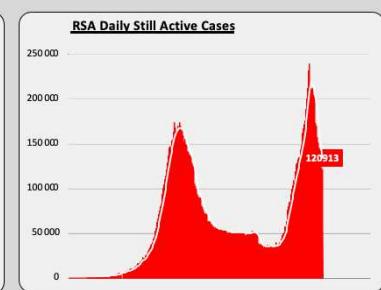
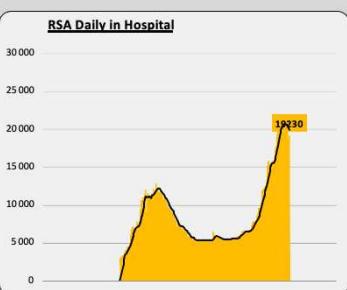
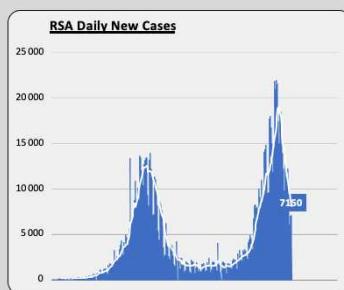


HarryG COVID-19 Dashboard

Cum +Cases	Daily Cases	RSA COVID-19 DASHBOARD			Daily Still in Hospitals	% of Reported Cases who Died (CFR)	Cum Recoveries
1 437 798	7 150 ↑	29 January 2021			19230 ↑	3,11% ↑	1 272 197 ↑ 88,5%
Still Active +Cases	+Cases per mill PoP	Deaths per mill PoP				% of RSA PoP who have died to date (CMR)	% of RSA PoP Vaccinated & % Vacs + Recovered Cases
120 913 ↓	24 243	753				0,075%	0,0% 2,3%
Deaths Age	Avg	Deaths Min Age	Deaths Max Age		Daily Change	Deaths Median Age	Cum Tests Daily Tests
62,2	0,2	105		Female : Cases Deaths CFR		60,9	8 156 239 48 406 ↓
				Male : Cases Deaths CFR			
				57,8% 51,4% 2,48%			
				42,2% 48,6% 3,22%			
					26-Jan		

Daily Cases



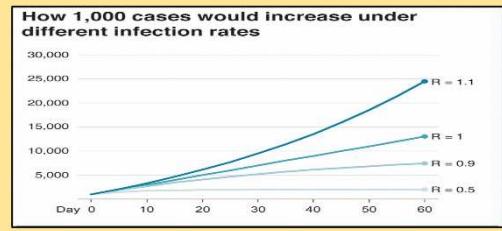
RSA Rt

Prev 2 :	.65
Prev 1 :	.64
Latest :	.64



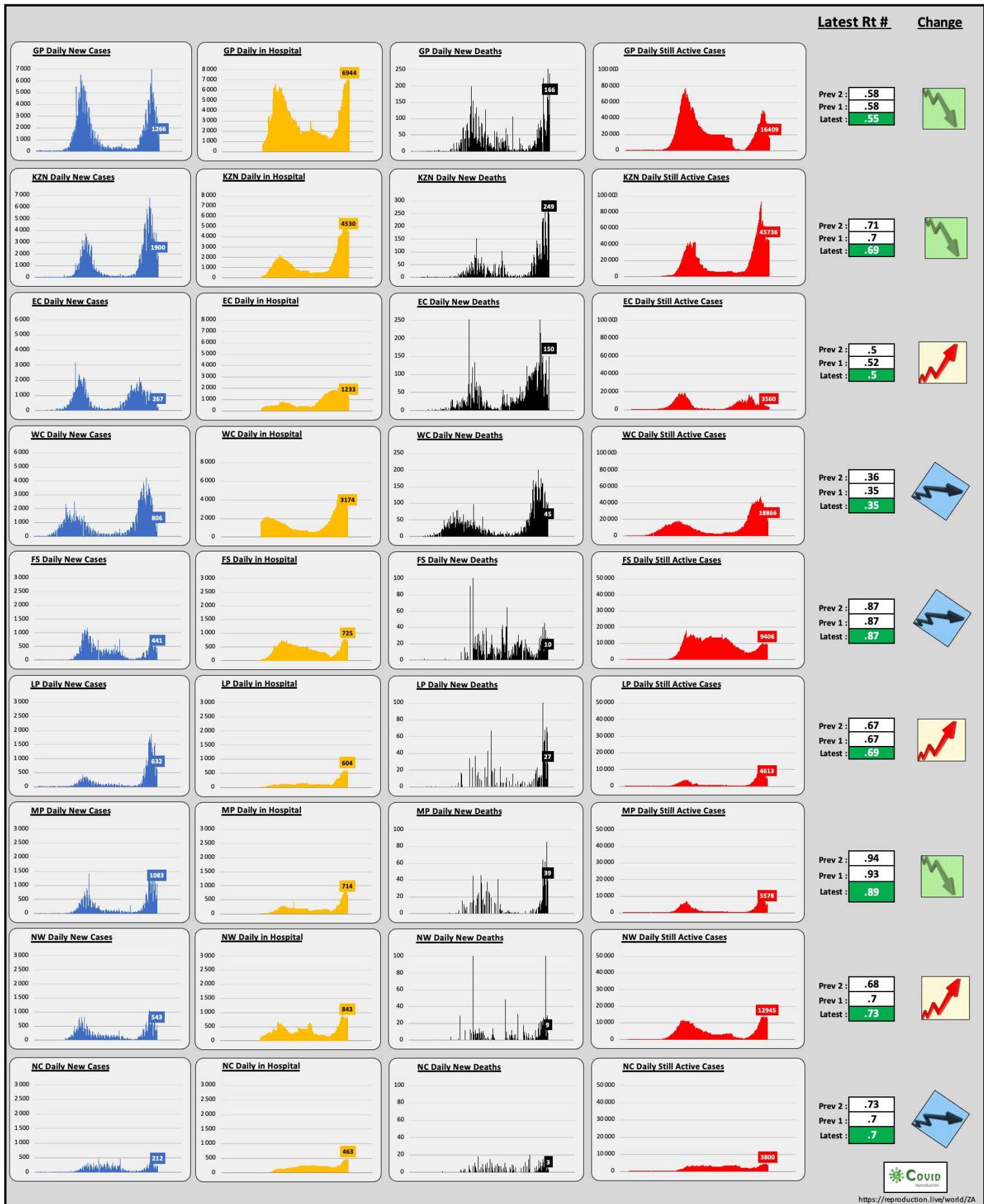
Rt numbers rely on regular, recent & quality data inputs. This is not always the case in RSA and hence the Rt numbers below, although accurate, do not reflect the current situation. It is based on various inputs some of which is up to two weeks old.

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.

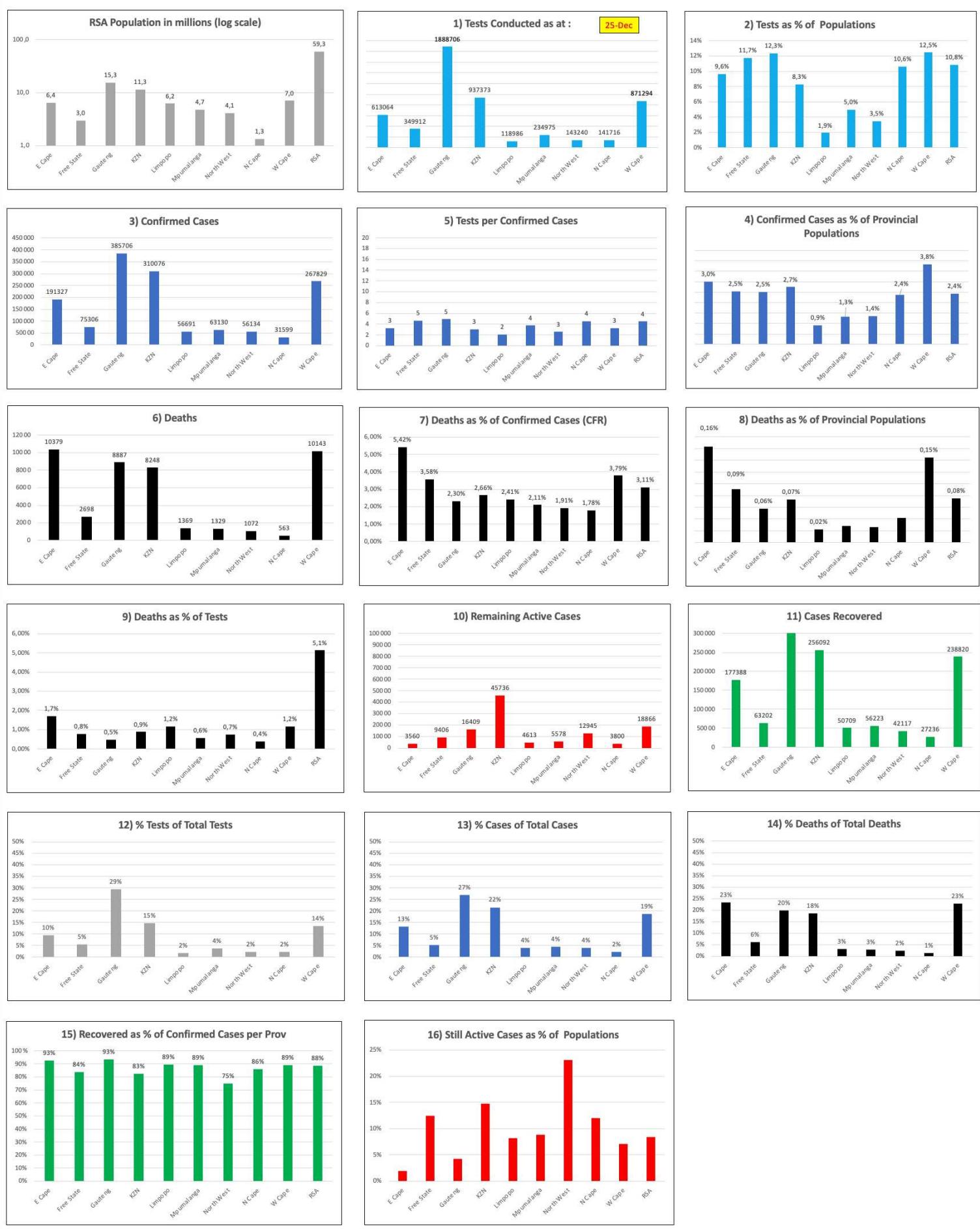


RSA Provinces detailed daily Data and Trends

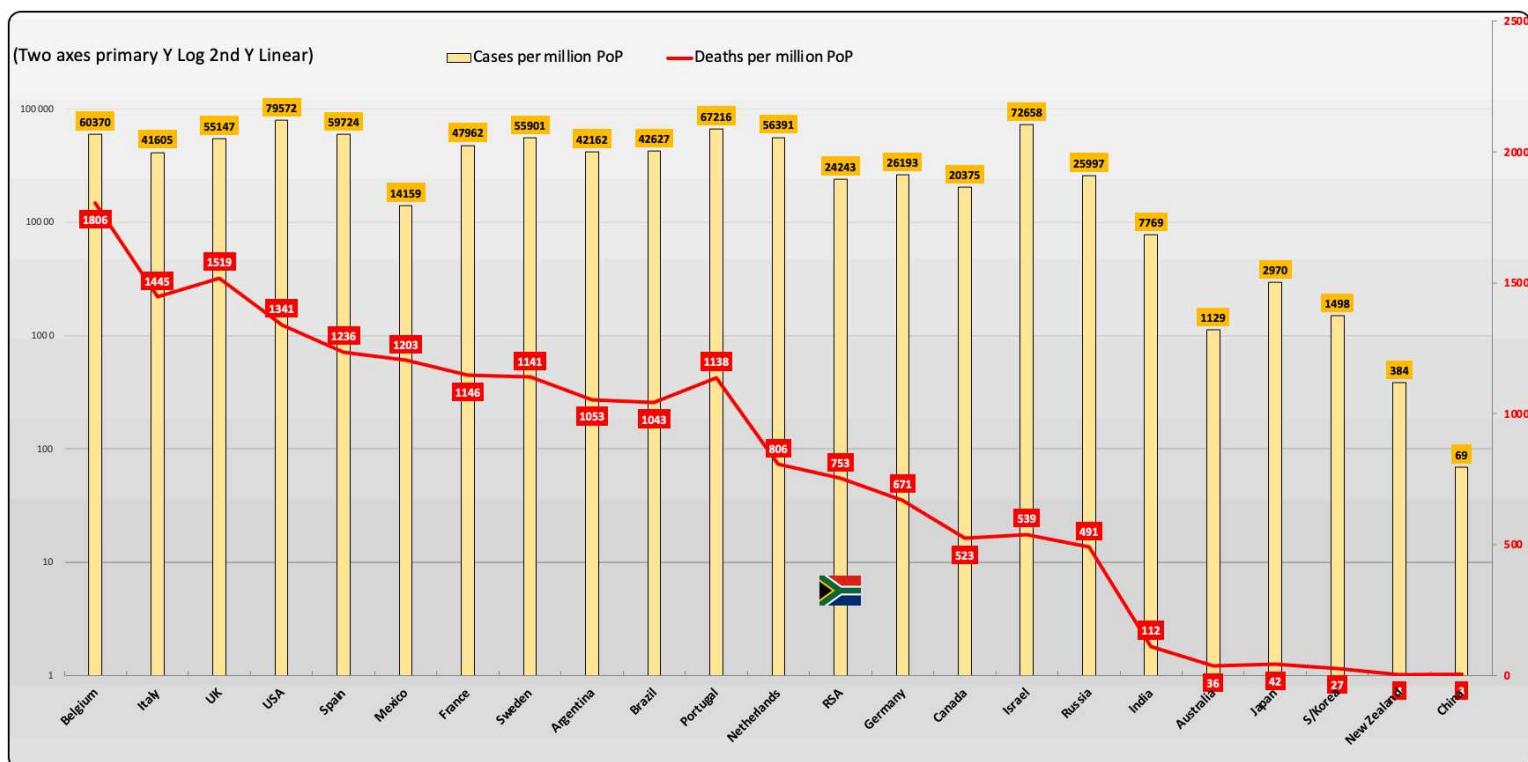
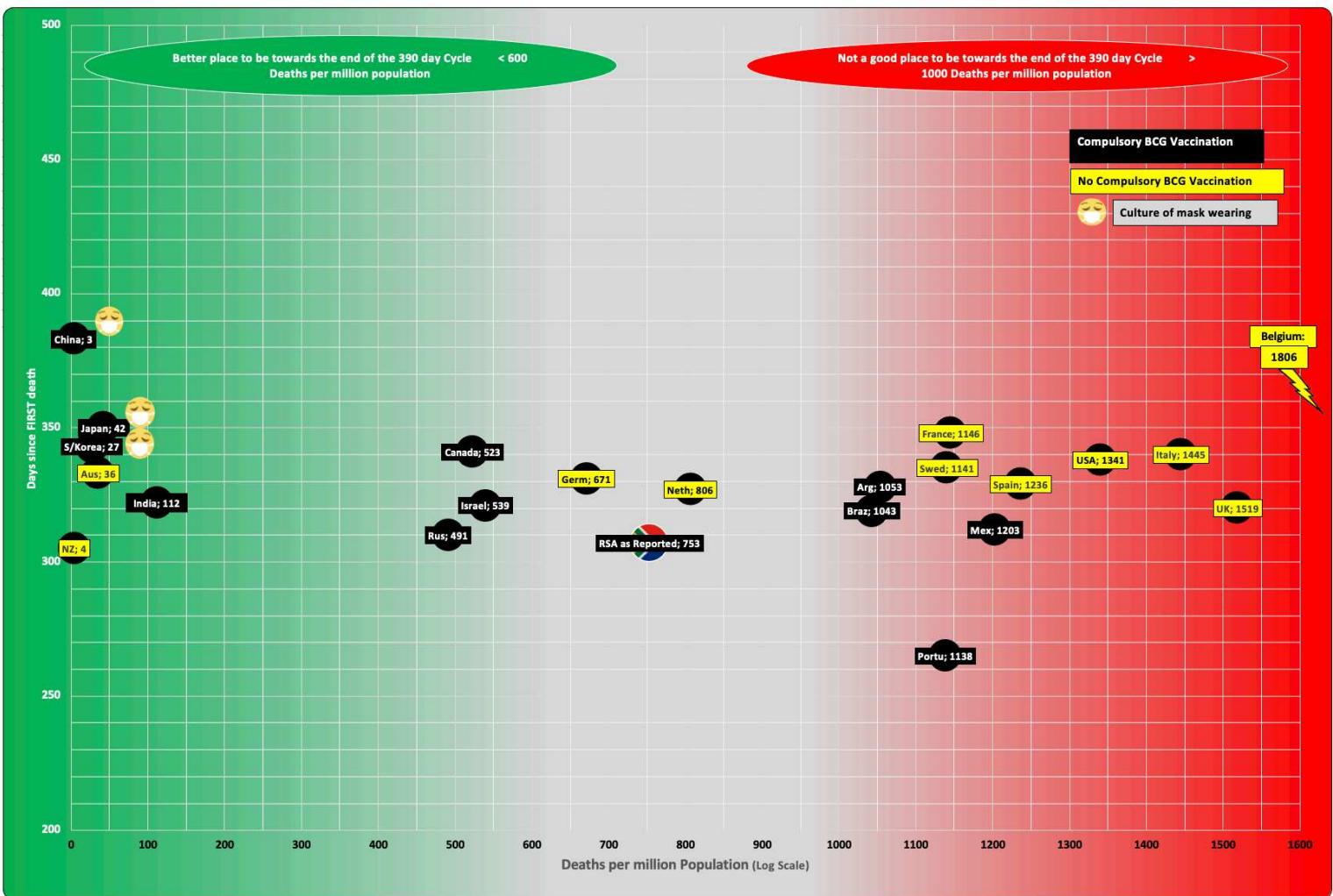
How old is the Data? : Cases 2-5 days, Hospitalisation 1-3 days, Deaths 4-10 days, Still Active Cases 4-10 days, Rt #'s 3-10 days



