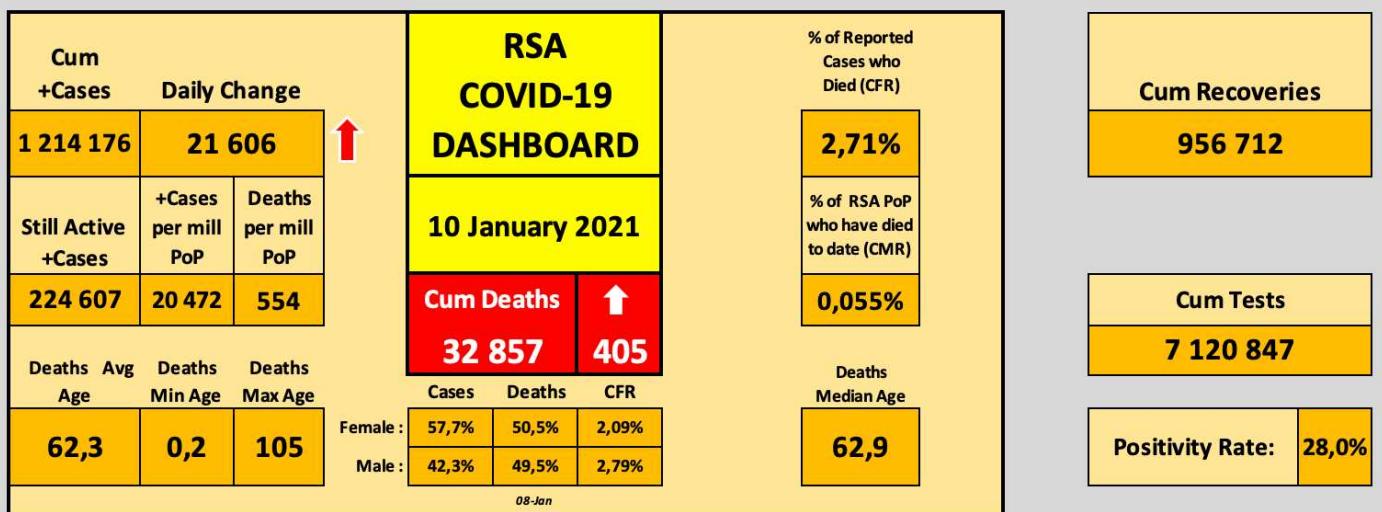
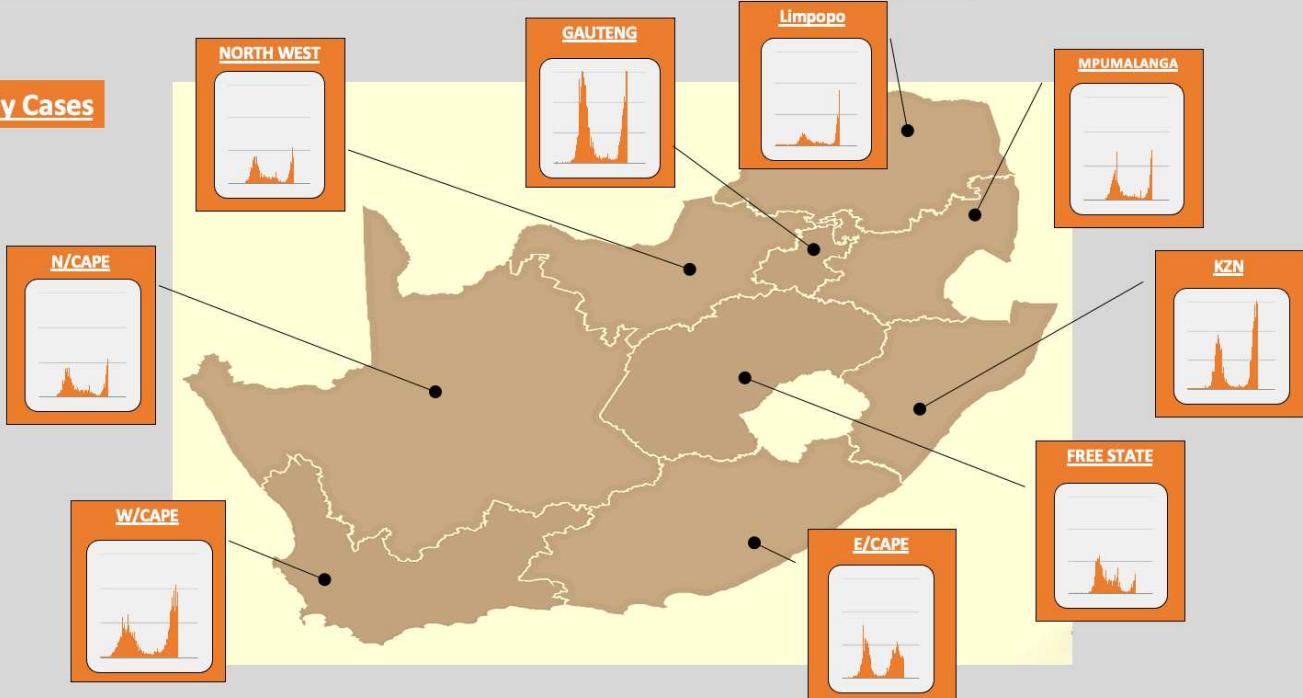


HarryG COVID-19 Dashboard



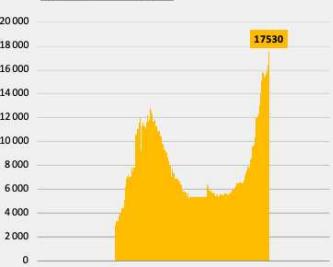
Daily Cases



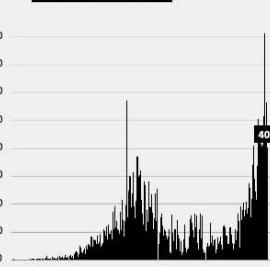
RSA Daily New Cases



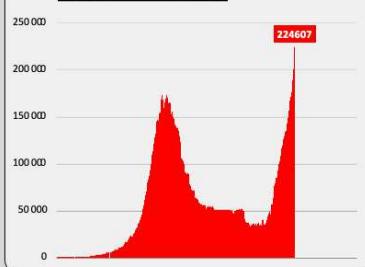
RSA Daily in Hospital



RSA Daily New Deaths



RSA Daily Still Active Cases



RSA Rt

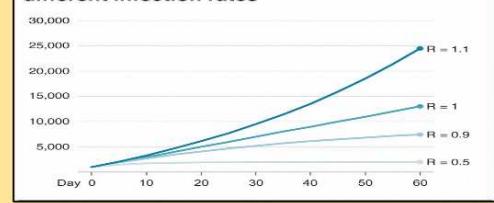
| | |
|----------|------|
| Prev 2 : | 1,17 |
| Prev 1 : | 1,20 |
| Latest : | 1,23 |



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.

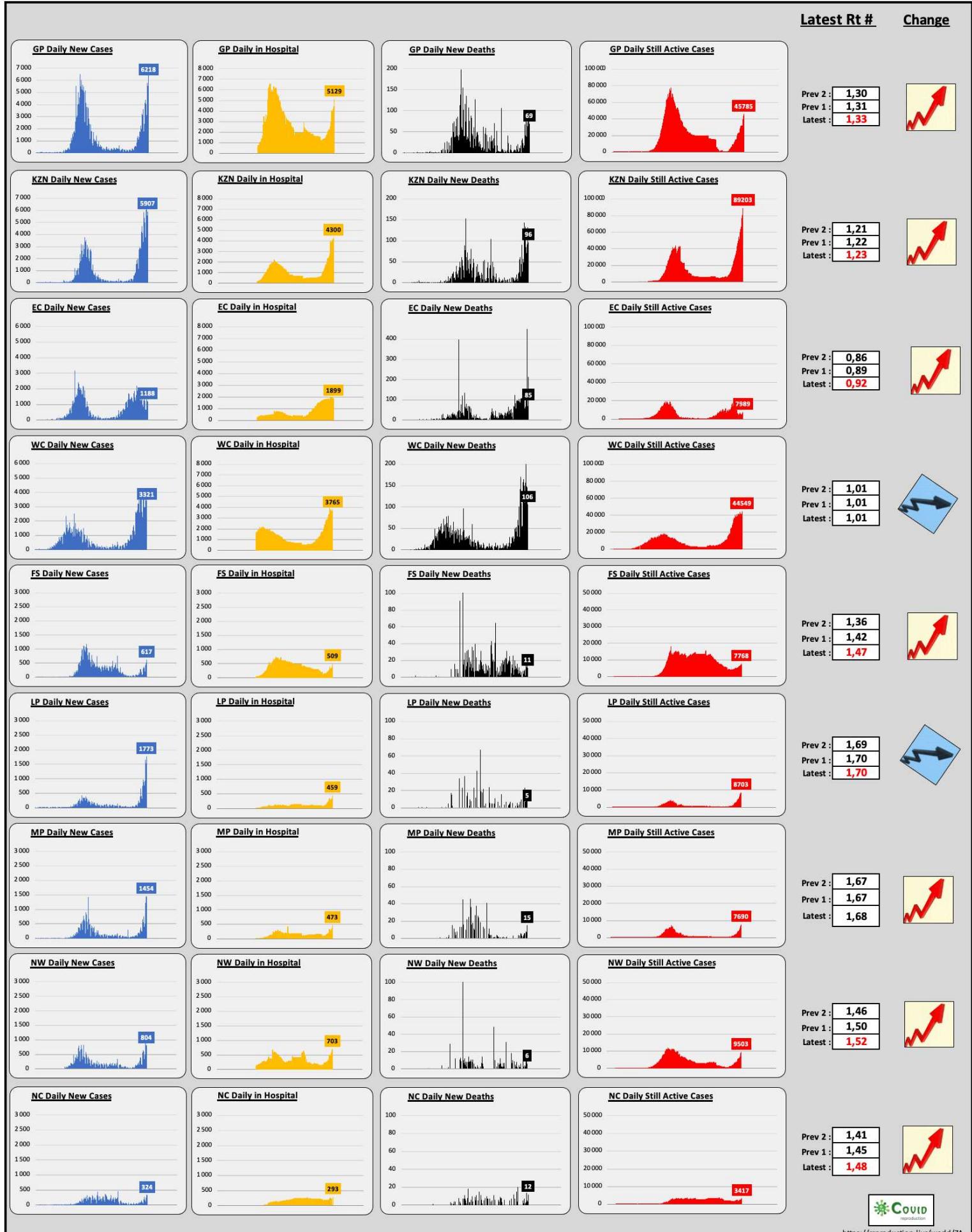
A Rt below 1 suggests that the number of cases is shrinking, possibly allowing societies to open back up. A Rt above 1 indicates that the number of cases is growing, perhaps necessitating renewed lockdowns or other measures.

