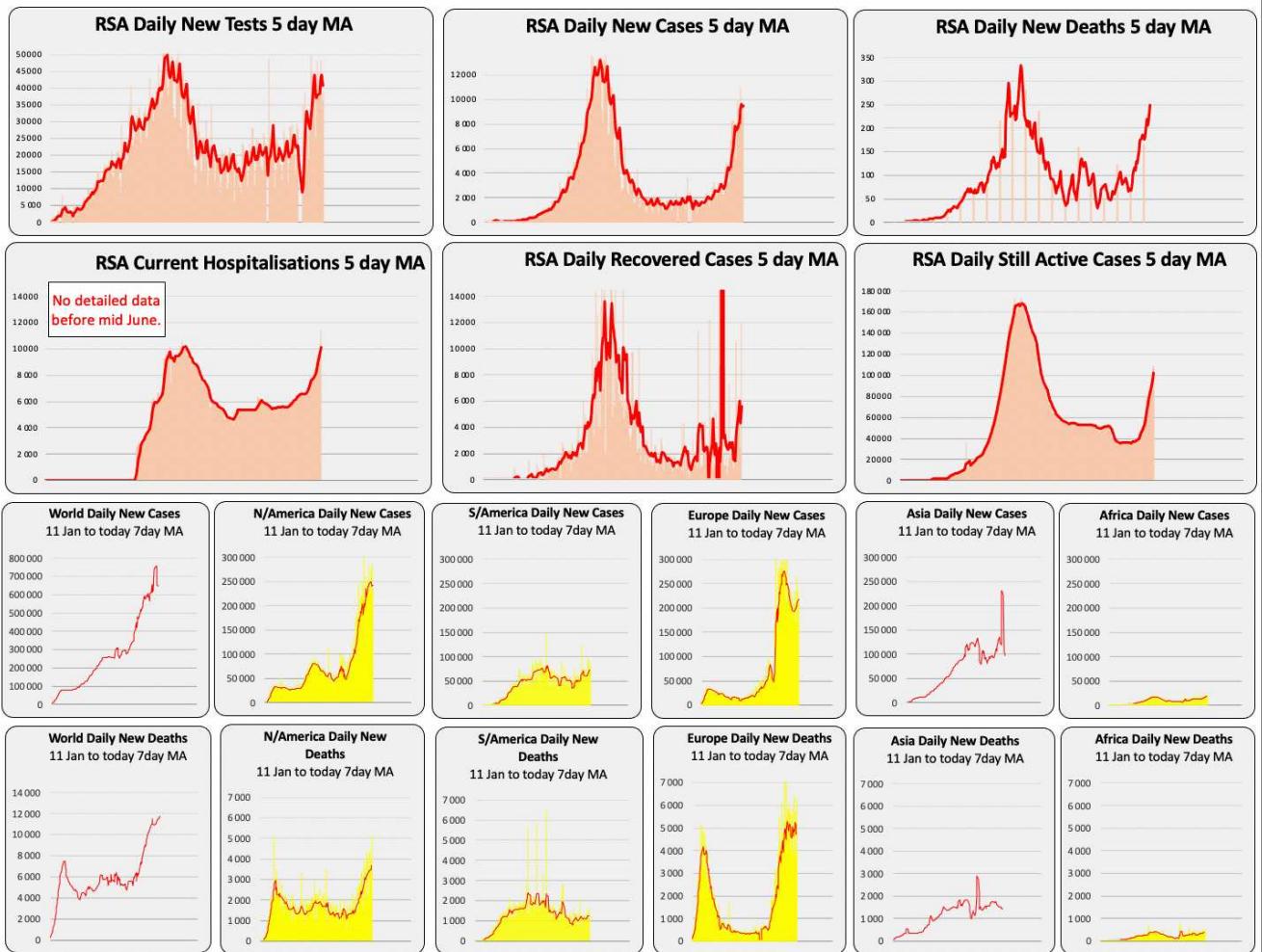
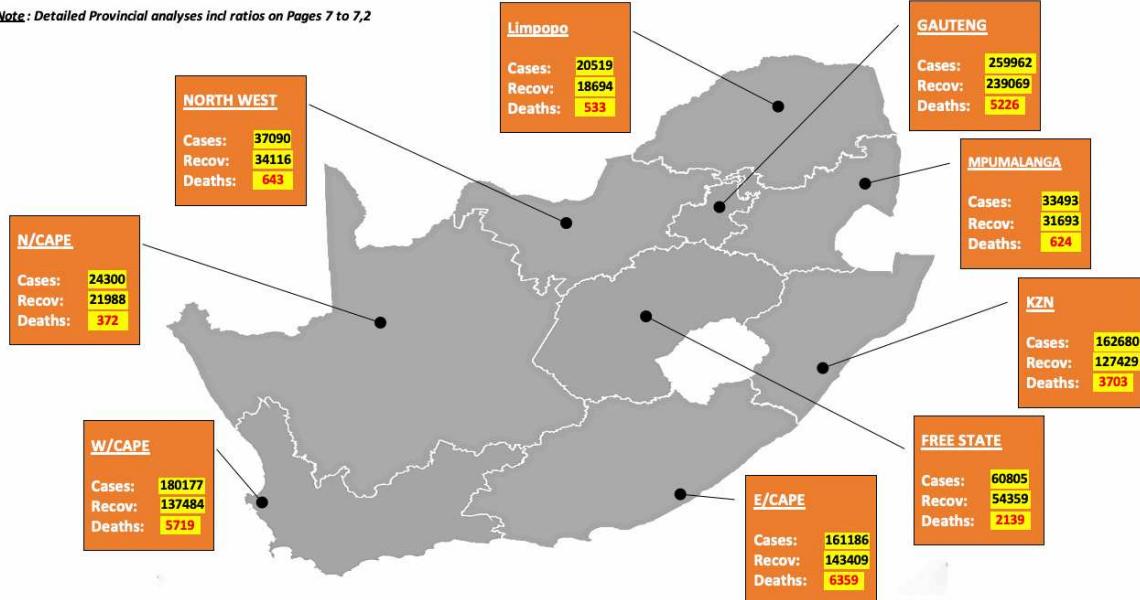


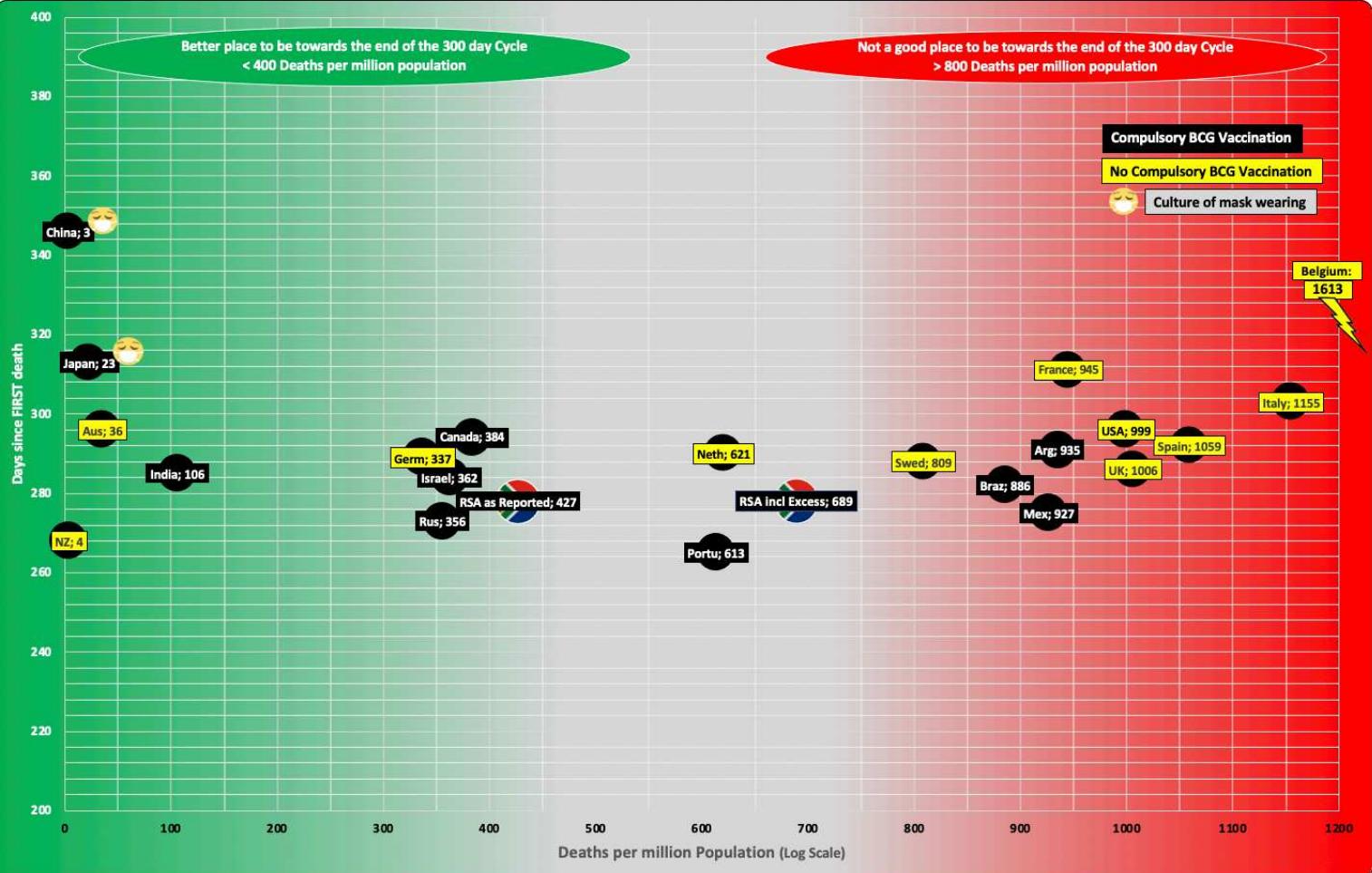
Cum +Cases	Daily Change	RSA COVID-19 DASHBOARD			% +Cases who Died (CFR)	Cum Recoveries
940 212	9 501	23 December 2020			2,69%	808 241
Active +Cases	+Cases per mill PoP	Cum Deaths ↑			% of RSA PoP who Died (CMR)	
106 653	15 853	25 318			0,0427%	
Deaths Avg Age	Deaths Min Age	Deaths Max Age	Cases	Deaths	CFR	Cum Tests
61,8	0,2	105	Female : 58,0% Male : 42,0%	50,0% 50,0%	2,02% 2,79%	6 215 728
			17-Dec		Deaths Median Age 62,9	

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



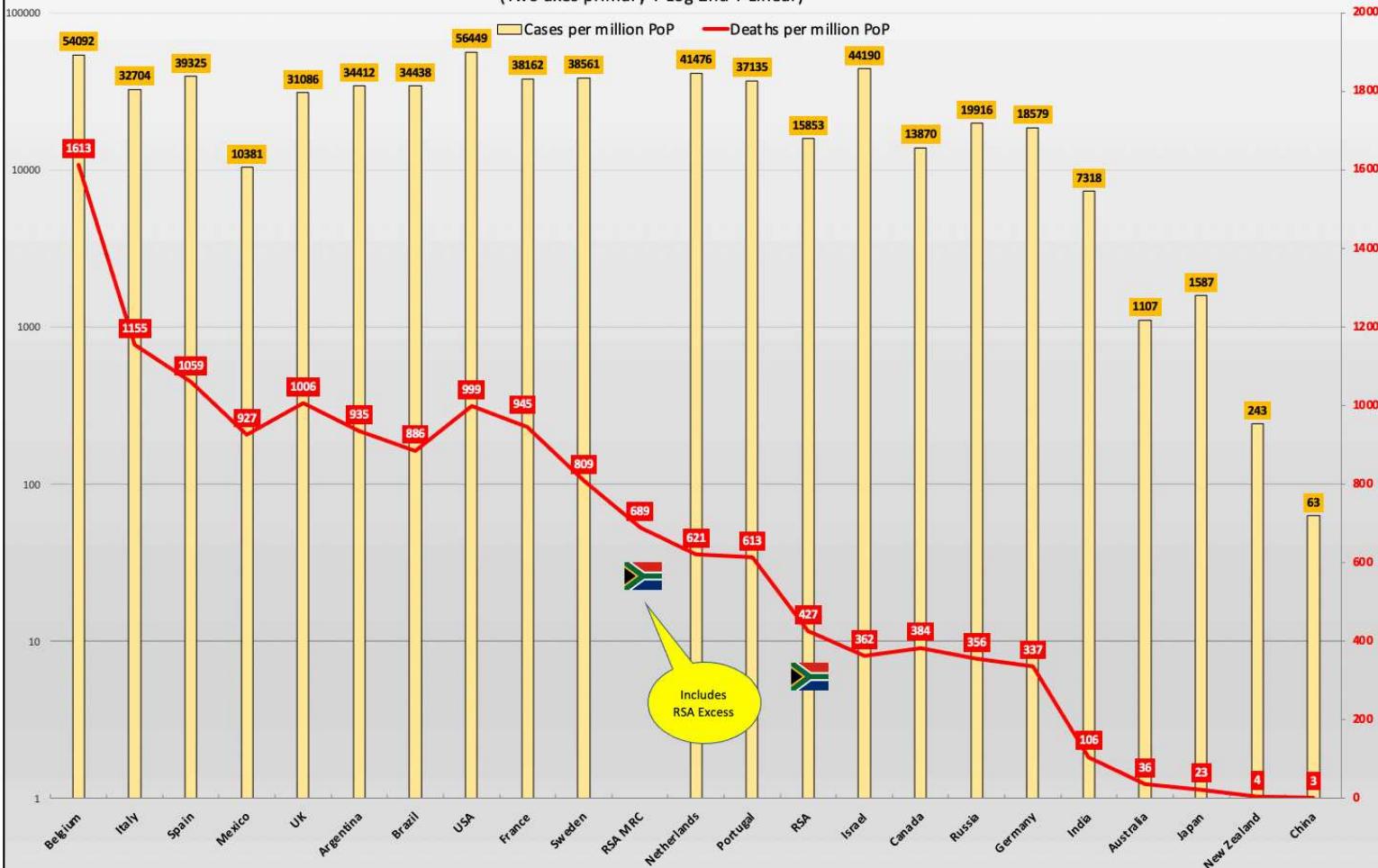
Covid Reported Deaths per million Population & Days since 1st Covid Death