RSA Covid Stats: National & Provincial Data & Ratios



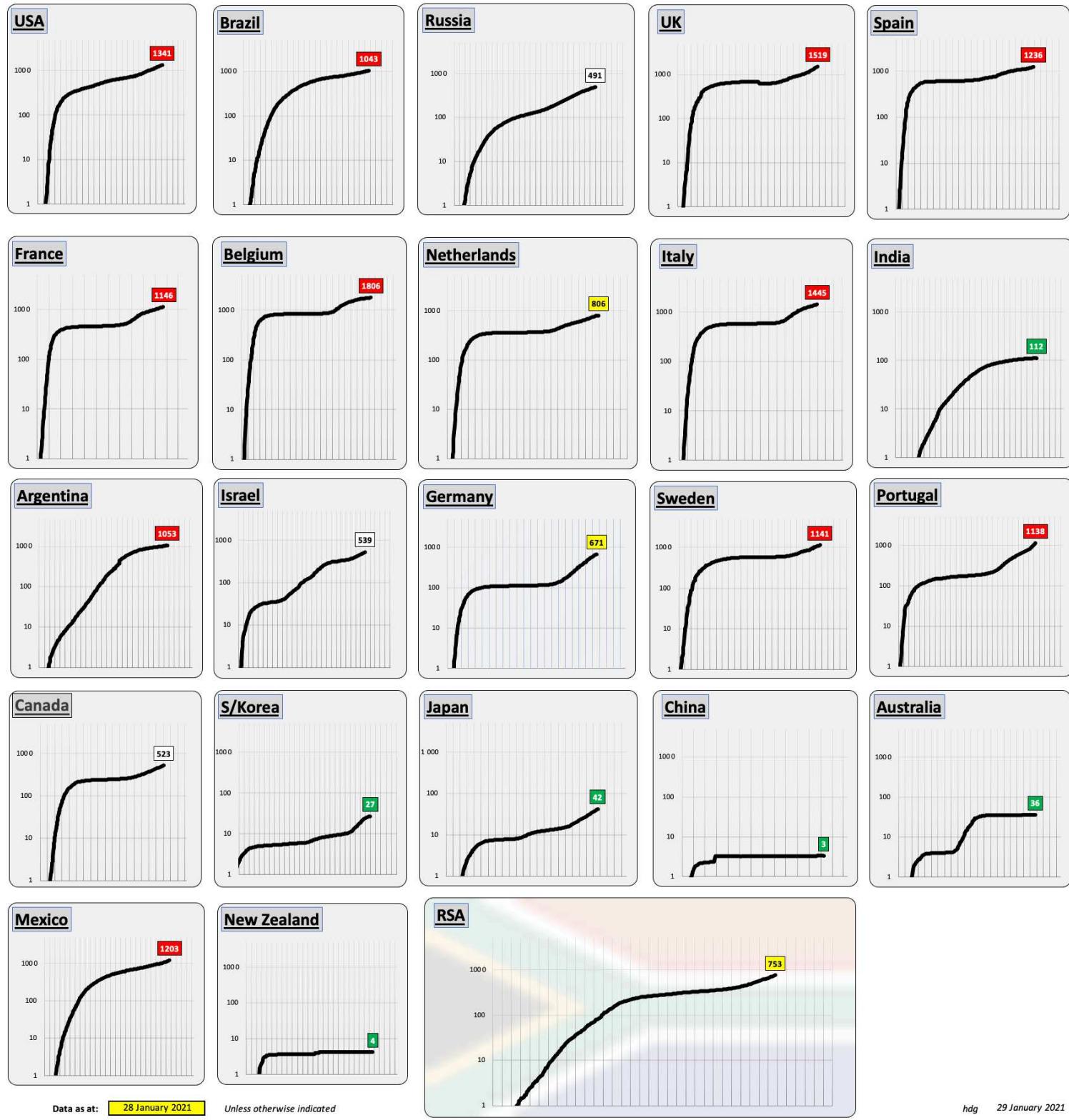
Selected Countries' Reported Cases & Deaths per mill PoP



Cum Deaths per mill PoP for selected countries

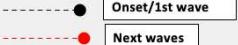
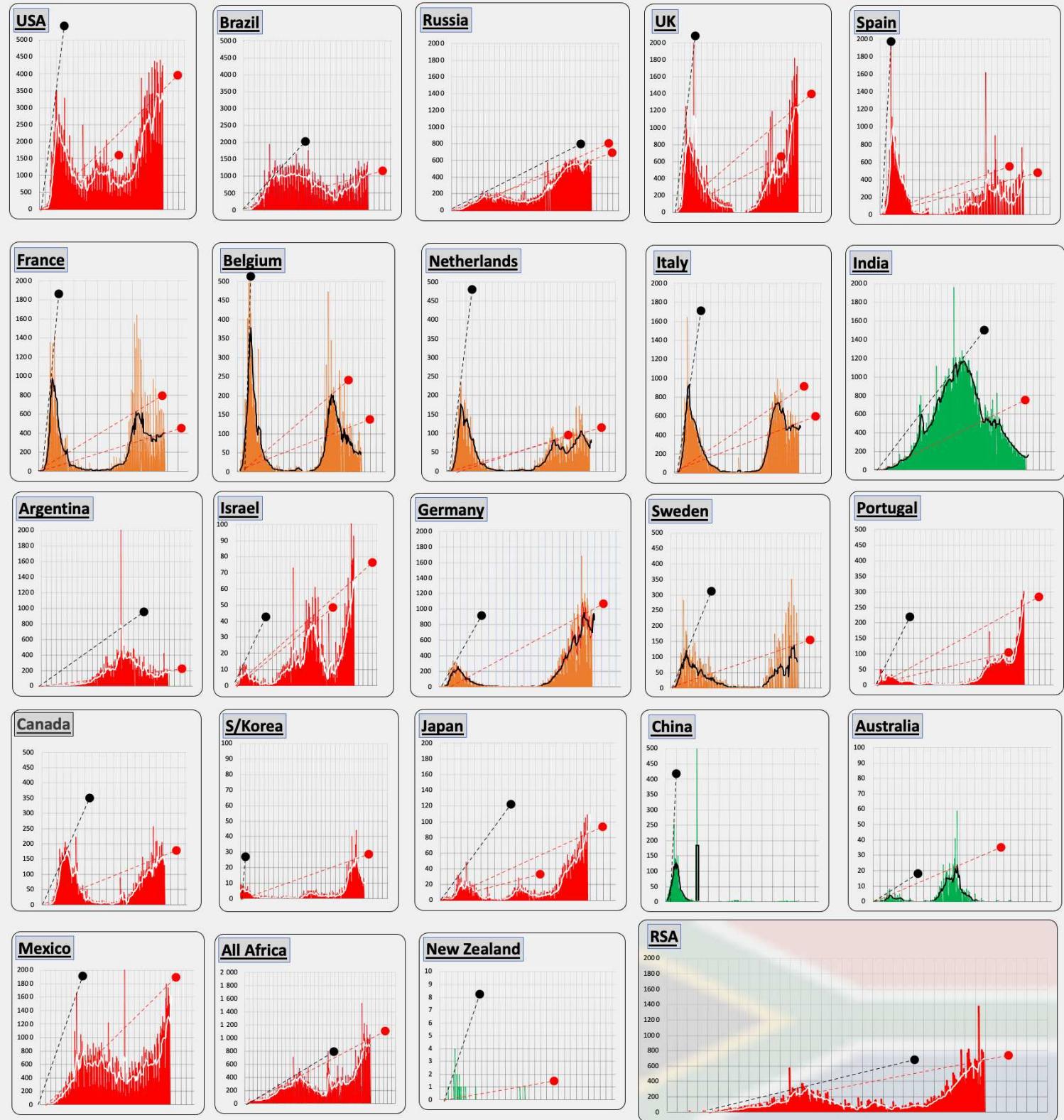
All on same Log Scale (compare Apples with Apples)

