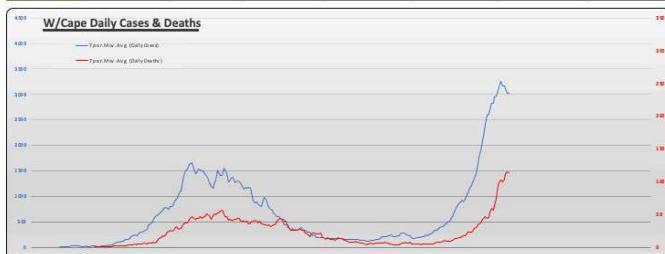
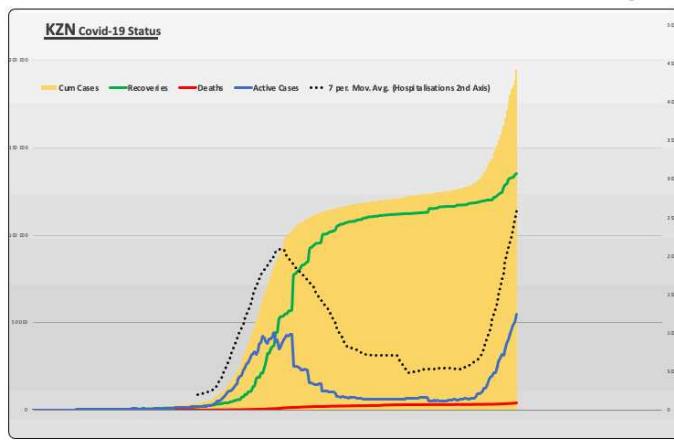
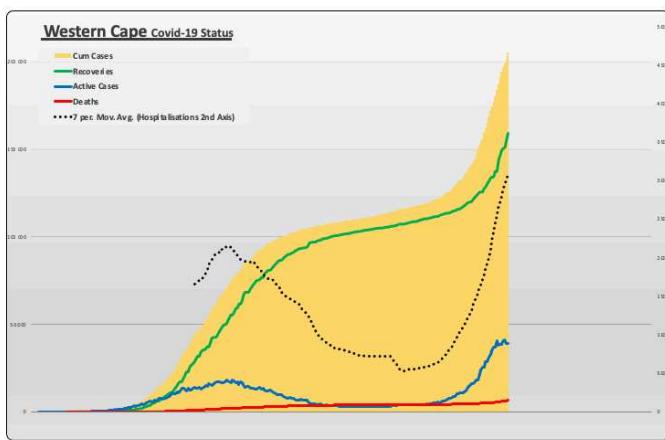
Provinces

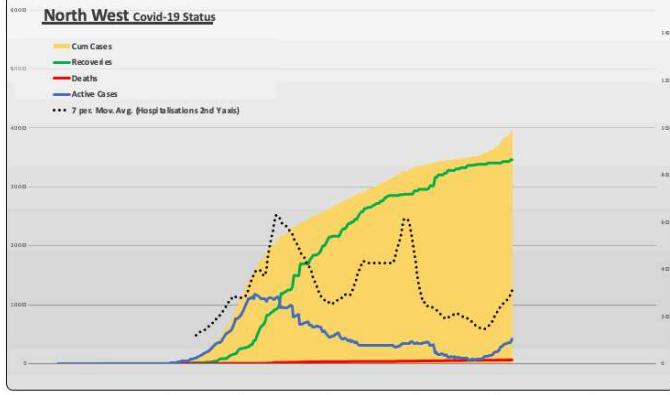
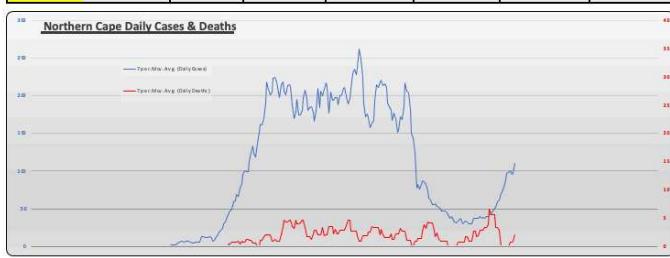
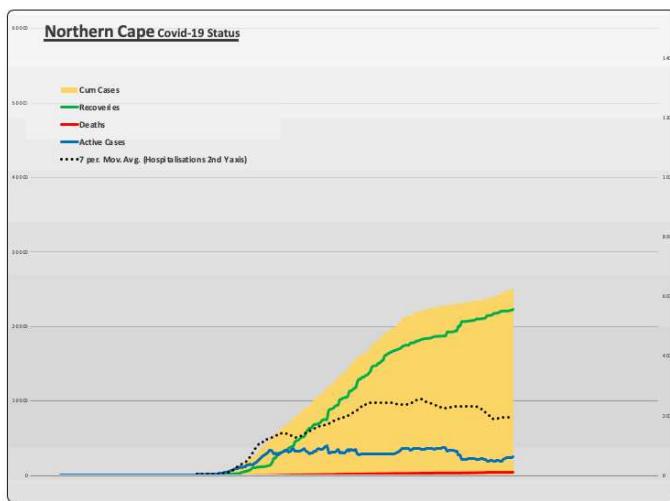
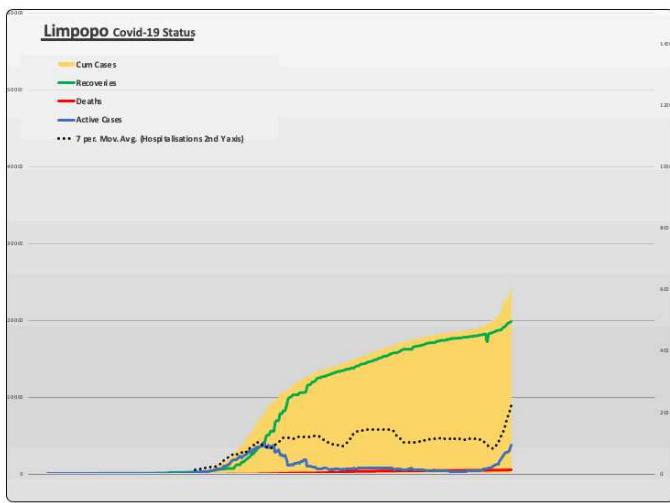