Page 2



Current Cum Cases & Cum Deaths per million PoP

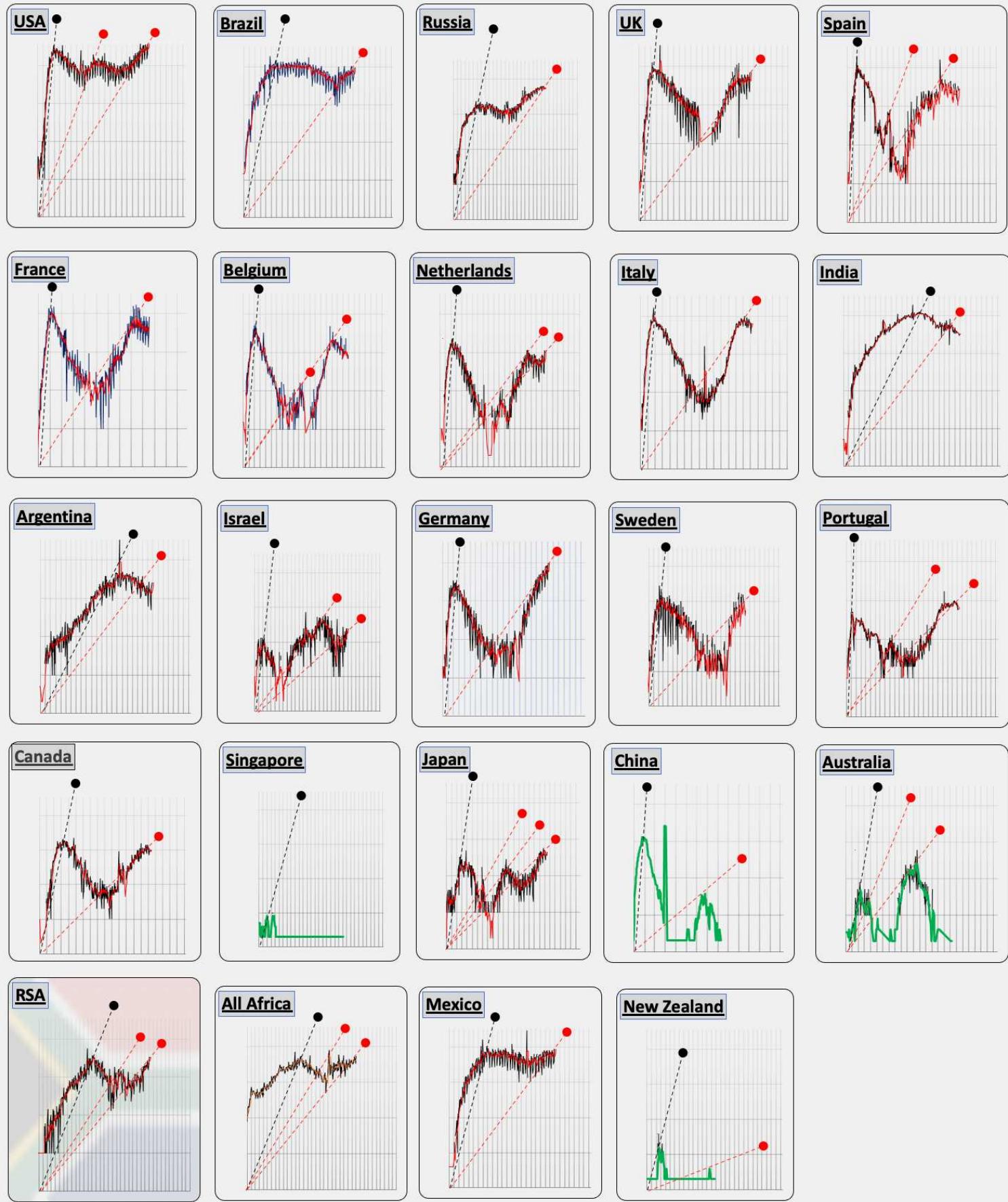
(Two axes primary Y Log 2nd Y Linear)

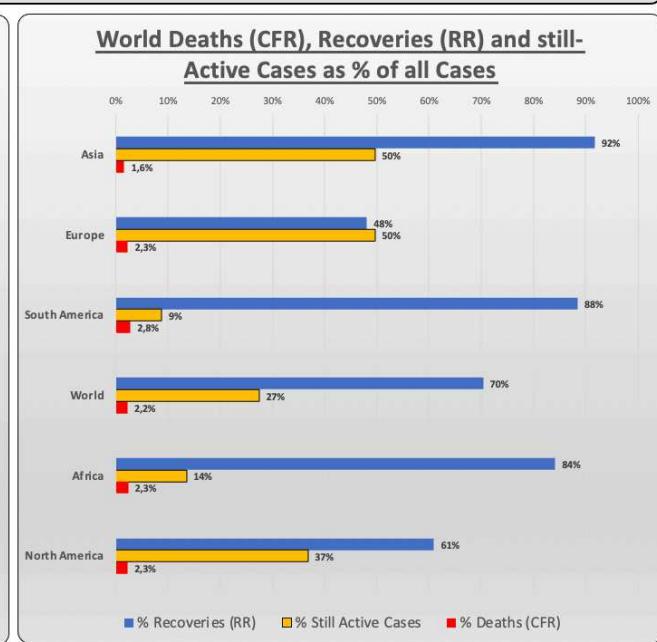
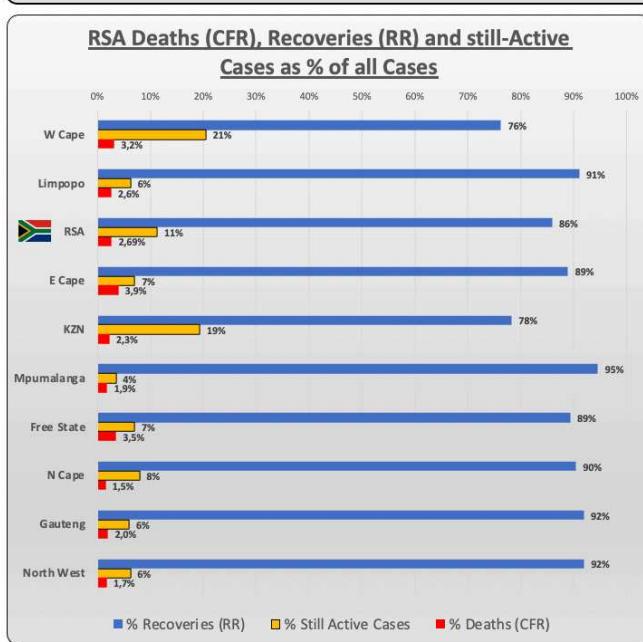
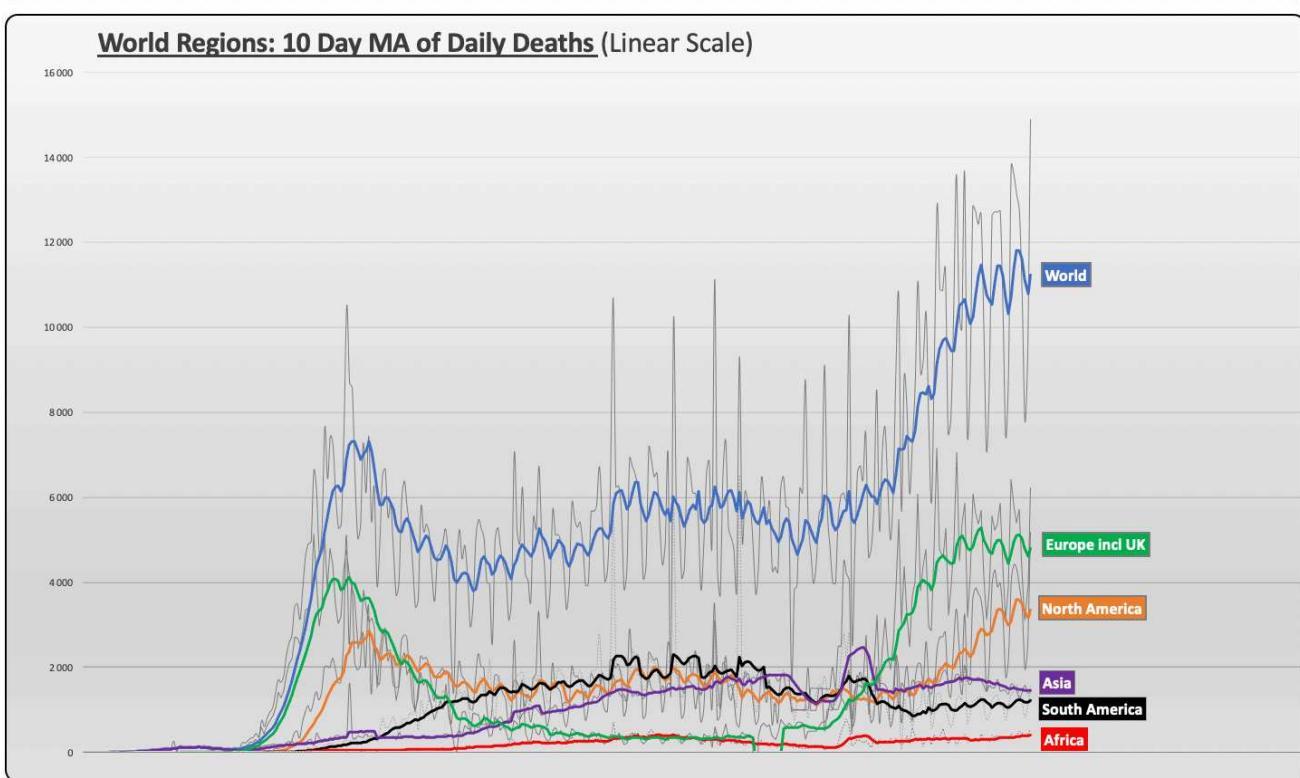
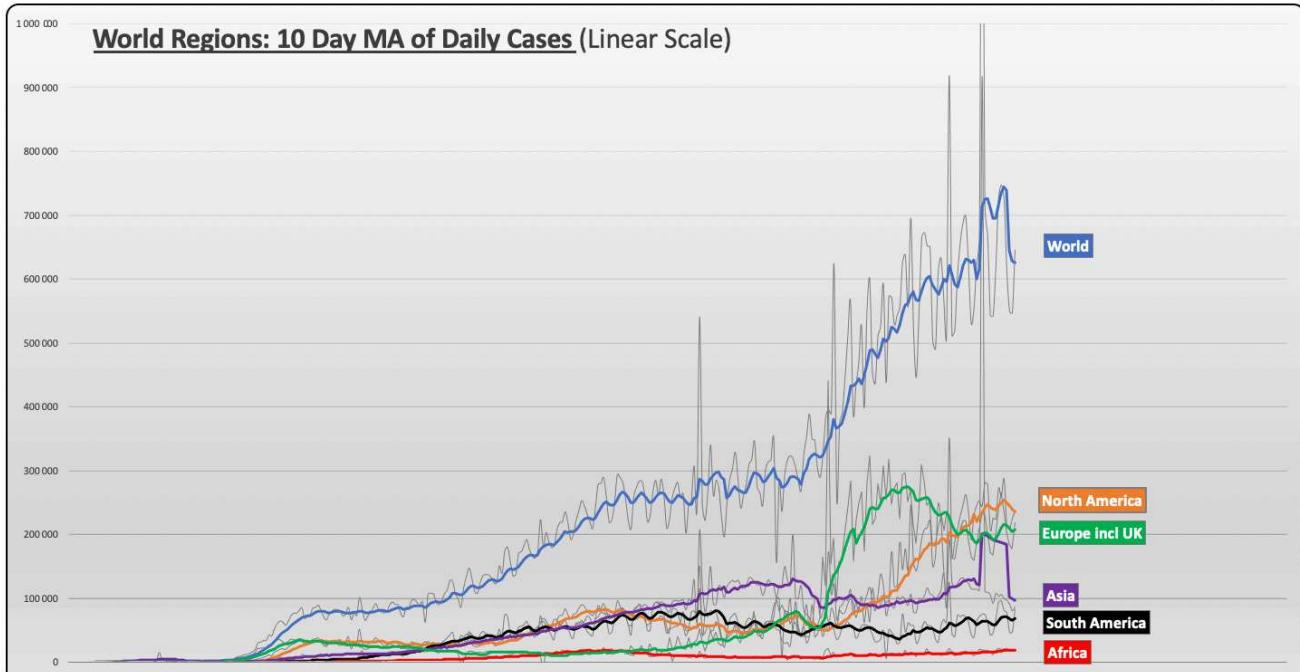


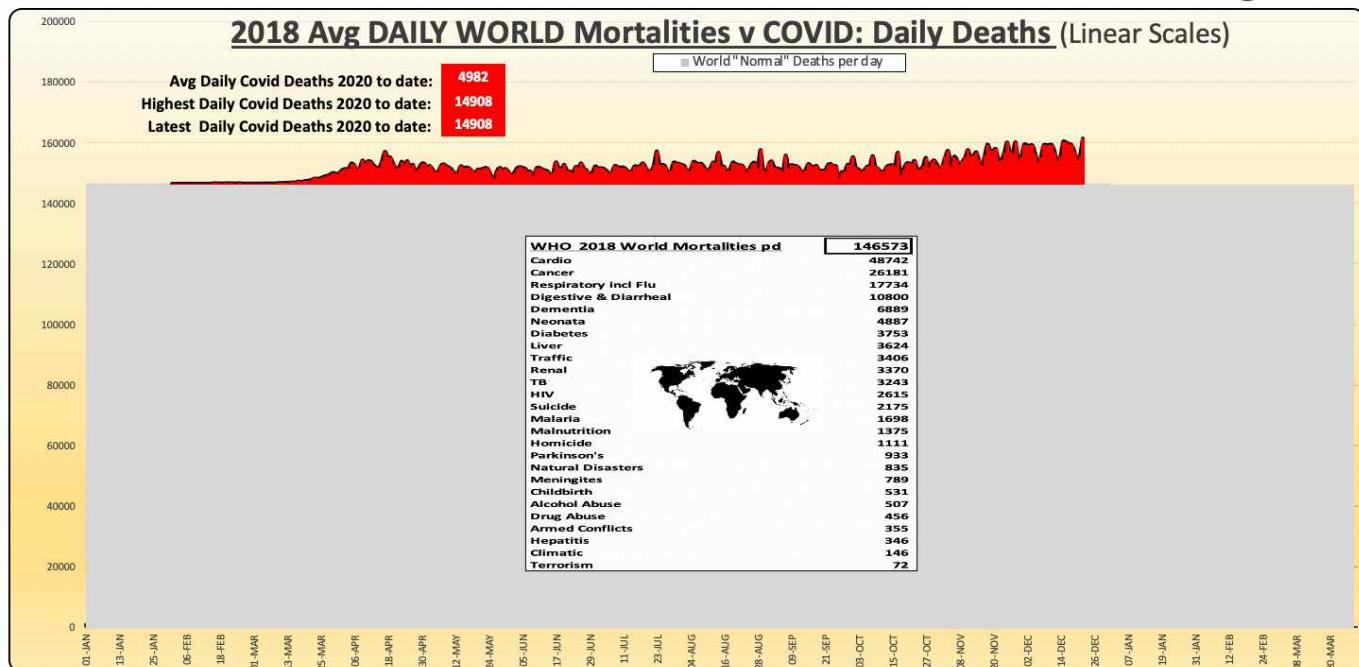
Daily Deaths Curves & Rate of Onset/next Wave "Inclinometers"

