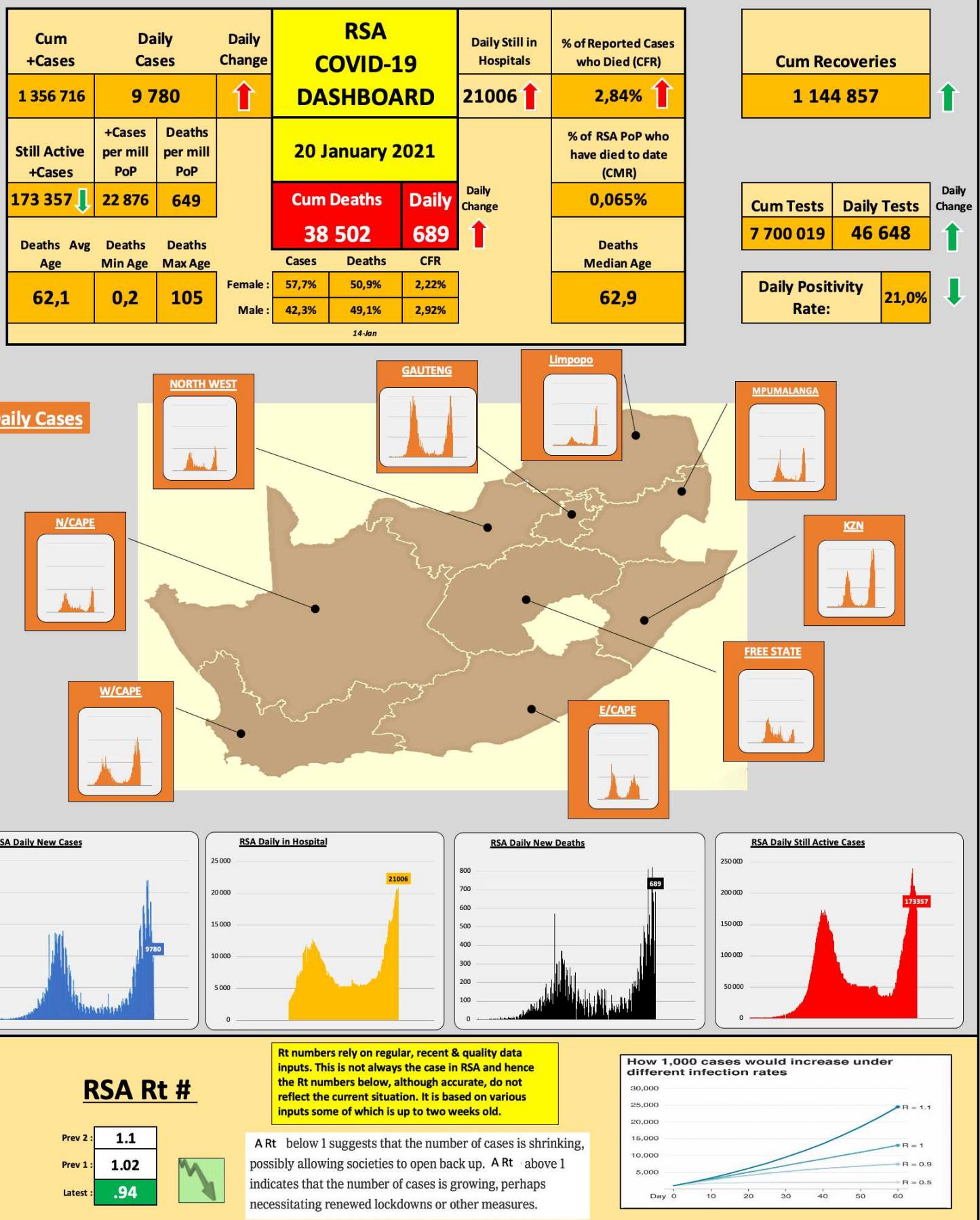
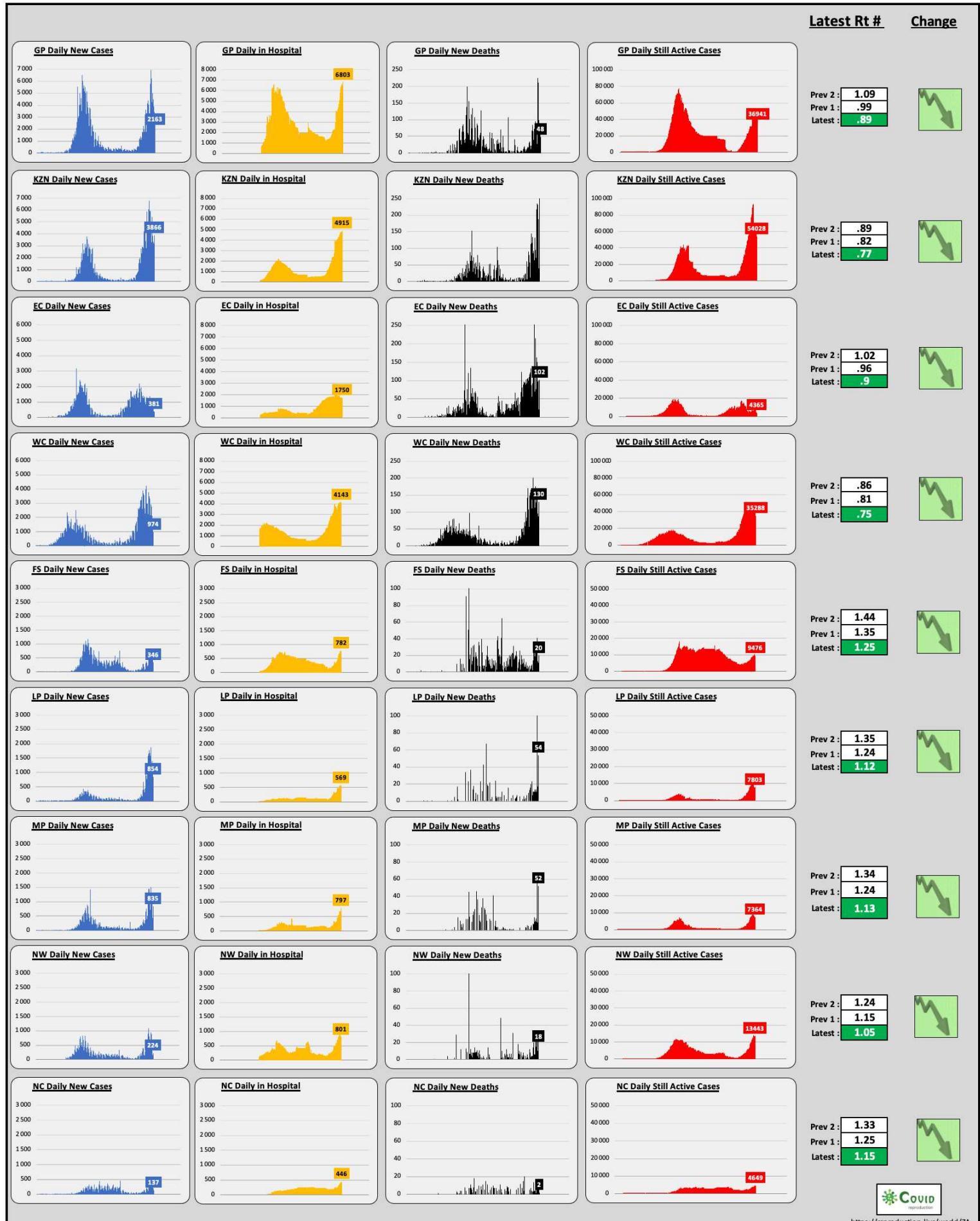


HarryG COVID-19 Dashboard



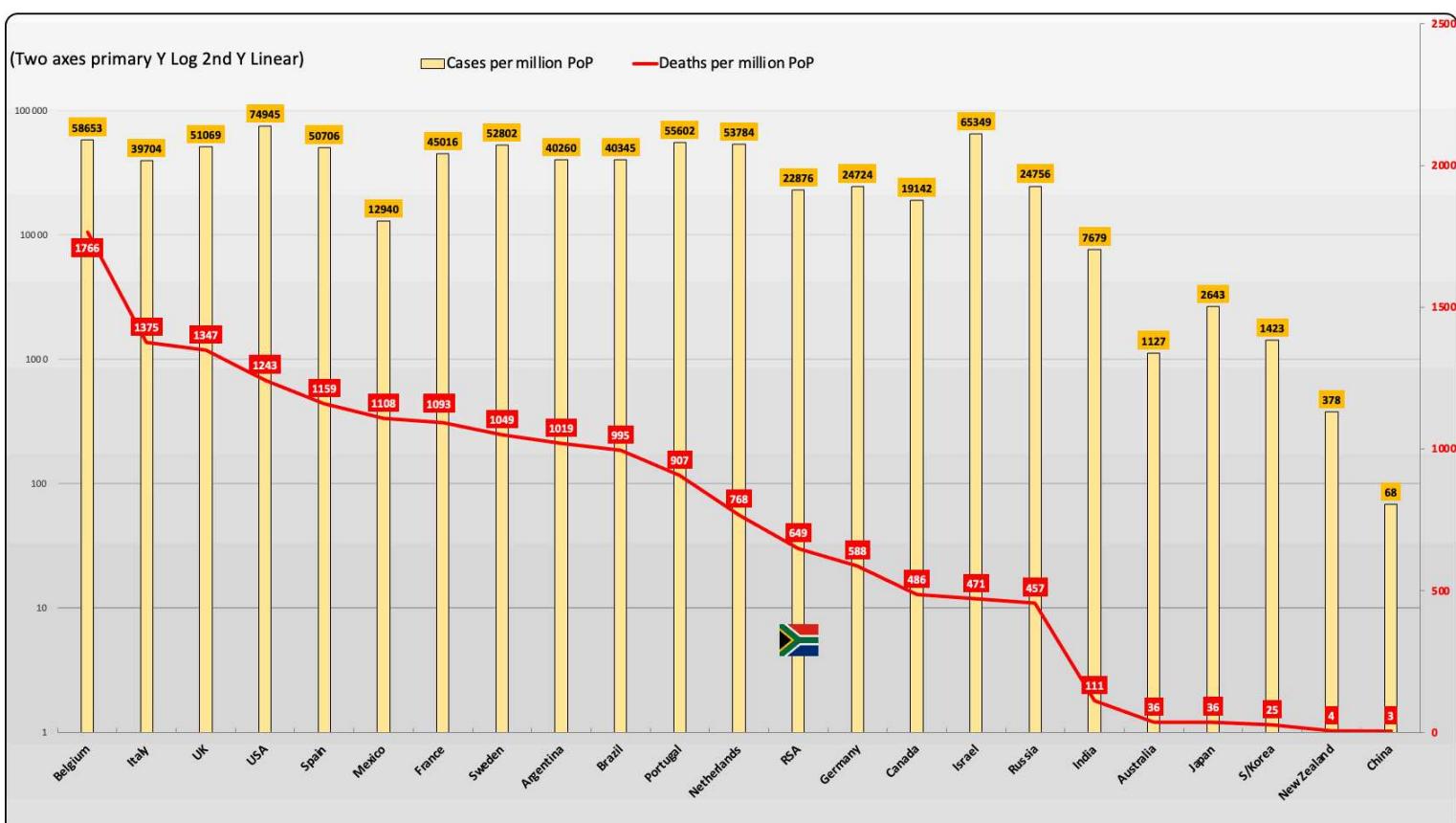
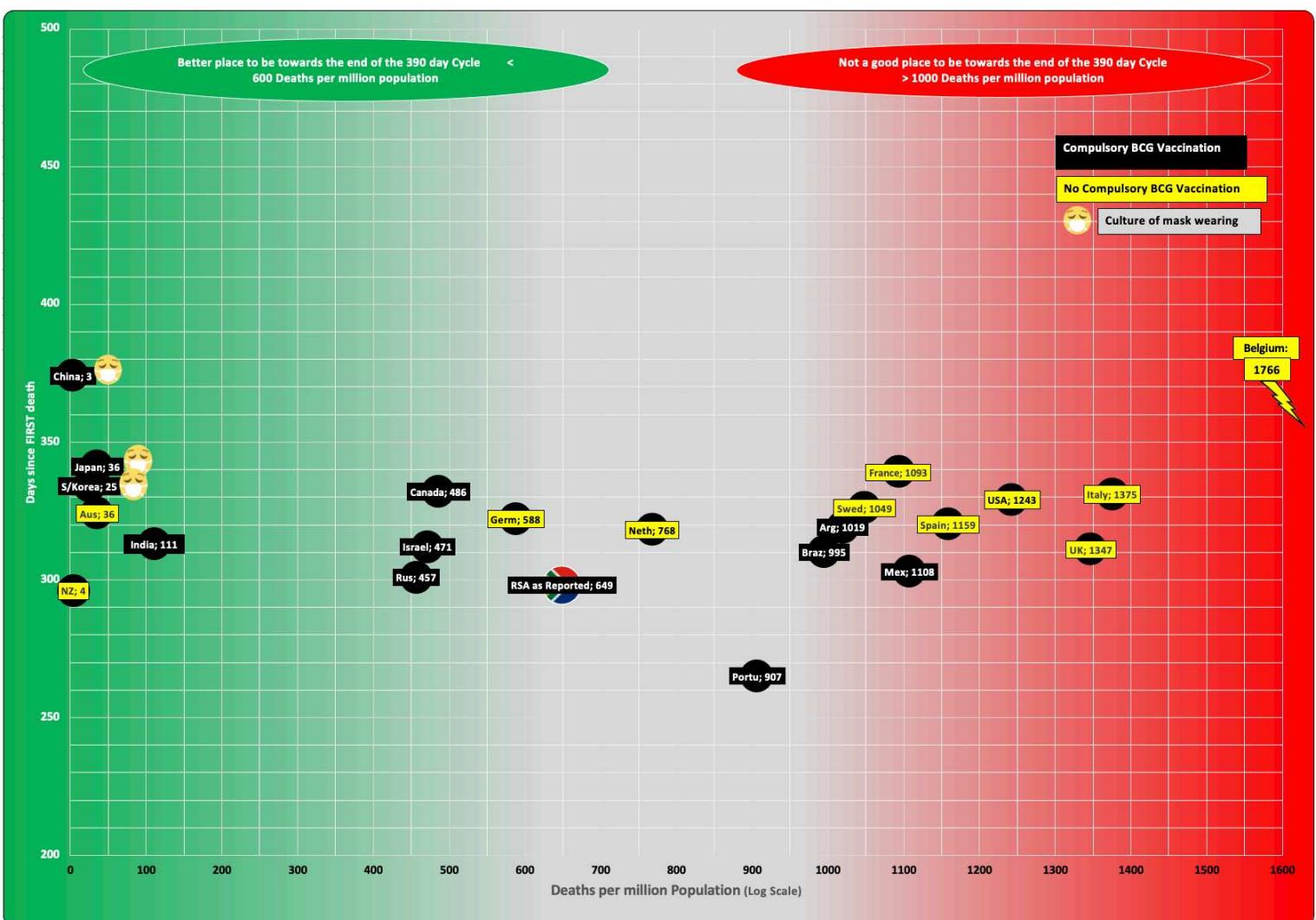
RSA Provinces detailed daily Data and Trends