How 1,000 cases would increase under different infection rates



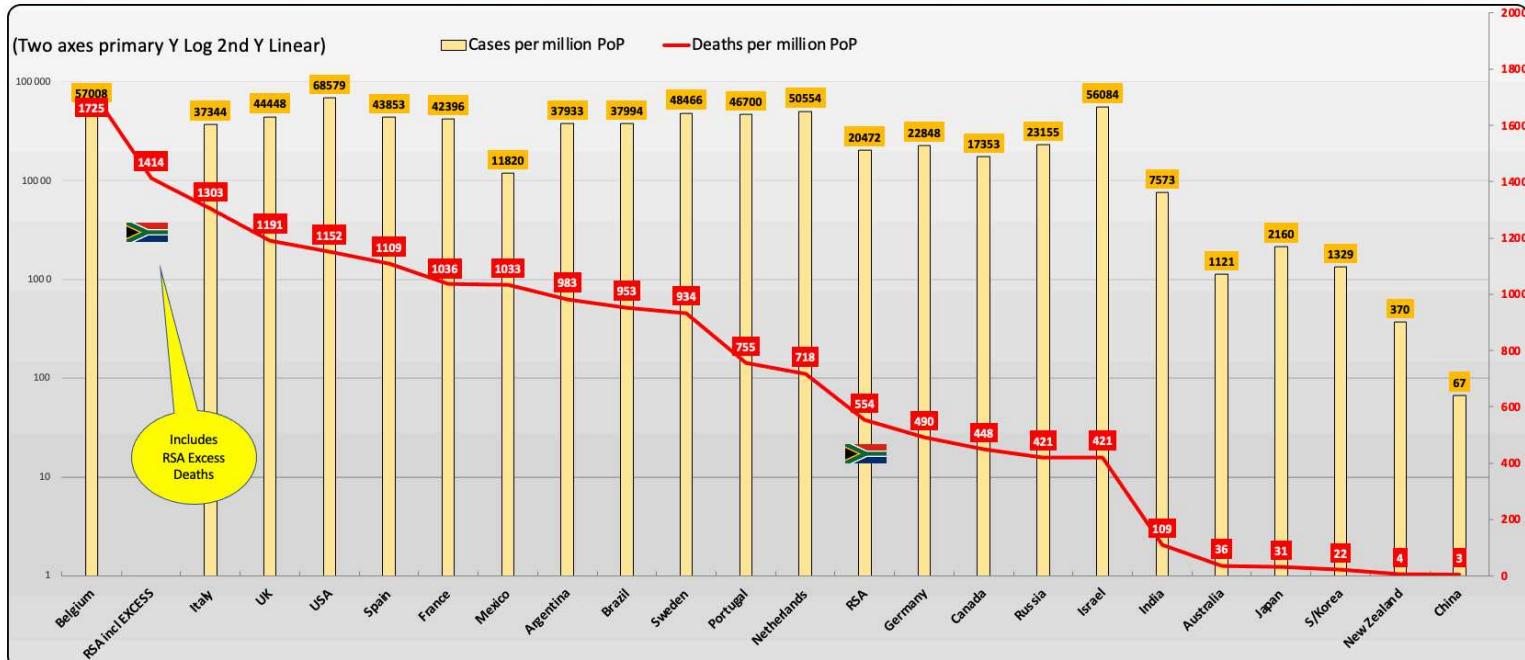
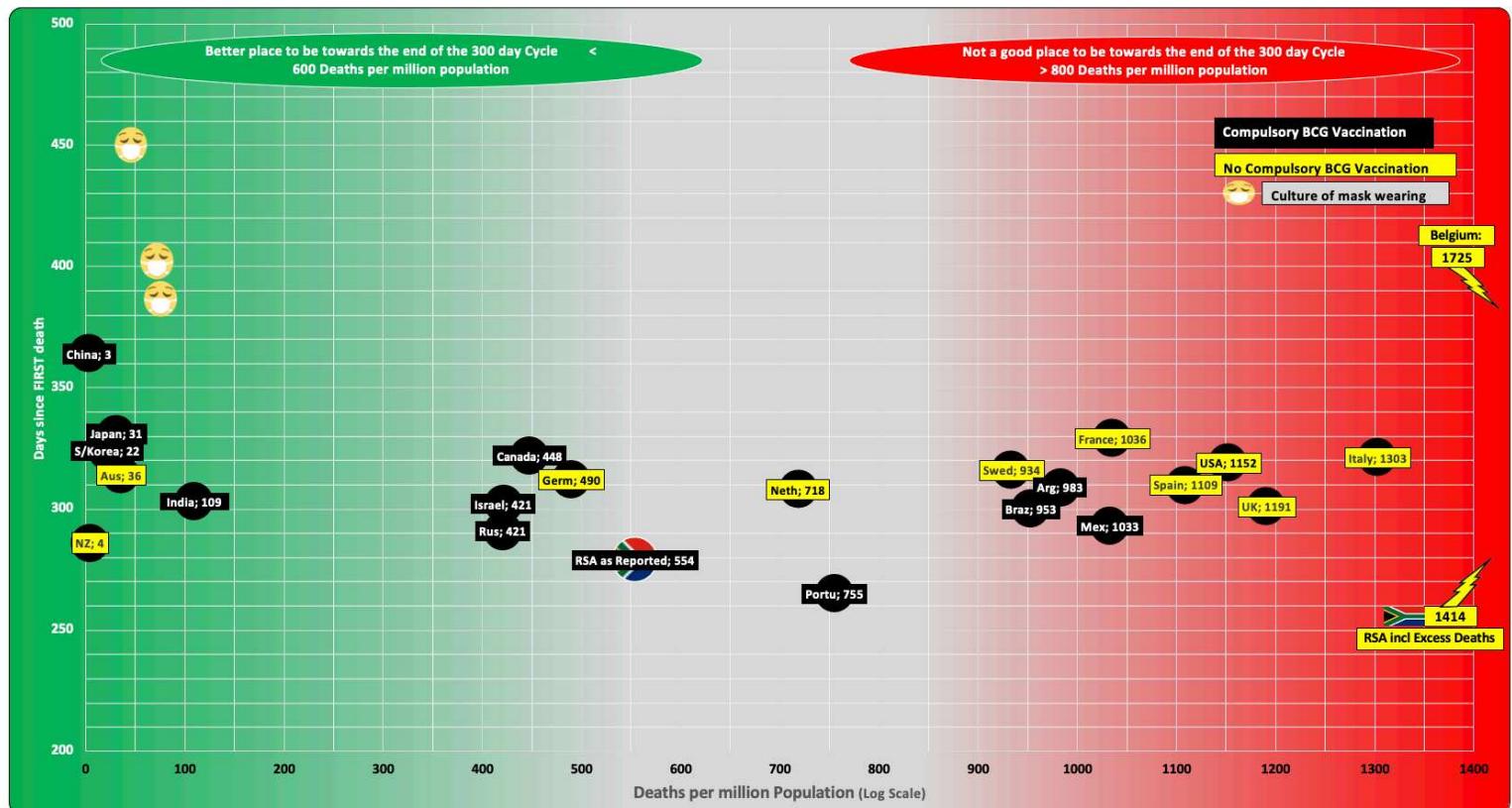
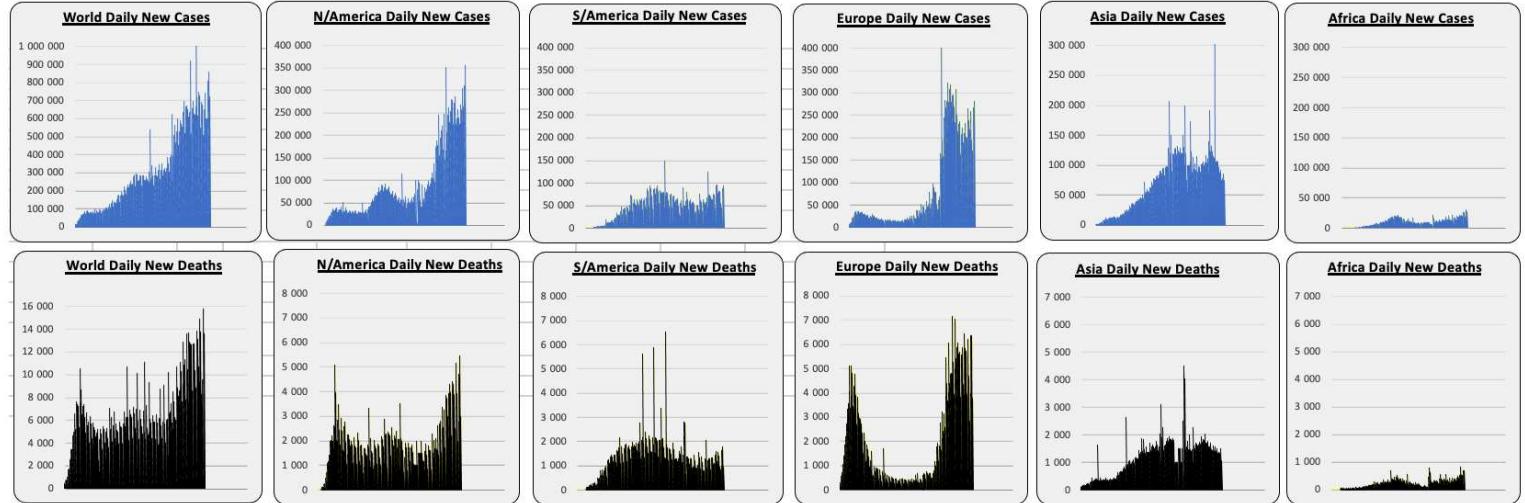
RSA Provinces detailed daily Data and Trends

How old is the Data? : Cases 2-5 days, Hospitalisation 1-3 days, Deaths 4-10 days, Still Active Cases 4-10 days, Rt #'s 7-14 days



Some World Data plus Selected Countries' Reported Deaths per mill PoP

Page 2



Daily Deaths Curves & Rate of Onset/Next Wave "Inclinometers" for selected countries