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

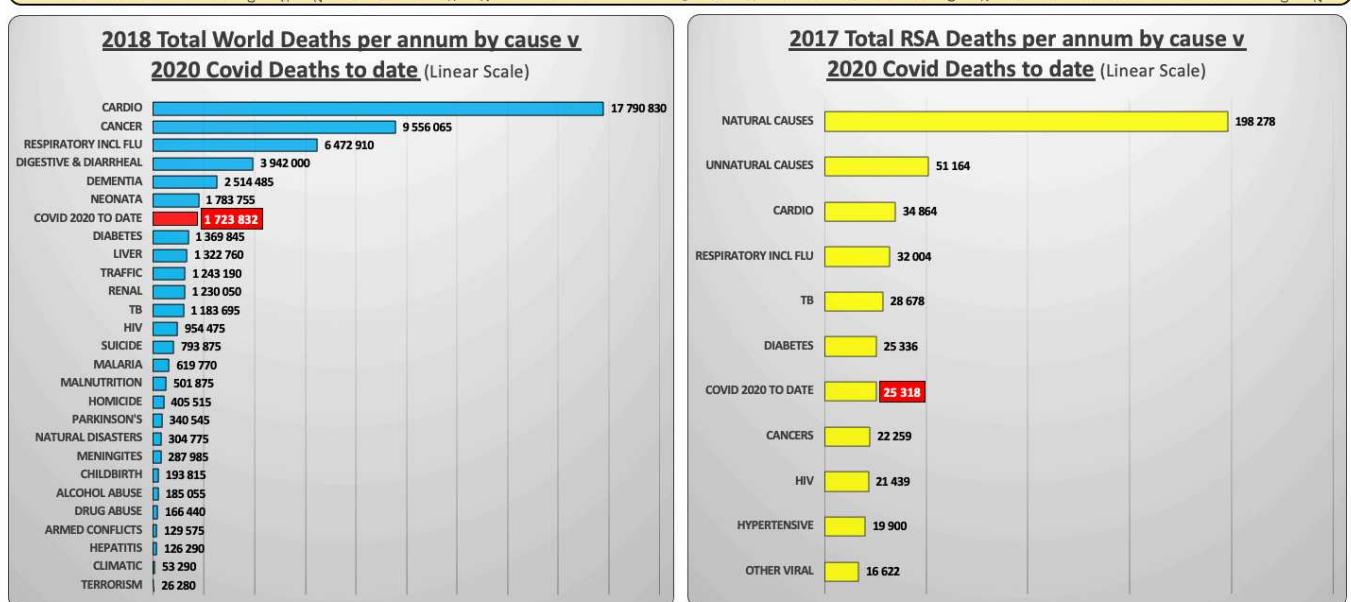
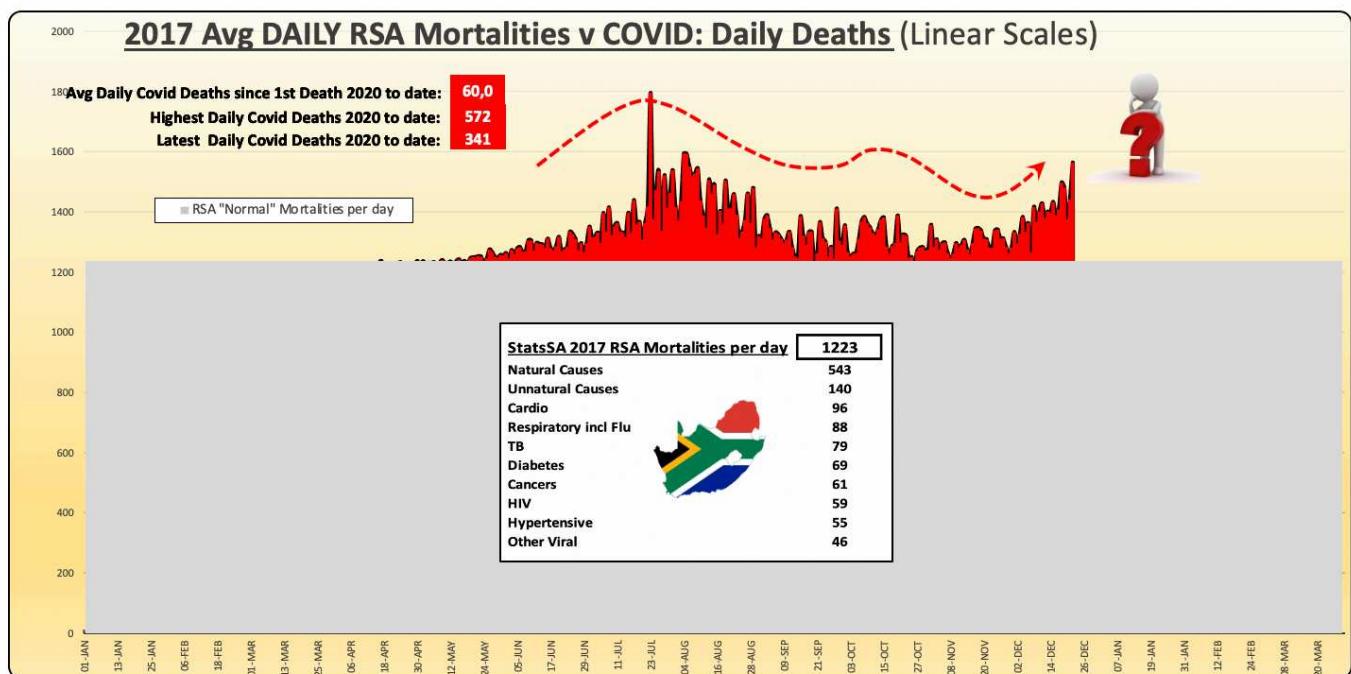
- Peaked but spiking again
- Passed peak but could rebound OR next wave
- Well past peak, unlikely to rebound
- Onset/1st wave
- 2nd & 3rd waves







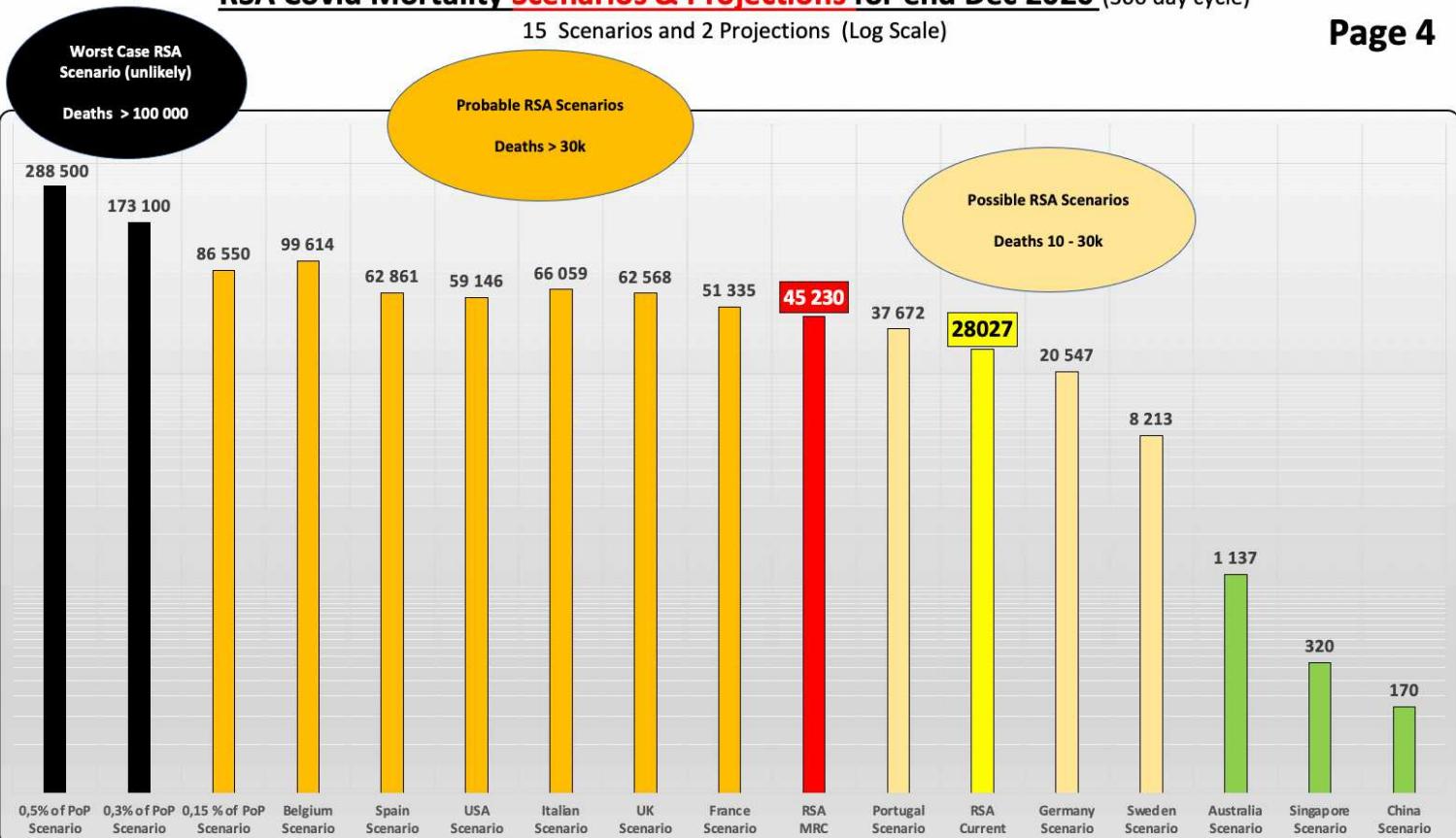
The two graphs WORLD (above) and RSA (below) attempt to put the number of Covid Deaths into some sort of perspective graphically.
The big GREY blocks are TOTAL Daily Avg Deaths from ALL causes over a full calendar year.
The RED area/lines on top of the Grey blocks are the INCREMENTAL Actual Daily Deaths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



Key:

All Scenarios duly adjusted for population size and for the different timelines into the deemed 300 day pandemic cycle.

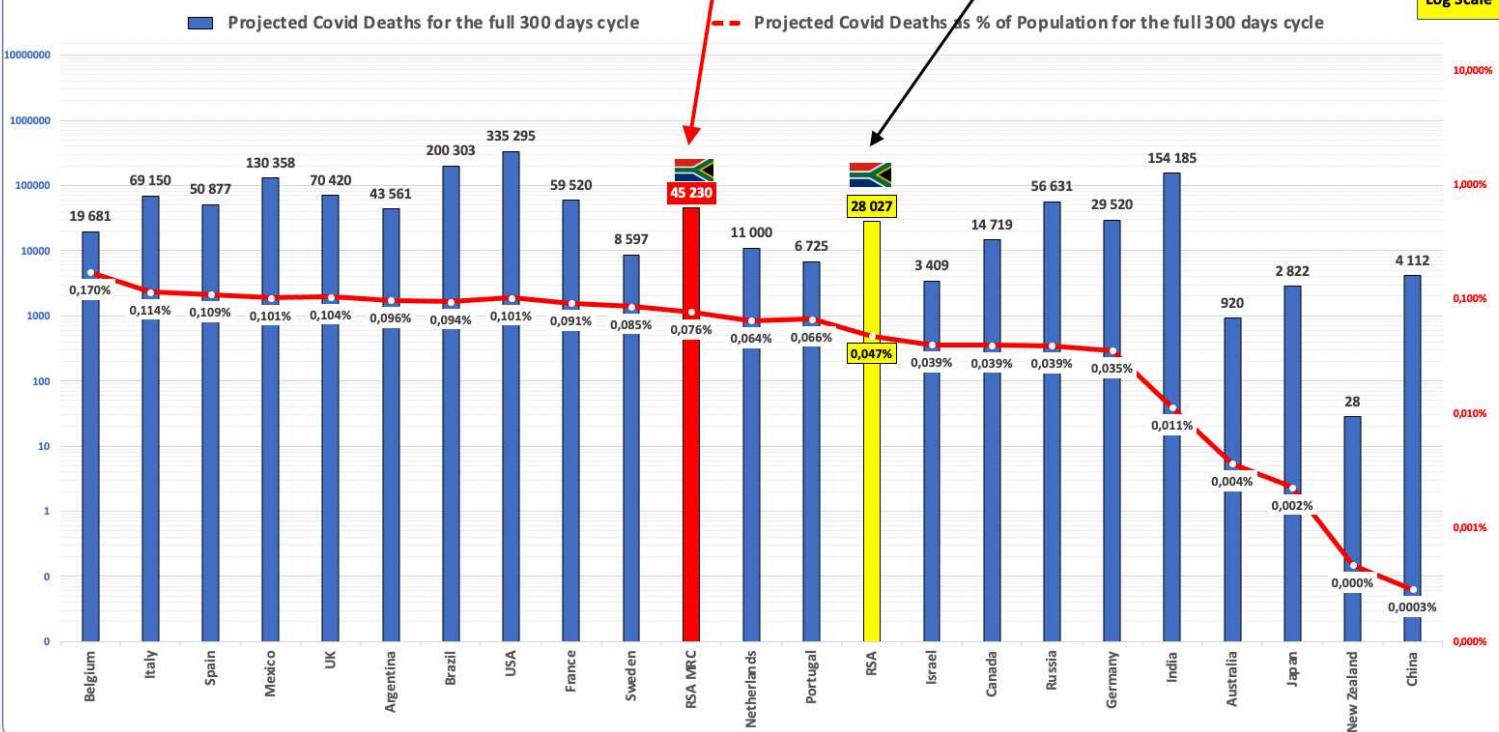
This projection uses the SA Medical Research Council on "Excess Deaths". The assumption is that 90% of their reported Excess Deaths are probably due to Covid. The ratios are updated bi-weekly by the MRC but I apply these ratios to the official stats on a daily basis for this projection.