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 3-14 days



Selected Countries' **Reported** Cases Deaths per mill PoP

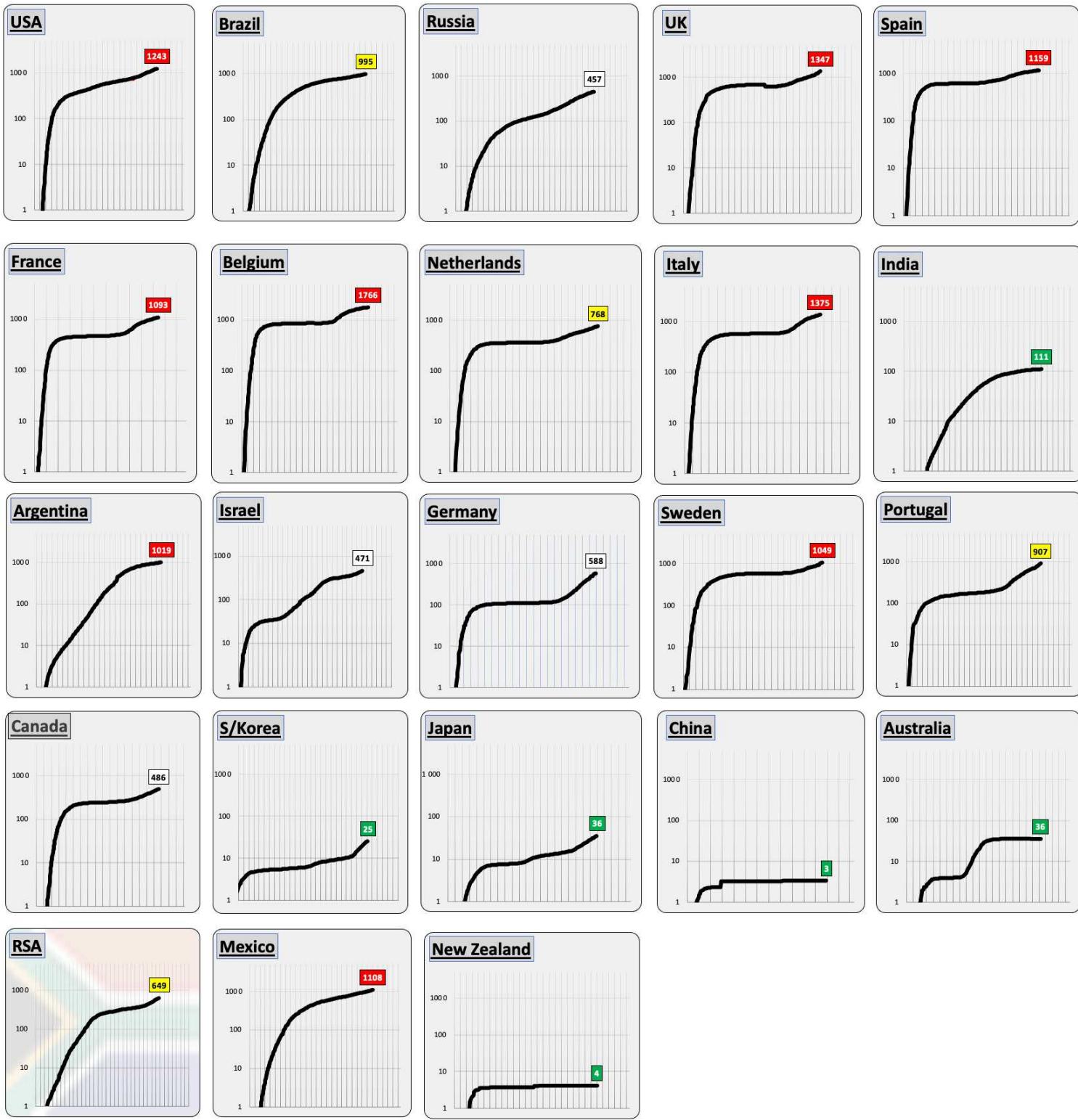
Page 2



Cum Deaths per mill PoP for selected countries

All on same Log Scale (compare Apples with Apples)

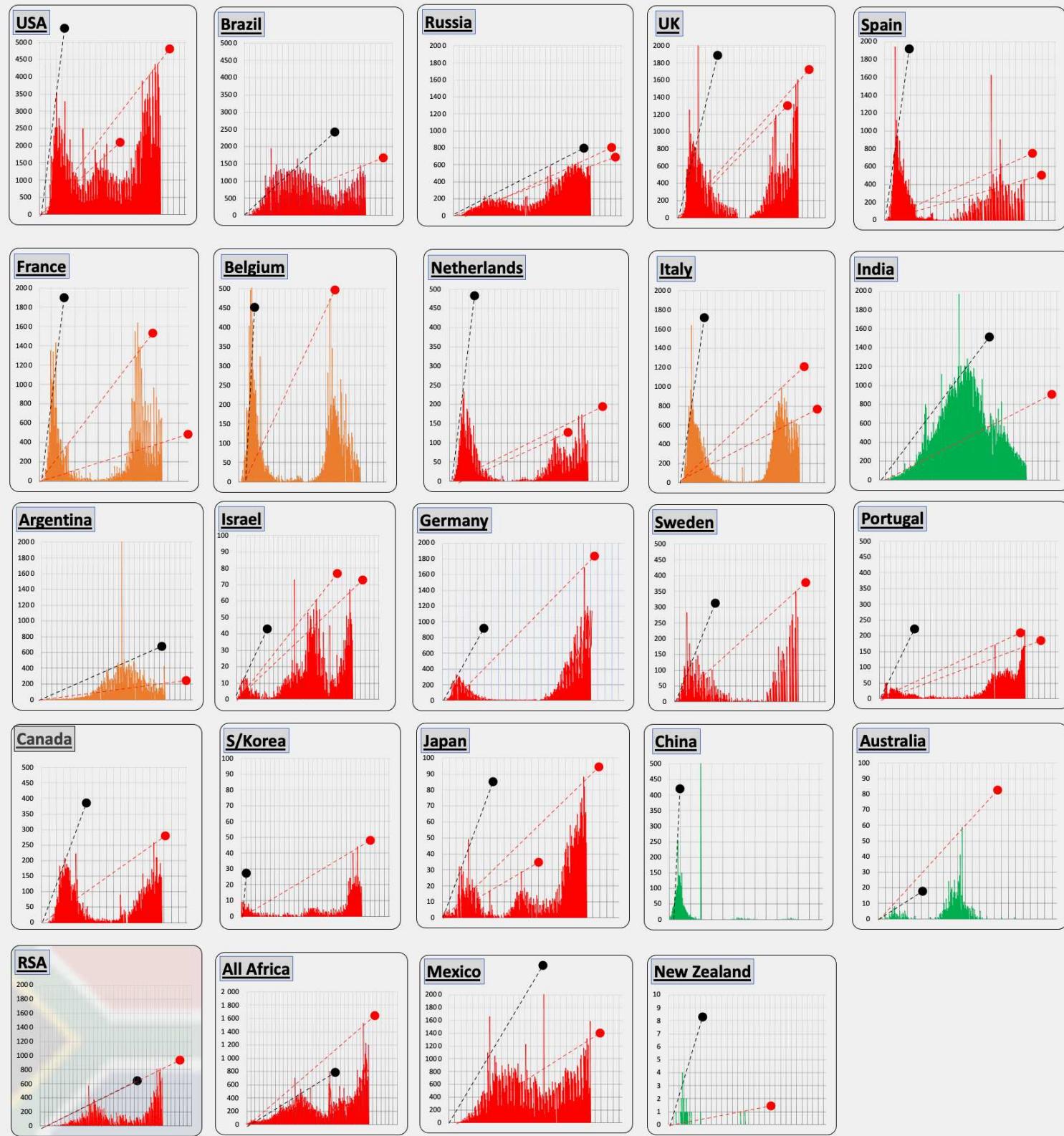
Cum Deaths > 1000 per Mill
Cum Deaths > 600 per Mill
Cum Deaths < 200 per Mill

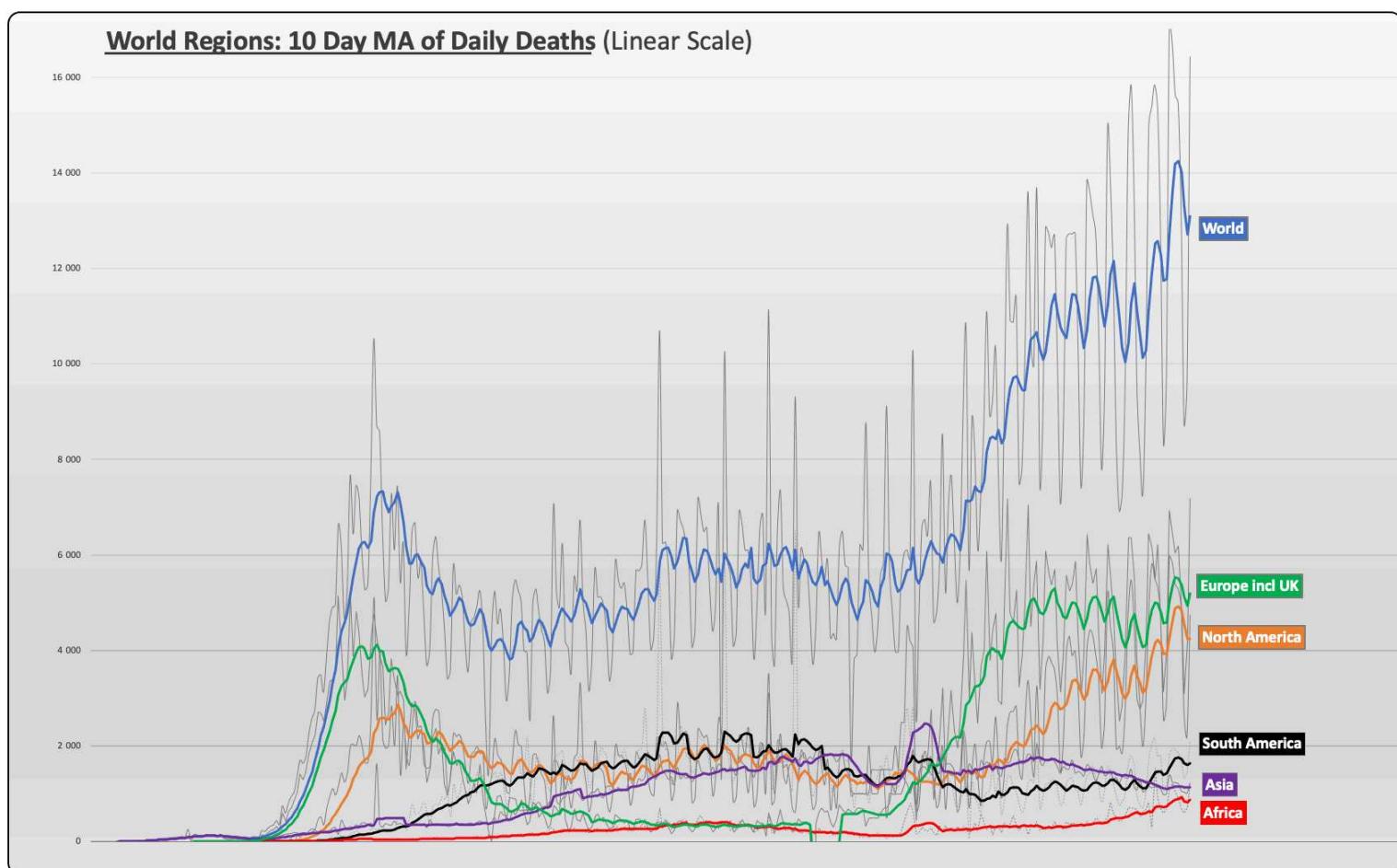
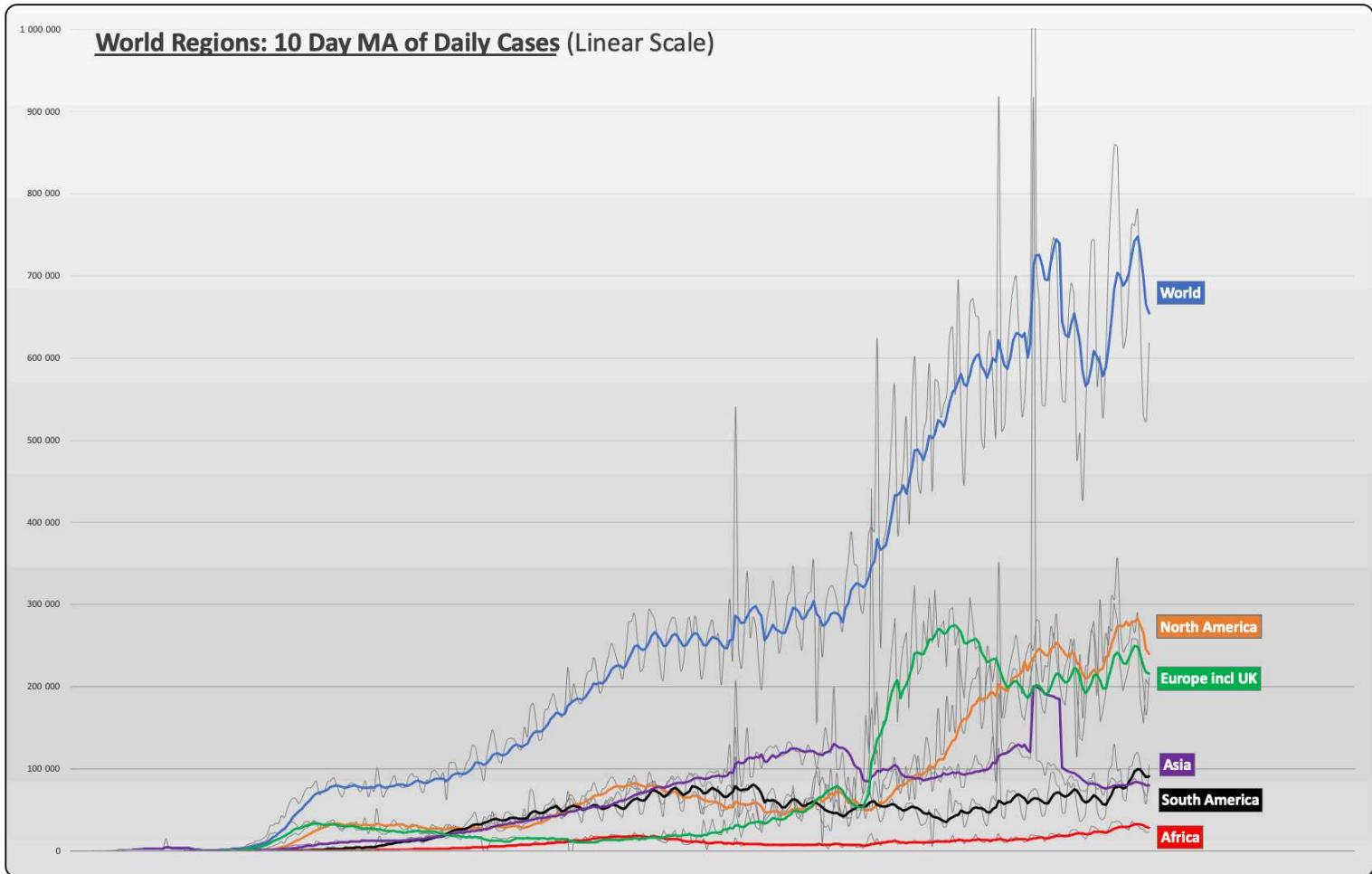