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

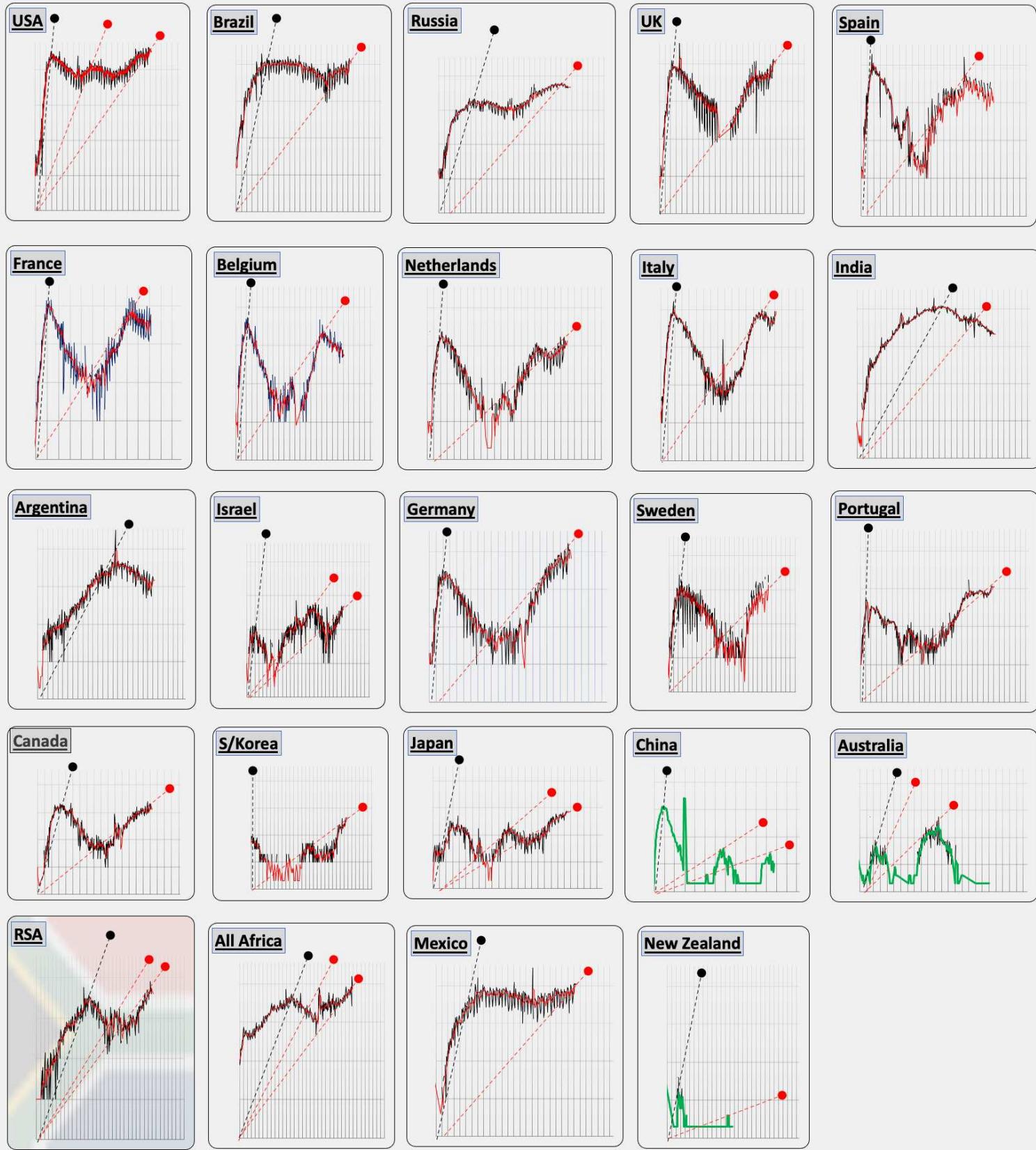
Peaked but spiking again

Passed peak but could rebound OR next wave

Well past peak, unlikely to rebound

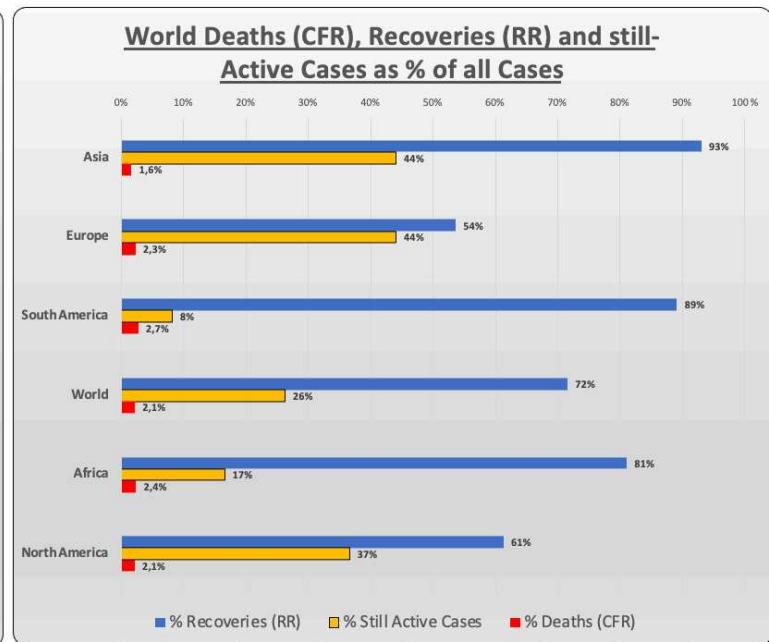
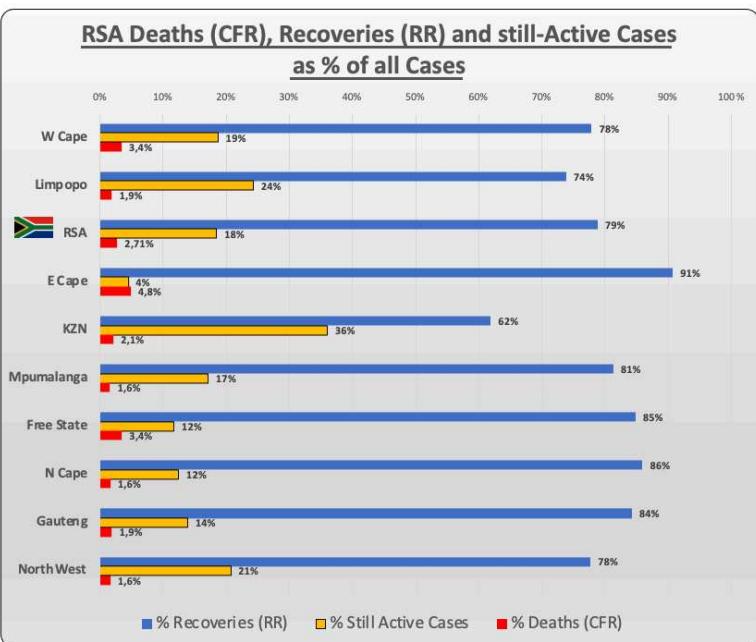
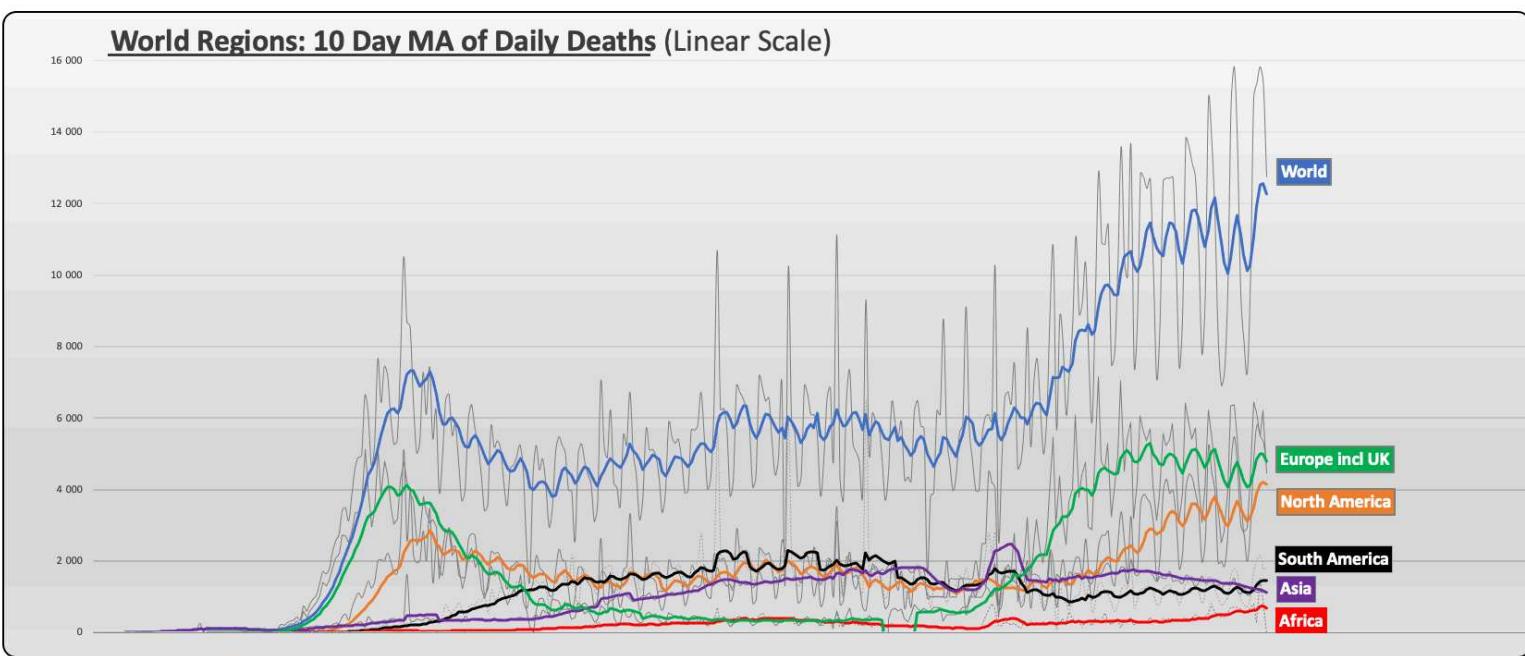
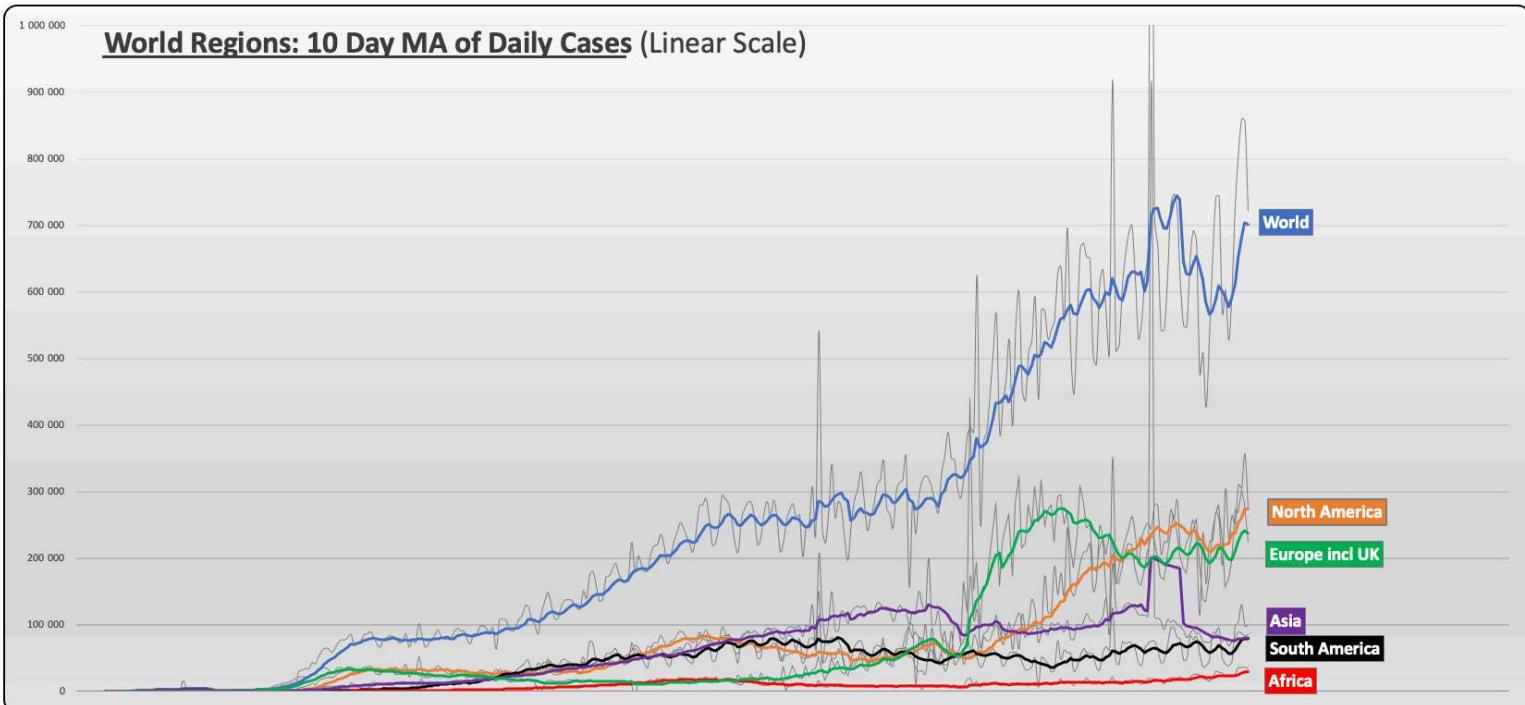
Onset/1st wave