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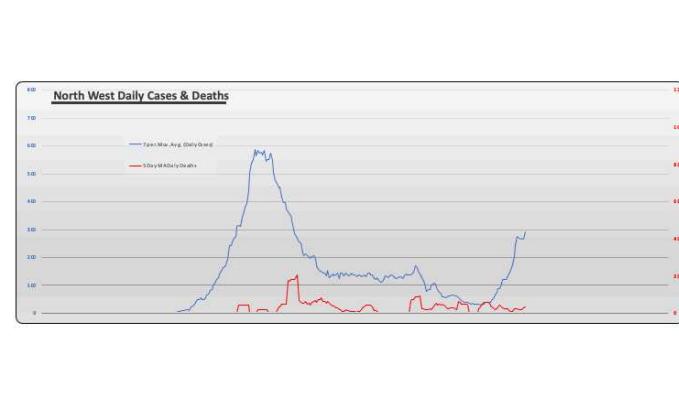
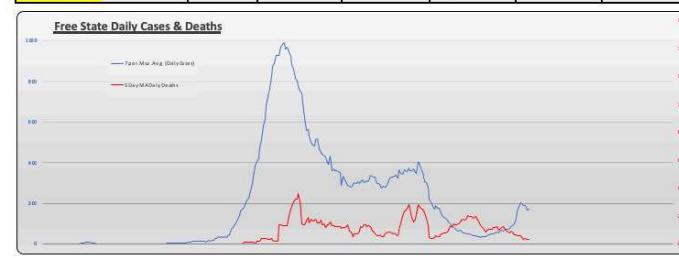
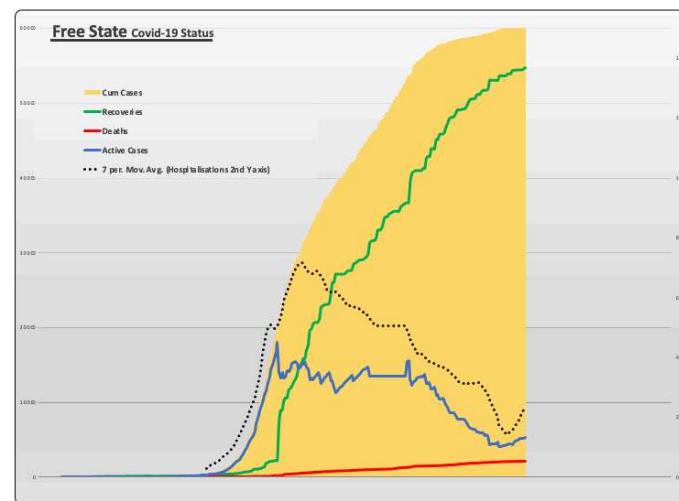
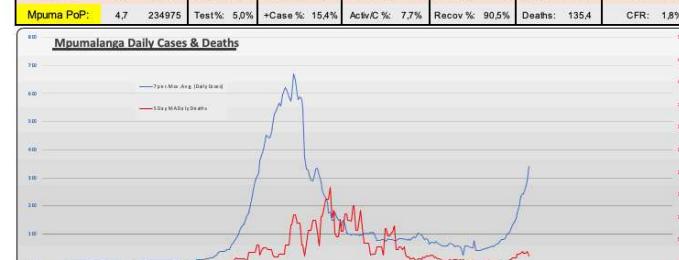
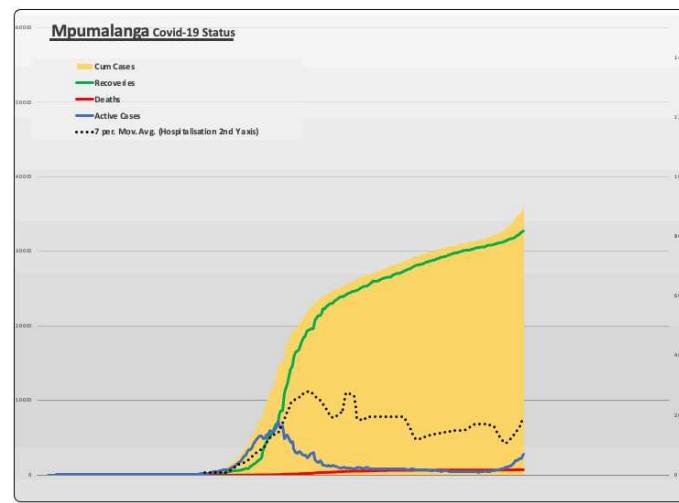
Latest Available

hdg 31 December 2020





Data as at 30 December 2020 Unless otherwise indicated



Data as at 31 December 2020 Unless otherwise indicated