Daily Deaths Curves & Rate of Onset/Next Wave "Inclinometers" for selected countries

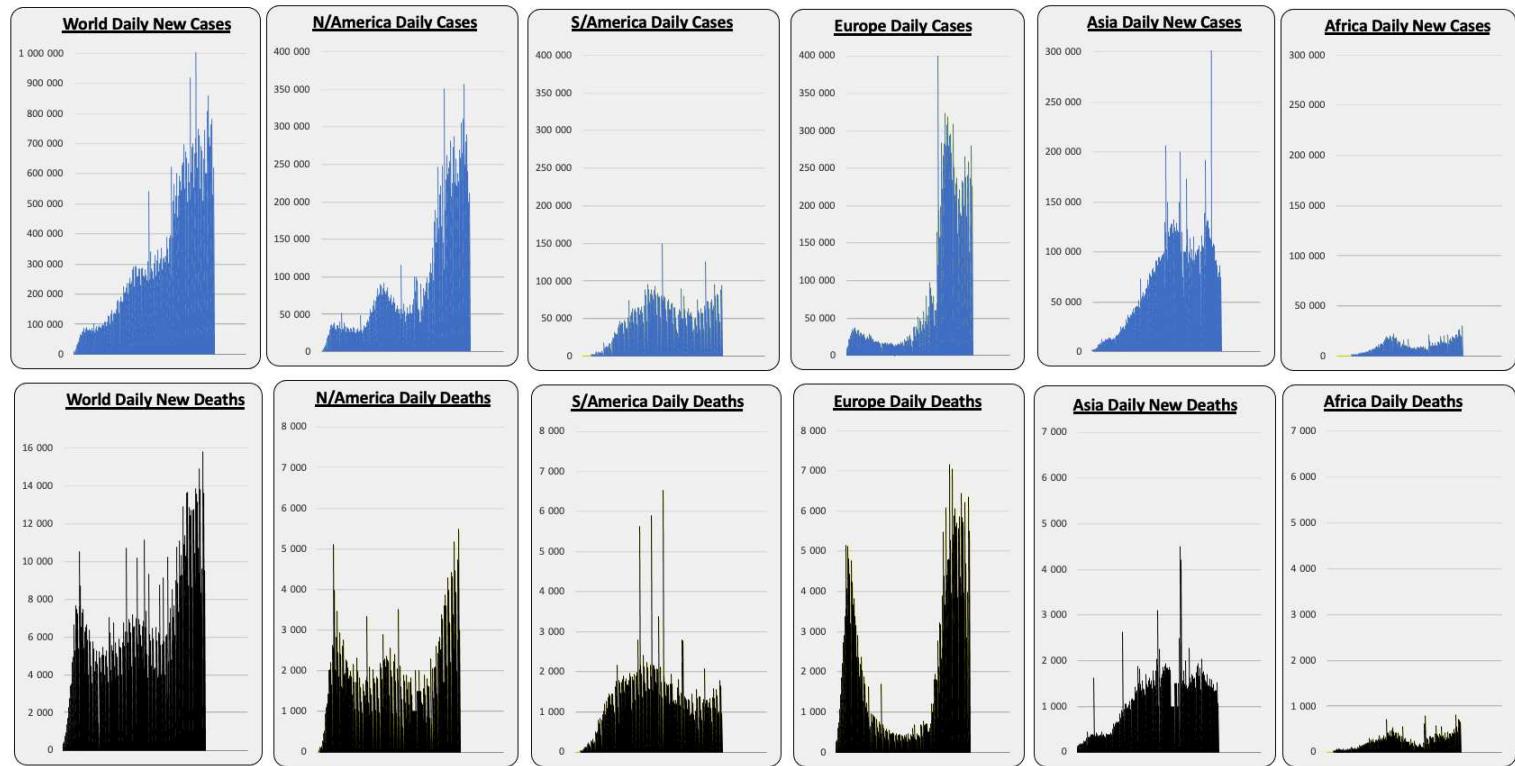
Daily Deaths from date of 1st death

Peaked but spiking again
Passed peak but could rebound OR next wave
Well past peak, unlikely to rebound
----- ● Onset/1st wave
----- ● Next waves

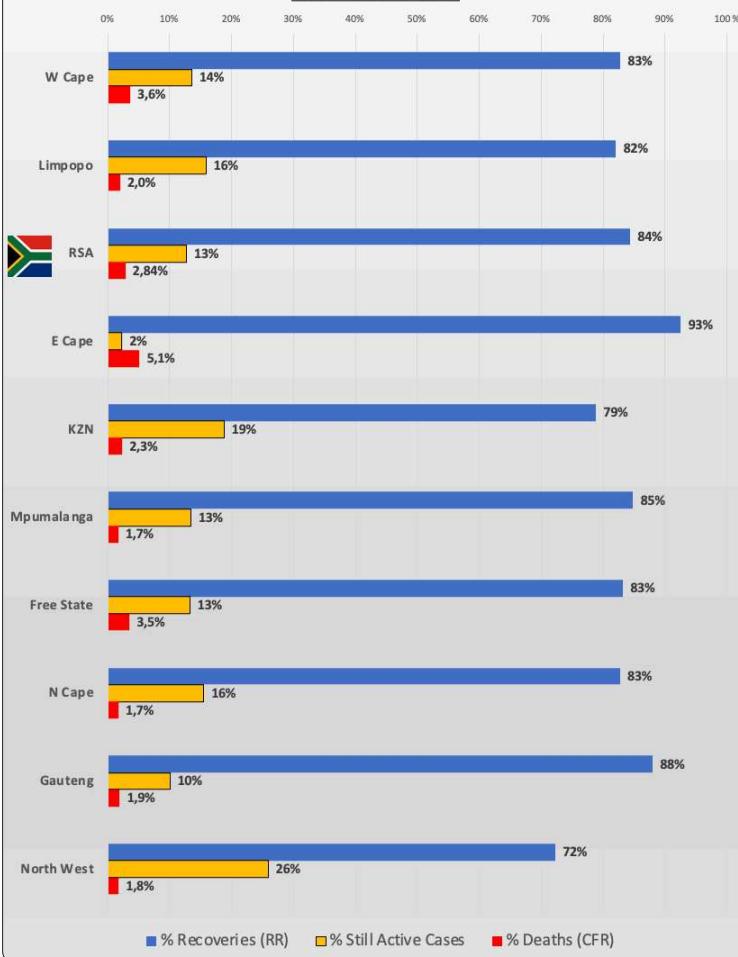


10 Day Moving Average of Daily Deaths & Cases by World Region

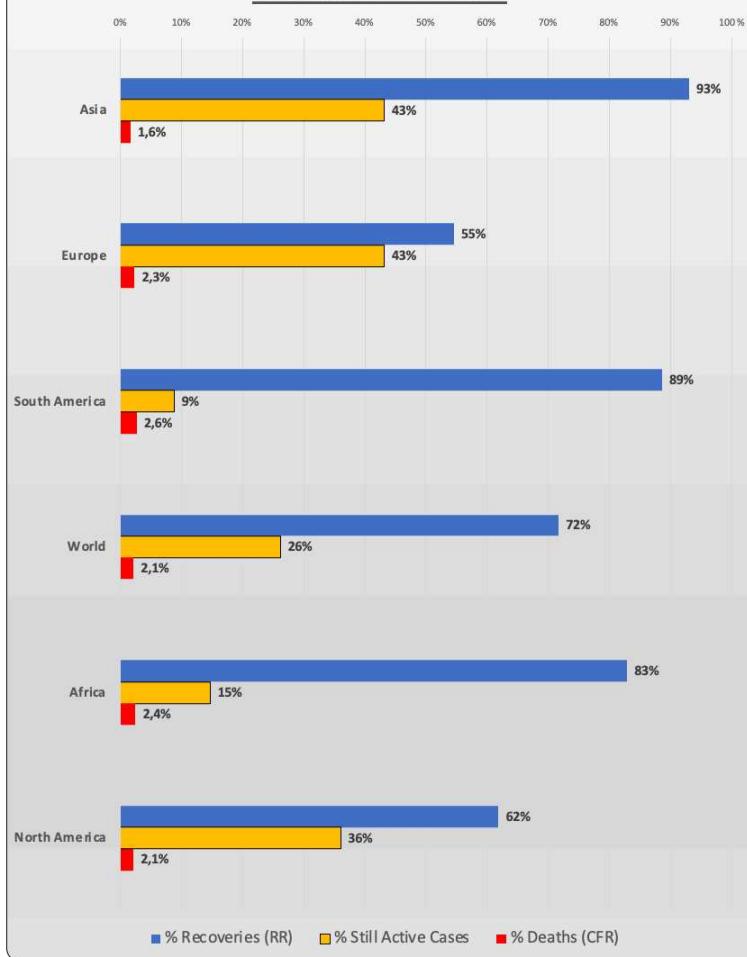
World Data



RSA Deaths (CFR), Recoveries (RR) and still-Active Cases as % of all Cases



World Deaths (CFR), Recoveries (RR) and still-Active Cases as % of all Cases



2018 Avg DAILY WORLD Mortalities COVID: Daily Deaths (Linear Scales)

Avg Daily Covid Deaths 2020 to date: **5523**
 Highest Daily Covid Deaths 2020 to date: **17153**
 Latest Daily Covid Deaths 2020 to date: **16434**

Red line =
Reported Covid
Deaths.

WHO 2018 World Mortalities pd	
	146573
Cardio	48742
Cancer	26181
Respiratory incl Flu	17734
Digestive & Diarrheal	10800
Dementia	6889
Neonata	4887
Diabetes	3753
Liver	3624
Traffic	3406
Renal	3370
TB	3243
HIV	2615
Suicide	2175
Malaria	1698
Malnutrition	1375
Homicide	1111
Parkinson's	933
Natural Disasters	835
Meningitis	789
Chronic Disease	531
Alcohol Abuse	507
Drug Abuse	456
Armed Conflicts	355
Hepatitis	346
Climatic	146
Terrorism	72



Black line =
expected avg
annual Deaths
as per white
block data

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

The RED area/lines on top of the red blocks are the INCREMENTAL Actual Daily Deaths due to Covid as officially reported.
 Obviously some of the Covid Deaths will "overlap" with the "normal" Deaths due to comorbidities.

2017 Avg DAILY RSA Mortalities v COVID Daily Deaths (Linear Scales)

Avg Daily Covid Deaths since 1st Death 2020 to date: **86**
 Highest Daily Covid Deaths 2020 to date: **821**
 Latest Daily Covid Deaths 2020 to date: **689**

Excess Deaths
at
30 Dec

StatsSA 2017 RSA Mortalities per day	
Natural Causes	543
Unnatural Causes	140
Cardio	96
Respiratory incl Flu	88
TB	79
Diabetes	69
Cancers	61
HIV	59
Hypertensive	55
Other Viral	46



Black line =
expected avg
daily Deaths as
per white block
data

Red line =
Reported daily
Covid Deaths.