This number is simply the avg daily Deaths as reported to date x 300 (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)

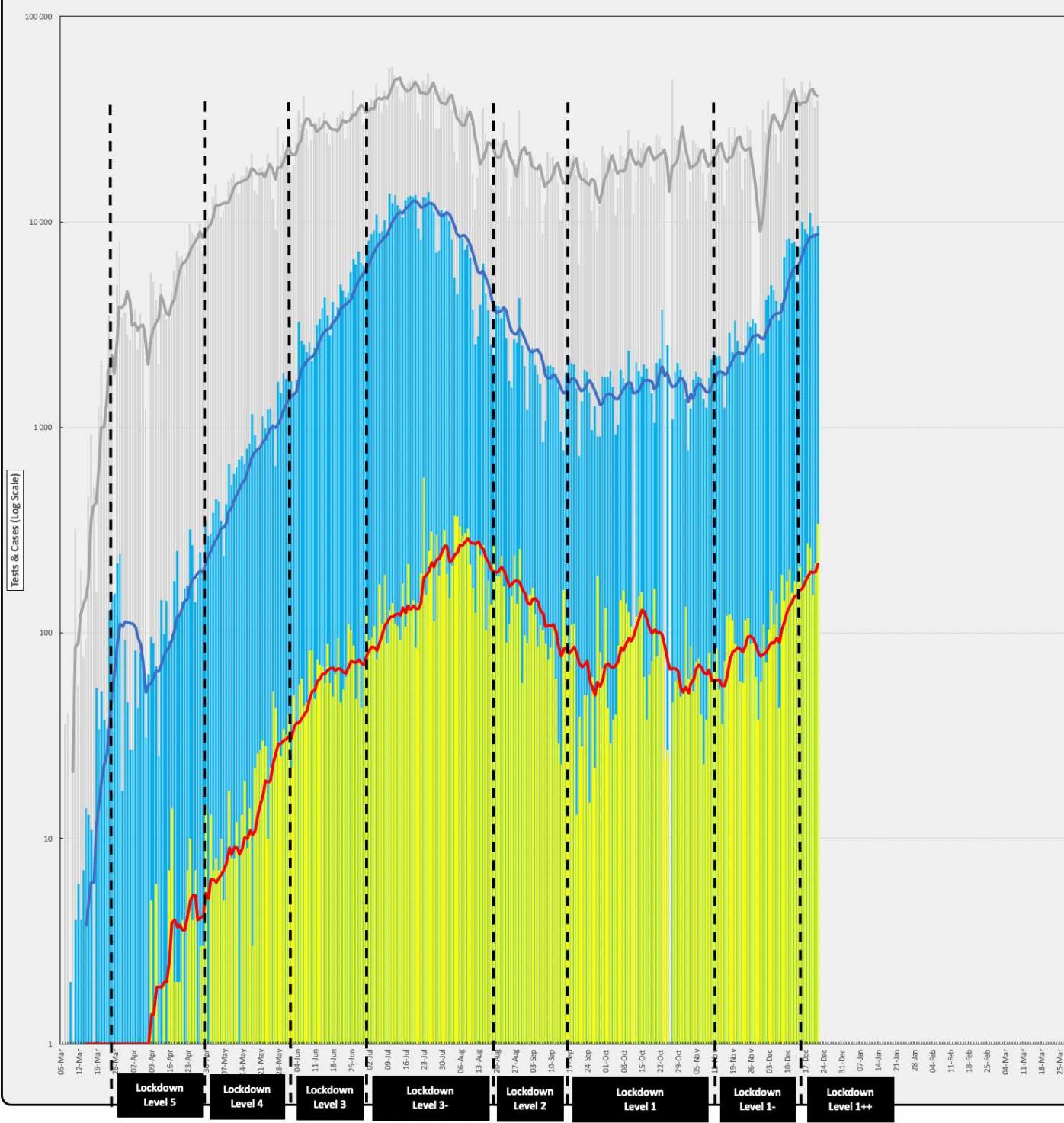
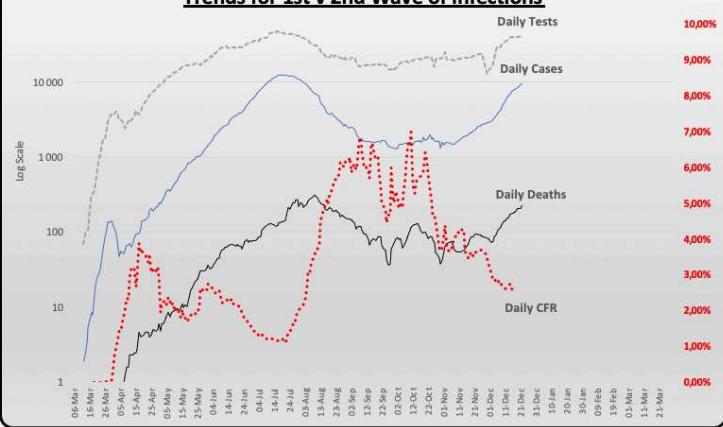
Log Scale



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

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

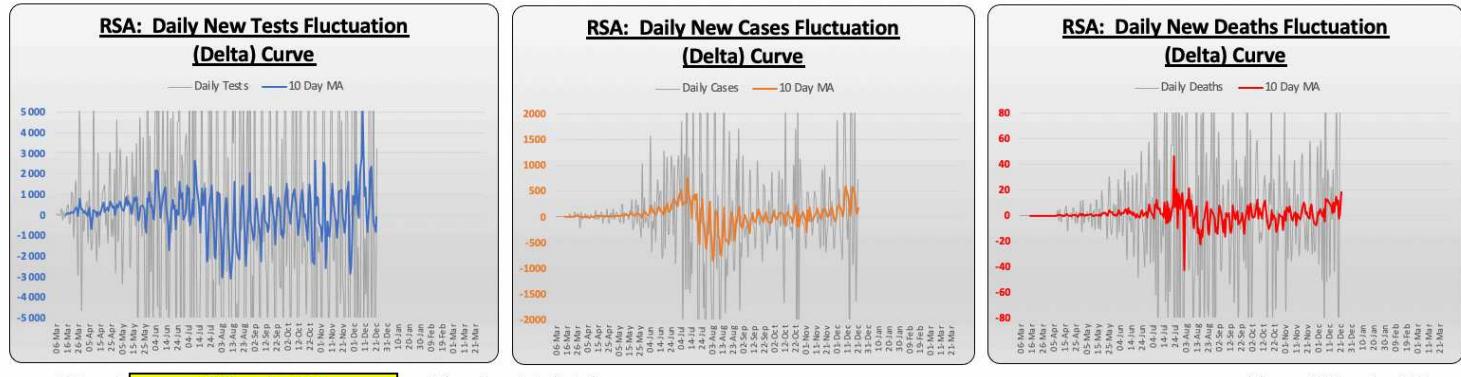
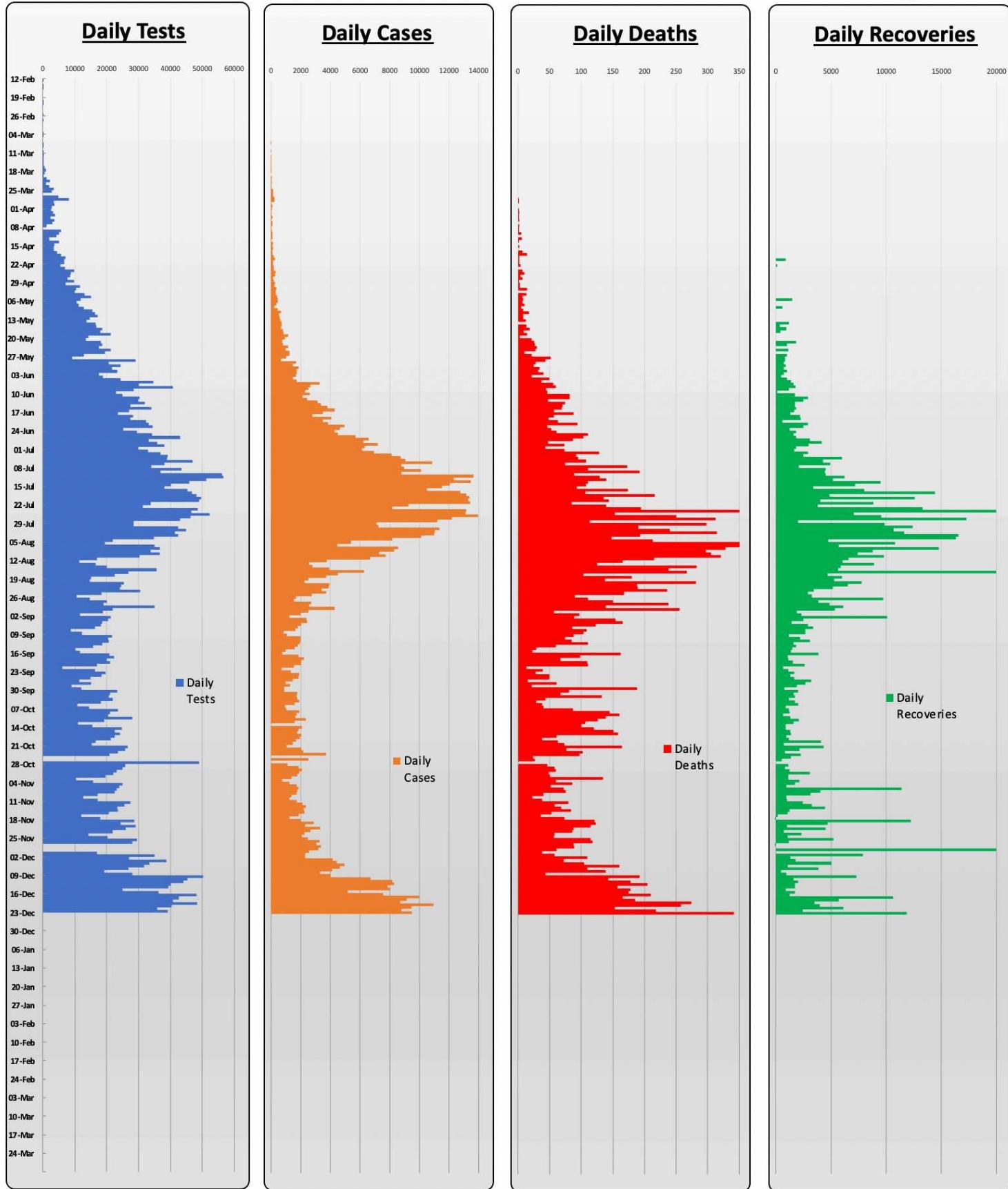
Daily Tests Daily Cases Daily Deaths

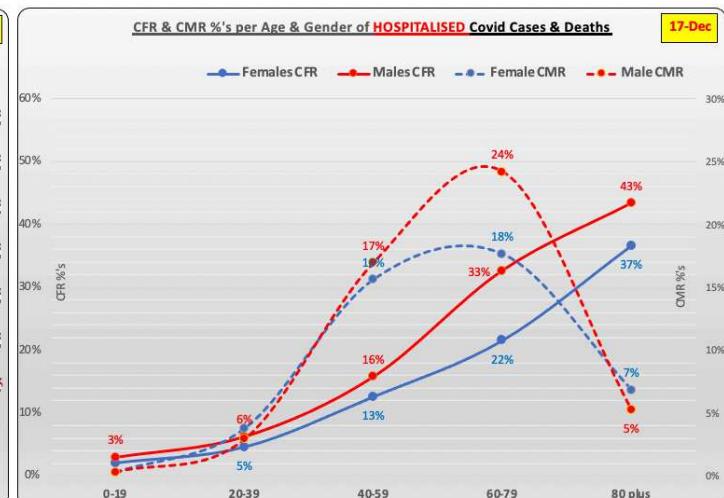
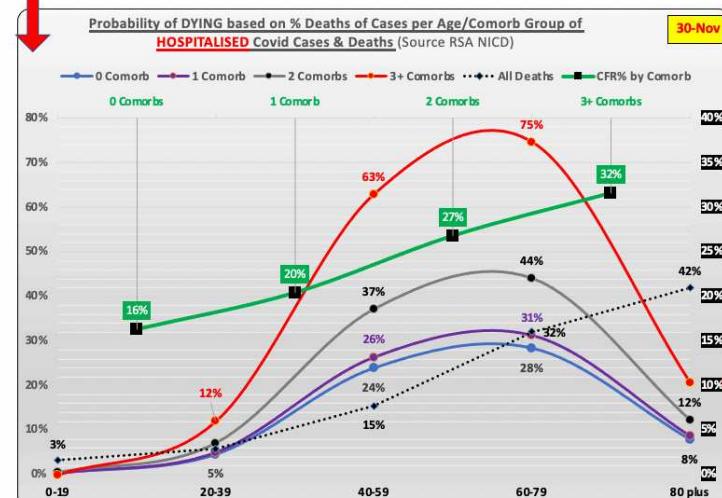
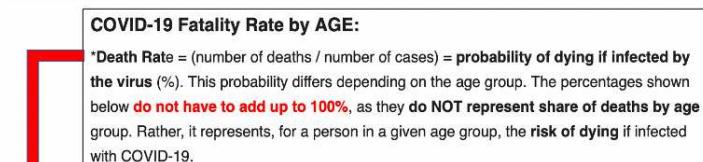
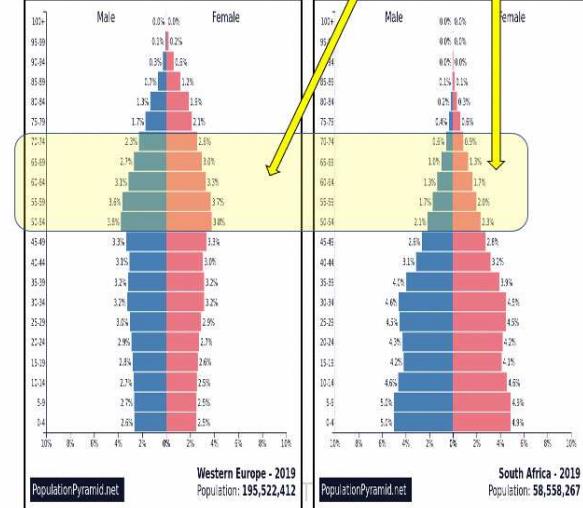
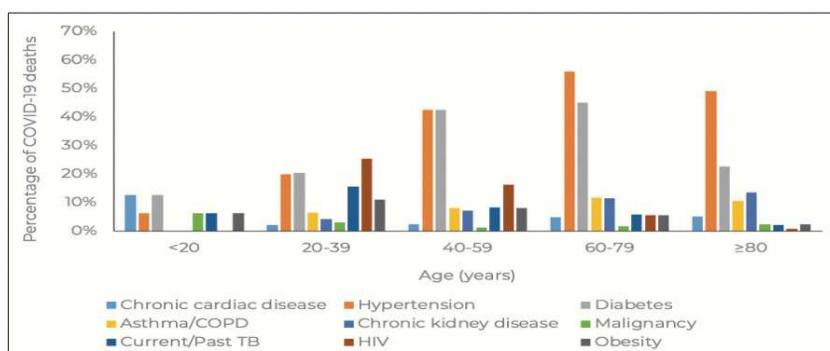
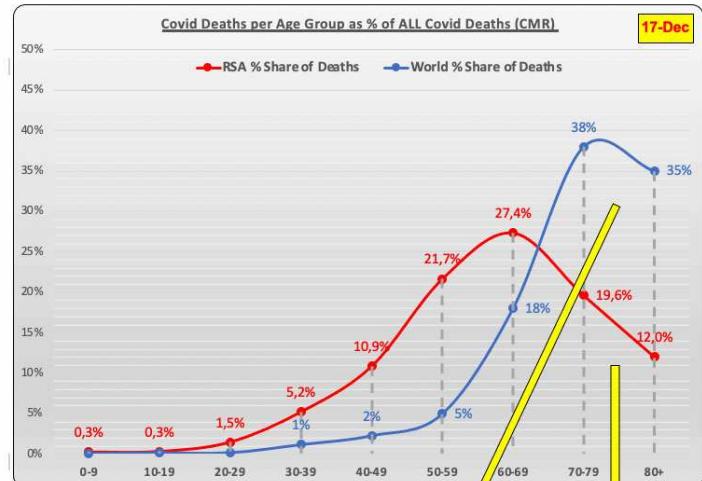
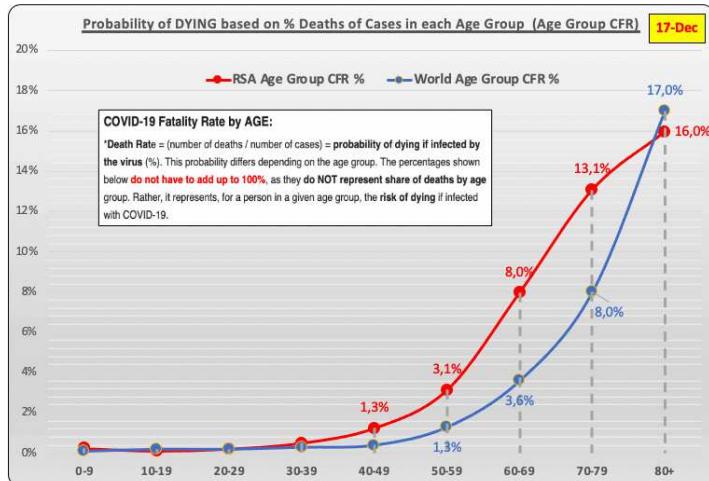
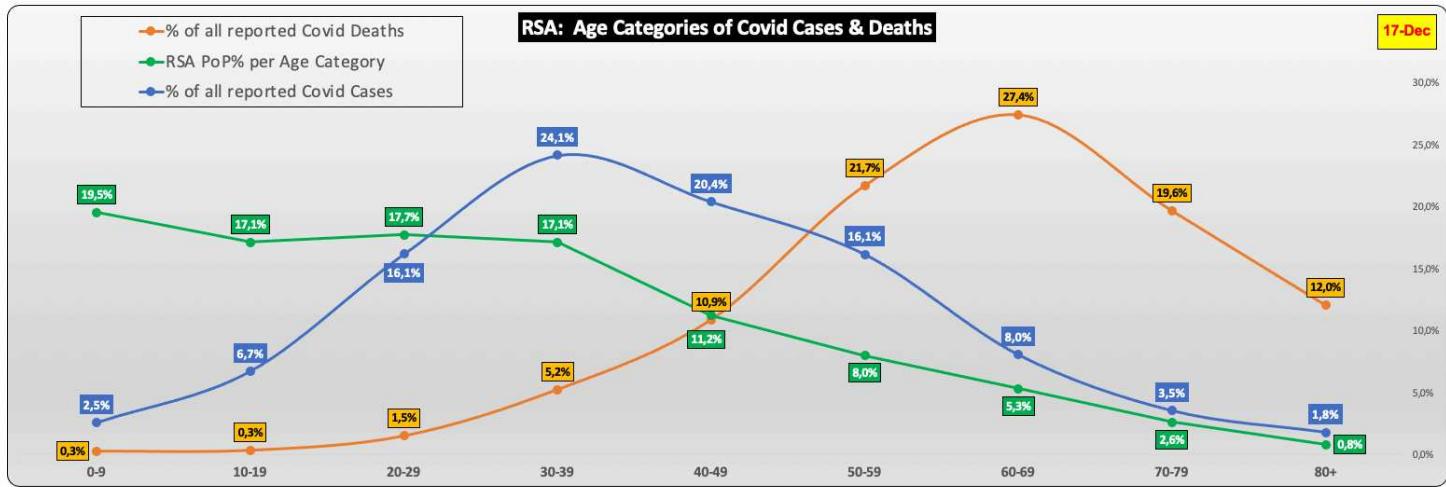
RSA: Mov Avg Daily CFR to try to determine Fatality RateTrends for 1st v 2nd Wave of infections