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



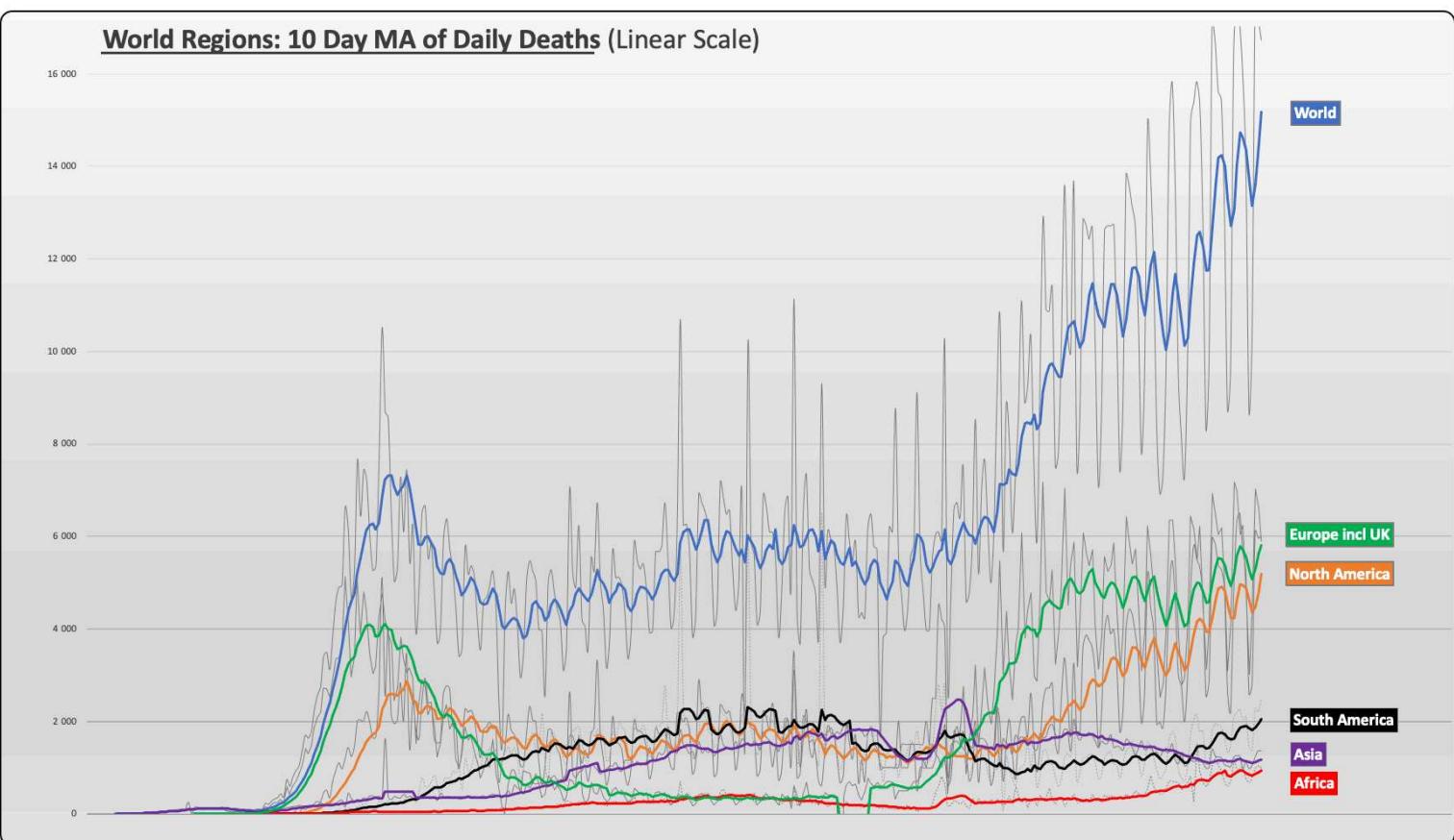
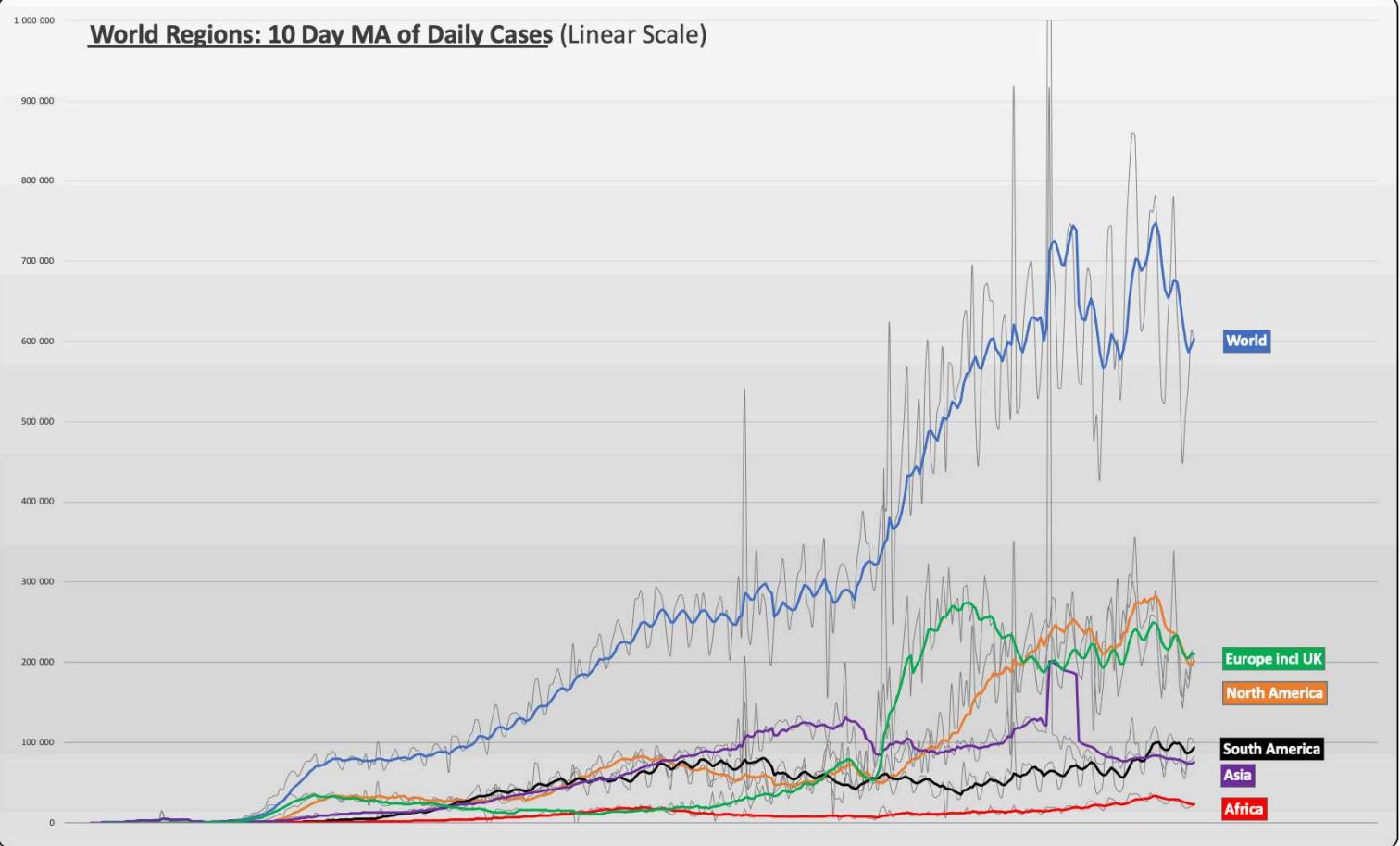
**Daily Deaths Curves plus 7 Day MA
also Rate of Onset/Next Wave "Inclinometers"**

Peaked but spiking again
Passed peak but could rebound OR next wave
Well past peak, unlikely to rebound

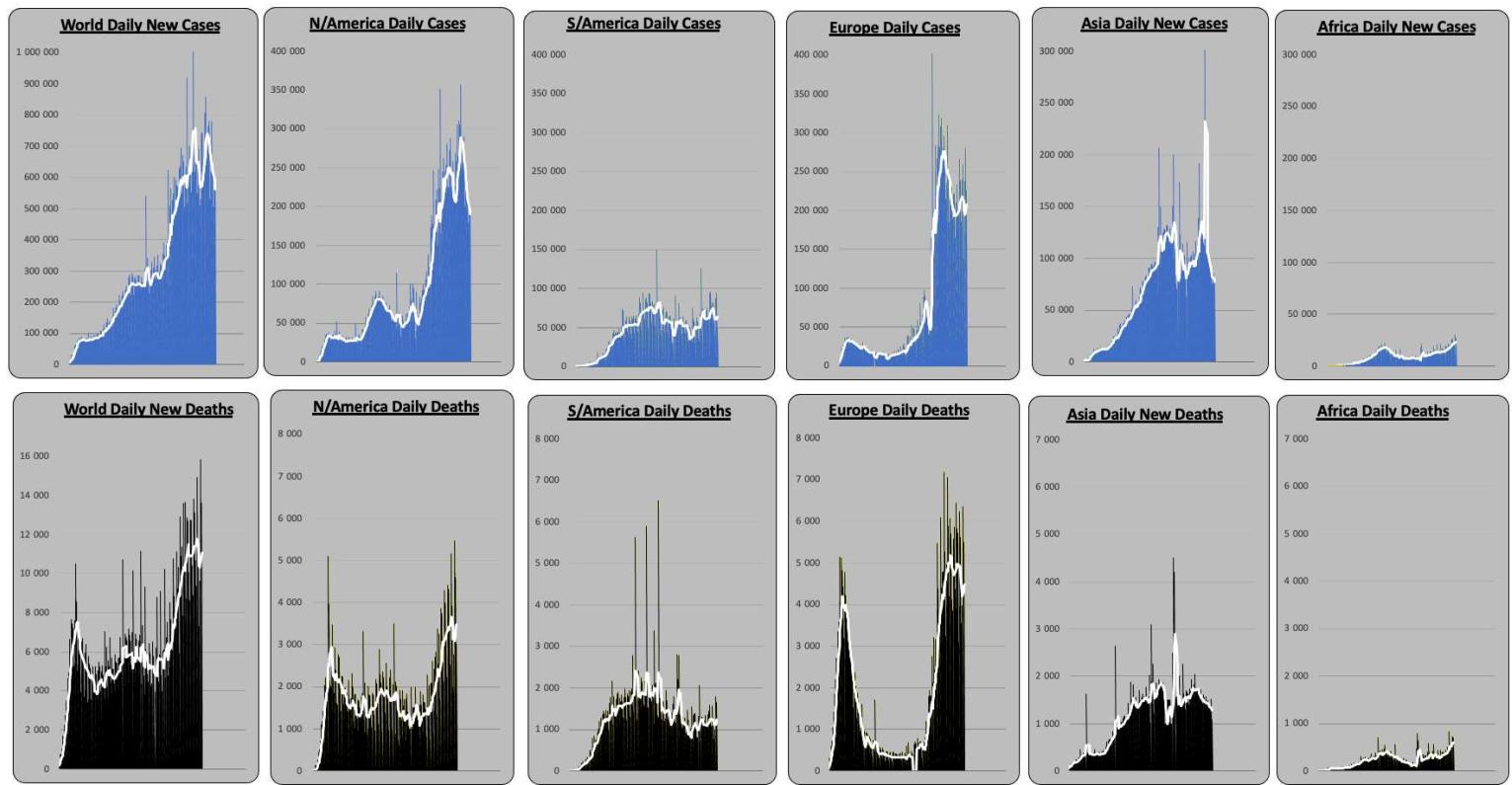



10 Day Moving Average of Daily Deaths & Cases by World Region

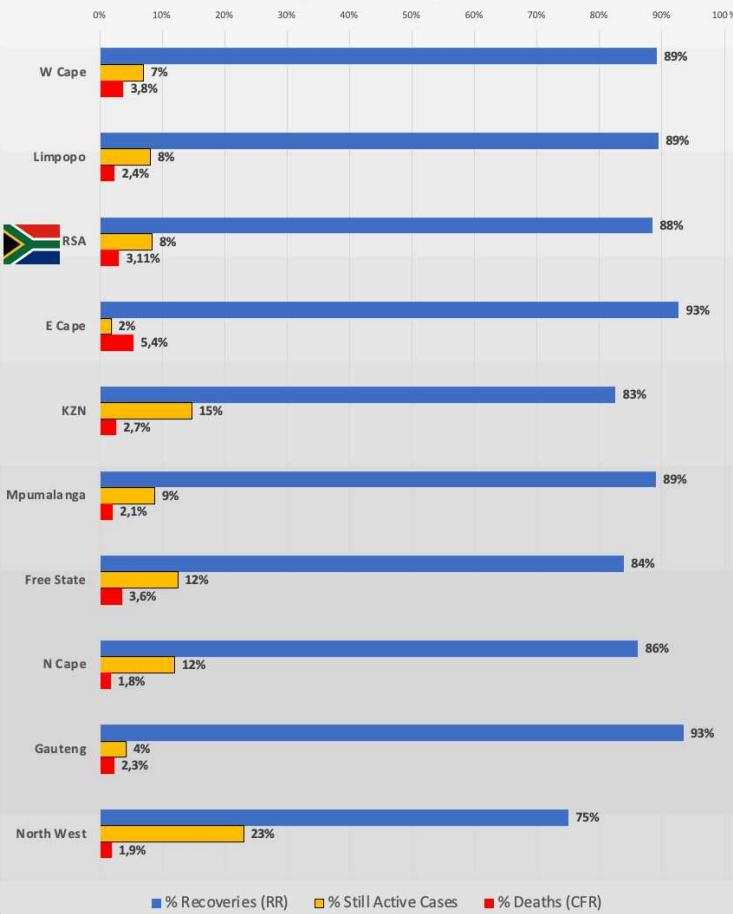
Page 3.0



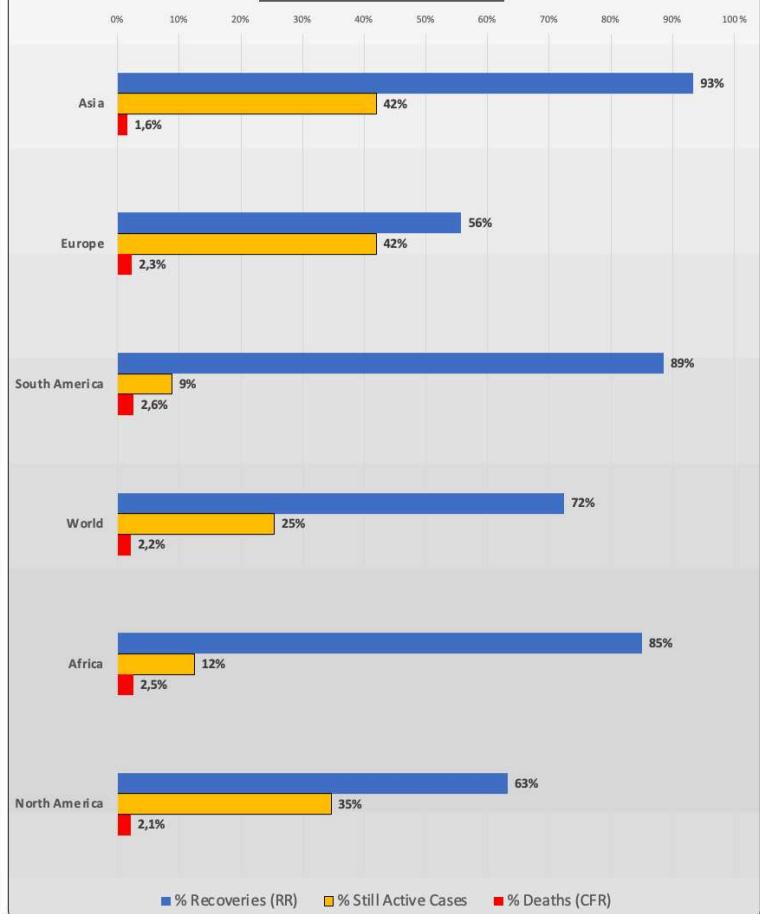
World Data: Dailies & 7 Day MA's



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 v COVID: Daily Deaths (Linear Scales)

Avg Daily Covid Deaths 2020 to date: **5747**
 Highest Daily Covid Deaths 2020 to date: **17654**
 Latest Daily Covid Deaths 2020 to date: **16741**

Red line =
Reported Covid
Deaths.

WHO 2018 World Mortalities.pd		146573
Cardio	48742	
Cancer	26181	
Respiratory incl Flu	17734	
Digestive & Diarrheal	10000	
Obstetrics	6000	
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	
Other	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.
 The BLUE line in the bottom RSA graph shows the SAMRC Excess Deaths per week numbers.