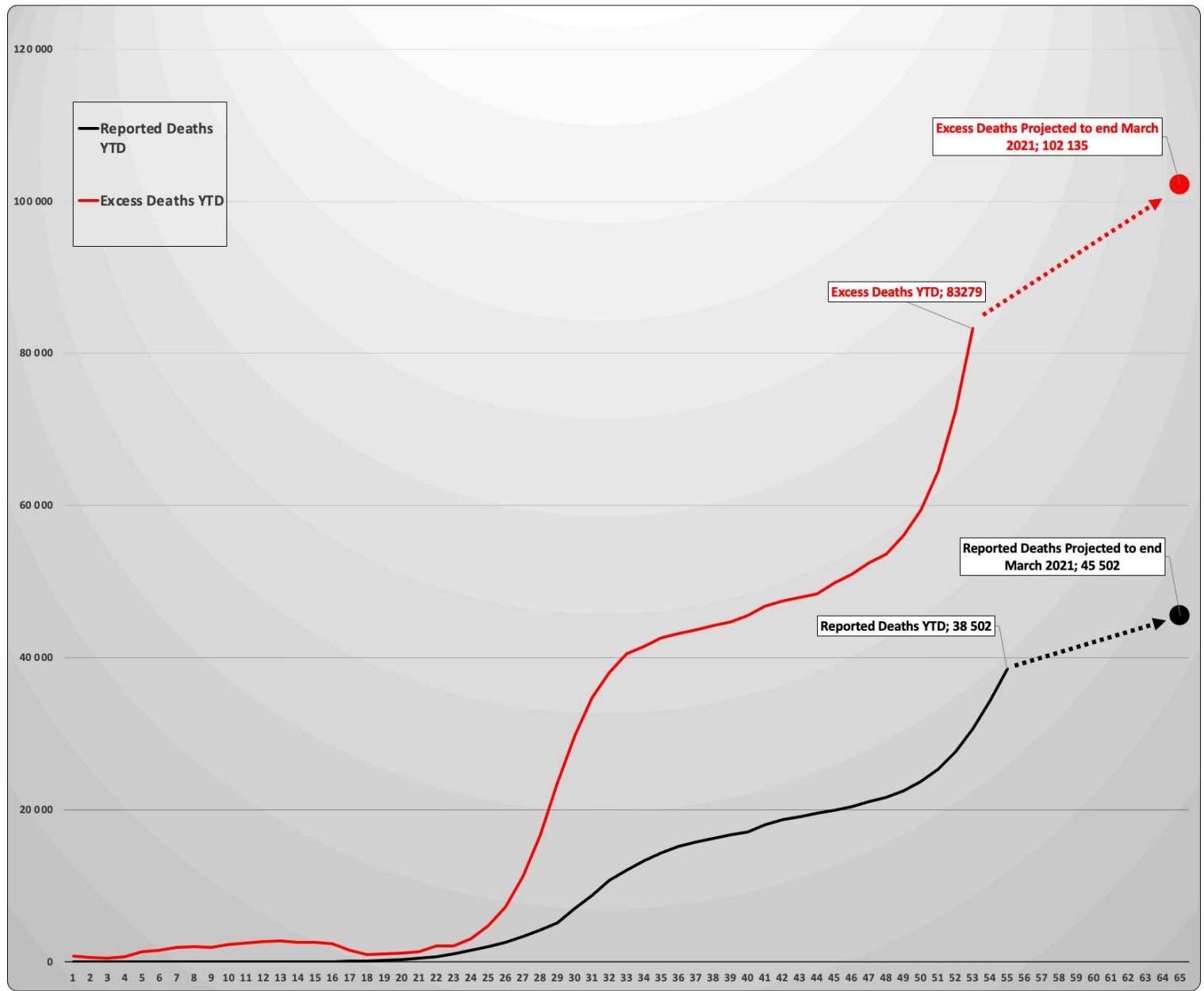
Blue line =
Excess Deaths
(see Pg 4.1)

Covid Deaths: Reported and Excess Deaths

Page 3.2

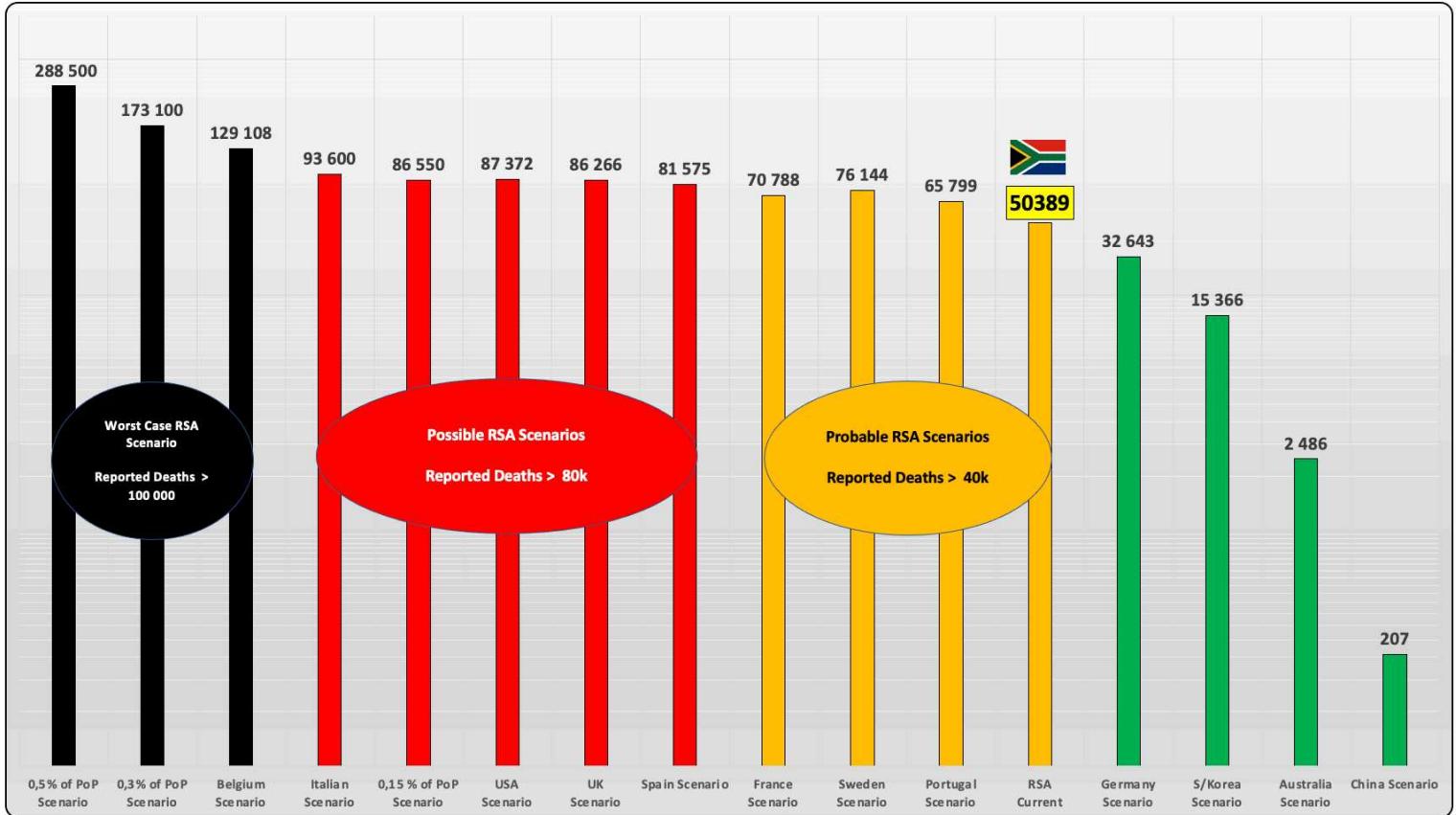
Trends & Projections for end March 2021

(See Pg 4.1 for more details on Excess Deaths)



RSA Covid Mortality Scenarios & Projections for end Mch 2021 (390 day cycle)

15 Scenarios and 1 Projection (Log Scale)

**Key:**

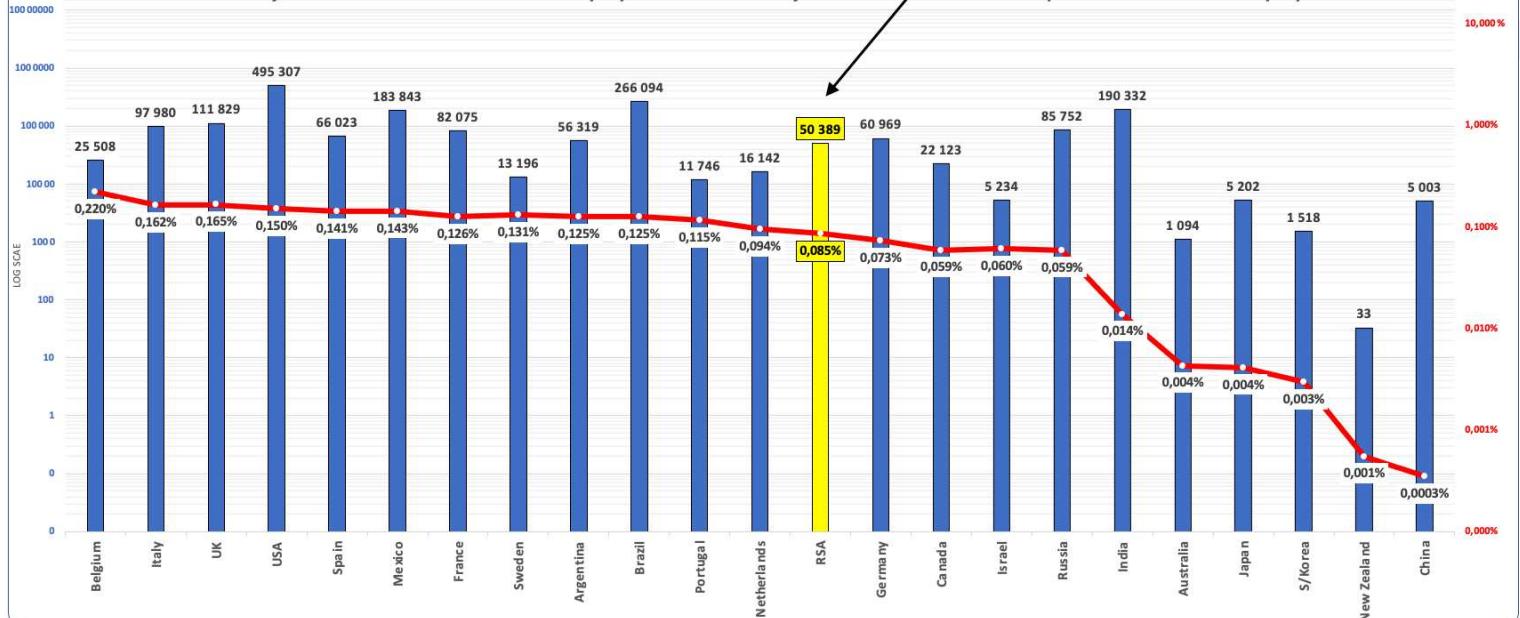
All Scenarios duly adjusted for population size and for the different timelines into the deemed 390 day pandemic cycle.

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



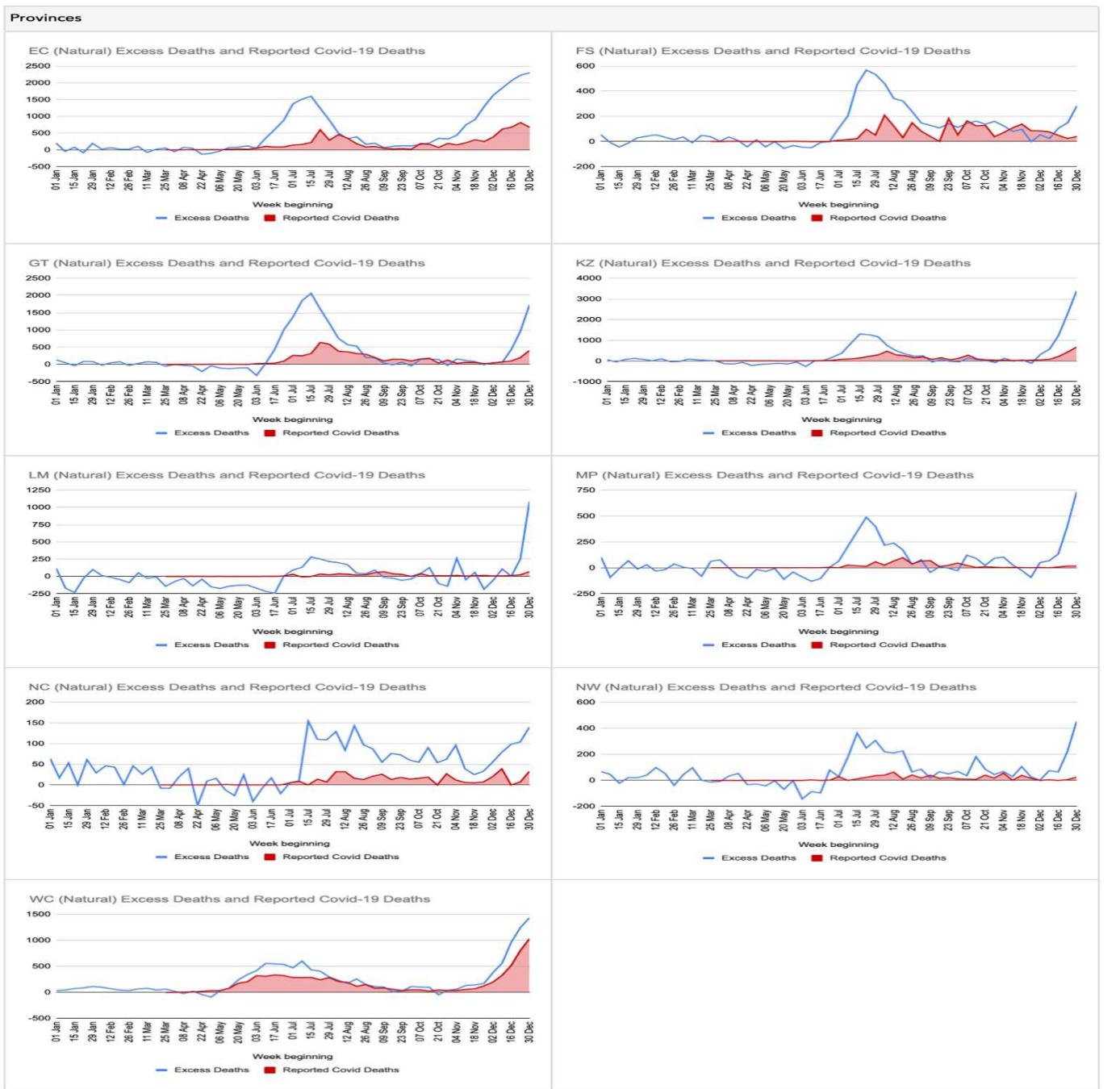
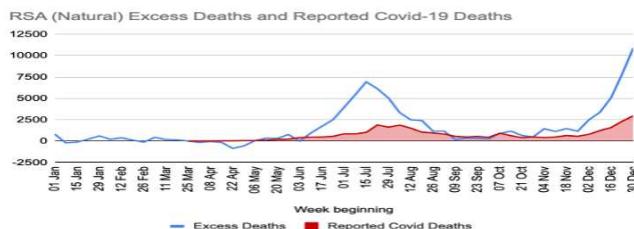
Note: Above Mortality %'s are overall projected mortality of the populations (PMR), NOT deaths of only those infected (CFR).