Data as at: 22 December 2020

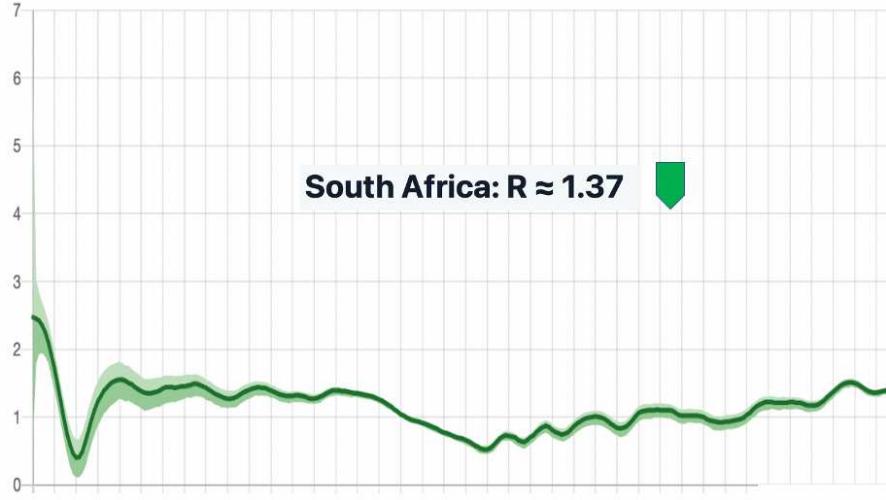
Unless otherwise indicated

hdg 23 December 2020

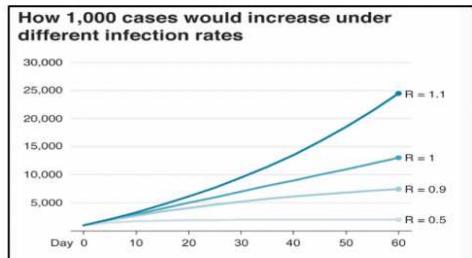




The Reproduction Number, R, derived from Currently Infectious estimates, see below

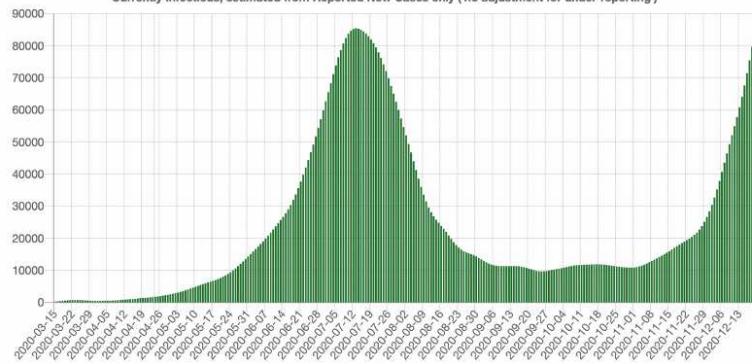


A Rt below 1 suggests that the number of cases is shrinking, possibly allowing societies to open back up.. A Rt above 1 indicates that the number of cases is growing, perhaps necessitating renewed lockdowns or other measures.

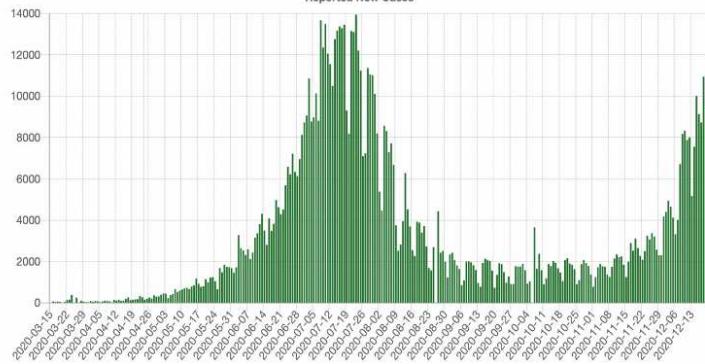


↑ Red ↑ Green → Blue Movement from previous reporting

Currently Infectious, estimated from Reported New Cases only (no adjustment for under-reporting)



Reported New Cases



LIMPOPO



NORTH WEST



KWAZULU-NATAL



MPUMALANGA



GAUTENG



NORTHERN CAPE



WESTERN CAPE

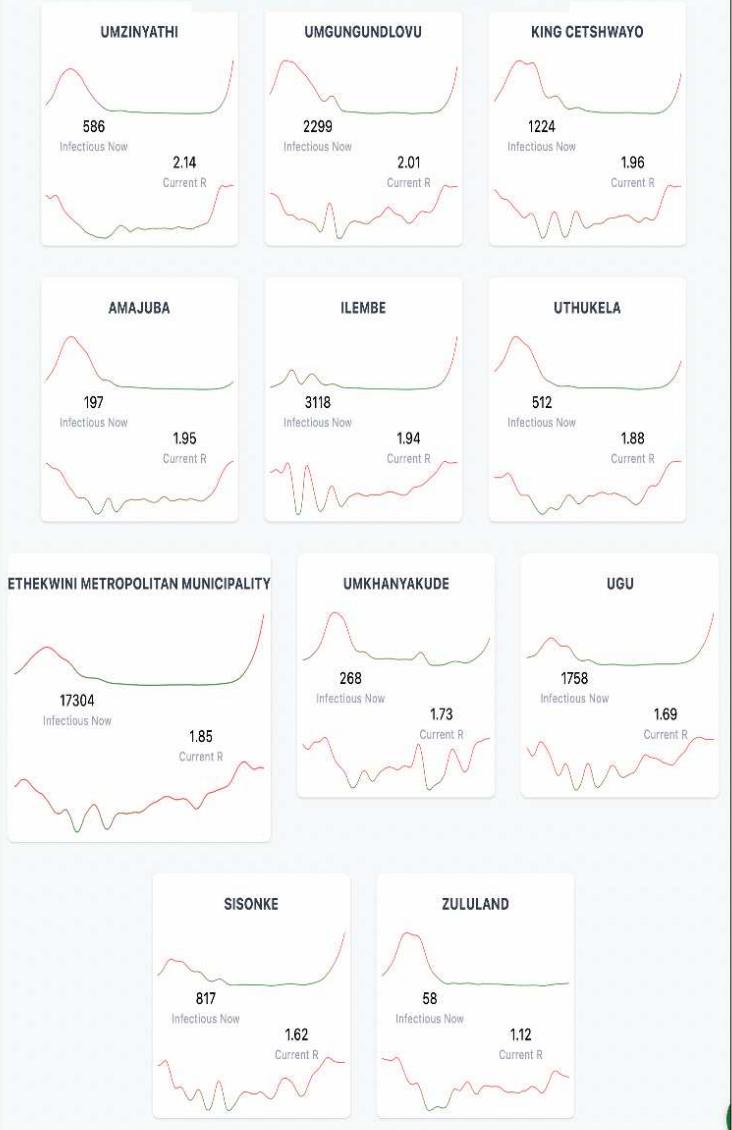
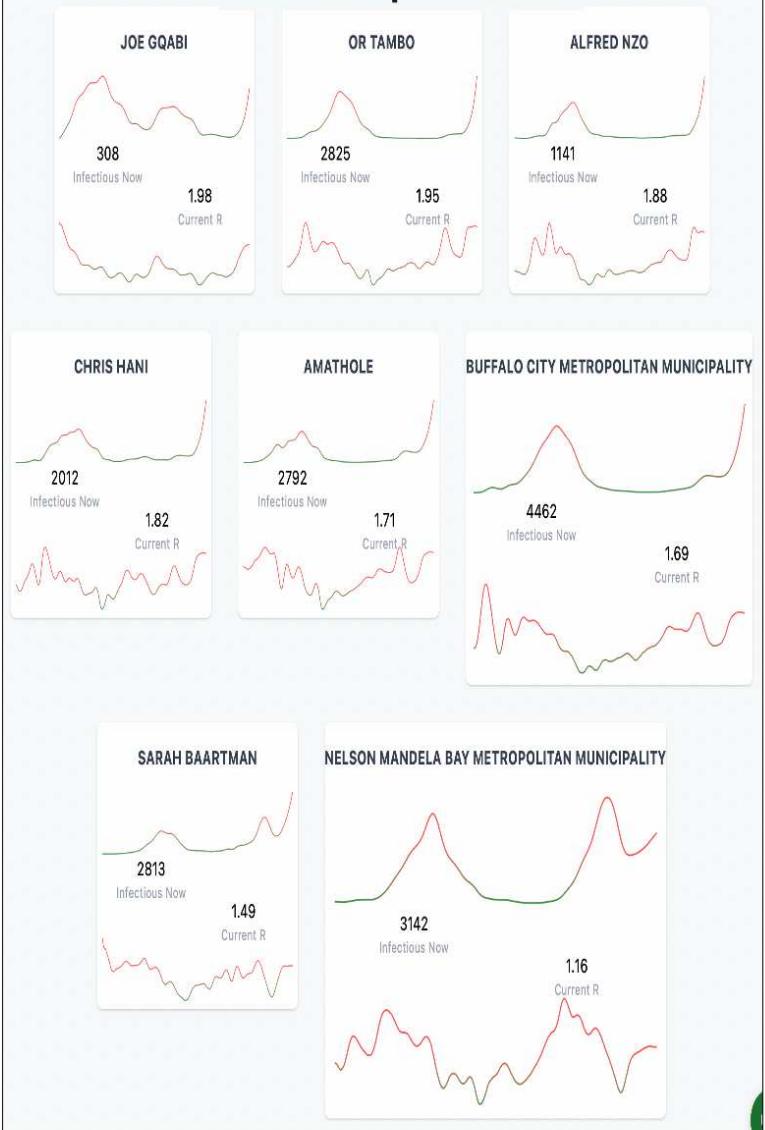
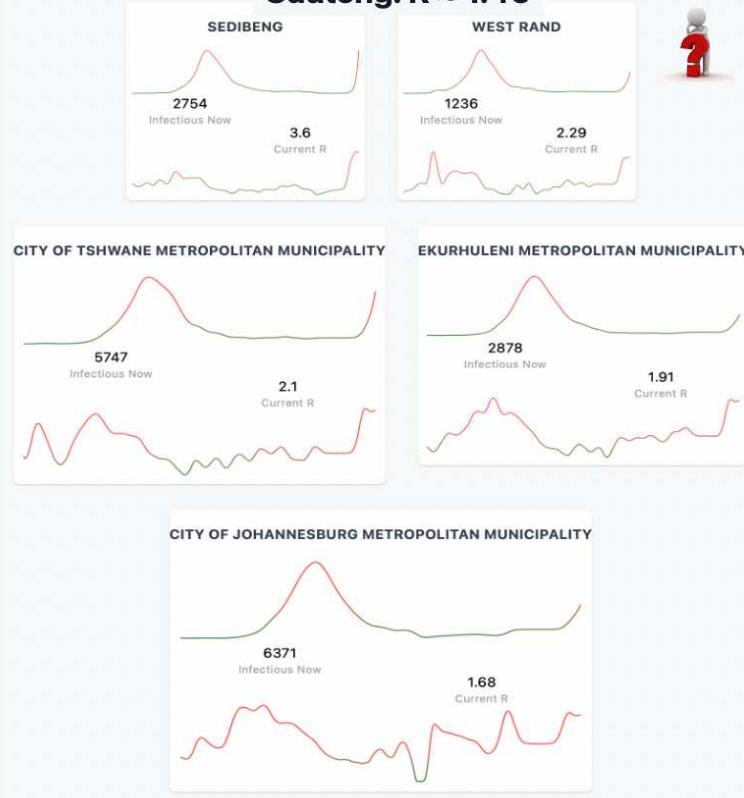