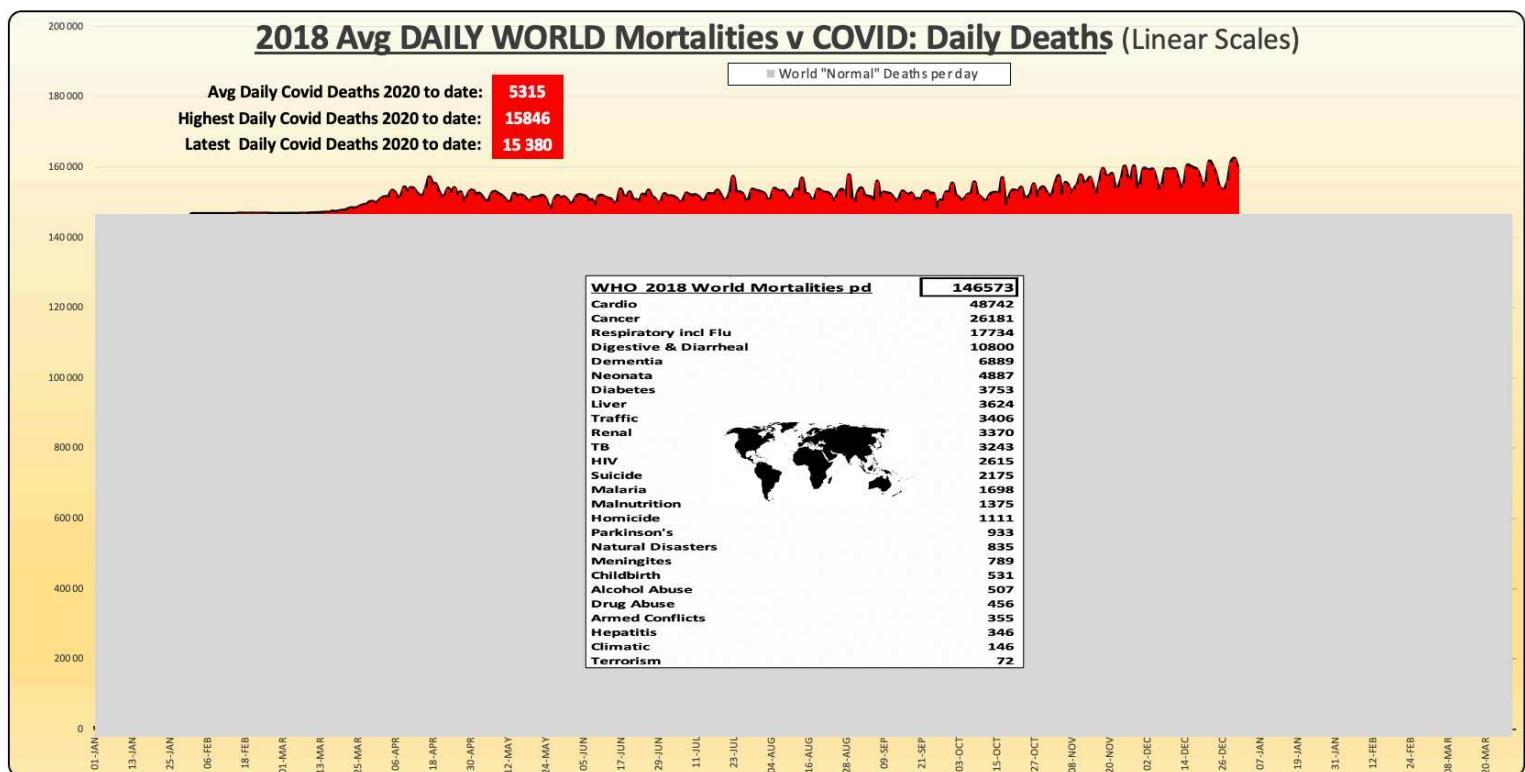
2nd & 3rd waves



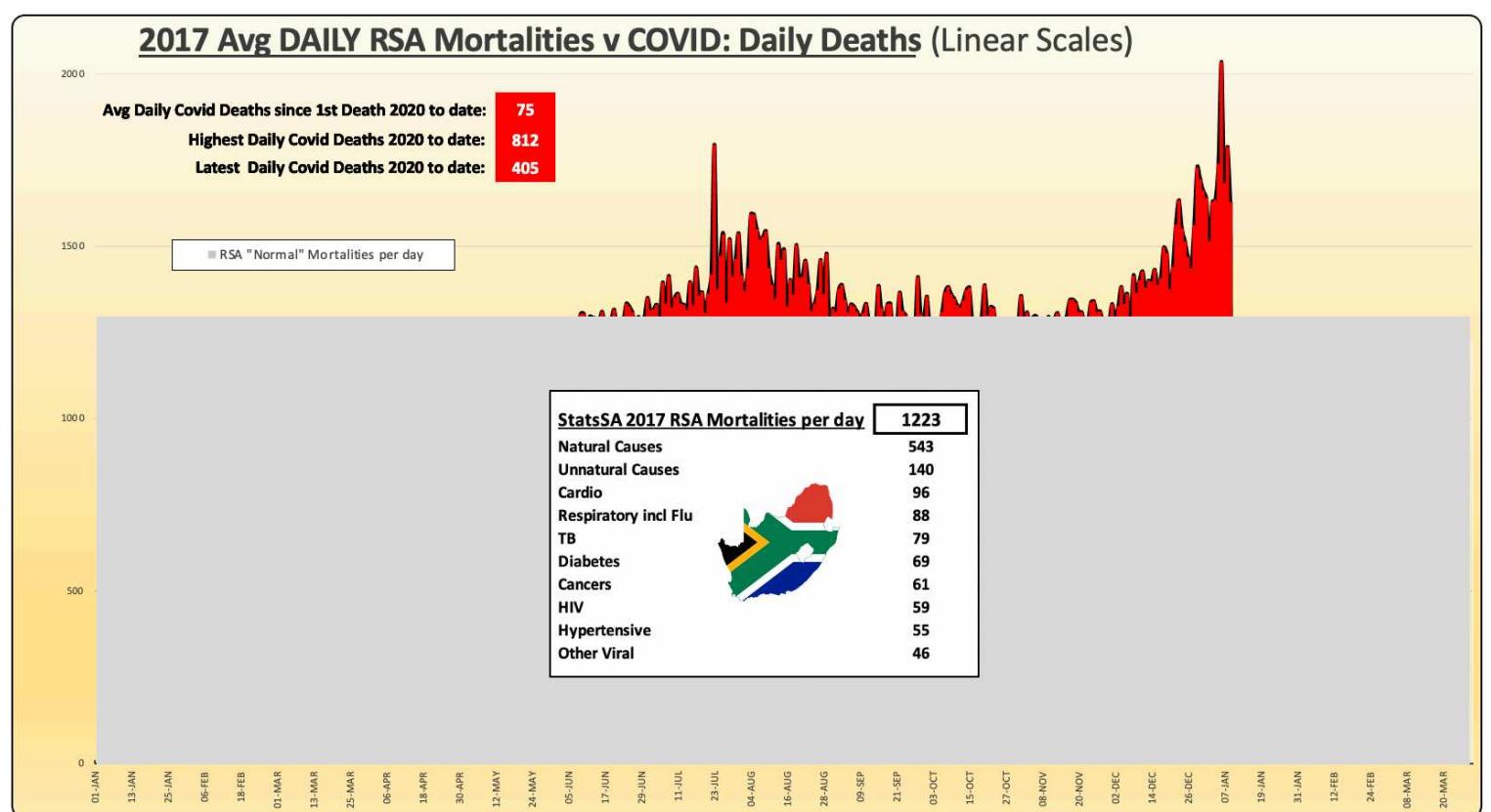
10 Day Moving Average of Daily Deaths & Cases by World Region

Page 3.1



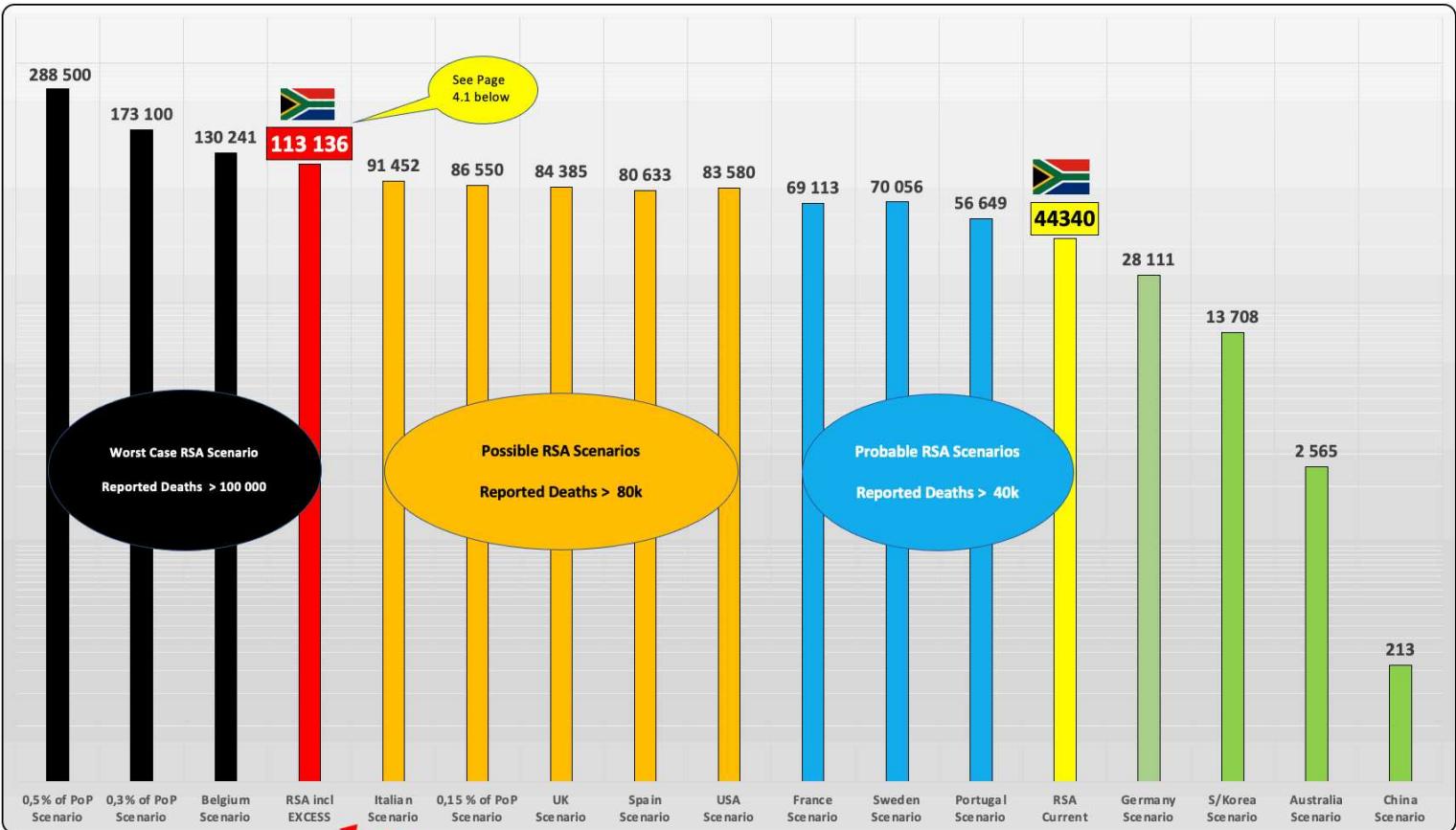


The two graphs WORLD (above) and RSA (below) attempt to put the number of Covid Deaths into some sort of perspective graphically. The big GREY blocks are TOTAL Daily Avg Deaths from ALL causes over a full calendar year. The RED area/lines on top of the Grey blocks are the INCREMENTAL Actual Daily Deaths 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 Mch 2021 (390 day cycle)

15 Scenarios and 2 Projections (Log Scale)

**Key:**

All Scenarios duly adjusted for population size and for the different timelines into the deemed 390 day pandemic cycle.