RSA Excess Deaths as per SA Medical Research Council

Data as at:

30 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.



The red lines are weekly Covid deaths as reported by Dept of Health.
 The blue lines are total Natural Deaths as reported by Dept of Home Affairs.
 The gaps are the so-called "Excess Deaths" which can largely be ascribed to Covid, directly (home/rural deaths) and indirectly (limited access to hospitals due to fear of Covid or no space).

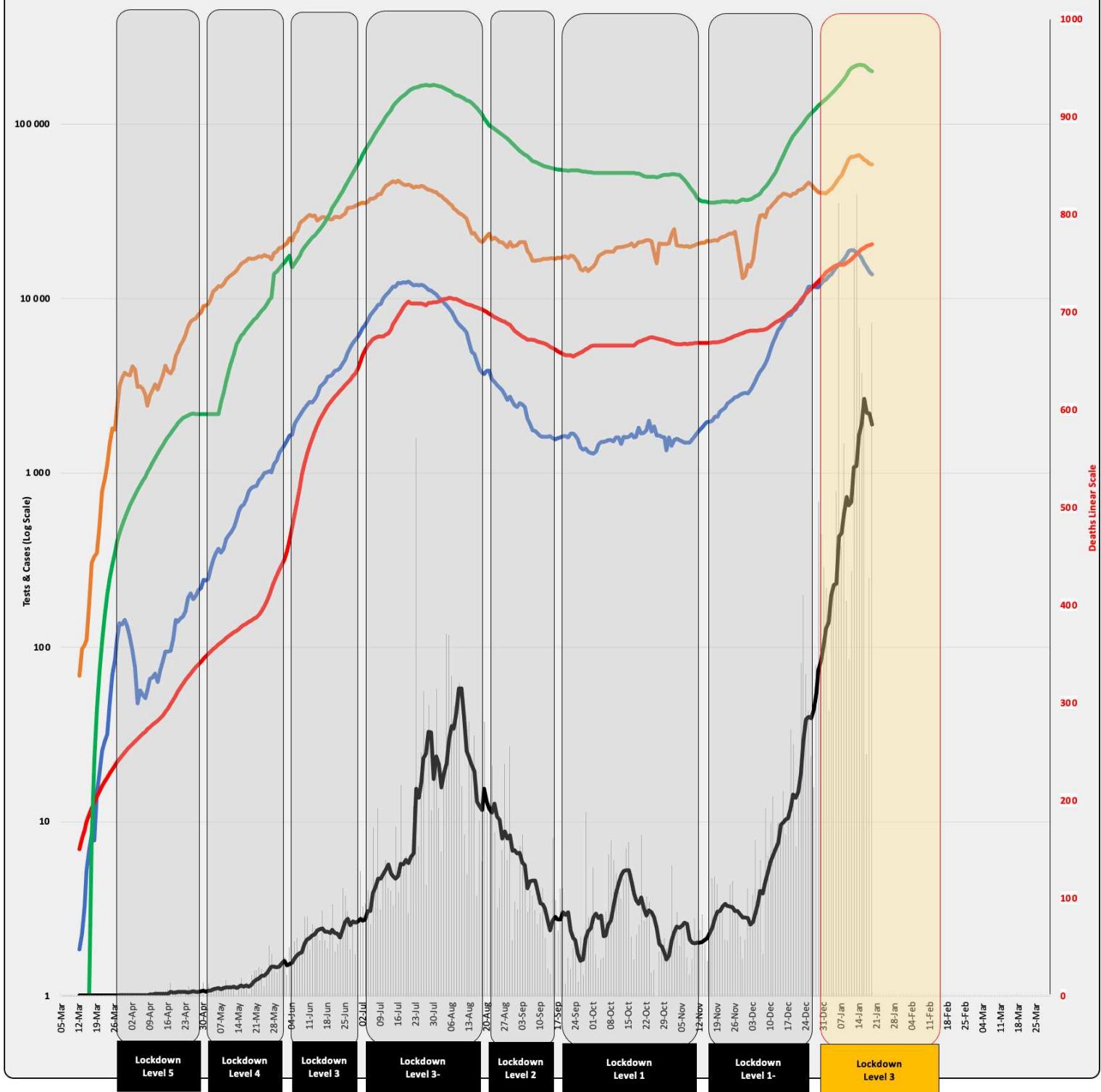
Data as at:

Latest Available

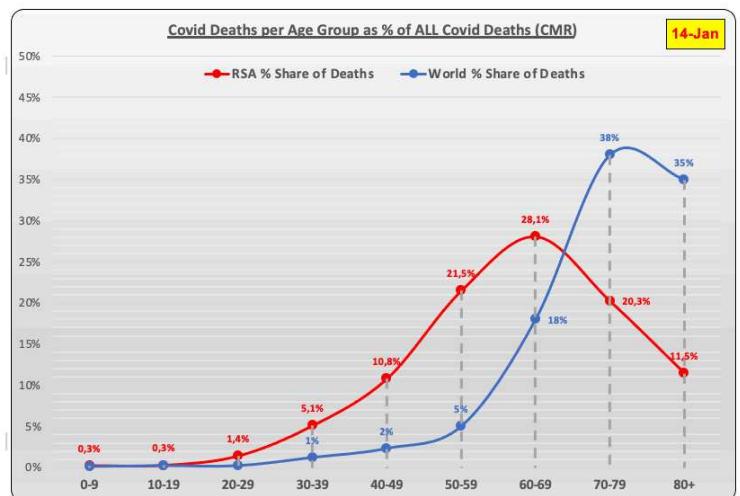
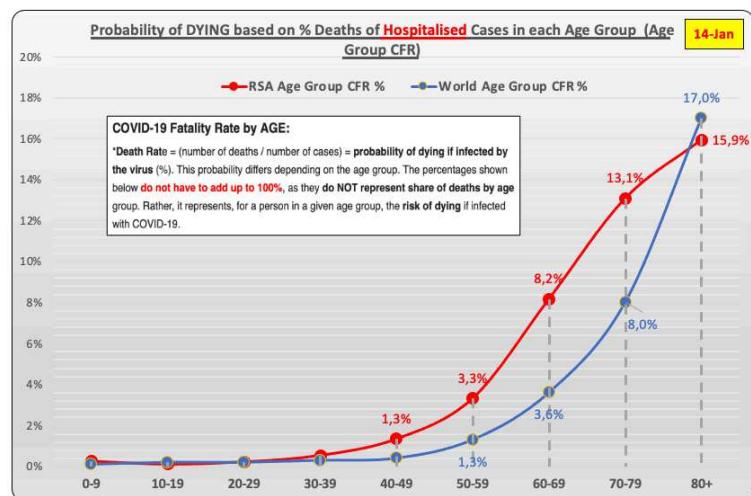
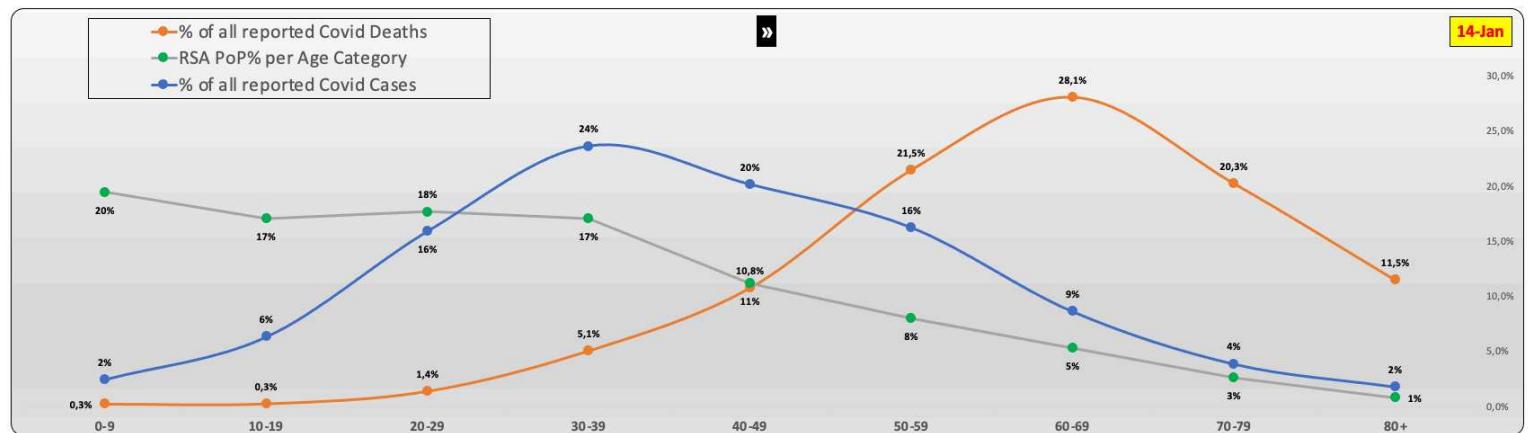
hdg 20 January 2021

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

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

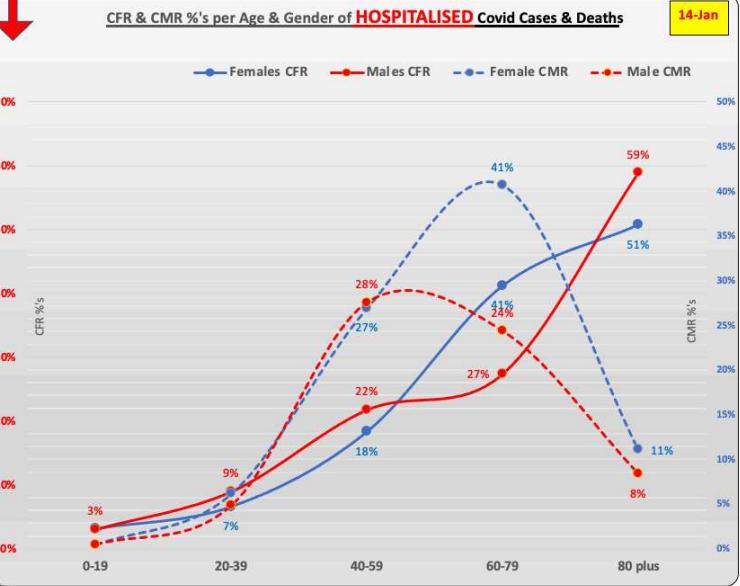
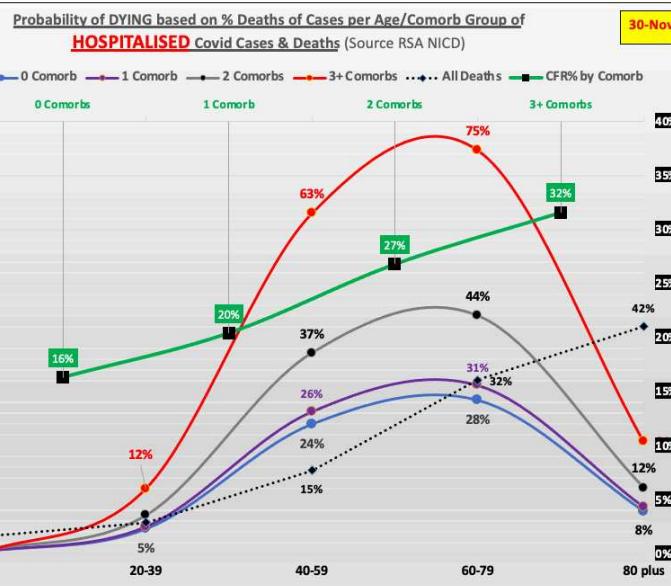


RSA Age & Gender Stats

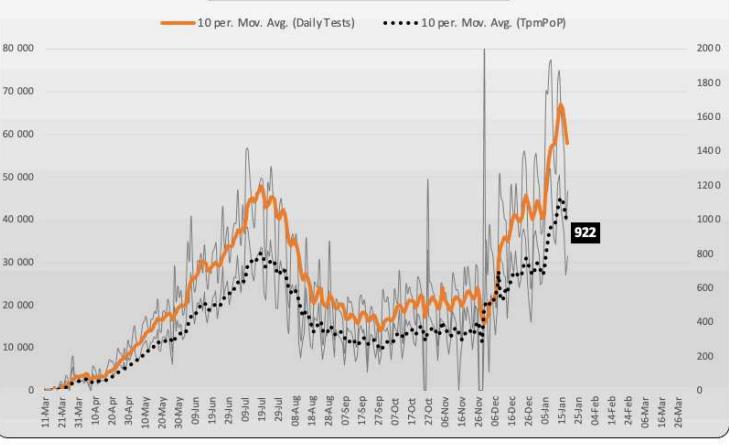


COVID-19 Fatality Rate by AGE:

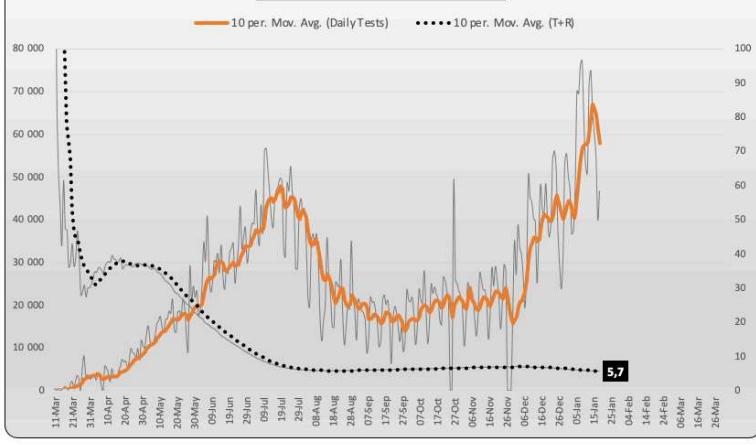
*Death Rate = (number of deaths / number of cases) = probability of dying if infected by the virus (%). This probability differs depending on the age group. The percentages shown below do not have to add up to 100%, as they do NOT represent share of deaths by age group. Rather, it represents, for a person in a given age group, the risk of dying if infected with COVID-19.