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

Avg Daily Covid Deaths since 1st Death 2020 to date: **97**
 Highest Daily Covid Deaths 2020 to date: **1374**
 Latest Daily Covid Deaths 2020 to date: **698**

Excess Deaths
at
16 Jan

StatsSA 2017 RSA Mortalities per day		1223
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	

Red line =
Reported daily
Covid Deaths.

Blue line =
Excess Deaths
(see Pg 5)

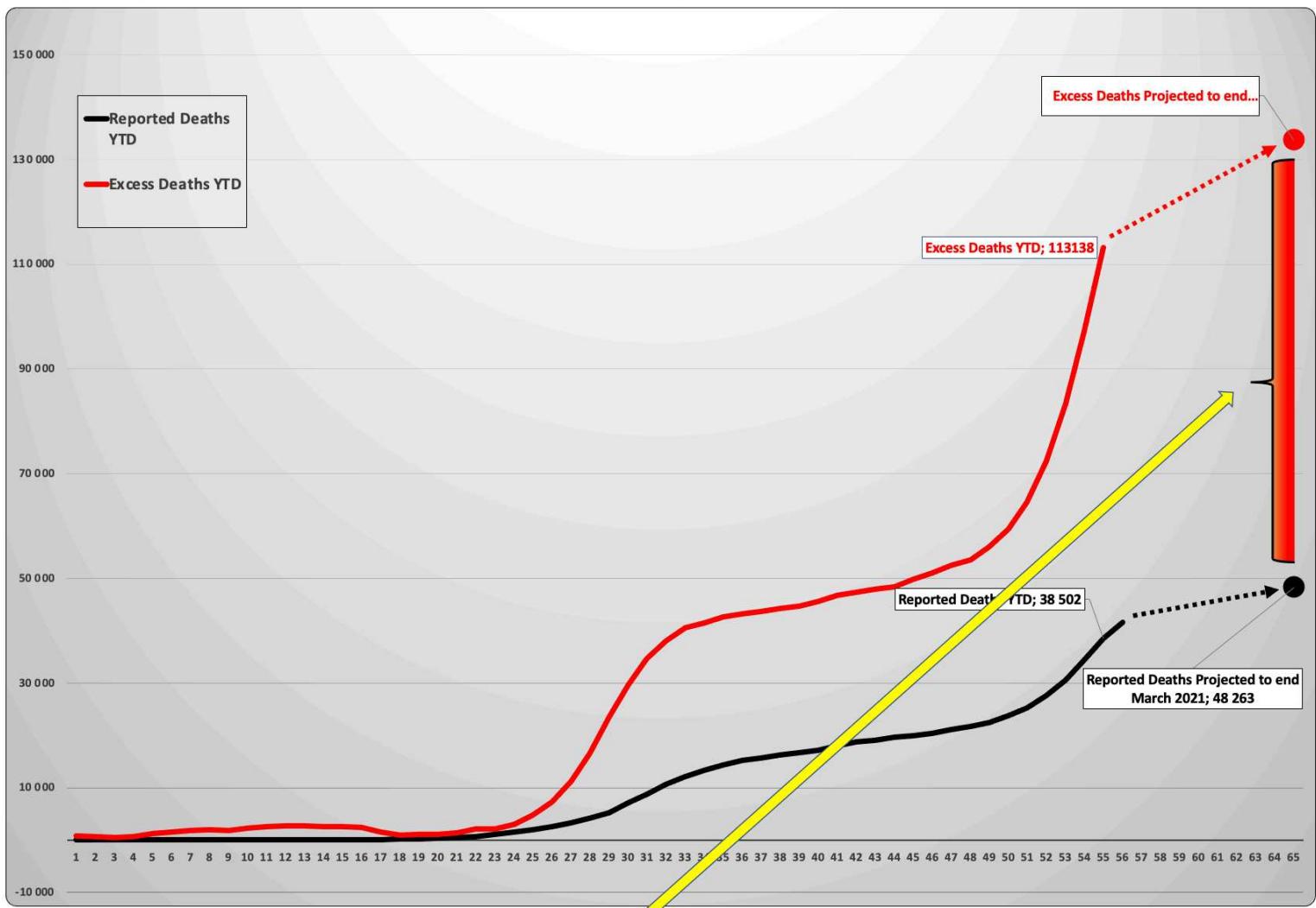
Black line =
expected avg
daily Deaths as
per white block
data

Covid Deaths: Reported and Excess Deaths

Page 3.3

Trends & Projections for end March 2021

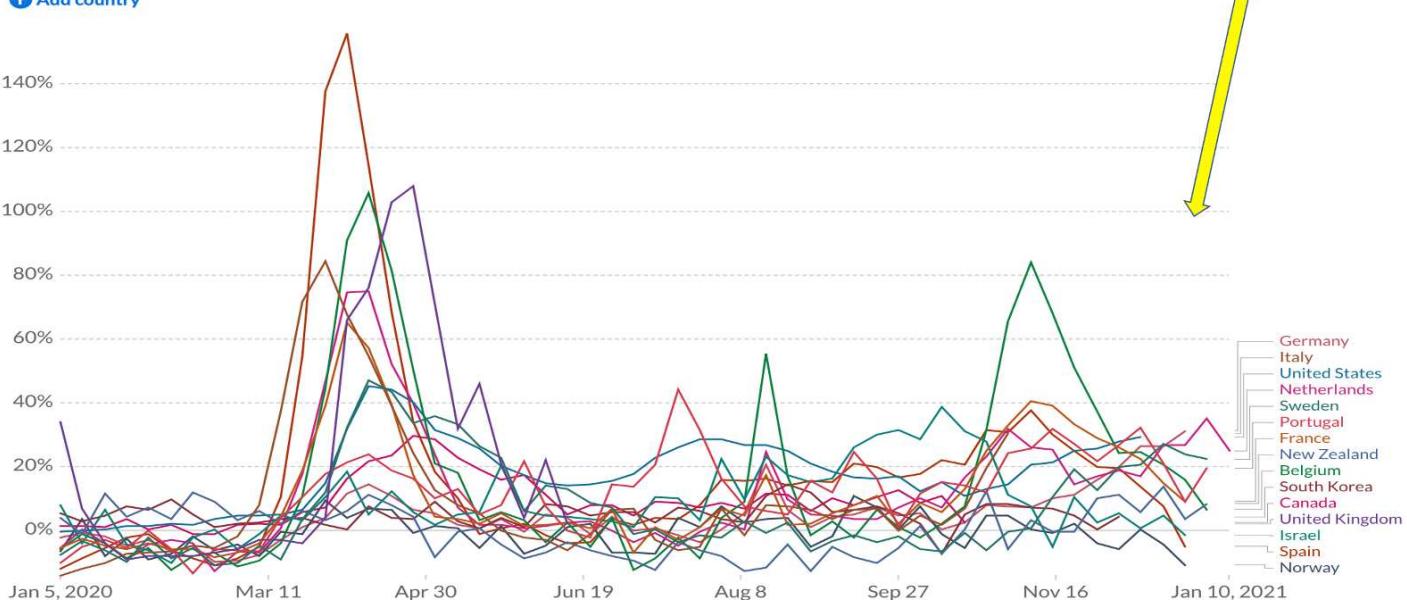
(See Pg 5 for more details on RSA Excess Deaths)



Excess mortality during COVID-19: Deaths from all causes compared to previous years, all ages
Shown is how the number of weekly deaths in 2020–2021 differs as a percentage from the average number of deaths in the same week over the years 2015–2019. This metric is called the P-score. We do not show data from the most recent weeks because it is incomplete due to delays in death reporting.

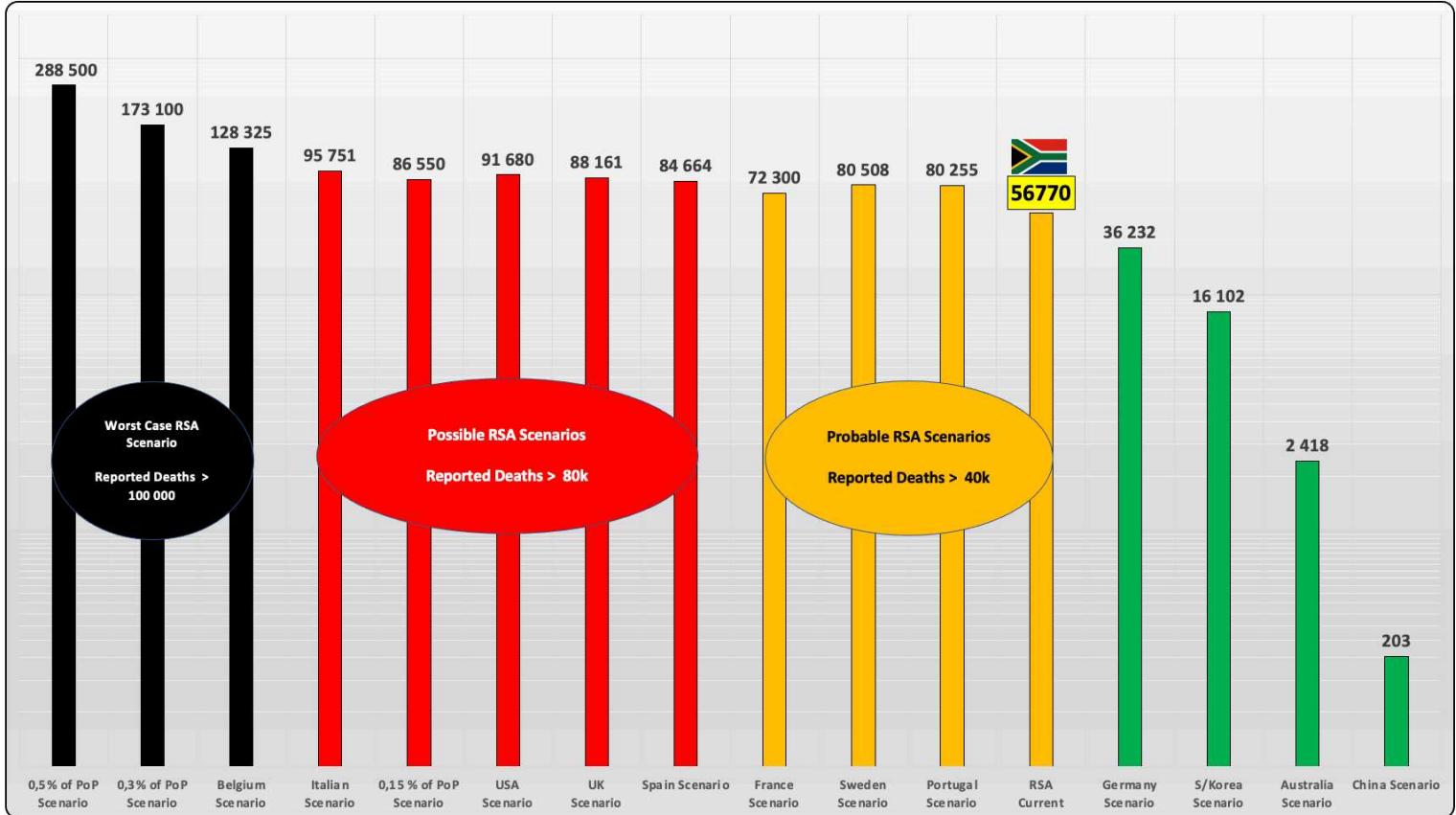
Our World in Data

+ Add country



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

15 Scenarios and 1 Projection (Log Scale)

**Key:**

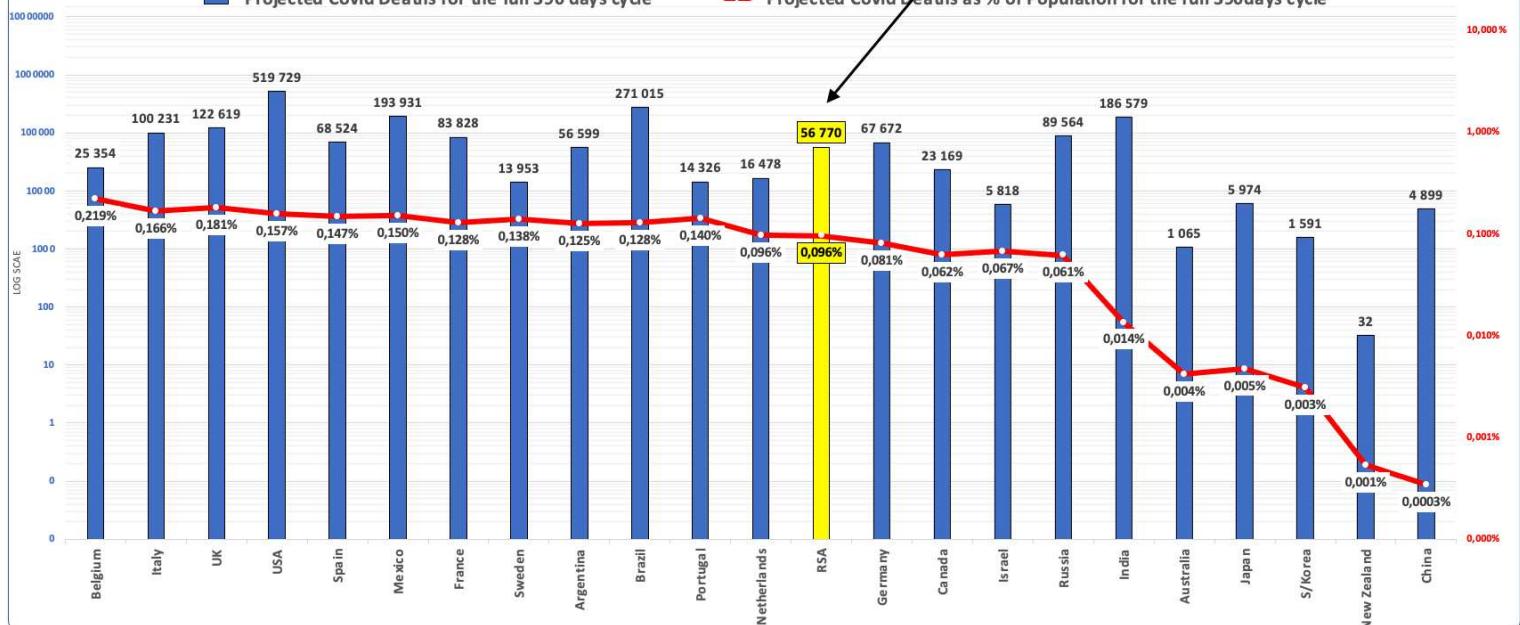
All Scenarios duly adjusted daily for population size and for the different timelines into the deemed 390 day pandemic cycle.