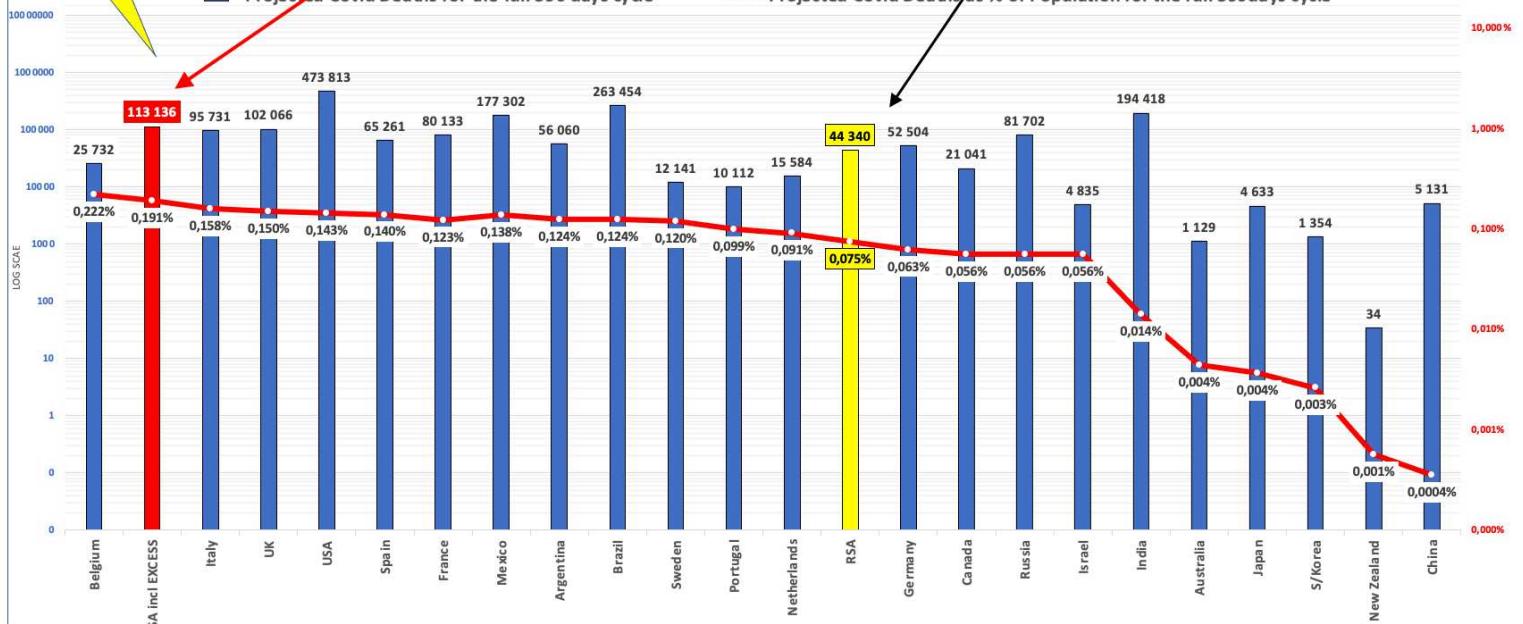
This projection uses the SA Medical Research Council data on "Excess Deaths". My assumption is that 90% of their reported Excess Deaths are probably due to Covid. The data is updated bi-weekly by the MRC but I apply these ratios to the official stats on a daily basis for this projection.

This number is simply the avg daily Deaths as reported to date x 390 (deemed cycle).

Projected Deaths by end Dec 2020 per country and % Deaths per Country Populations

at current officially reported Death Numbers as reported by WHO (no "Excess" deaths)

■ Projected Covid Deaths for the full 390 days cycle ■ Projected Covid Deaths as % of Population for the full 390days cycle



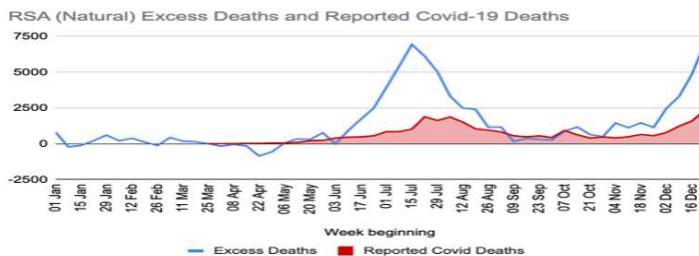
Note: Above Mortality %'s are overall projected mortality of the populations (PMR), NOT deaths of only those infected (CFR).

RSA Excess Deaths as per SA Medical Research Council

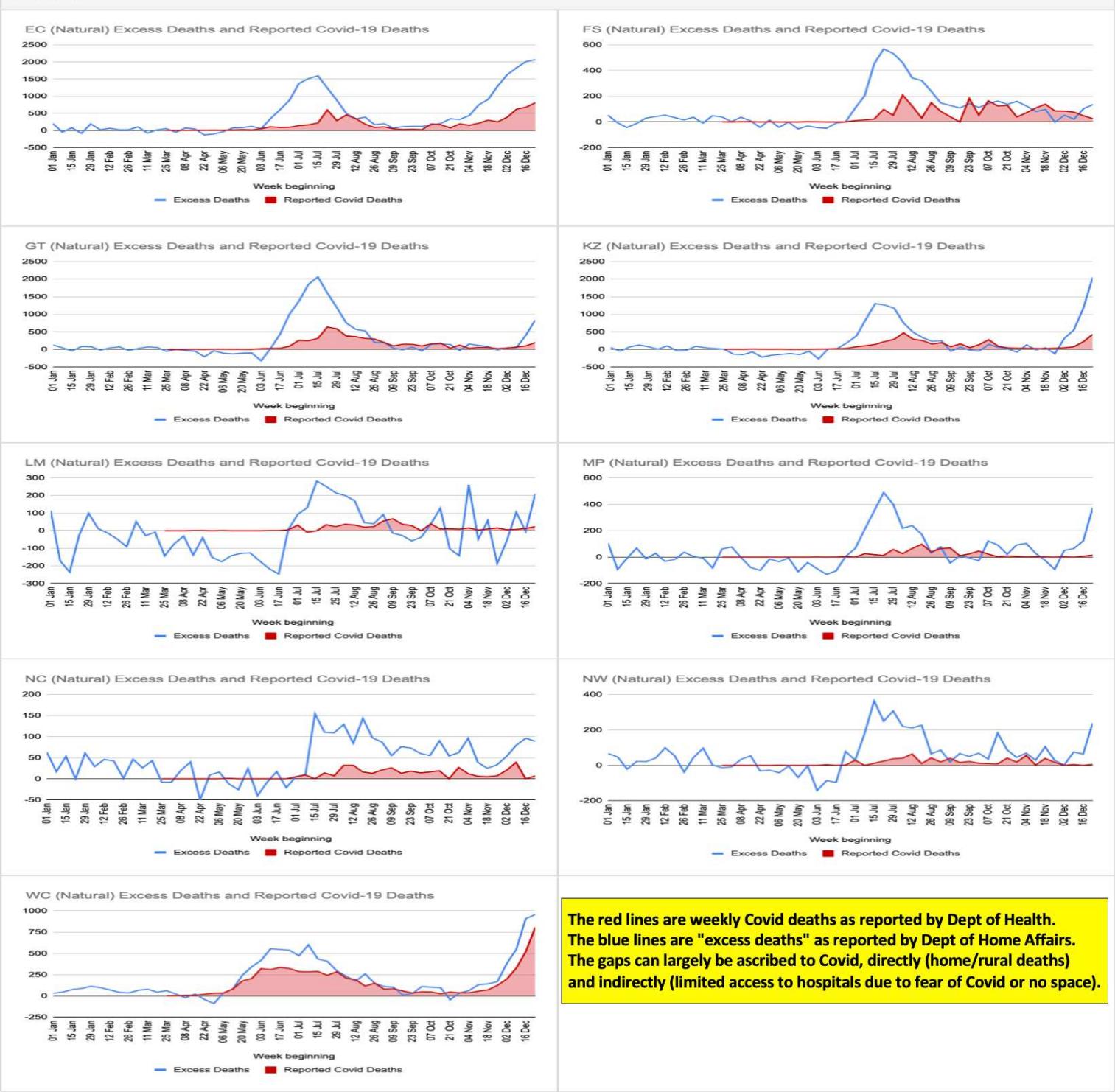
Data as at:

23 December 2020

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

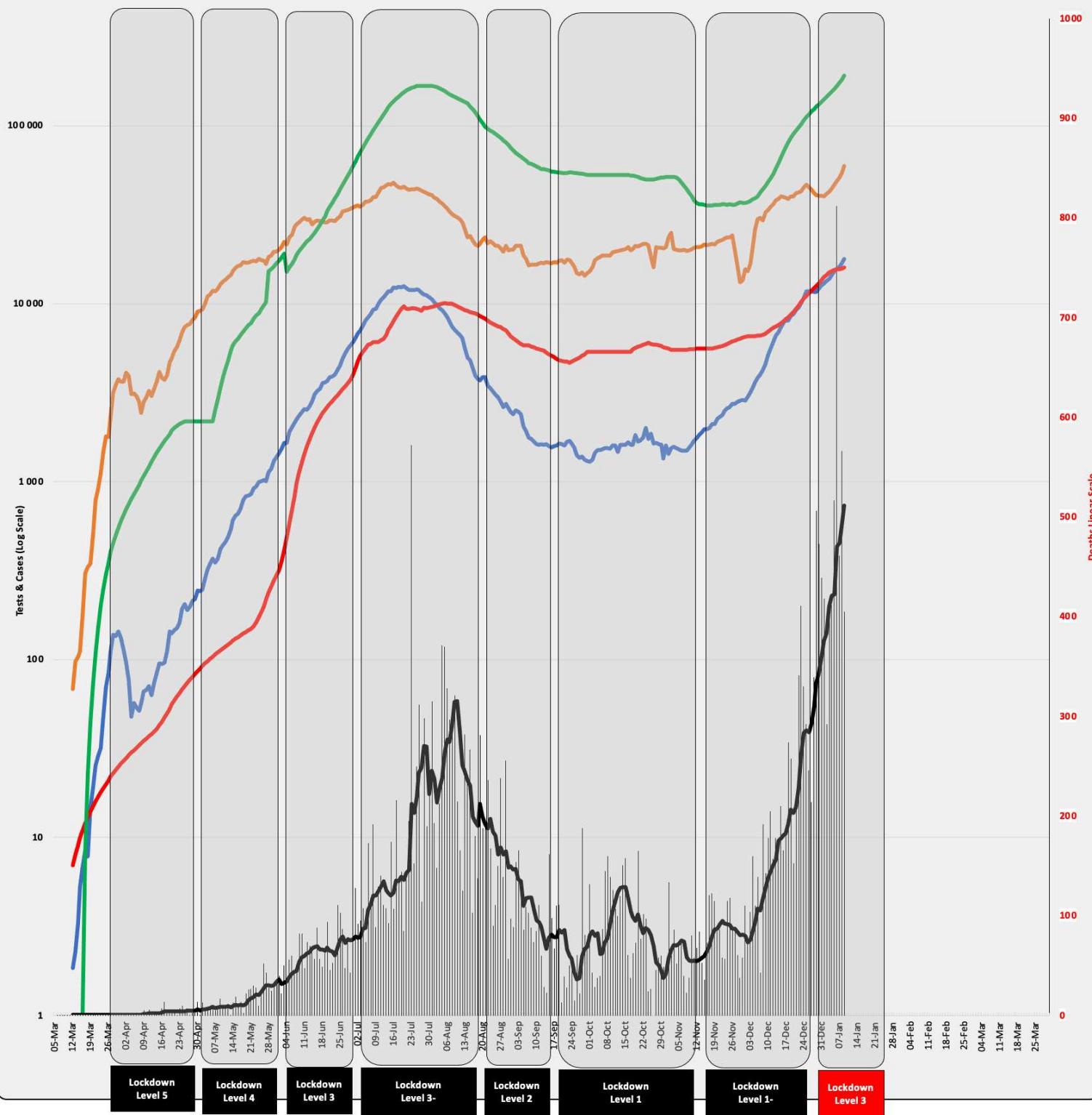


Data as at: Latest Available

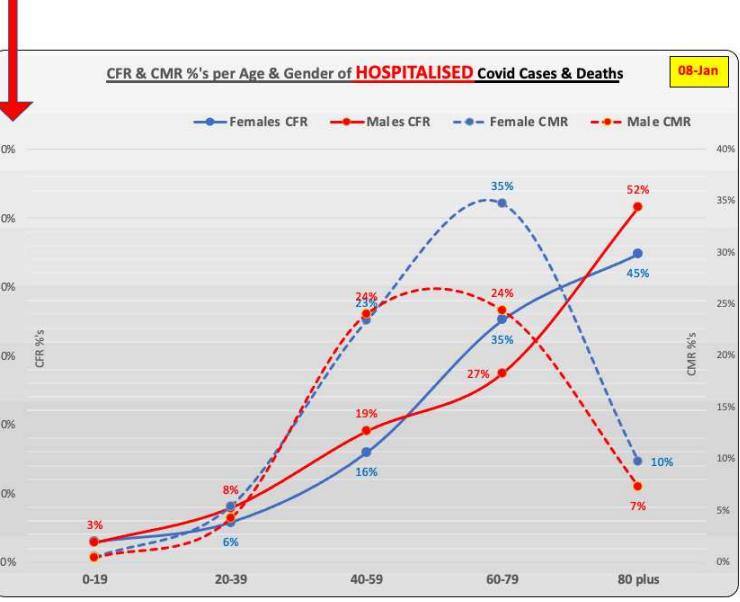
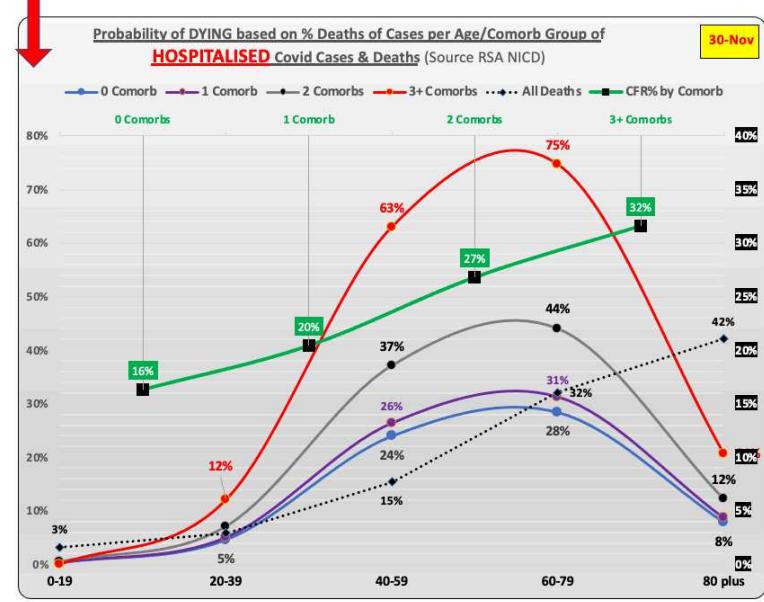
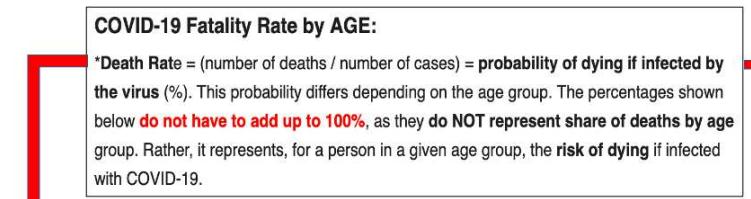
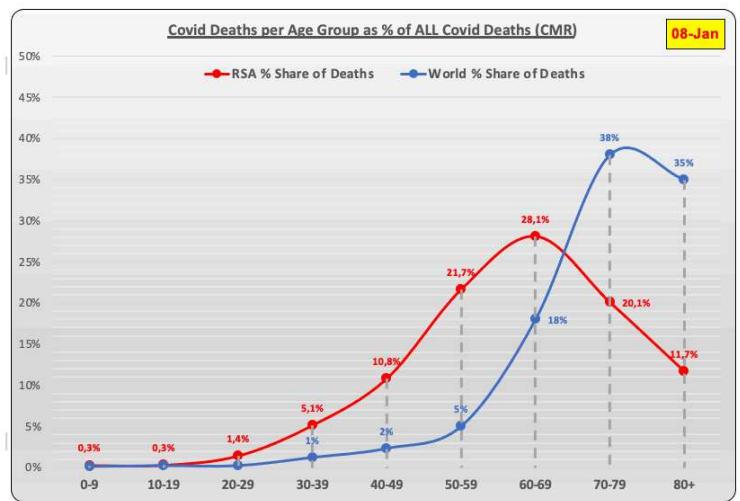
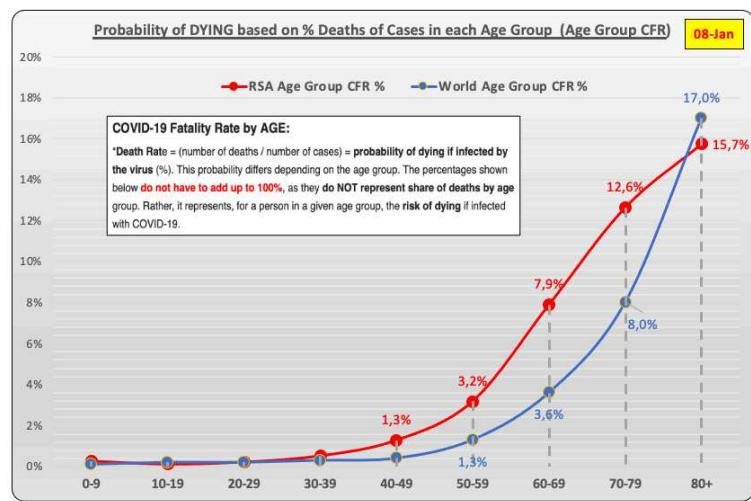
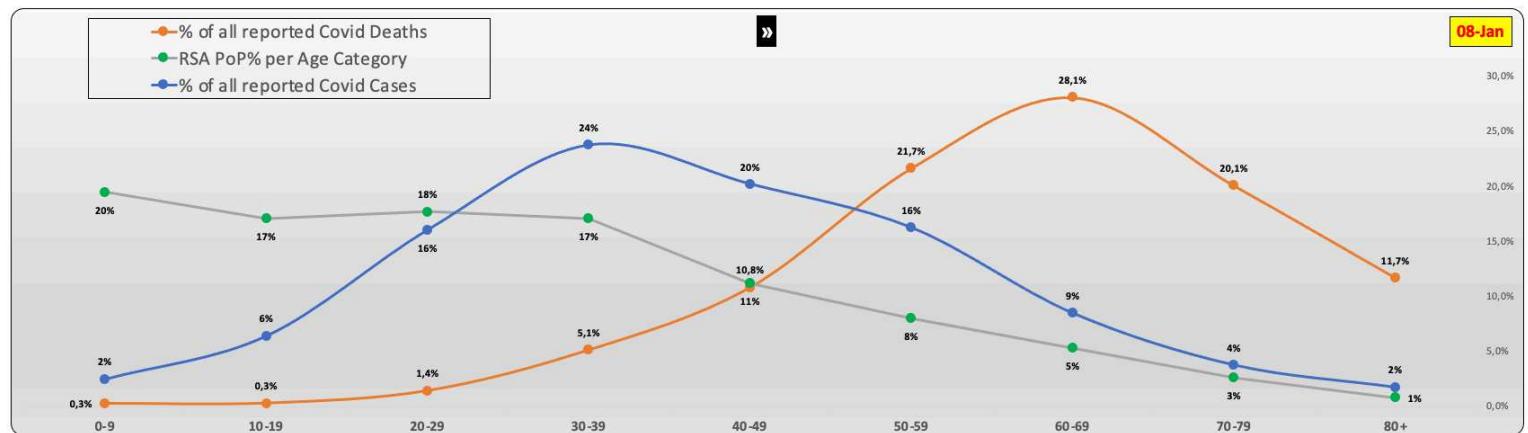
hdg 10 January 2021

RSA Daily Testing v Daily Cases v Daily Deaths 7 Day MA

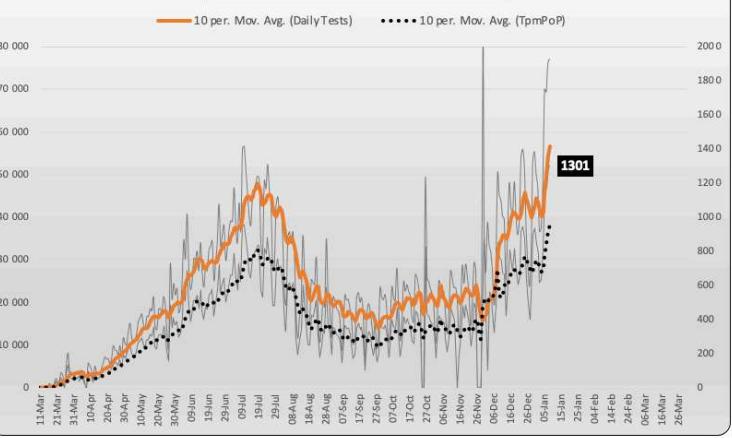
— Daily Tests — Daily Cases — In Hospital — Active Cases — Daily Deaths