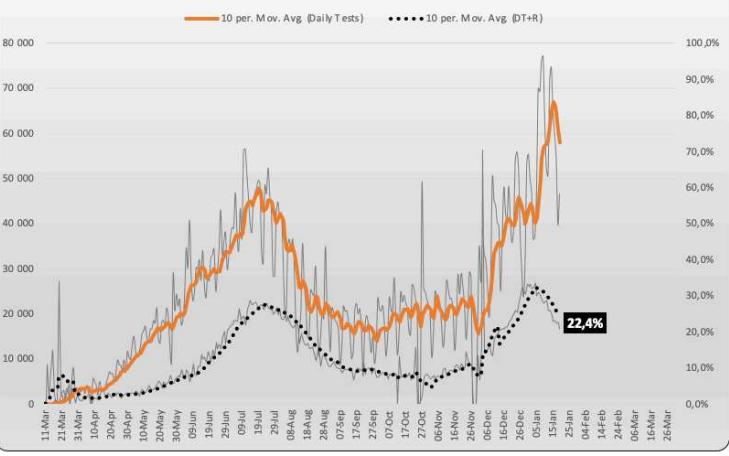
RSA: Daily Tests per million PoP



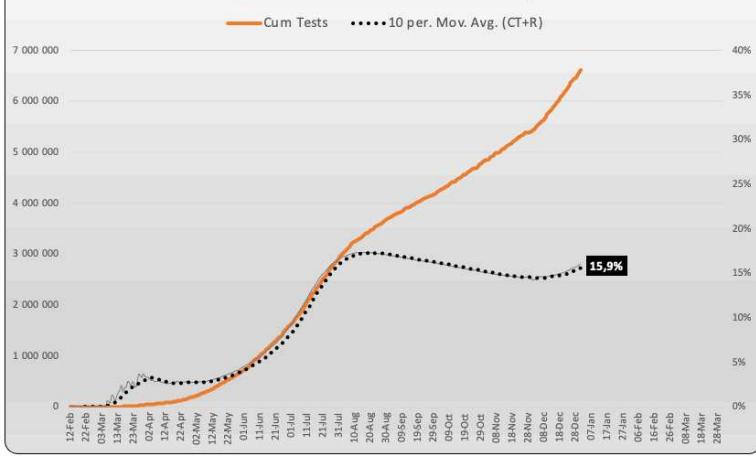
RSA: Daily Tests per +Case



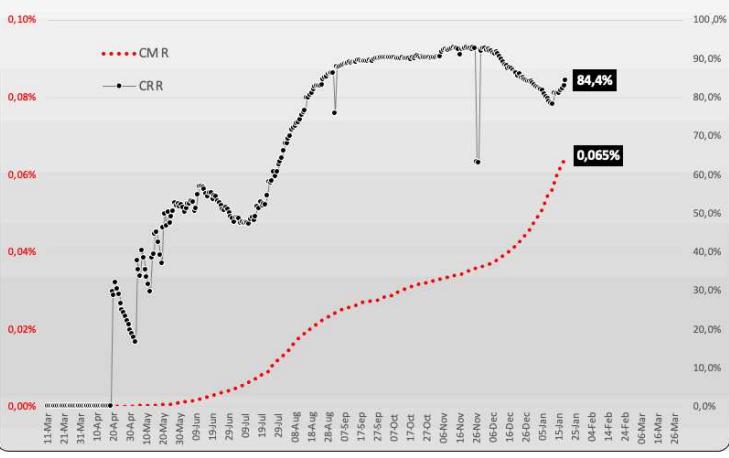
RSA: Daily Tests Positivity %



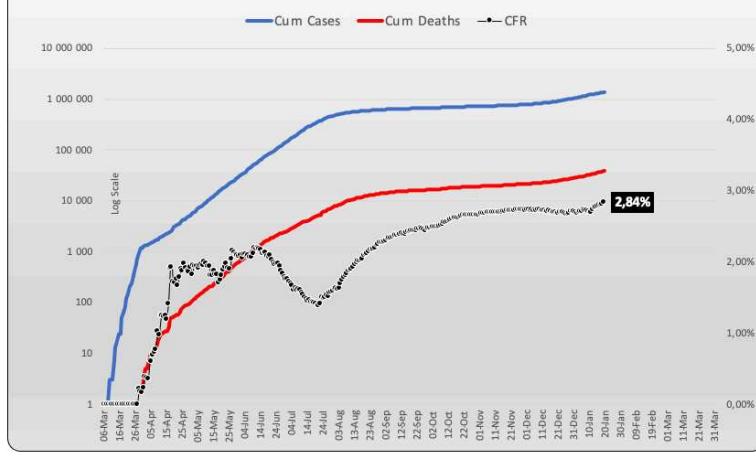
RSA: Cum Tests Positivity Rate



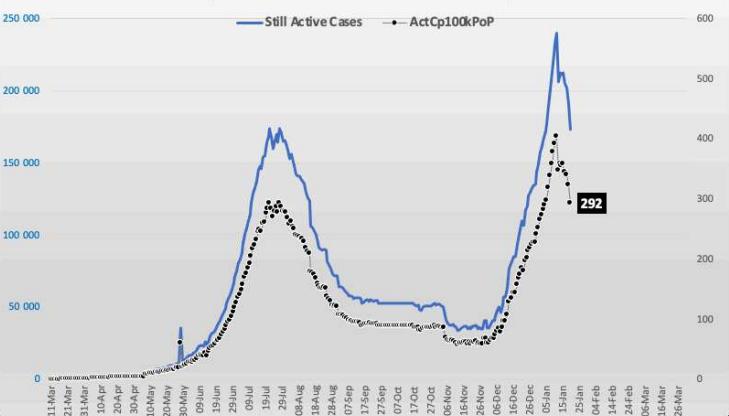
RSA: Case Recovery Rate (CRR) & Case Mortality Rate (CMR)



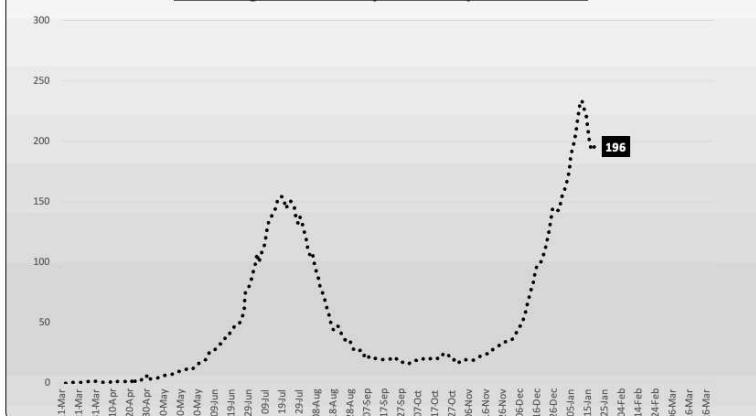
RSA: Deaths as % of Cases (CFR)



RSA: Active Cases per 100k PoP



RSA: Avg New Cases per week per 100k PoP



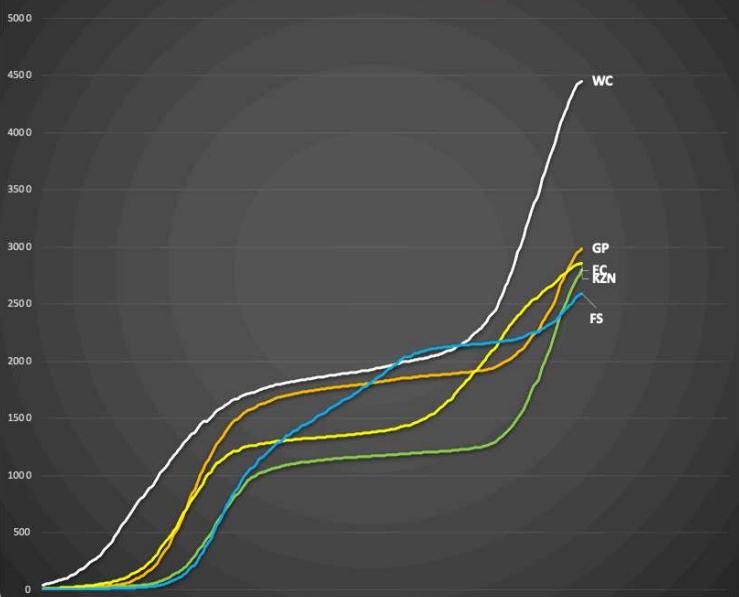
RSA & Major Provinces Key Data Sets

Page 5.3

All linear scales

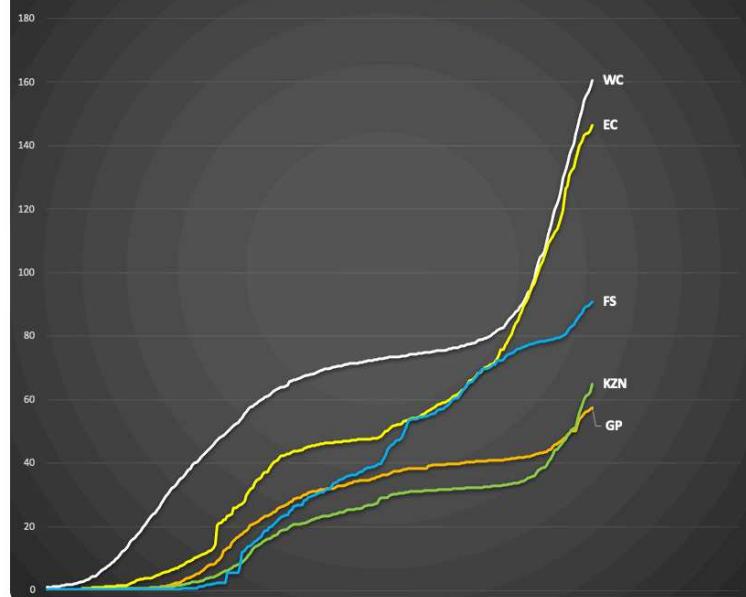
Major Provinces: Cum Cases per 100k PoP

GP — WC — KZN — EC — FS



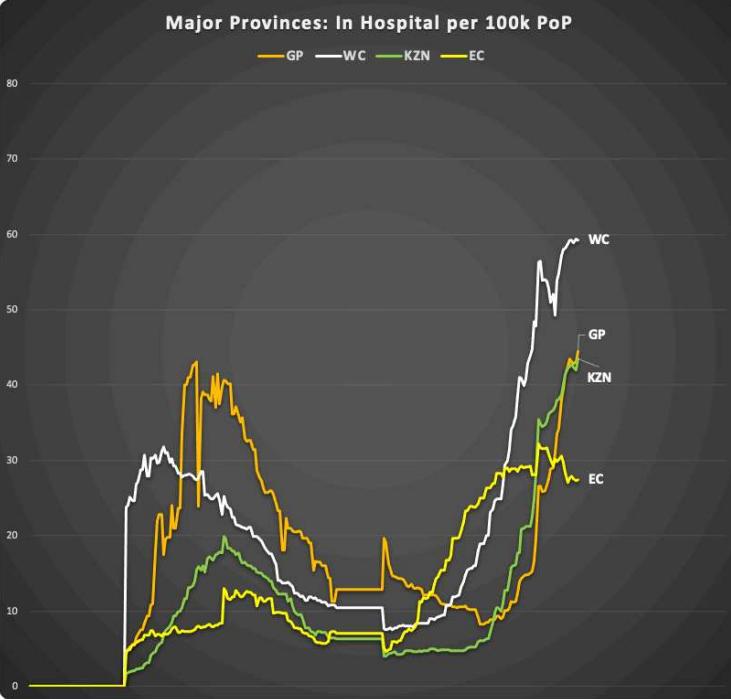
Major Provinces: Cum Deaths per 100k PoP