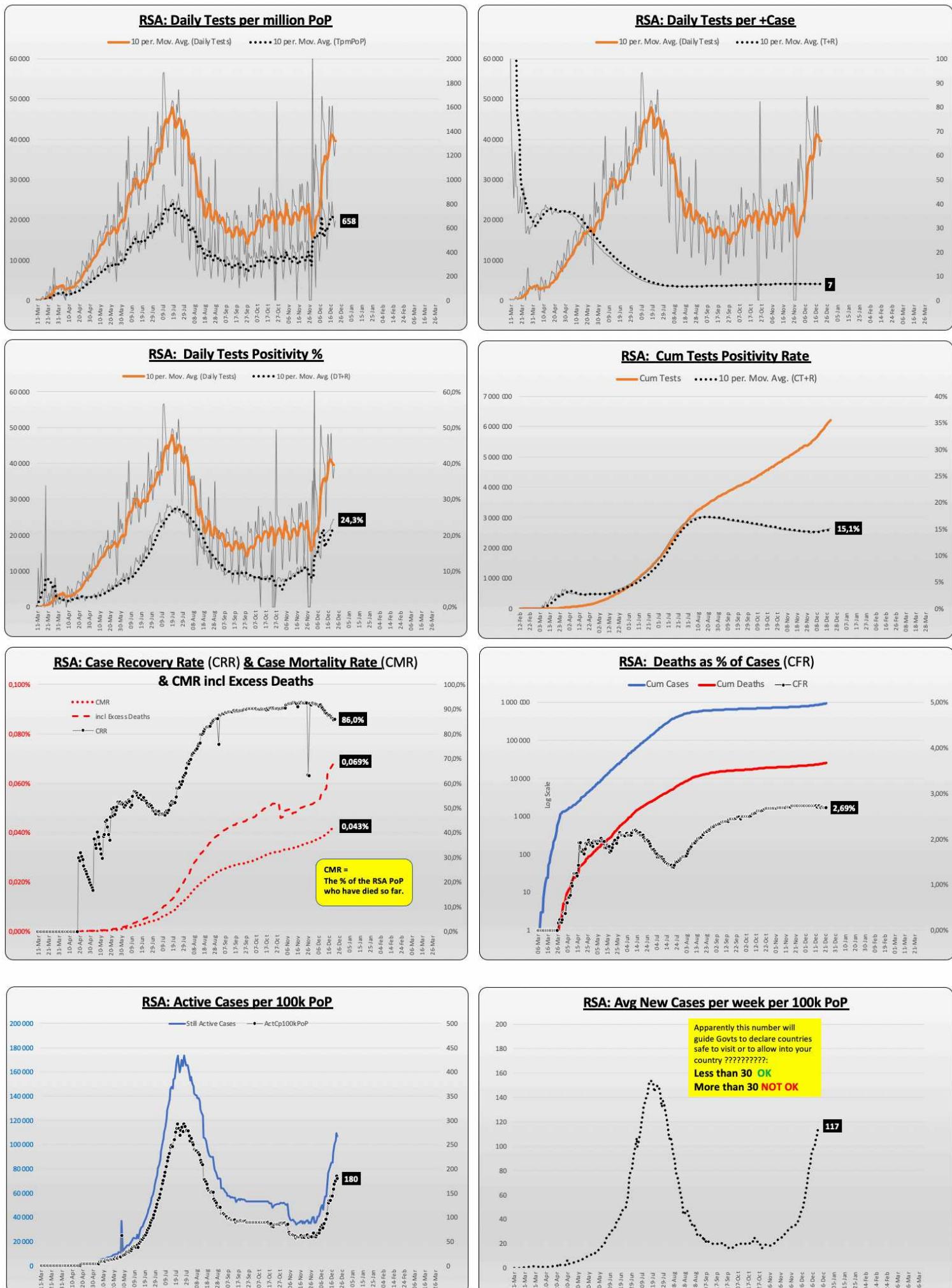
FREE STATE

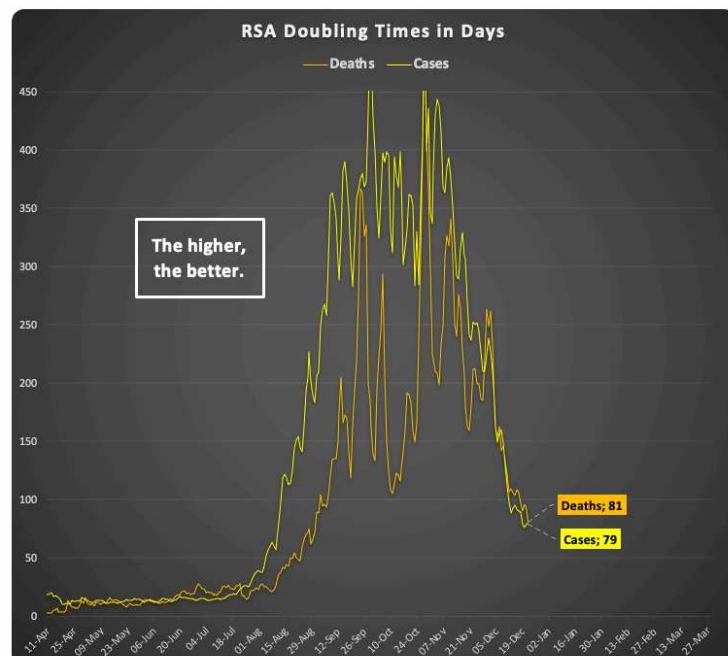
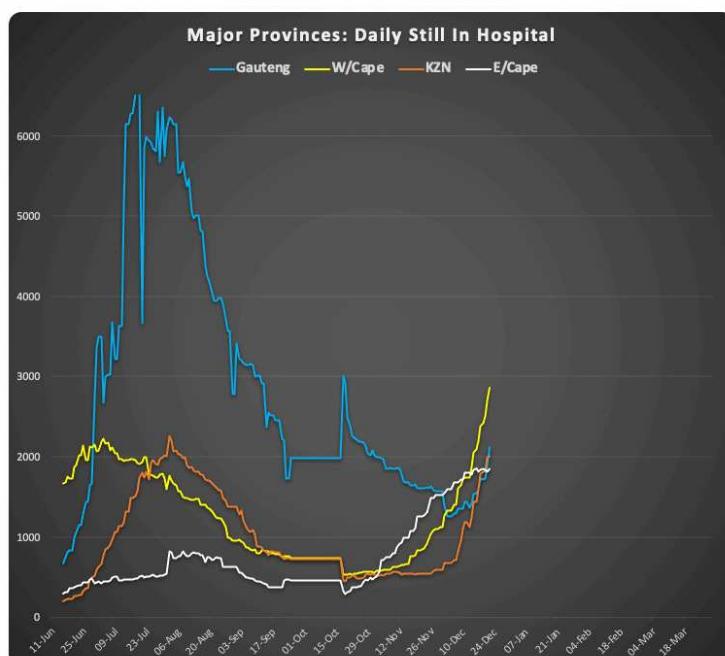
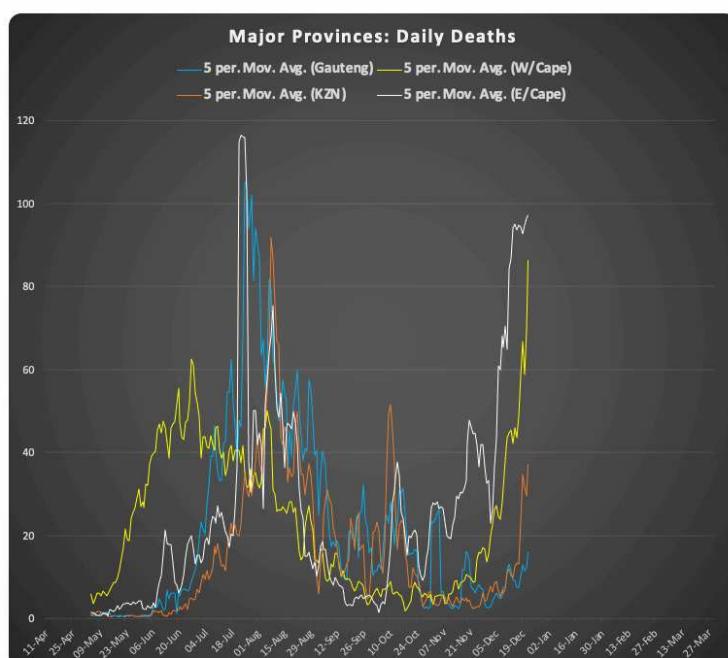
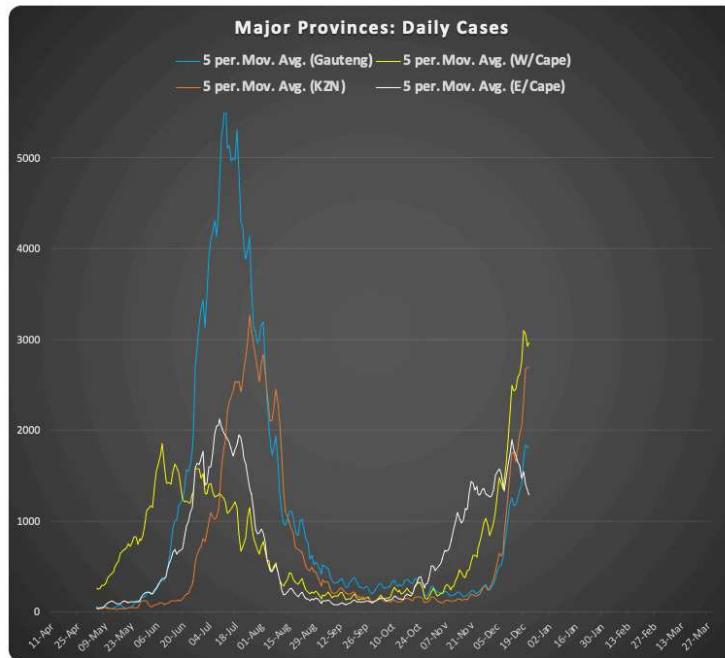
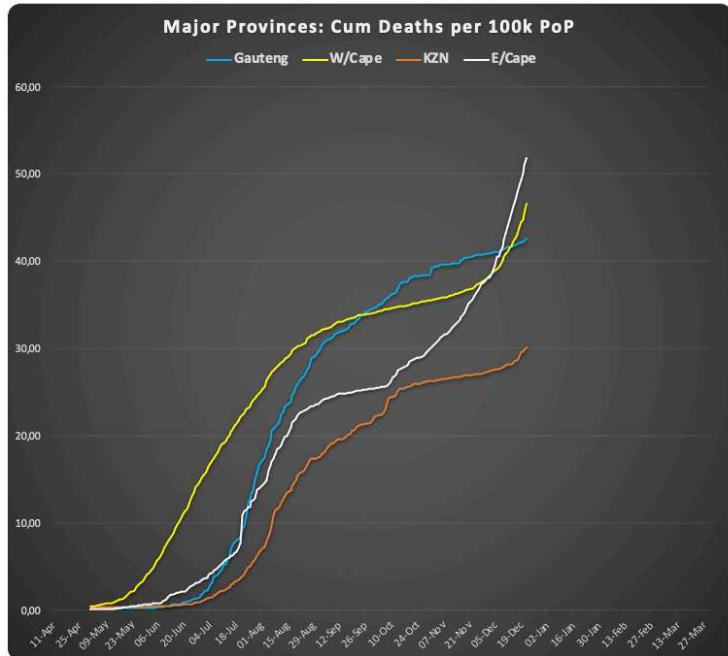
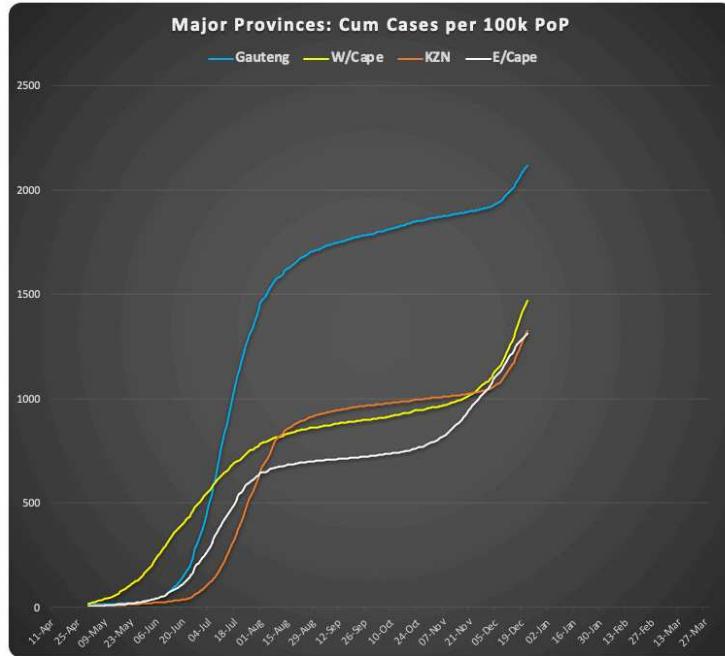