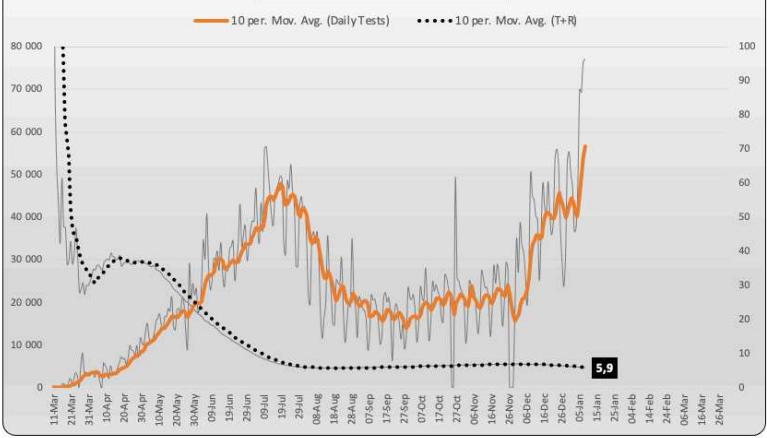
RSA Age & Gender Stats



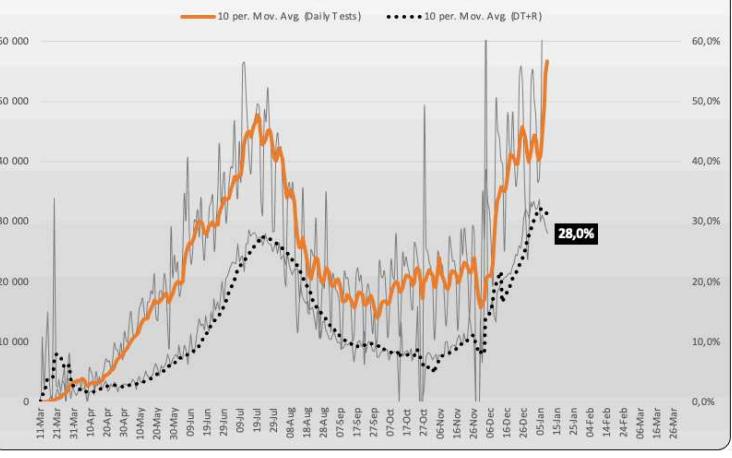
RSA: Daily Tests per million PoP



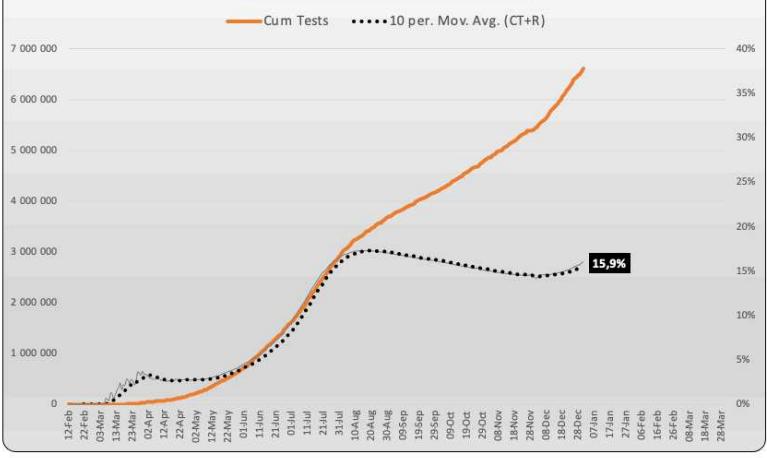
RSA: Daily Tests per +Case



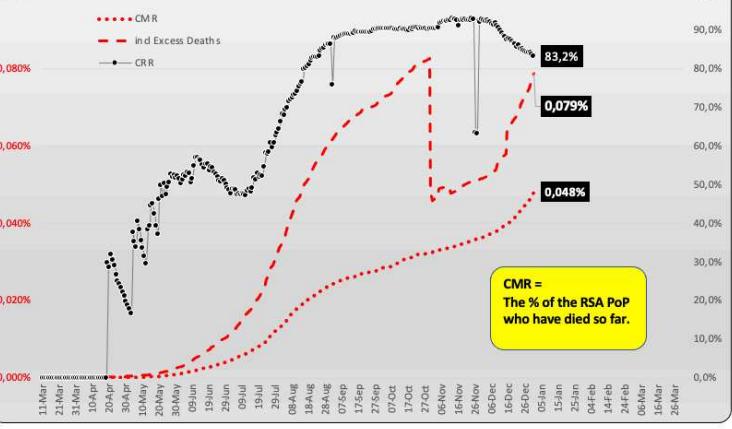
RSA: Daily Tests Positivity %



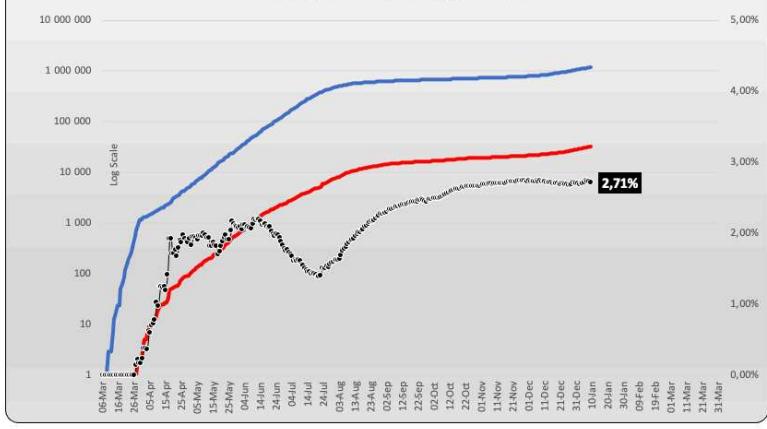
RSA: Cum Tests Positivity Rate



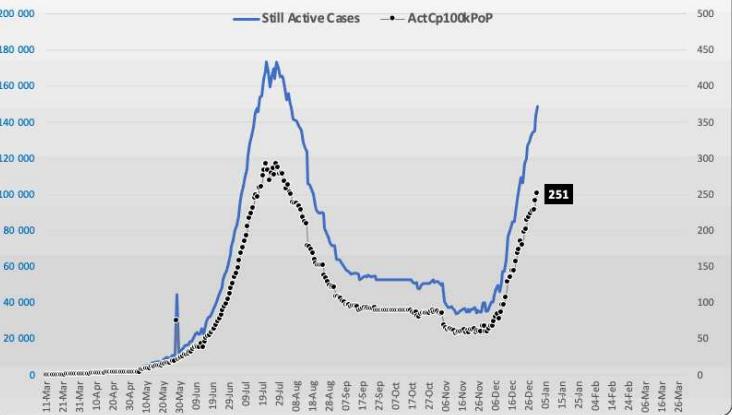
RSA: Case Recovery Rate (CRR) & Case Mortality Rate (CMR) & CMR incl Excess Deaths



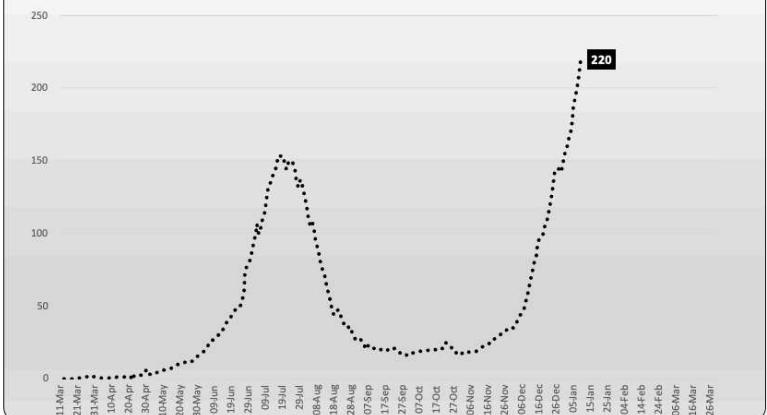
RSA: Deaths as % of Cases (CFR)



RSA: Active Cases per 100k PoP

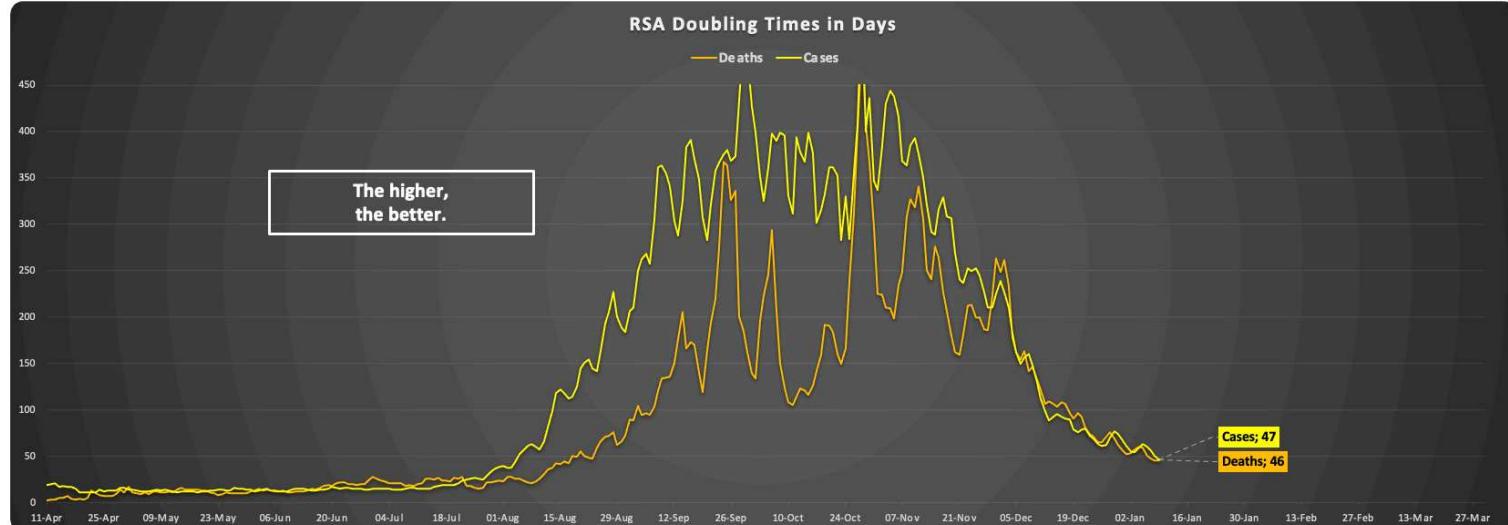
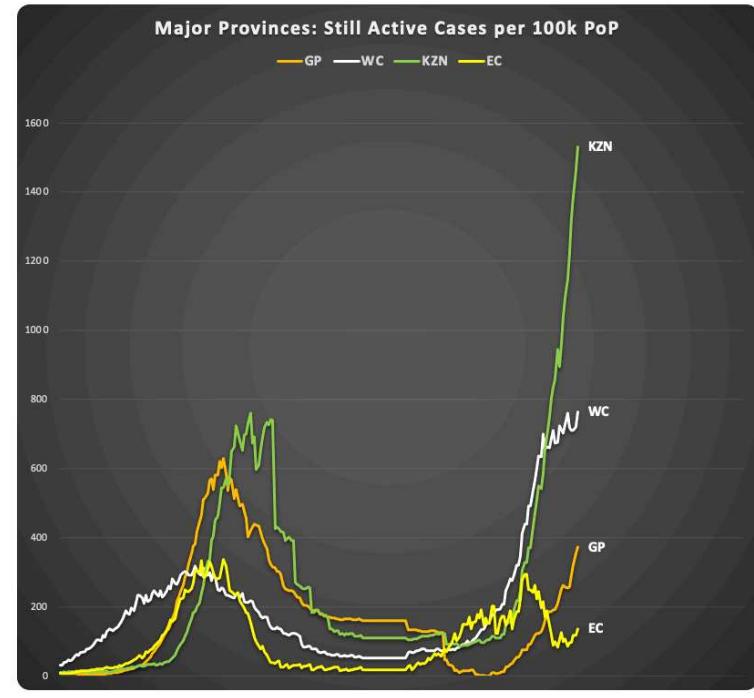
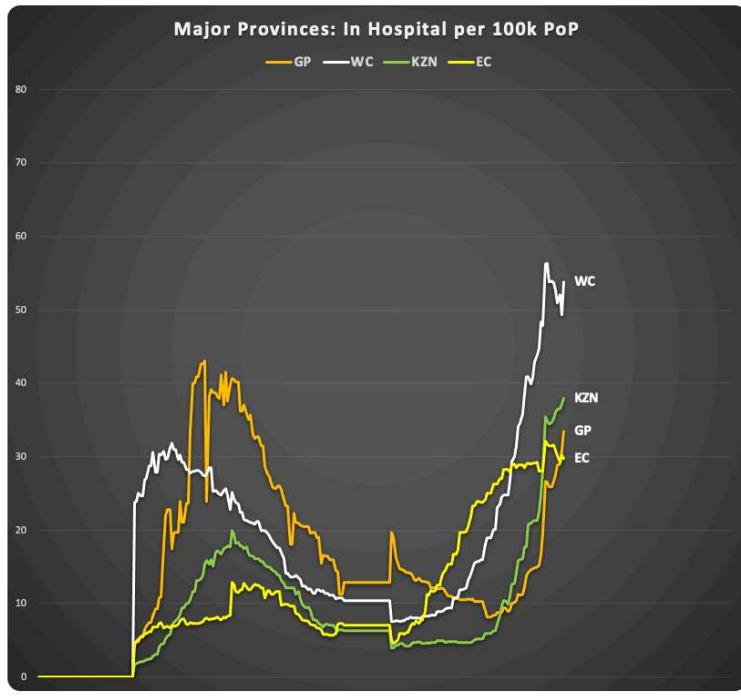
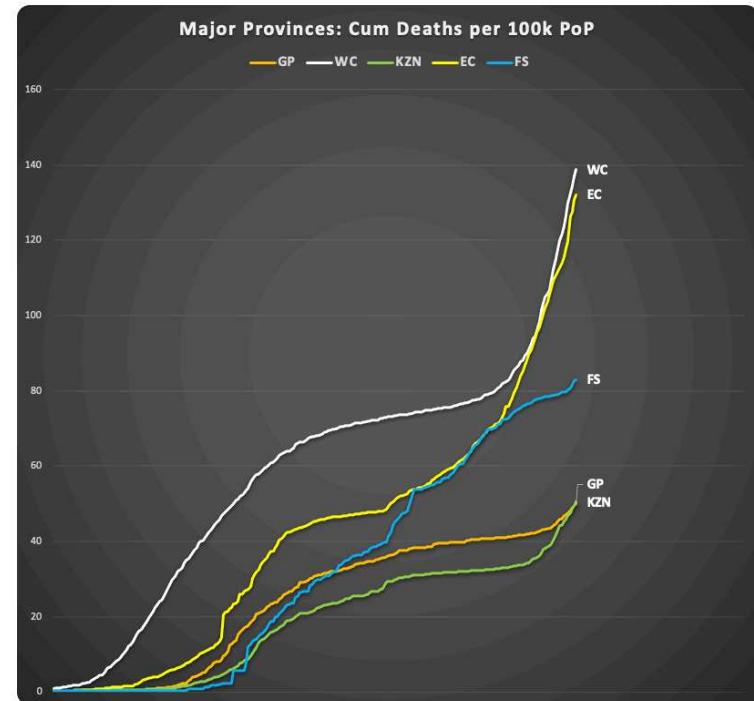
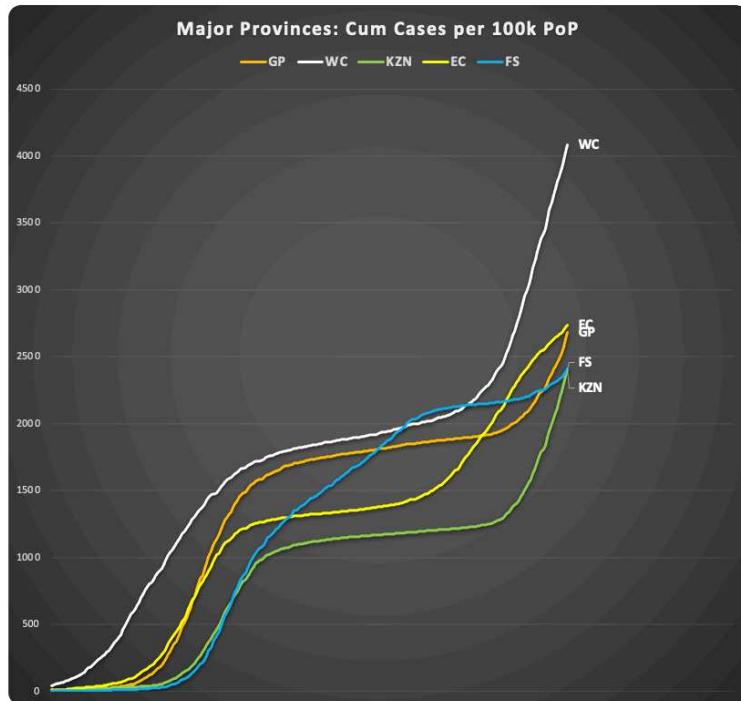