GP — WC — KZN — EC — FS



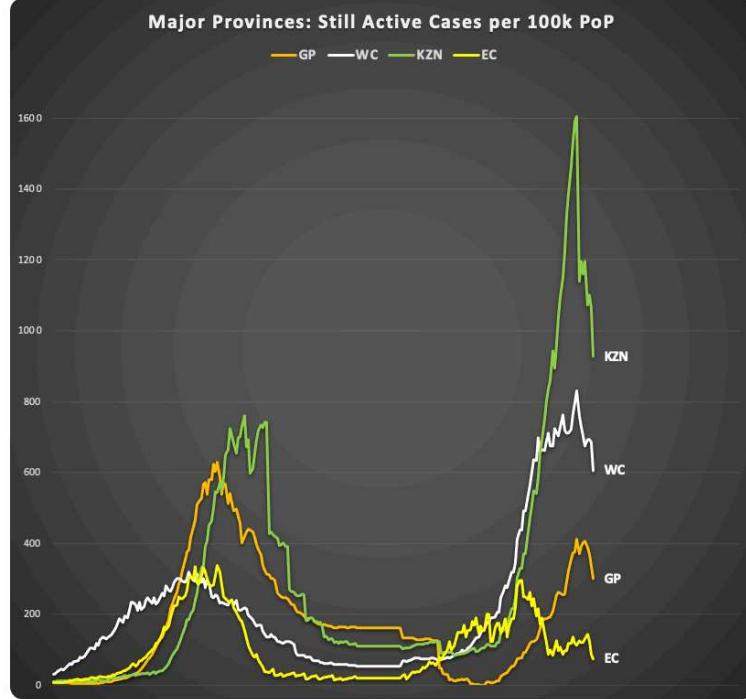
Major Provinces: In Hospital per 100k PoP

GP — WC — KZN — EC



Major Provinces: Still Active Cases per 100k PoP

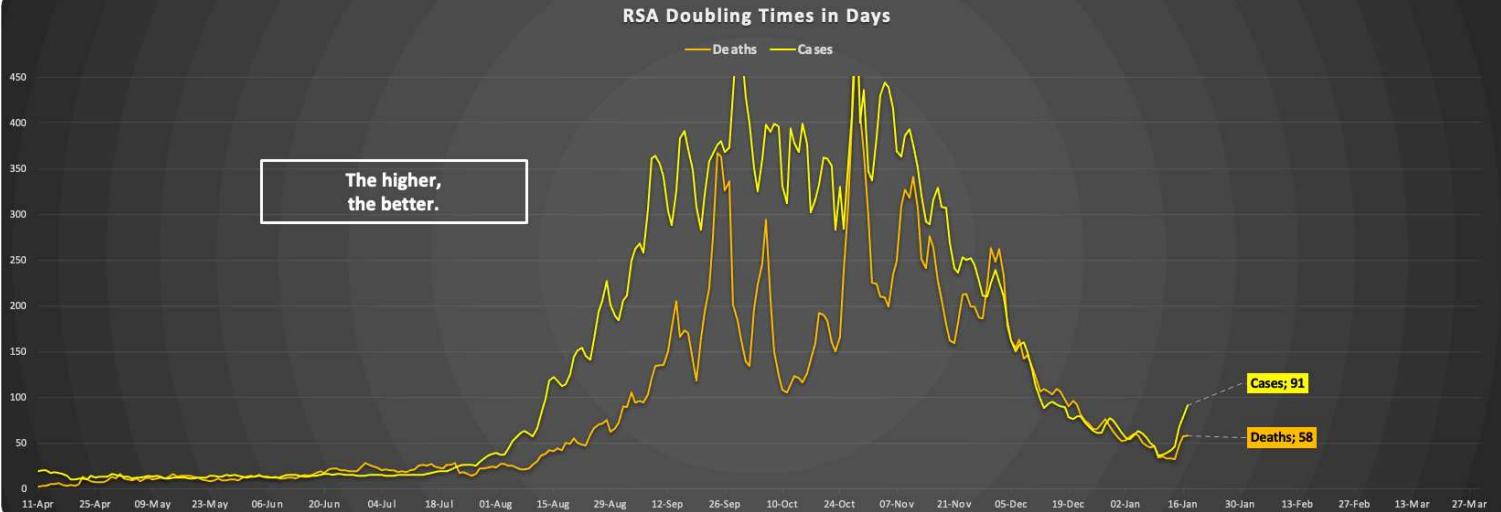
GP — WC — KZN — EC



RSA Doubling Times in Days

Deaths — Cases

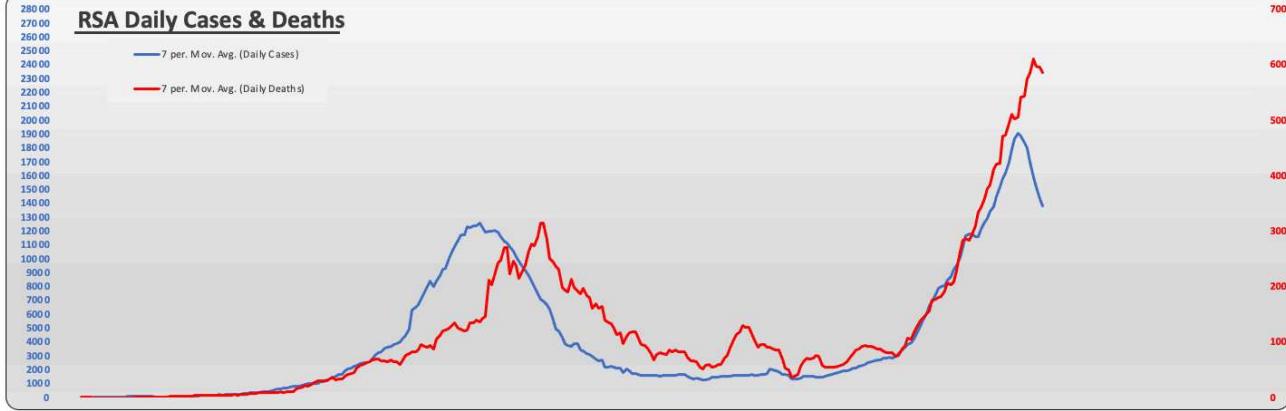
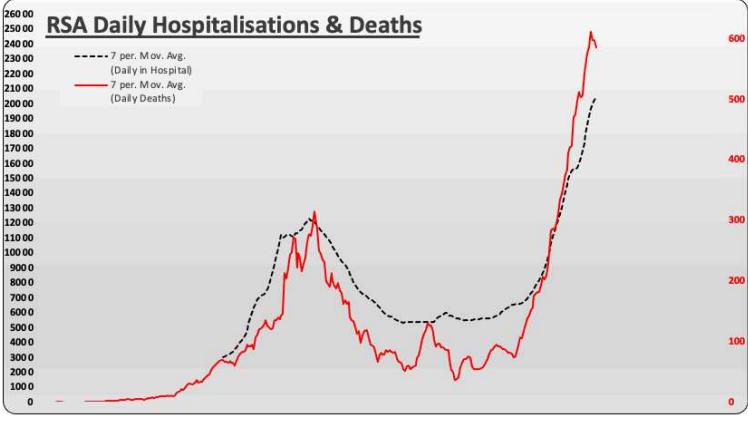
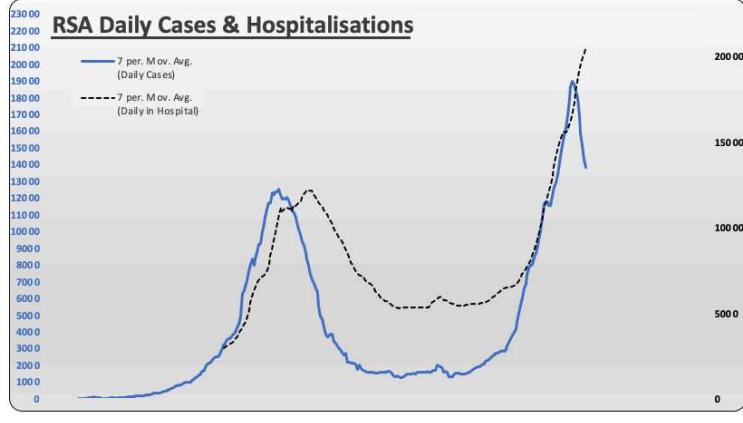
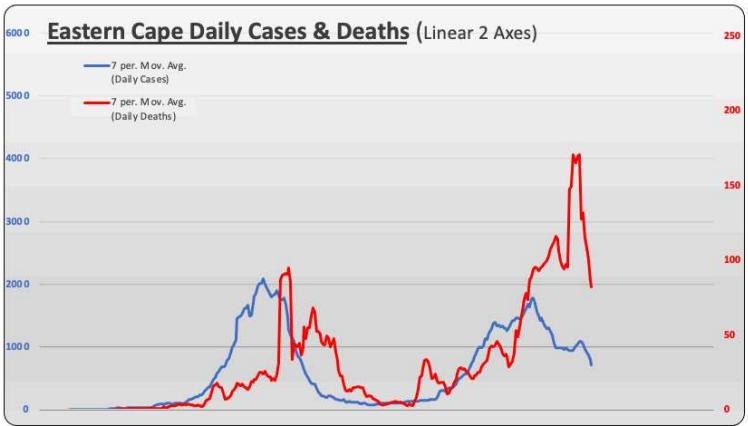
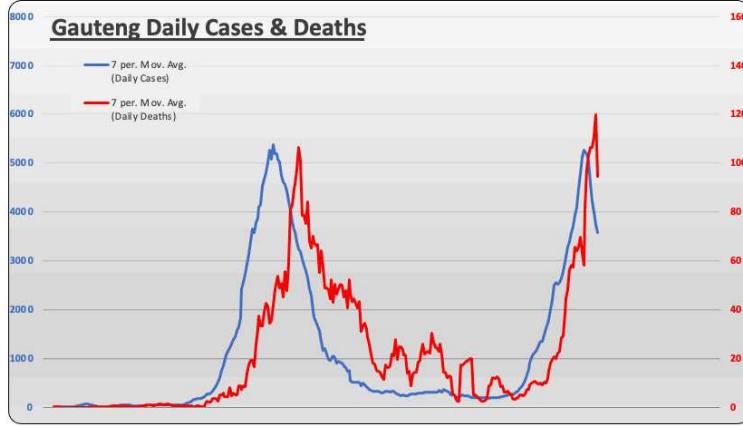
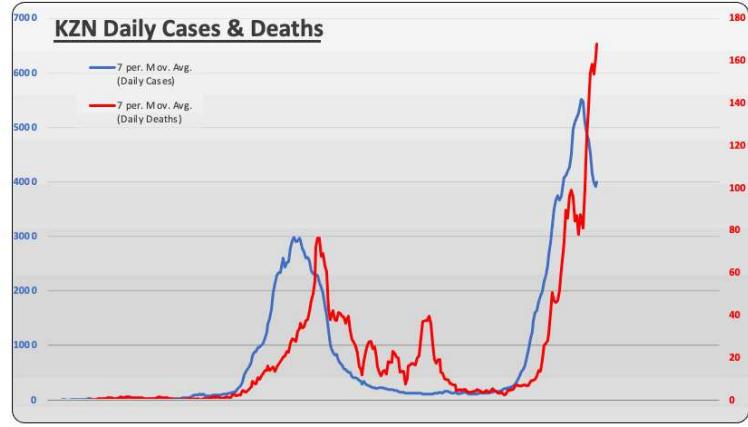
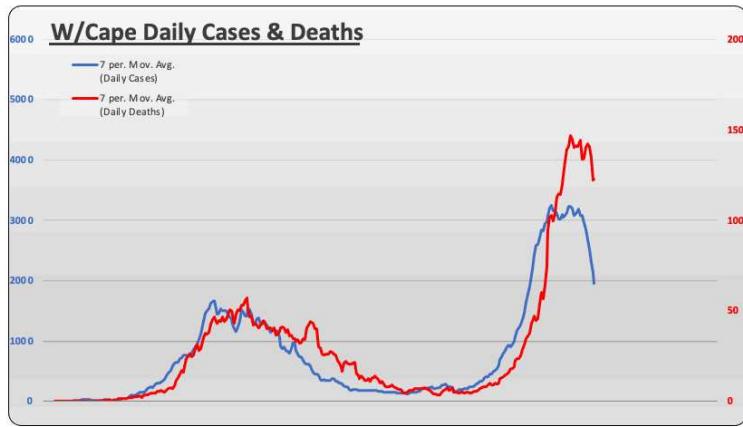
The higher,
the better.



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.