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



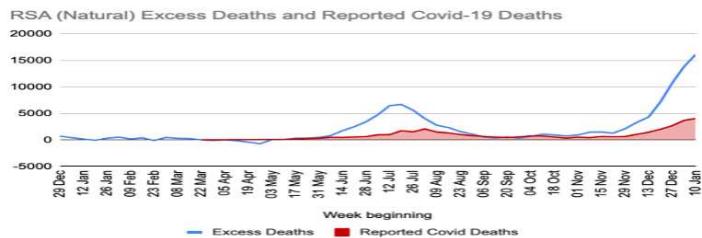
Note: Above Mortality %'s are overall projected mortality of the populations (PMR), NOT deaths of only those infected (CFR).

RSA Excess Deaths as per SA Medical Research Council

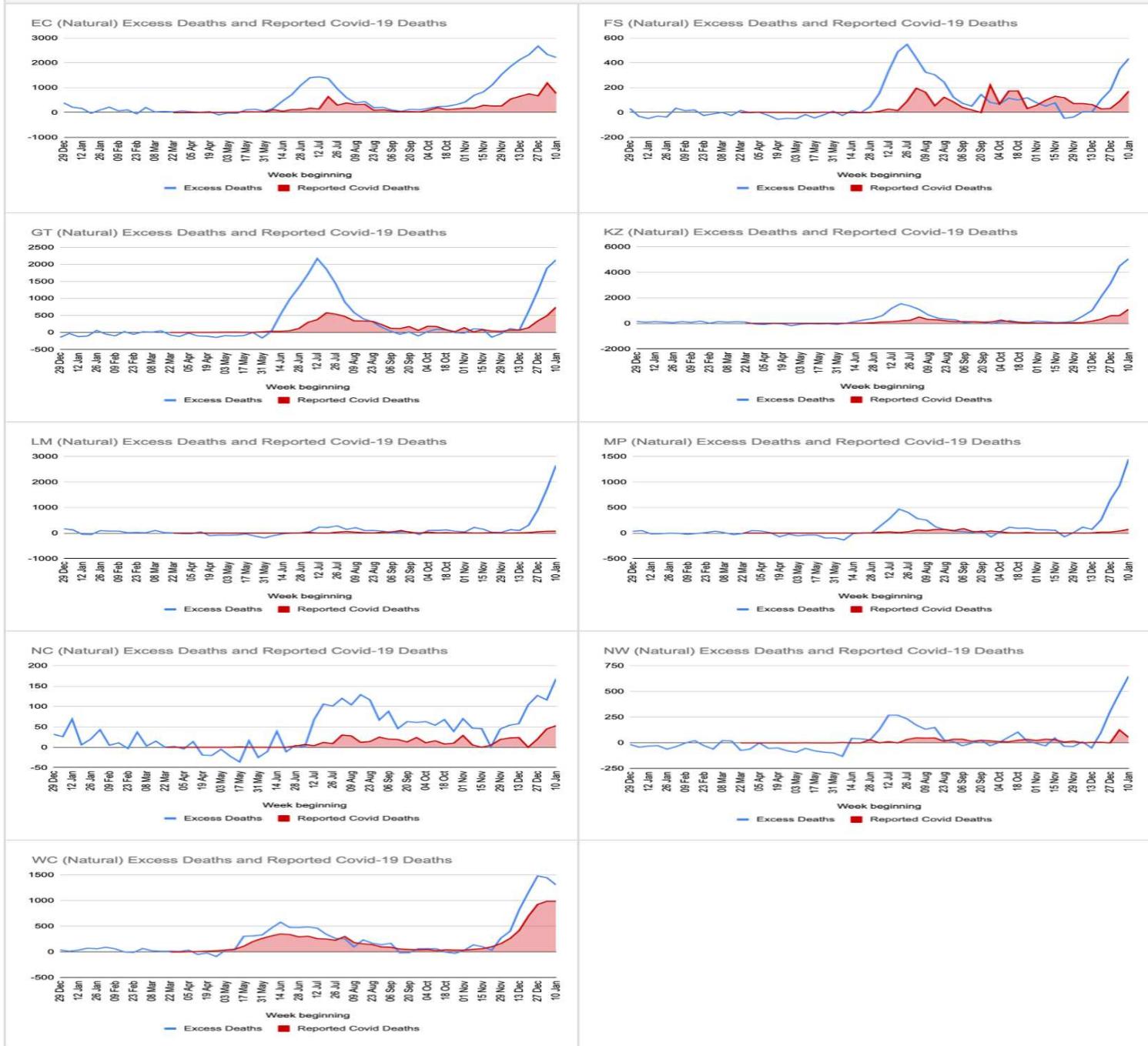
Data as at:

16 January 2021

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



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 socalled "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).

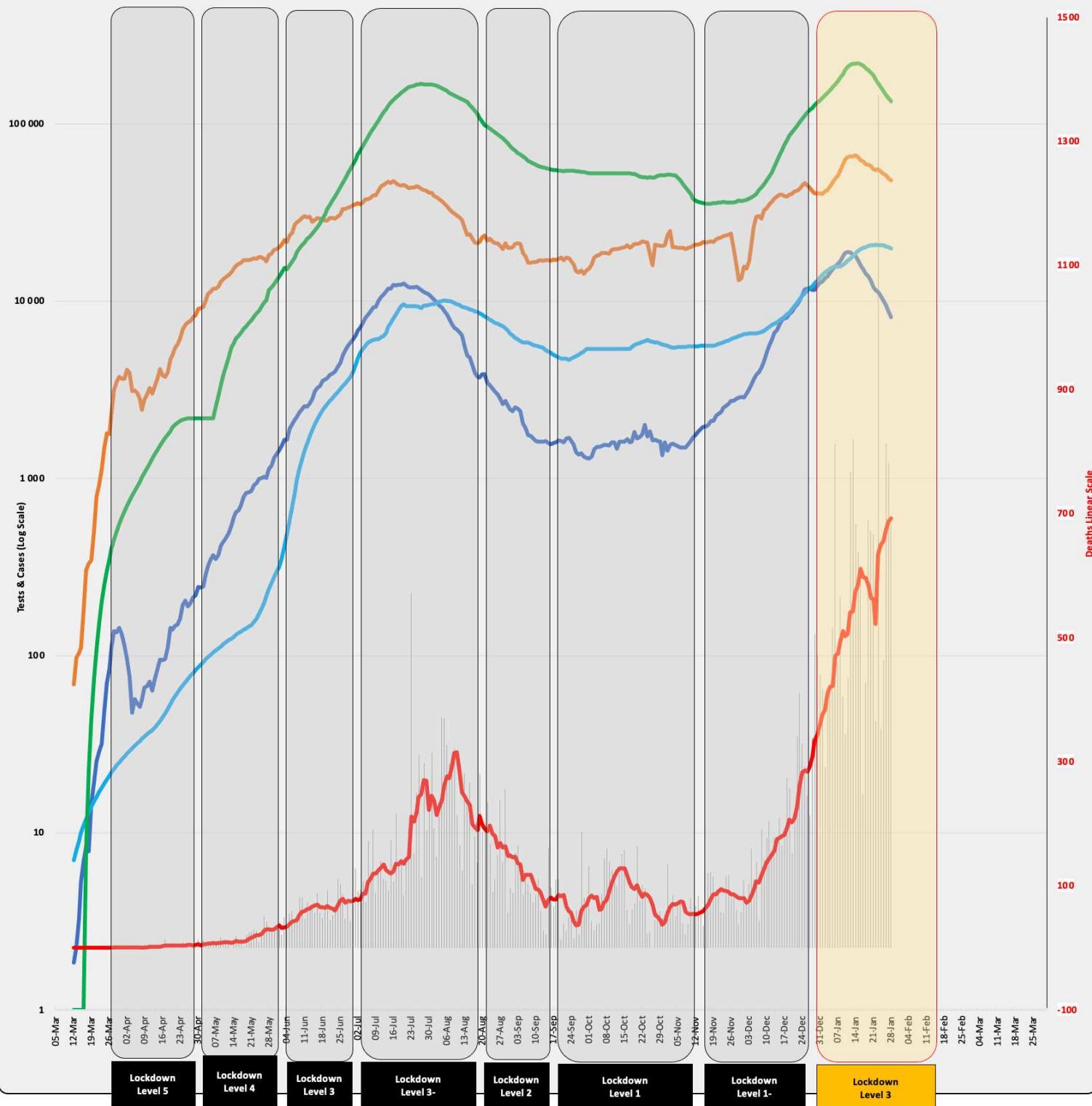
Data as at:

Latest Available

hdg 29 January 2021

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

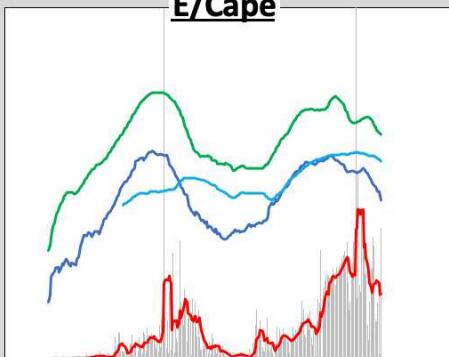
— Daily Tests — Daily Cases — In Hospital — Active Cases — Daily Deaths



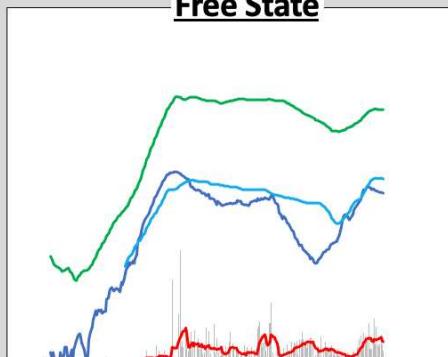
RSA Provinces Daily Cases/Hospitals/Actives/Deaths (7 Day MA)