RSA: Avg New Cases per week per 100k PoP



RSA & Major Provinces Key Data Sets

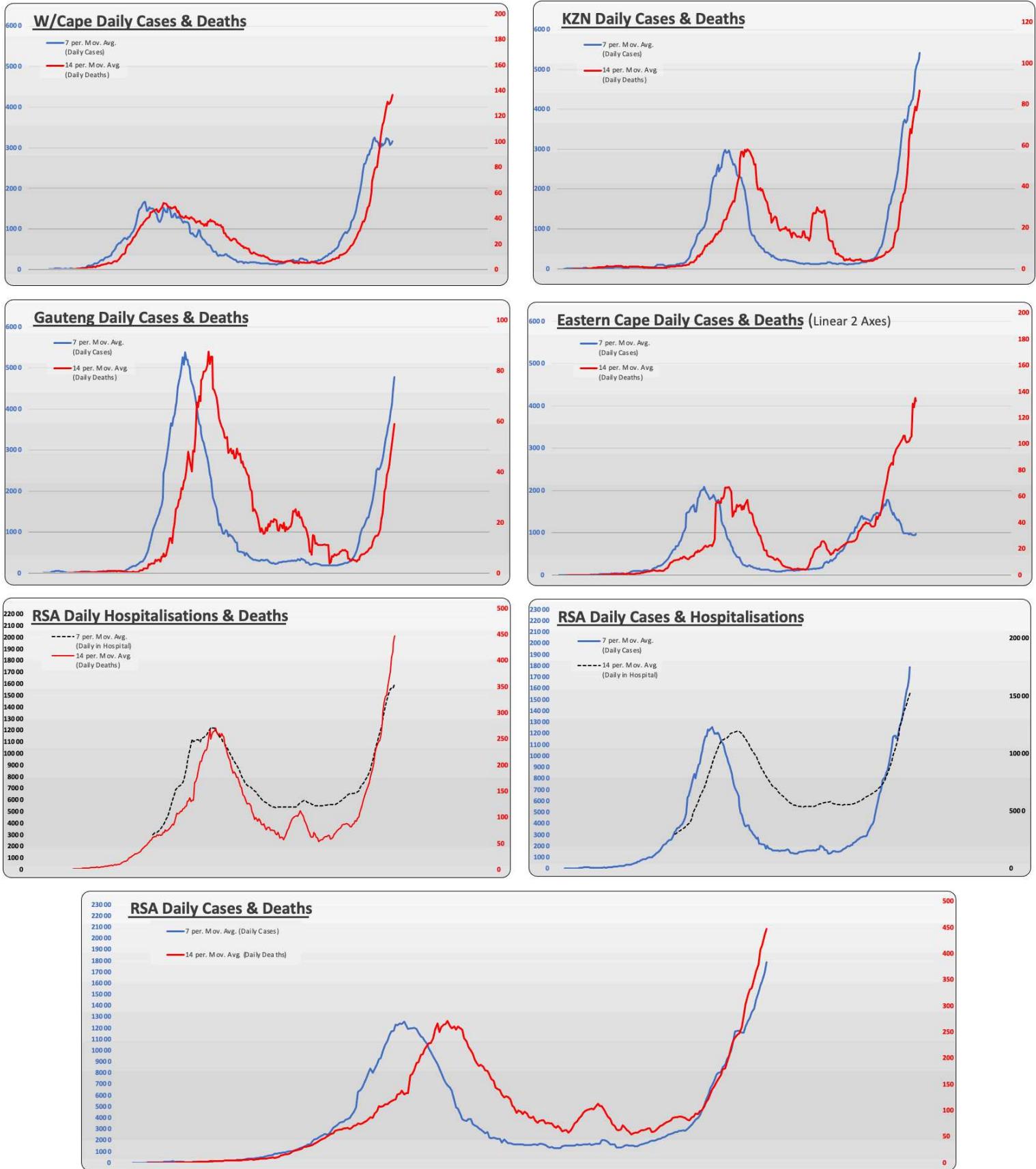
All linear scales



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.

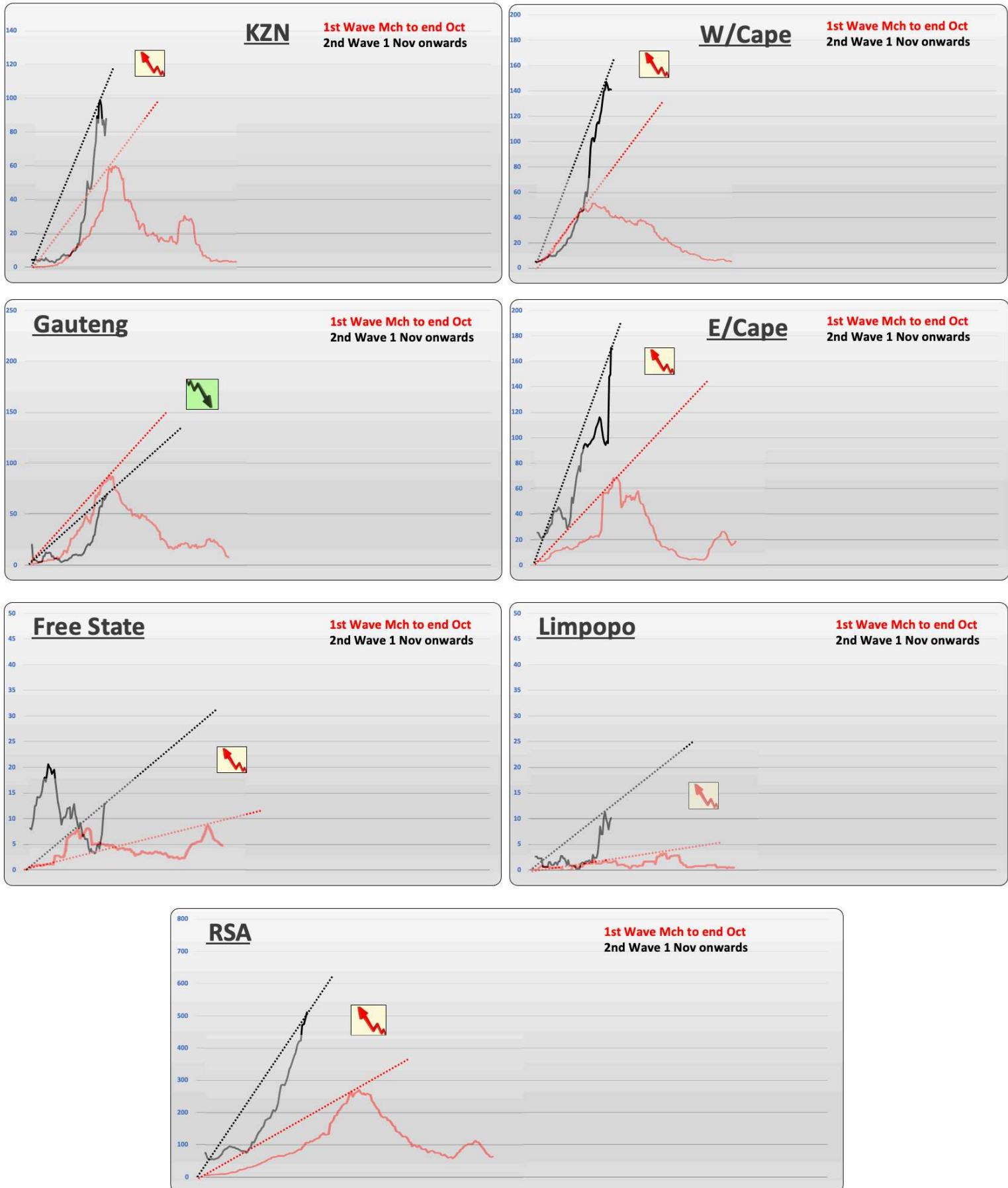


What are these graphs telling us ? (Ignore the numbers, look purely at the inclines and amplitudes).

- 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 & Major Prov's Daily Deaths:**1st Wave v 2nd Wave (Cont..) 7 Day MA's**

The X-axes scales have been adjusted in order to get the 1st & 2nd Wave Deaths aligned onto the same timeline. 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.



RSA Covid Stats: National & Provincial Analysis



Food for Thought....

Preview of coming attractions...