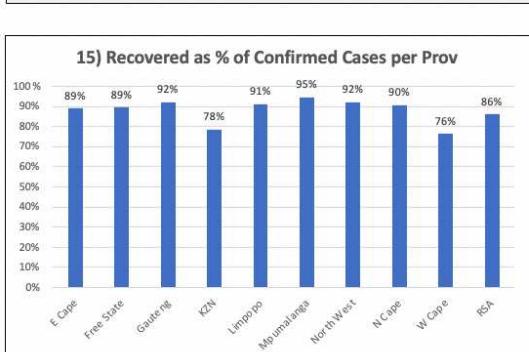
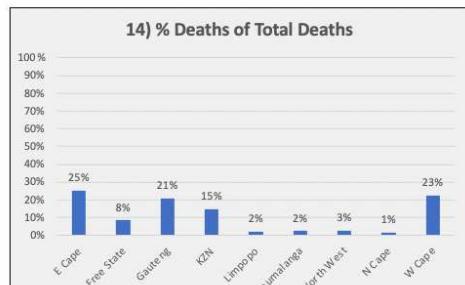
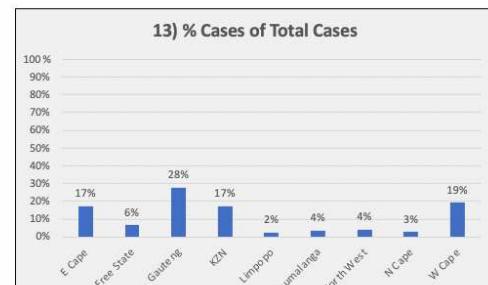
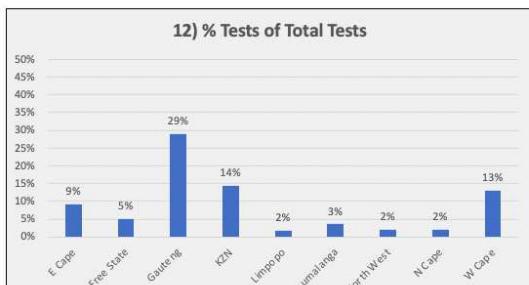
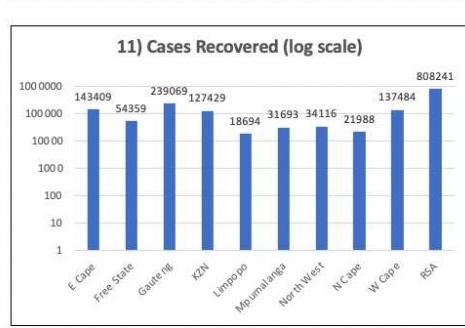
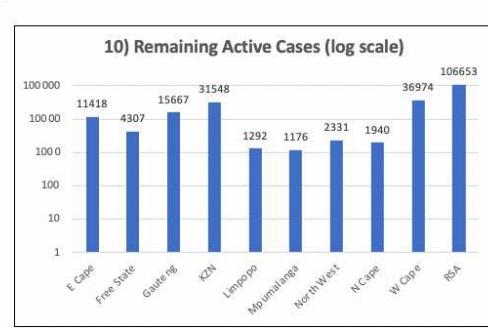
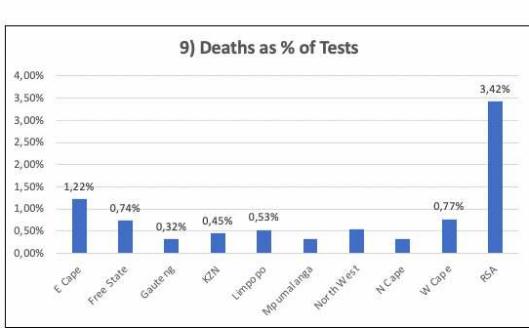
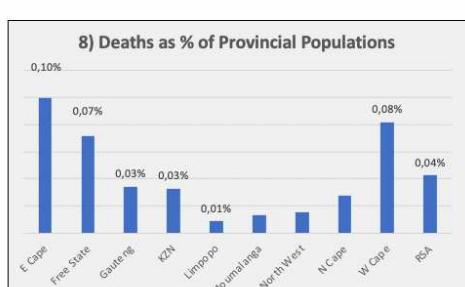
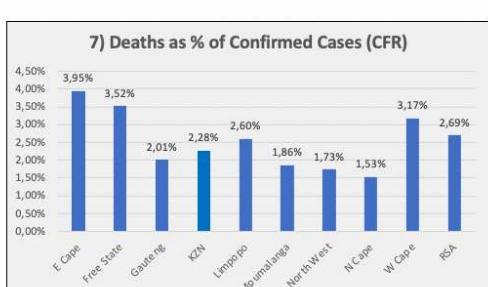
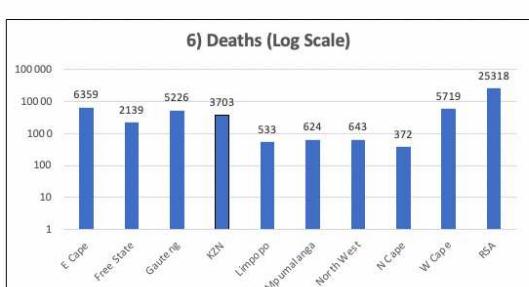
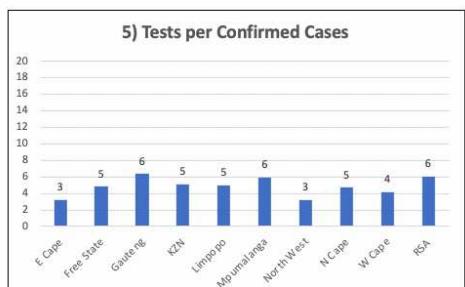
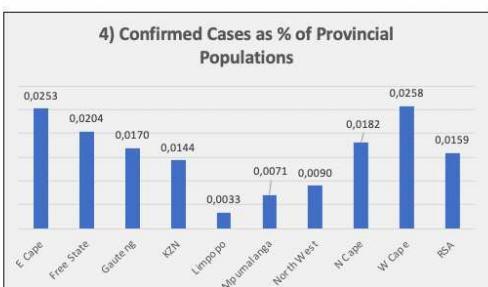
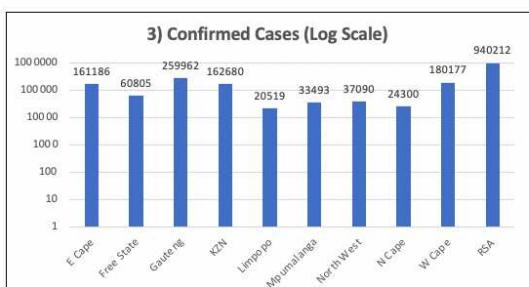
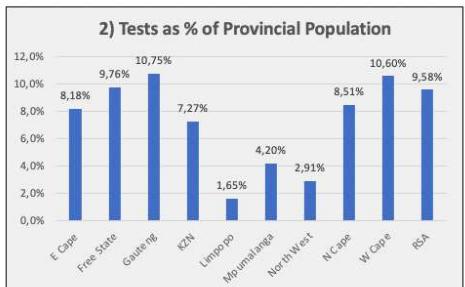
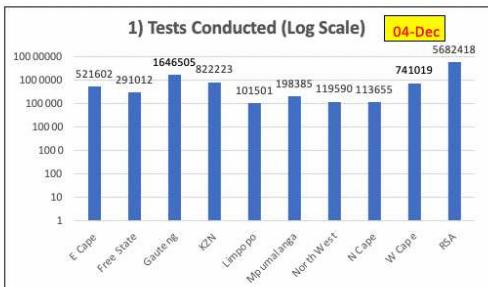
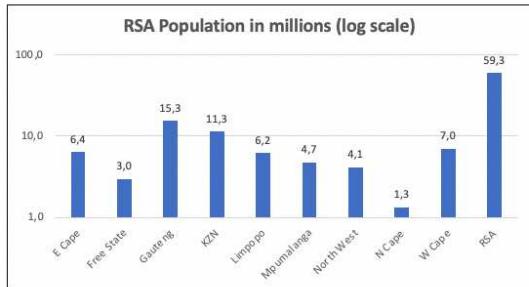
EASTERN CAPE



Major Provinces: Rt #'s & Active Cases by District**KwaZulu-Natal: R ≈ 1.56****Eastern Cape: R ≈ 0.94****Gauteng: R ≈ 1.46****Western Cape: R ≈ 1.36**

RSA Key Ratios & Comparators

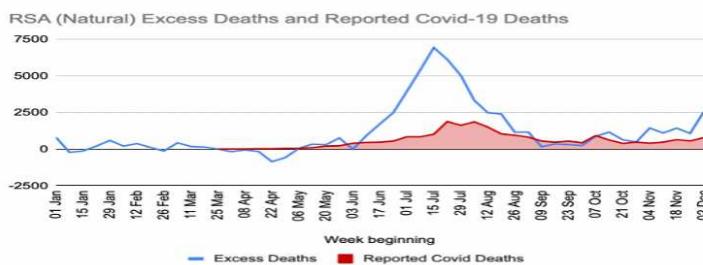




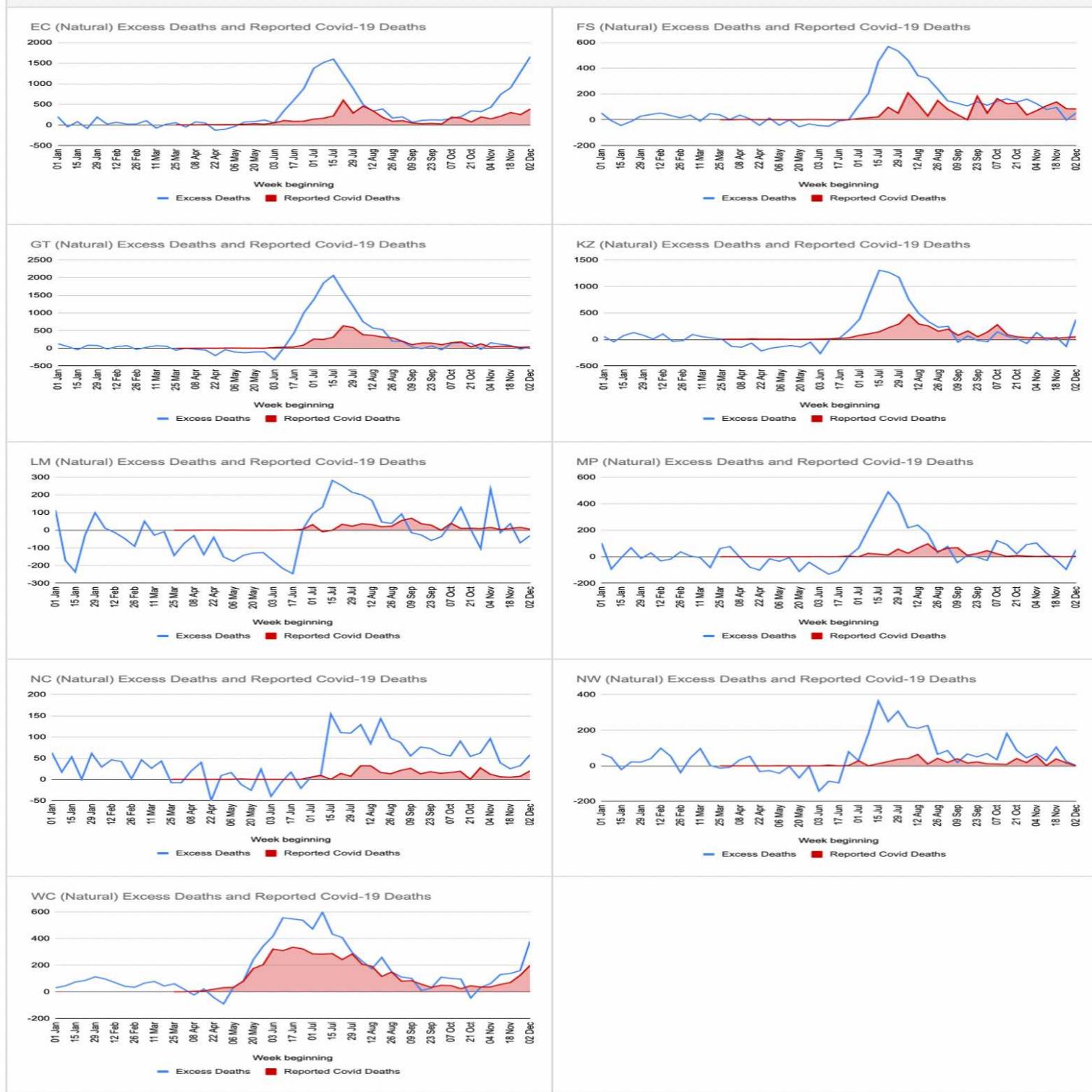
RSA Excess Deaths as per SA Medical Research Council