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

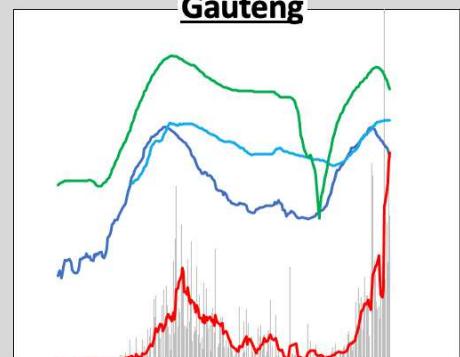
E/Cape



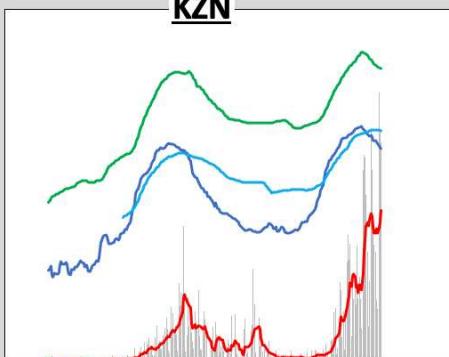
Free State



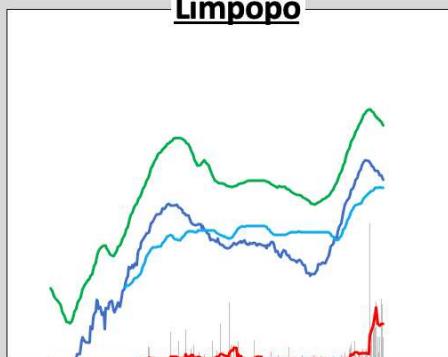
Gauteng



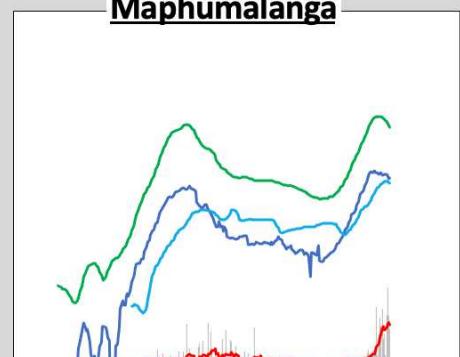
KZN



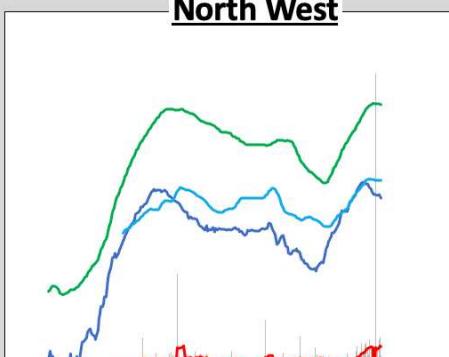
Limpopo



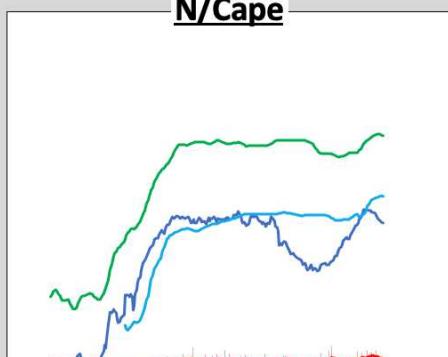
Maphumalanga



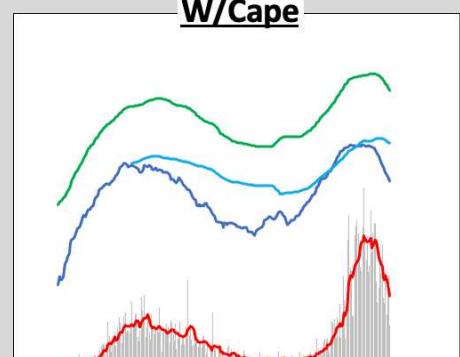
North West



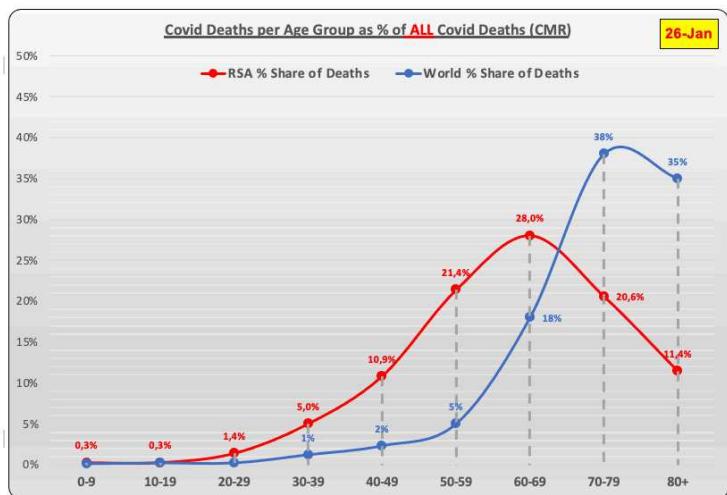
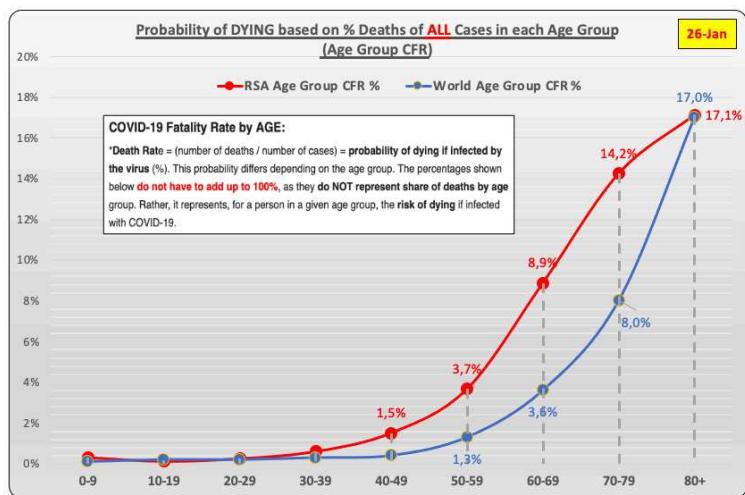
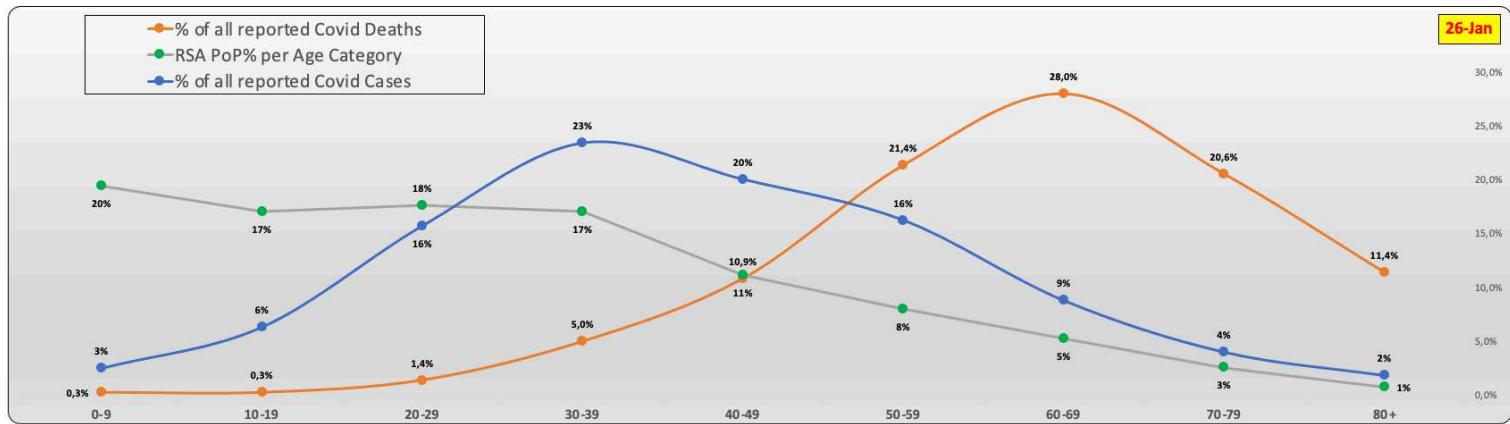
N/Cape



W/Cape

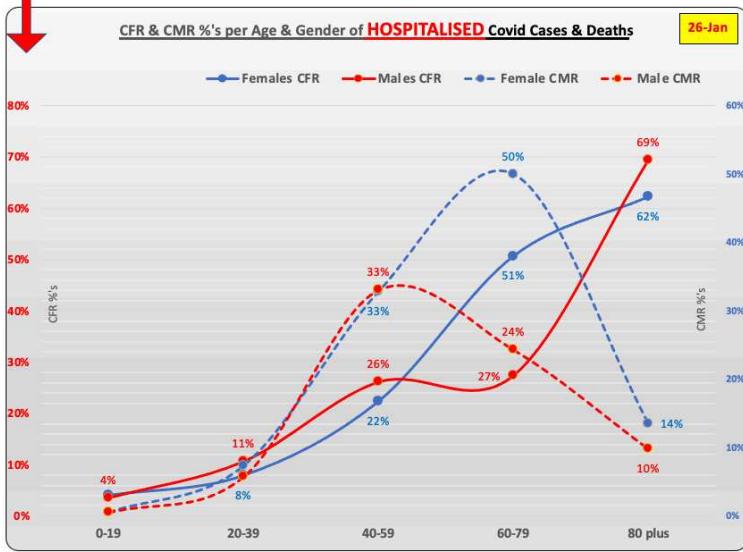
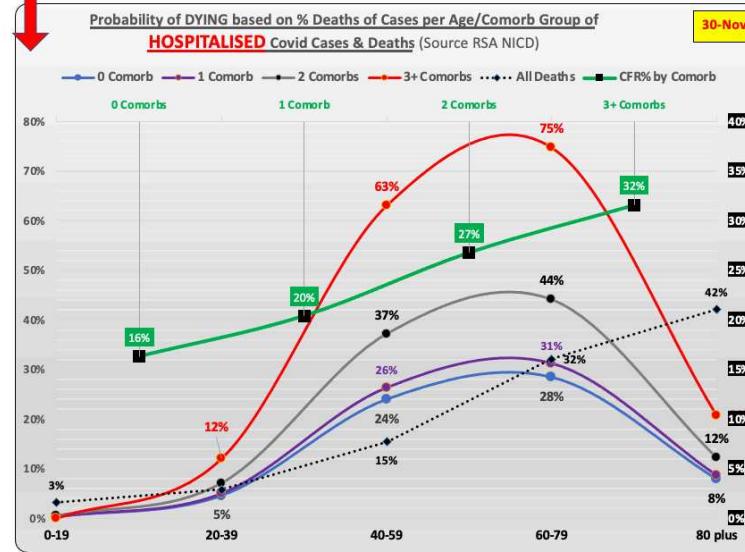


RSA Age & Gender Stats



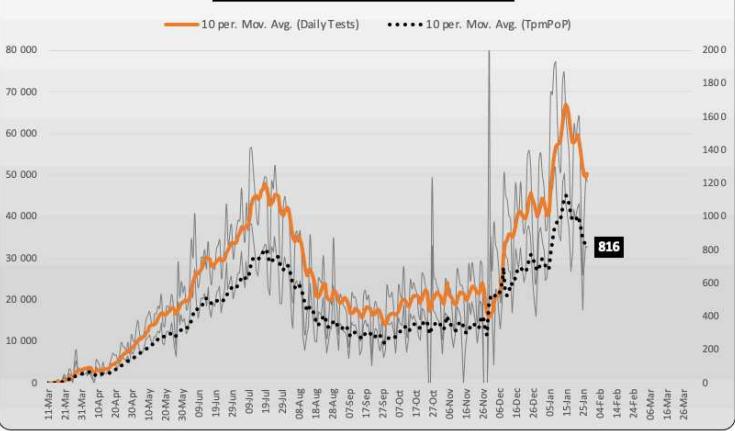
COVID-19 Fatality Rate by AGE:

*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.

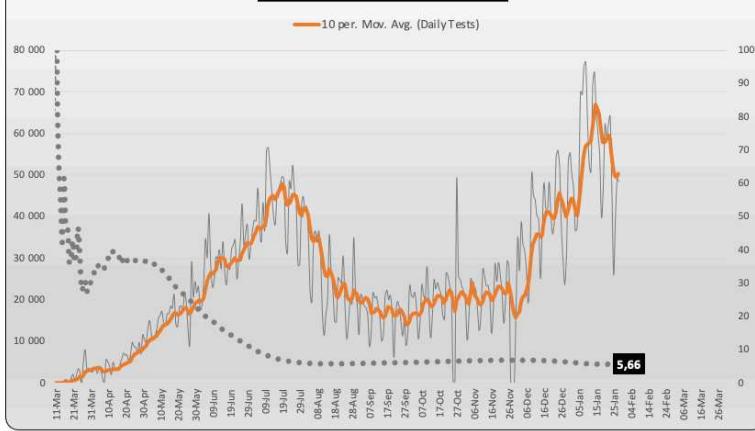


RSA Key Ratios & Comparators

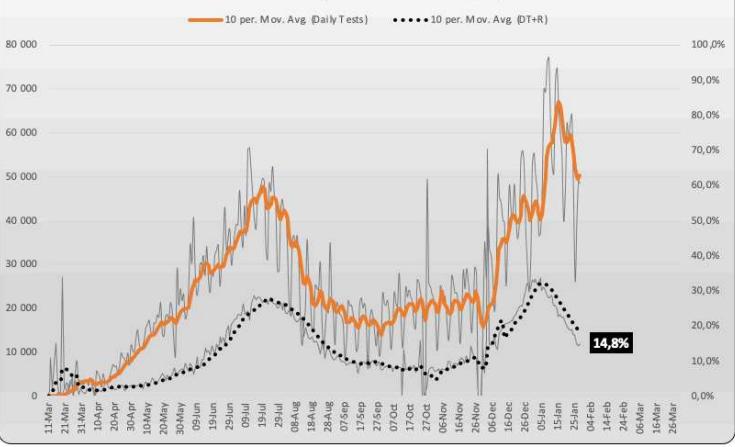
RSA: Daily Tests per million PoP



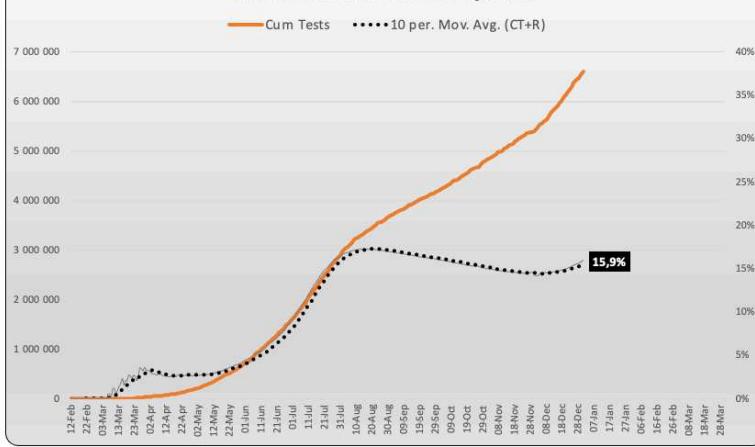
RSA: Daily Tests per +Case



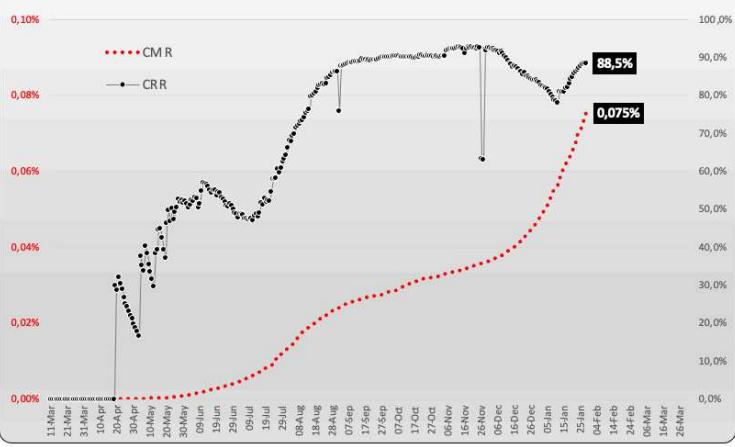
RSA: Daily Tests Positivity %



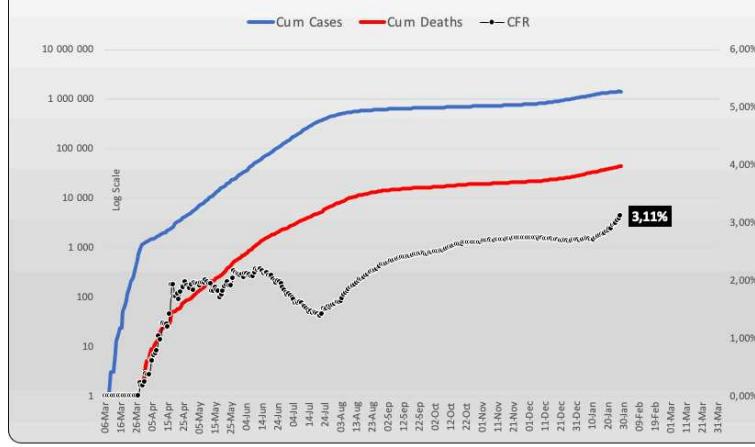
RSA: Cum Tests Positivity Rate



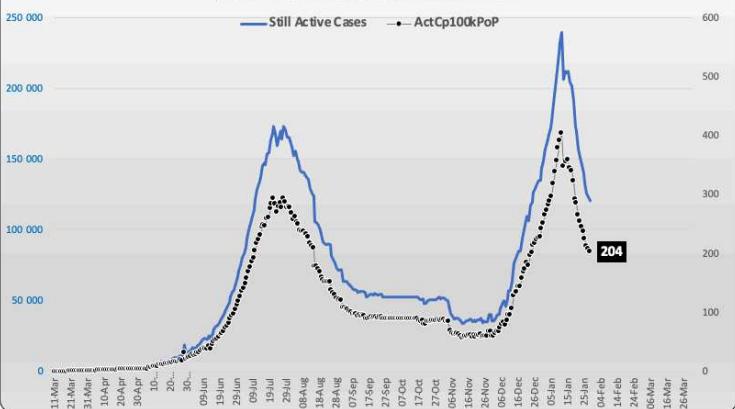
RSA: Case Recovery Rate (CRR) & PoP Mortality Rate (CMR)