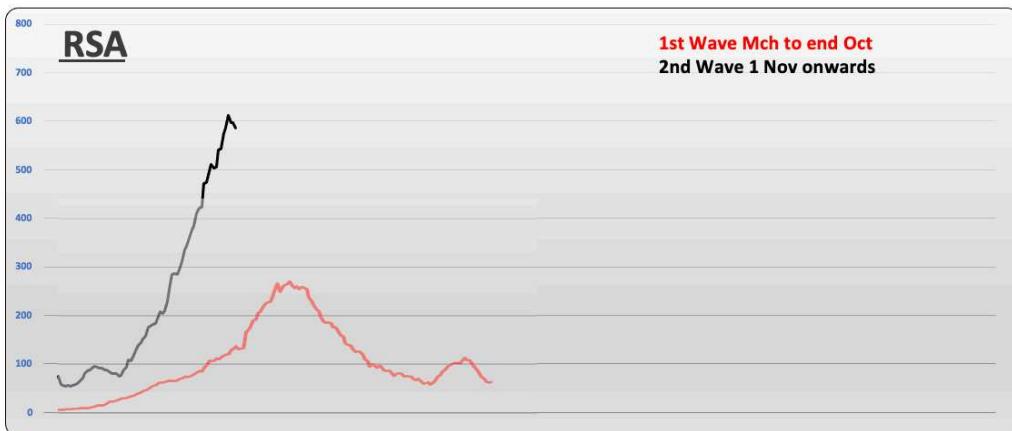
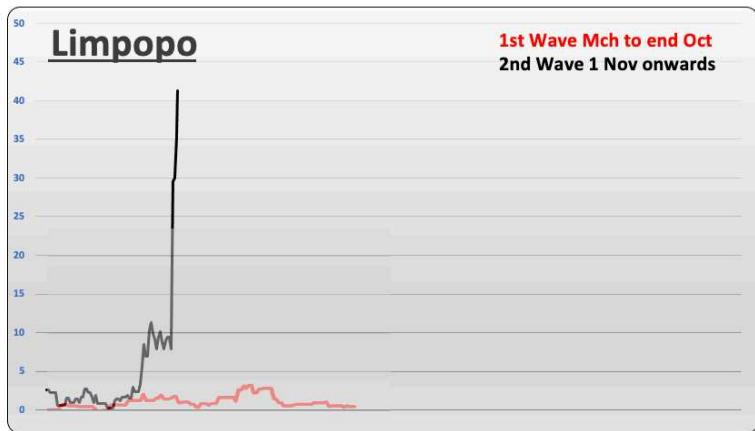
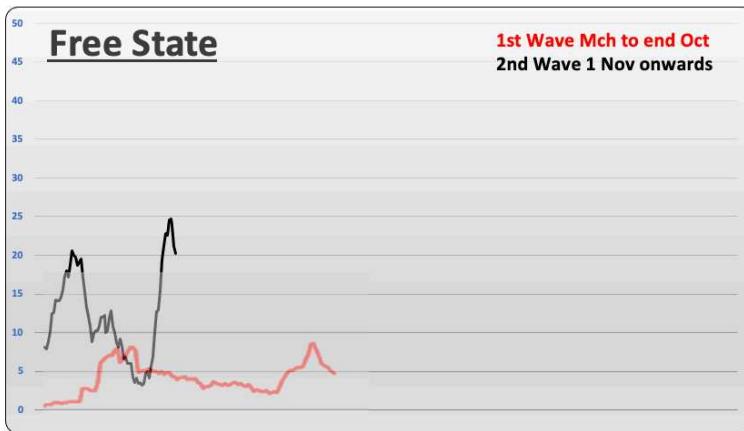
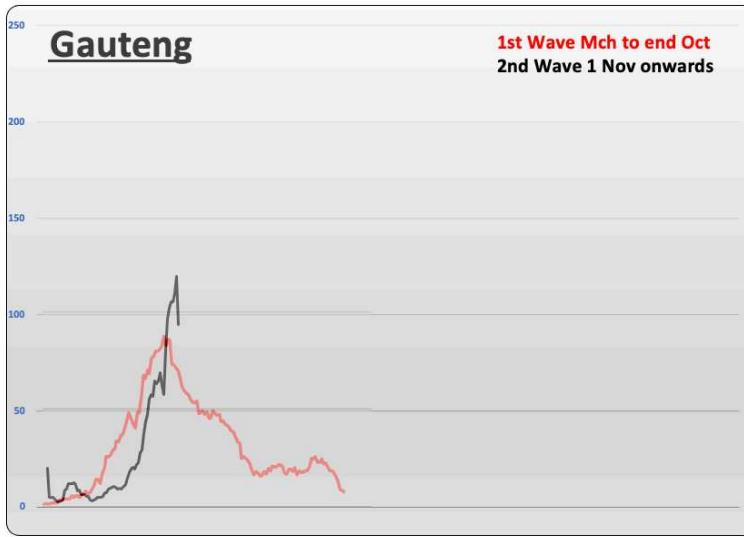
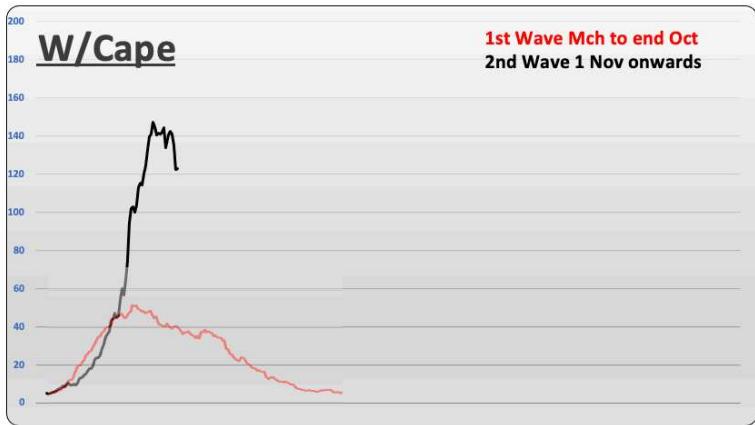
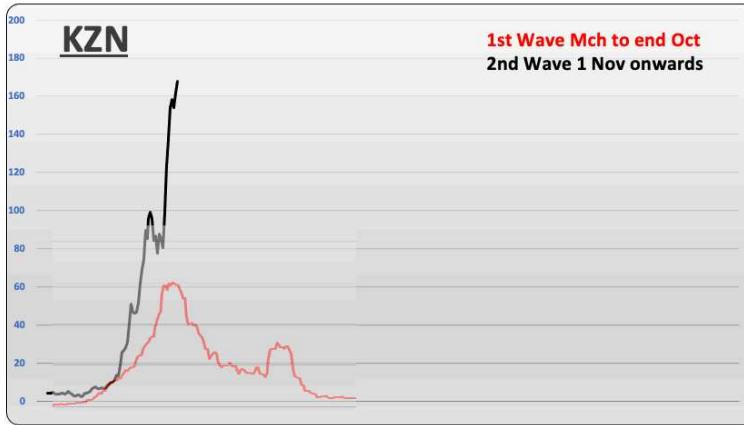
What are these graphs telling us ? (Ignore the numbers, look purely at the inclines and amplitudes).

- 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:

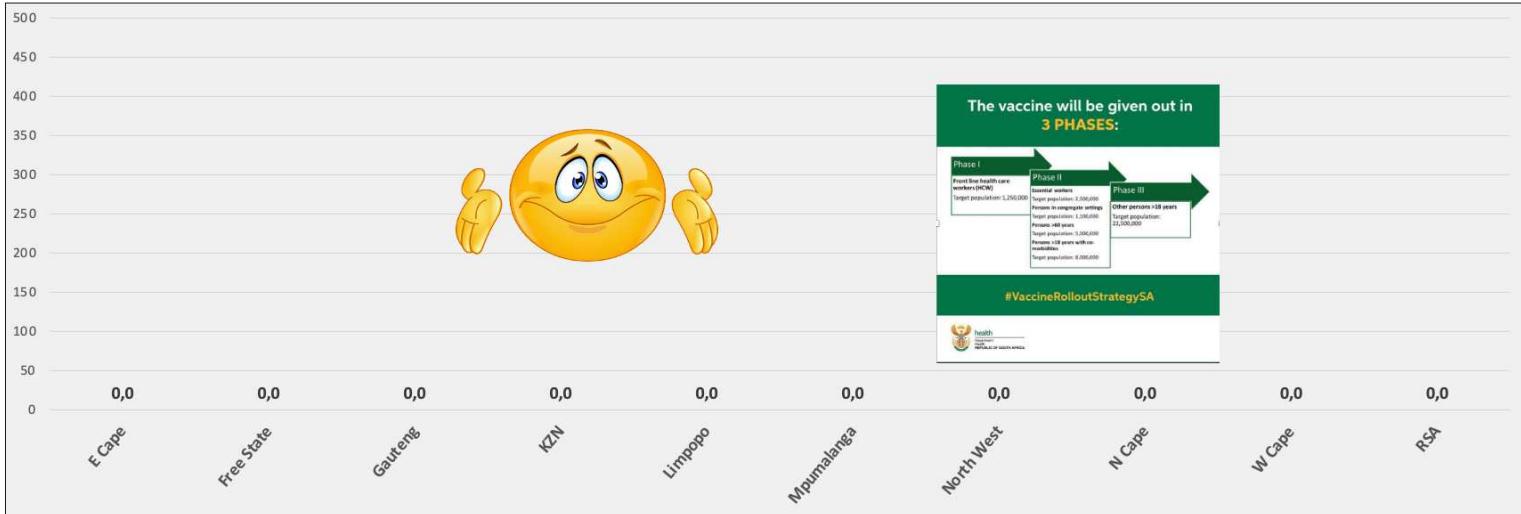
1st Wave v 2nd Wave (Cont..) 7 Day MA's

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.



Vaccination Data

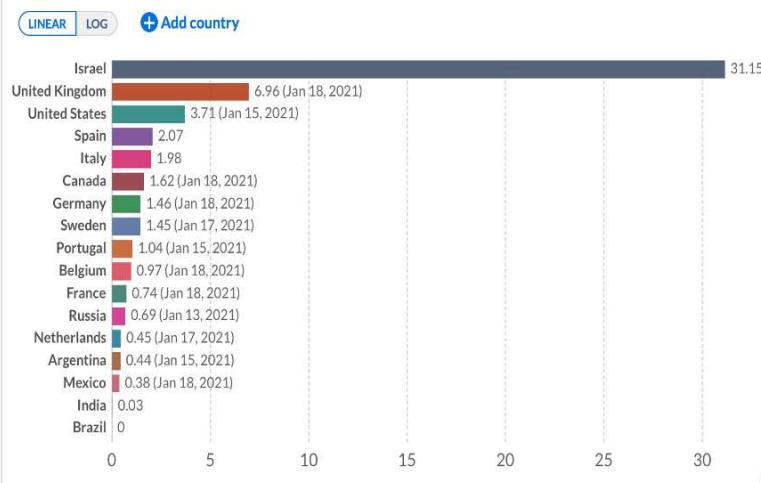
RSA: Vaccinations per 100k PoP :



Selected countries who publish their VAC data :

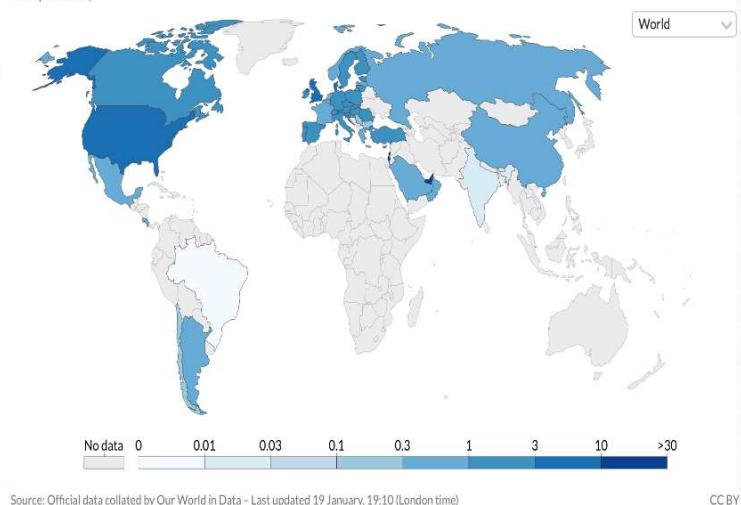
COVID-19 vaccine doses administered per 100 people, Jan 19, 2021

Total number of vaccination doses administered per 100 people in the total population. This is counted as a single dose, and may not equal the total number of people vaccinated, depending on the specific dose regime (e.g. people receive multiple doses).

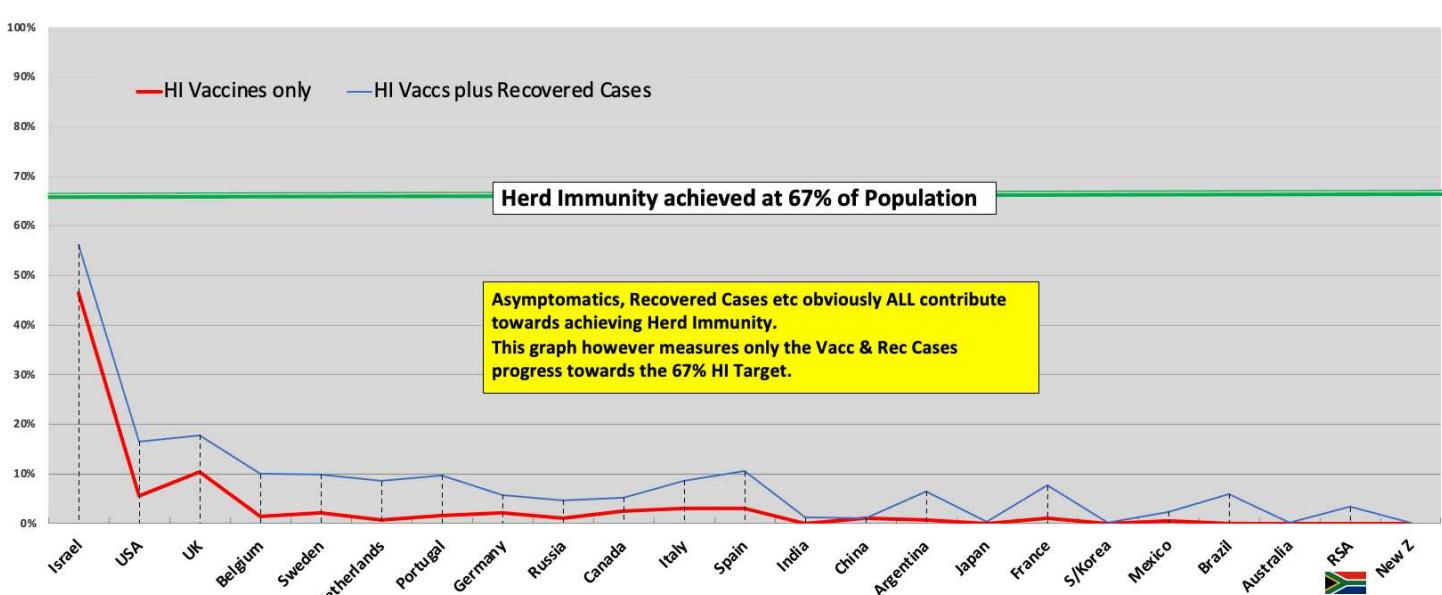


COVID-19 vaccine doses administered per 100 people, Jan 19, 2021

Total number of vaccination doses administered per 100 people in the total population. This is counted as a single dose, and may not equal the total number of people vaccinated, depending on the specific dose regime (e.g. people receive multiple doses).



Selected Countries' Progress towards Herd Immunity (HI) :



Laughter is the best vaccine....