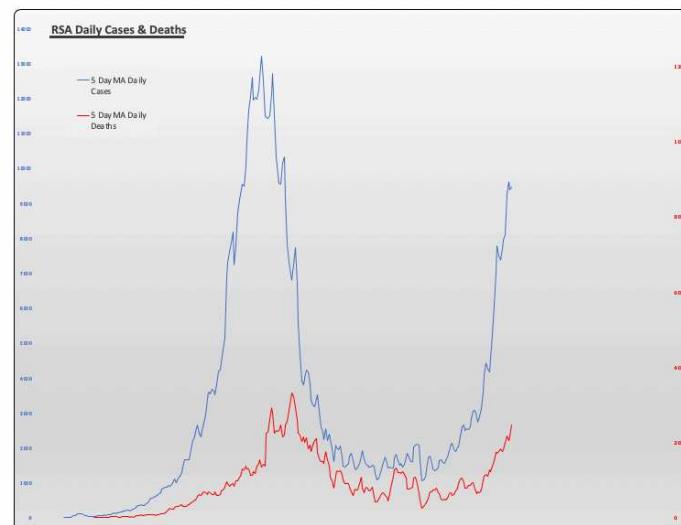
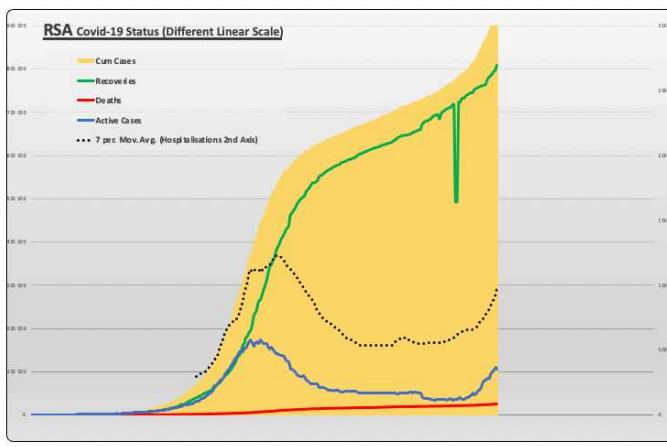
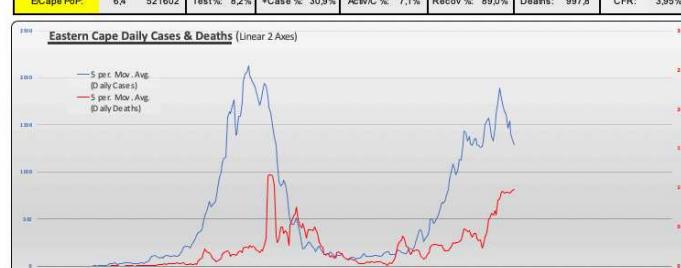
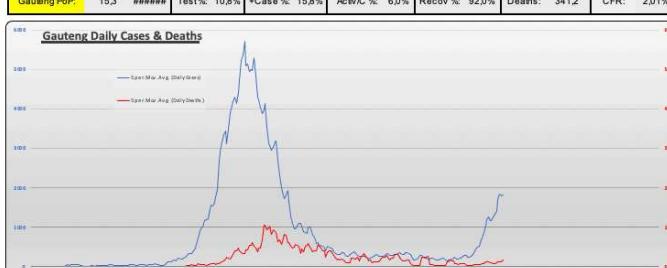
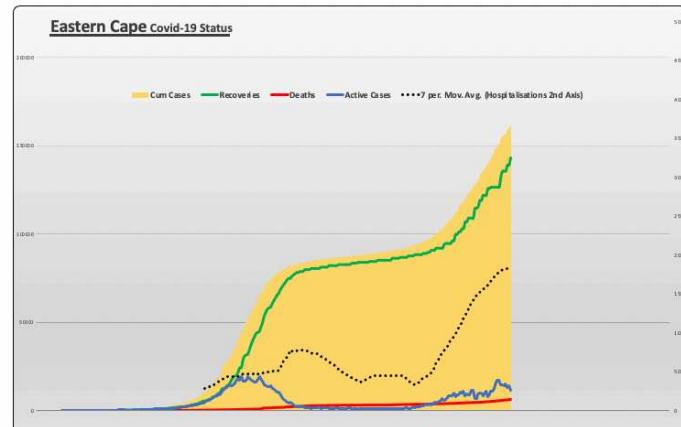
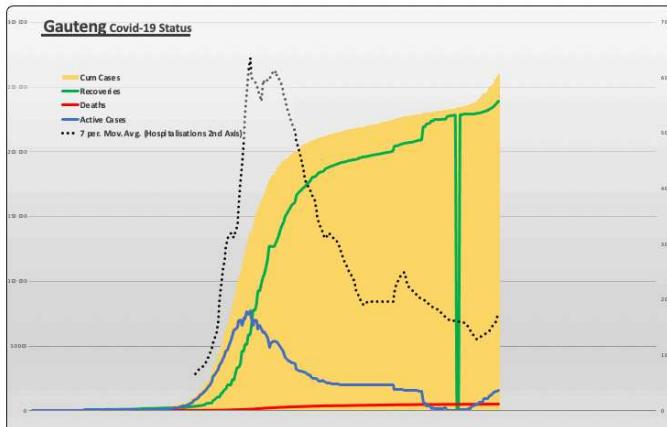
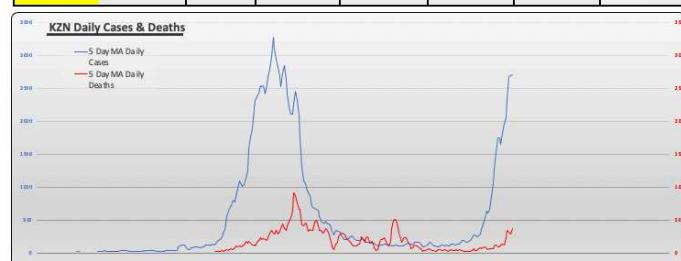
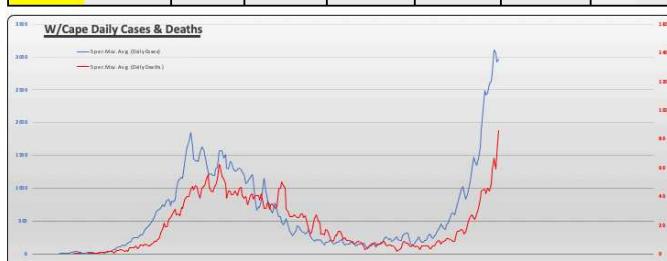
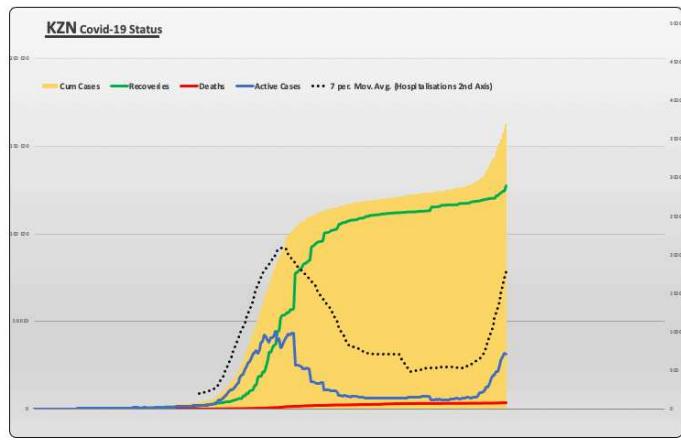
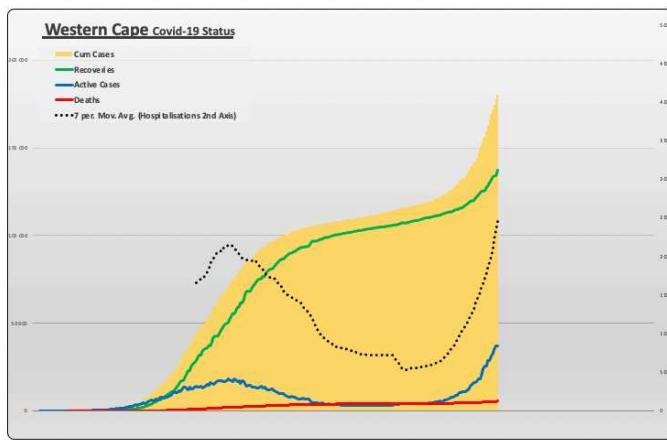
Page 6.1

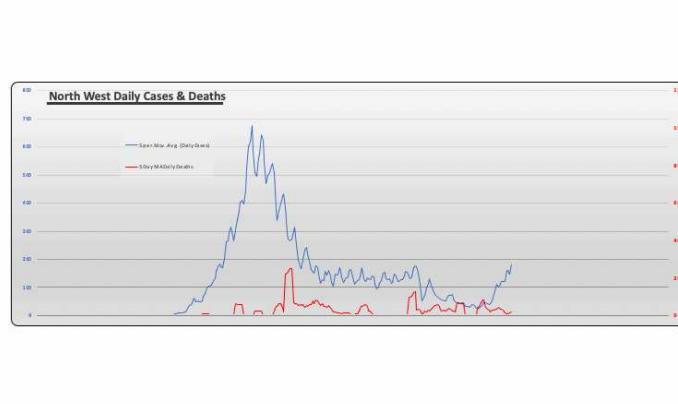
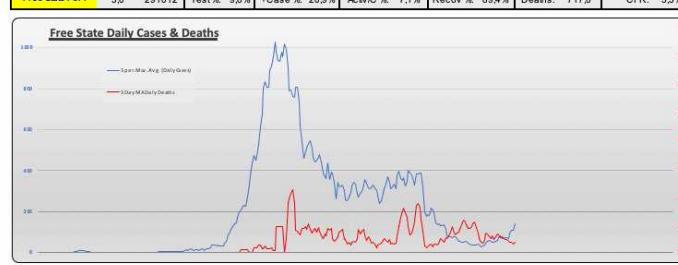
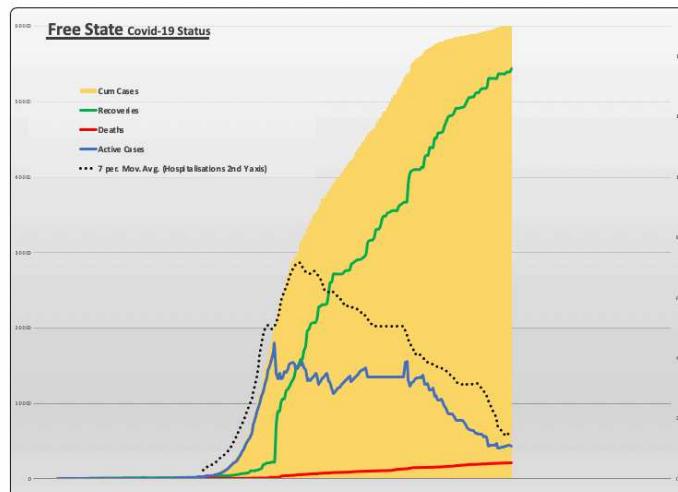
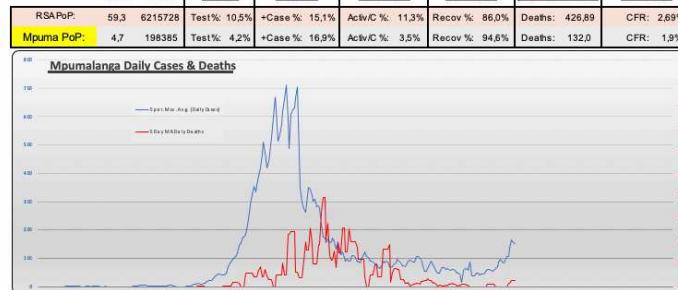
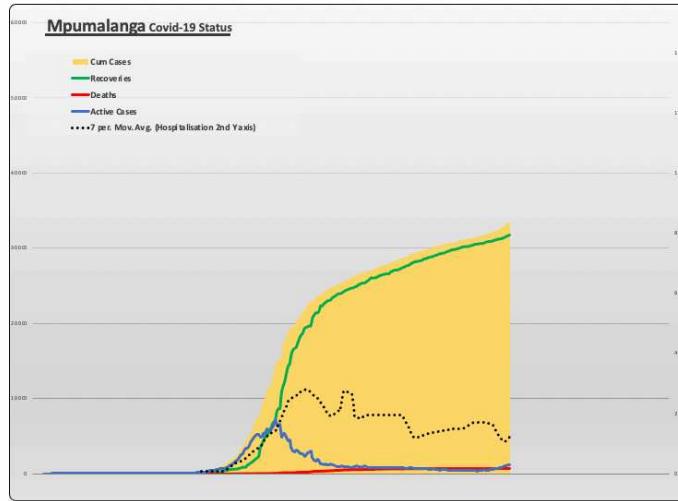
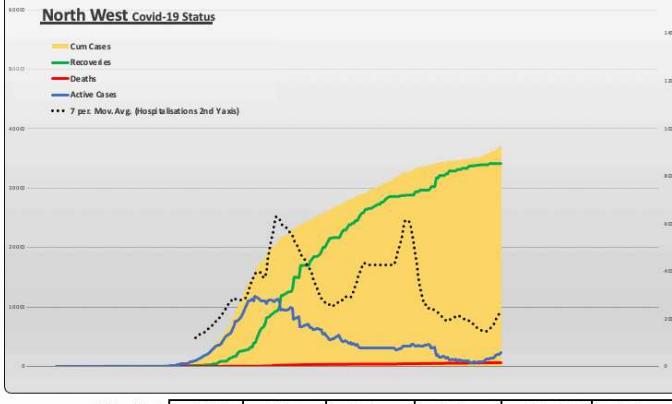
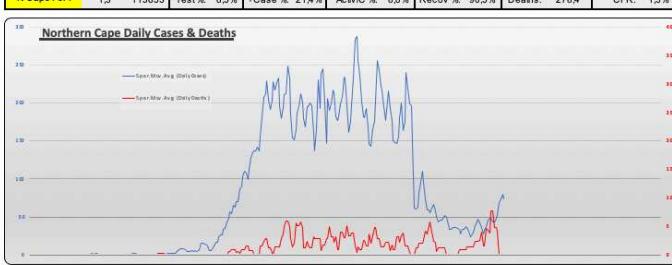
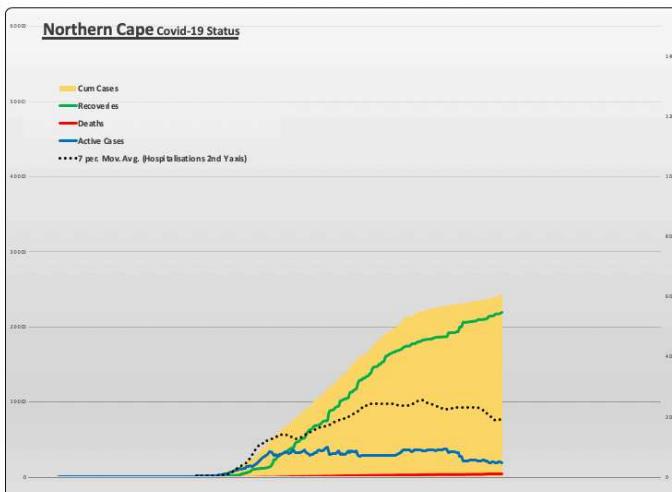
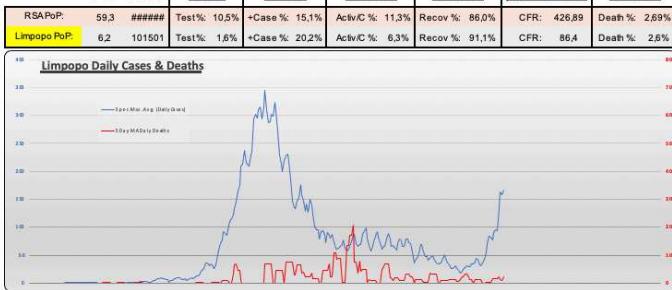
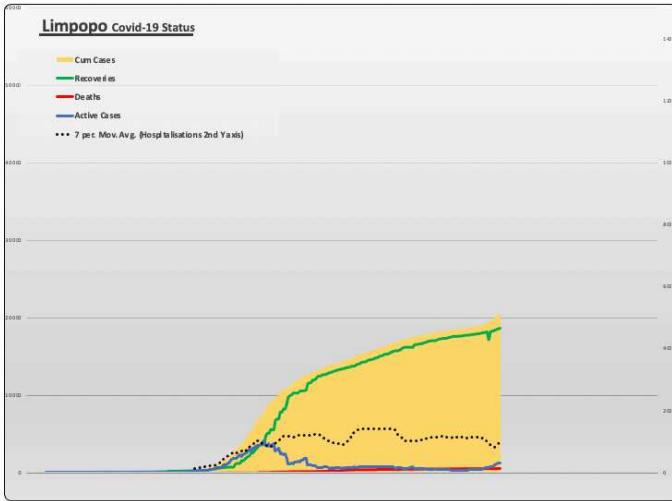
One approach to aid understanding of the emerging COVID-19 mortality is to compare the estimated weekly excess deaths with the number of COVID-19 deaths reported by the Minister of Health as shown in the figure below. This comparison is hampered to some degree by the fact that the excess deaths are classified 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









*'We've moved a few things around. Travel books are
in the Fantasy section, Politics is in Sci-Fi, and
Epidemiology is in Self-Help. Good luck.'*