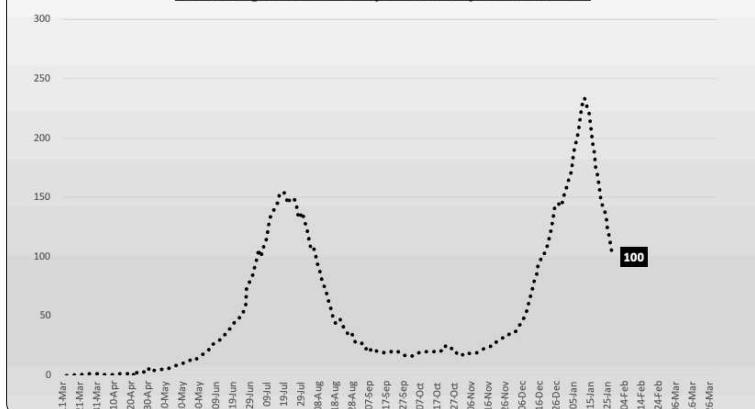
RSA: Deaths as % of Cases (CFR)



RSA: Active Cases per 100k PoP



RSA: Avg New Cases per week per 100k PoP

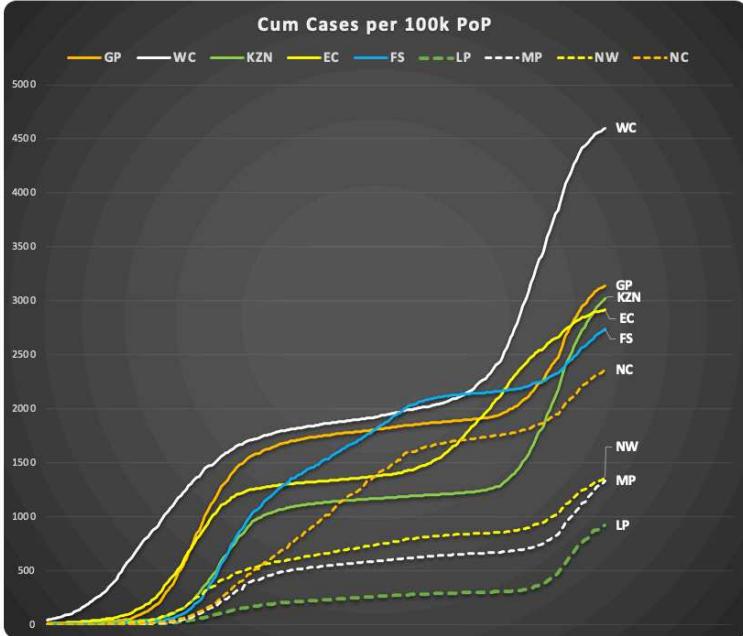


RSA & Provinces Key Data Sets

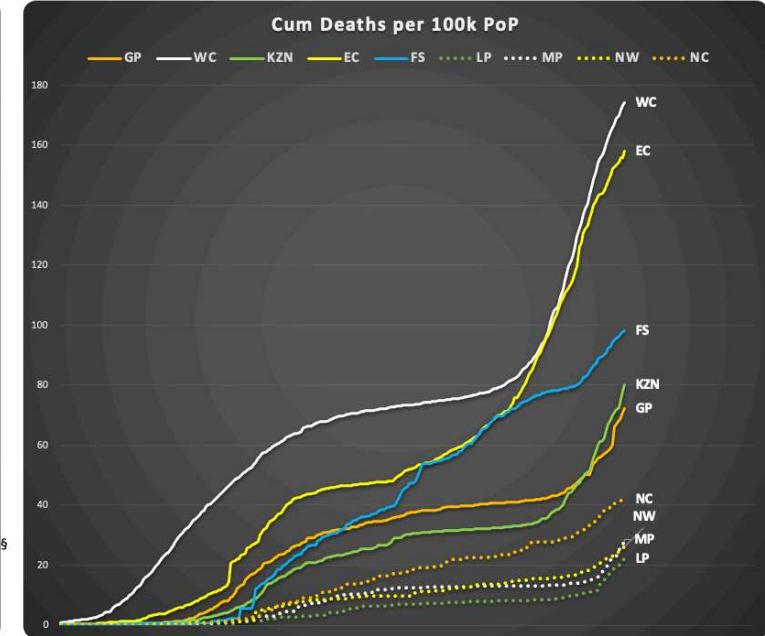
Page 5.5

All linear scales

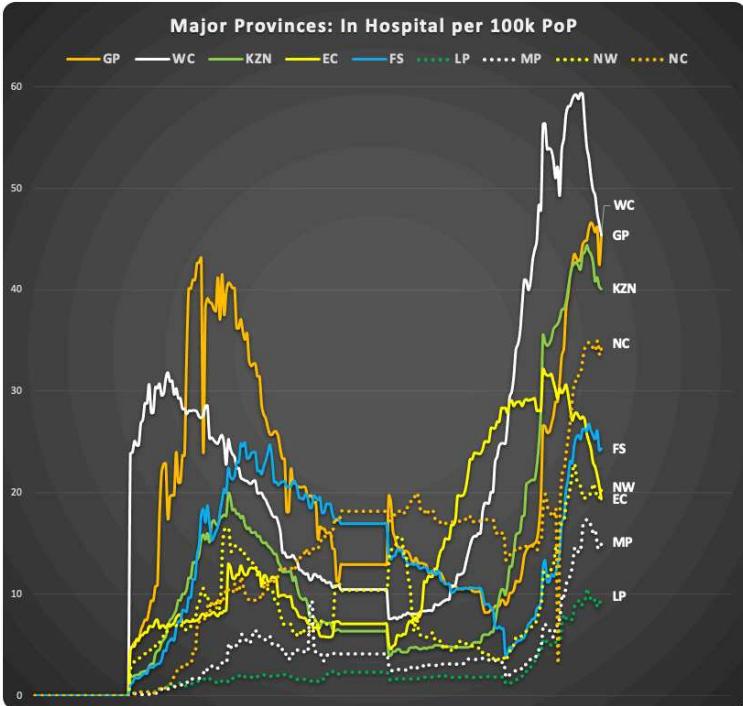
Cum Cases per 100k PoP



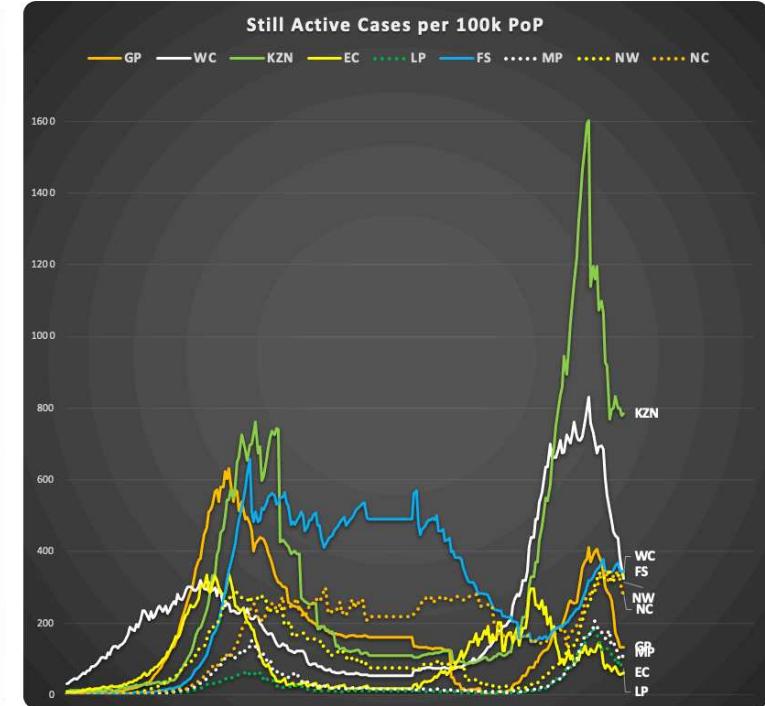
Cum Deaths per 100k PoP



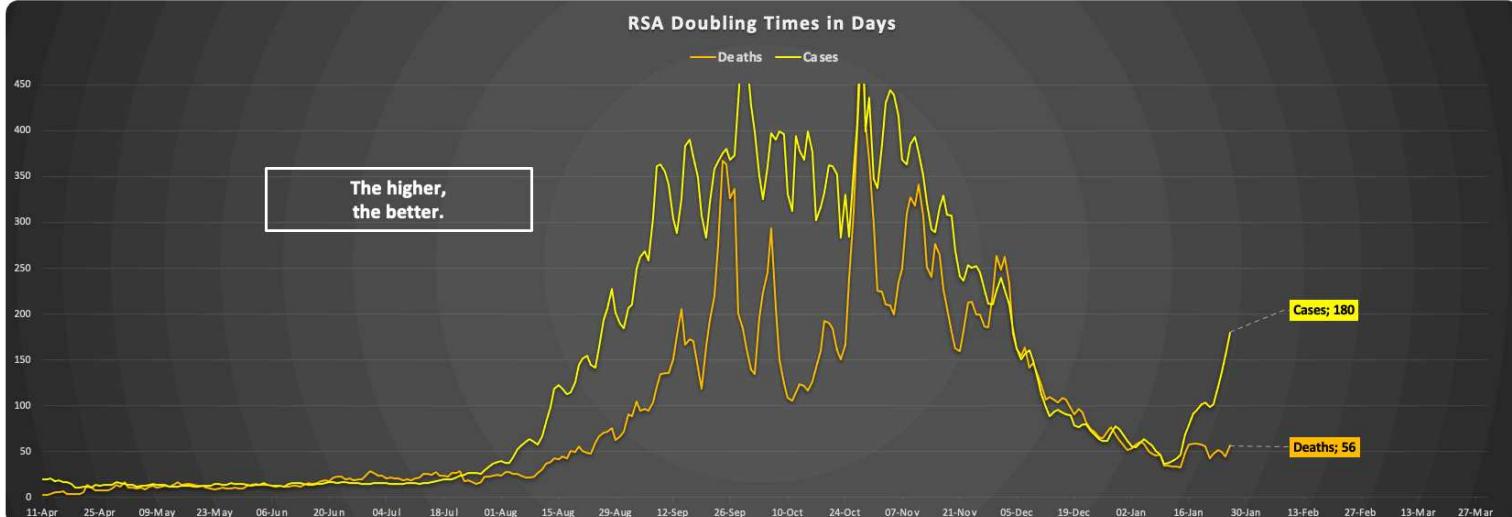
Major Provinces: In Hospital per 100k PoP



Still Active Cases per 100k PoP



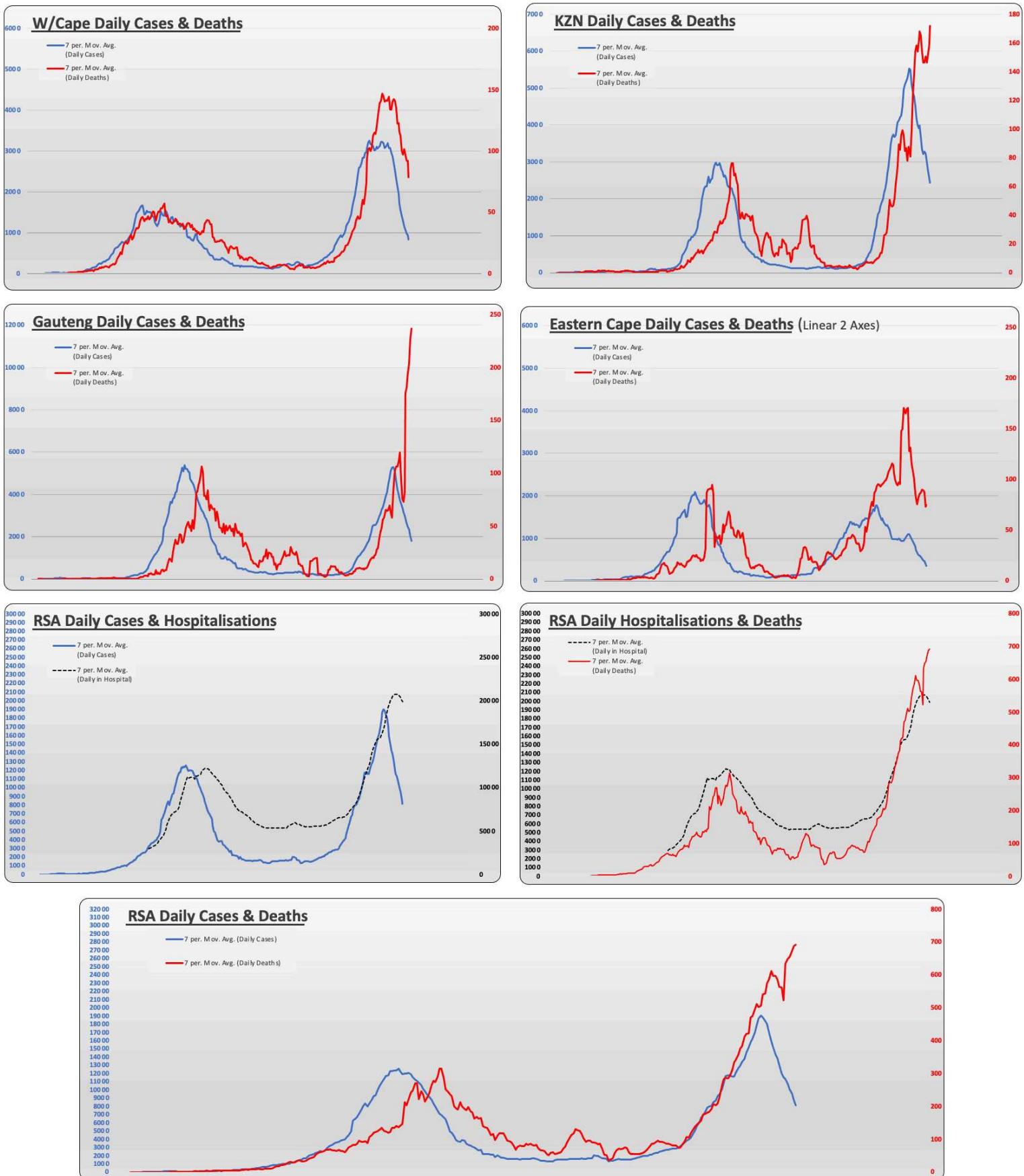
RSA Doubling Times in Days



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.



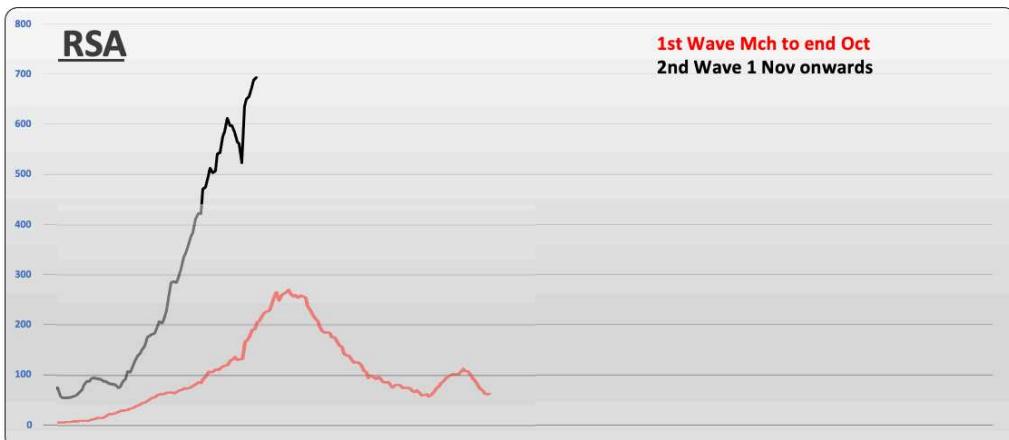
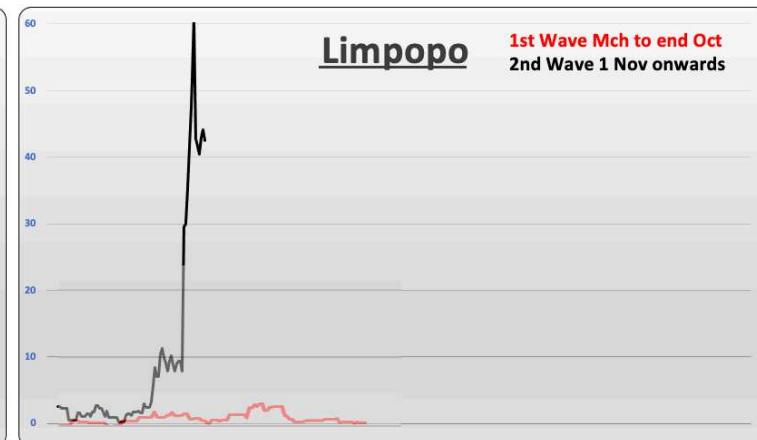
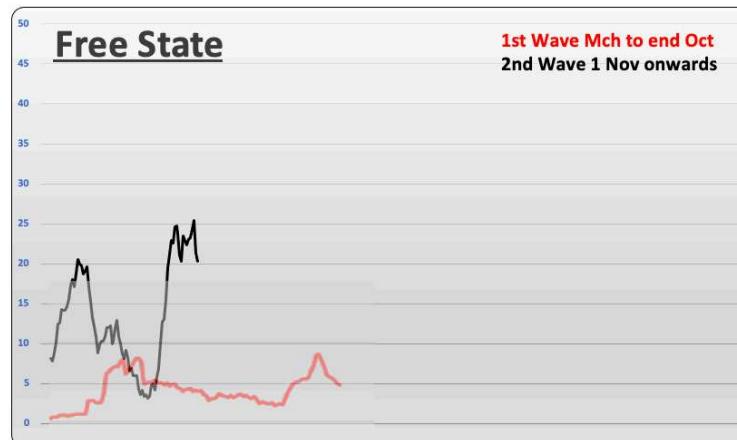
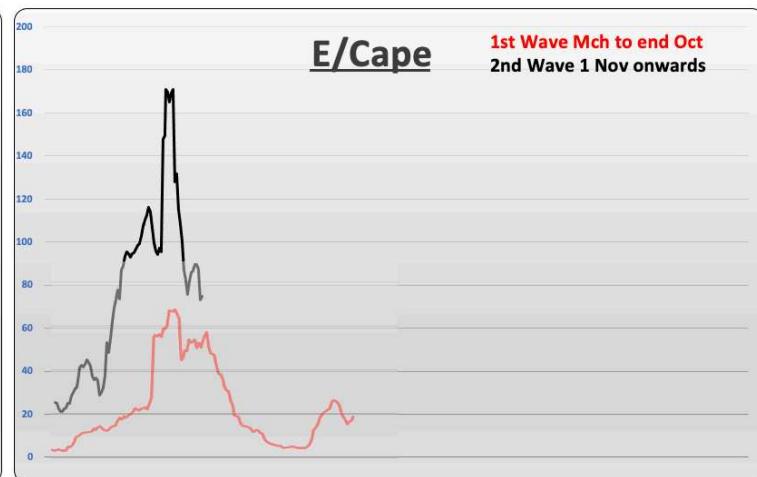
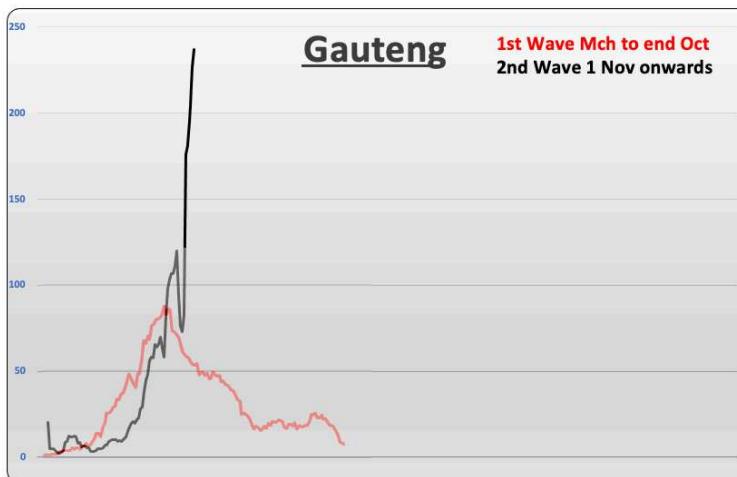
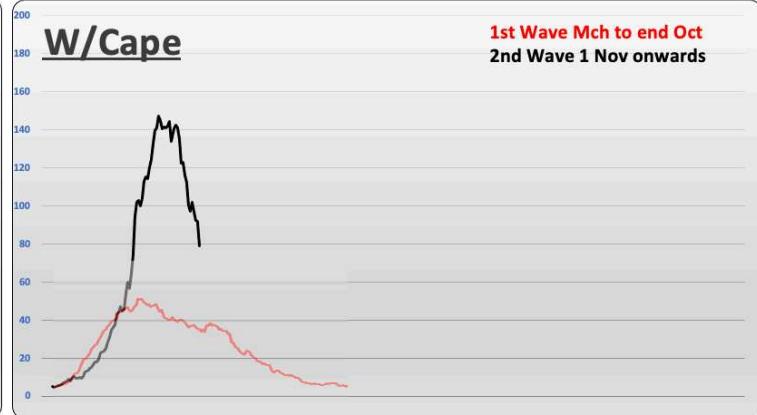
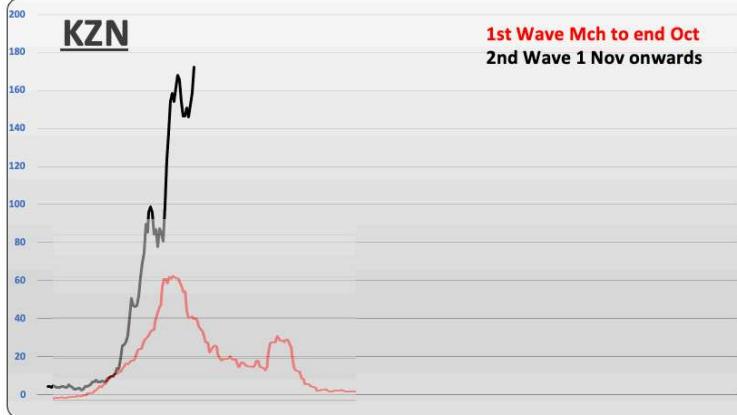
What are these graphs telling us ? (Ignore the numbers, look purely at the inclines and amplitudes).

- 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 :

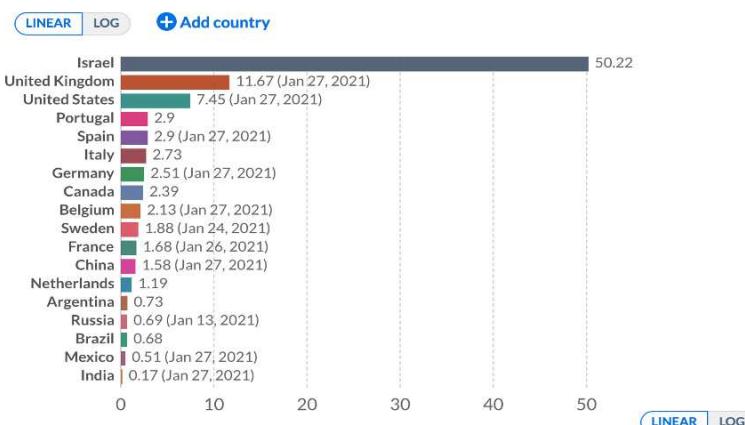


Selected countries who publish their VAC data :

COVID-19 vaccine doses administered per 100 people, Jan 28, 2021

Our World in Data

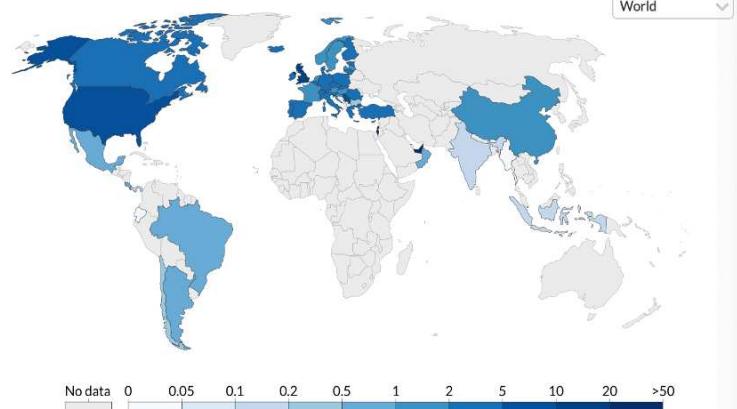
Total number of vaccination doses administered per 100 people in the total population. This is counted as a single dose, and may not equal the total number of people vaccinated, depending on the specific dose regime (e.g. people receive multiple doses).



COVID-19 vaccine doses administered per 100 people, Jan 28, 2021

Our World in Data

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).



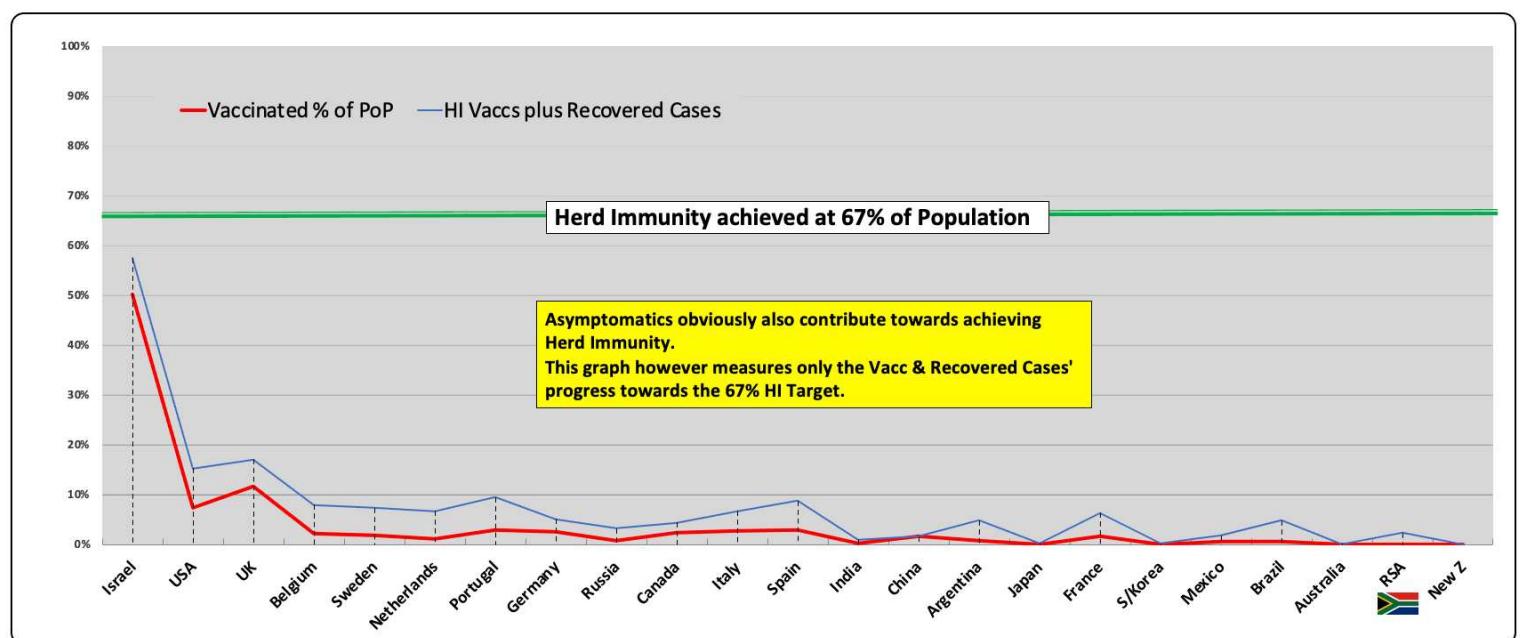
Source: Official data collated by Our World in Data – Last updated 28 January, 19:00 (London time)

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Source: Official data collated by Our World in Data – Last updated 28 January, 19:00 (London time)

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Selected Countries' Progress towards Herd Immunity (HI) :

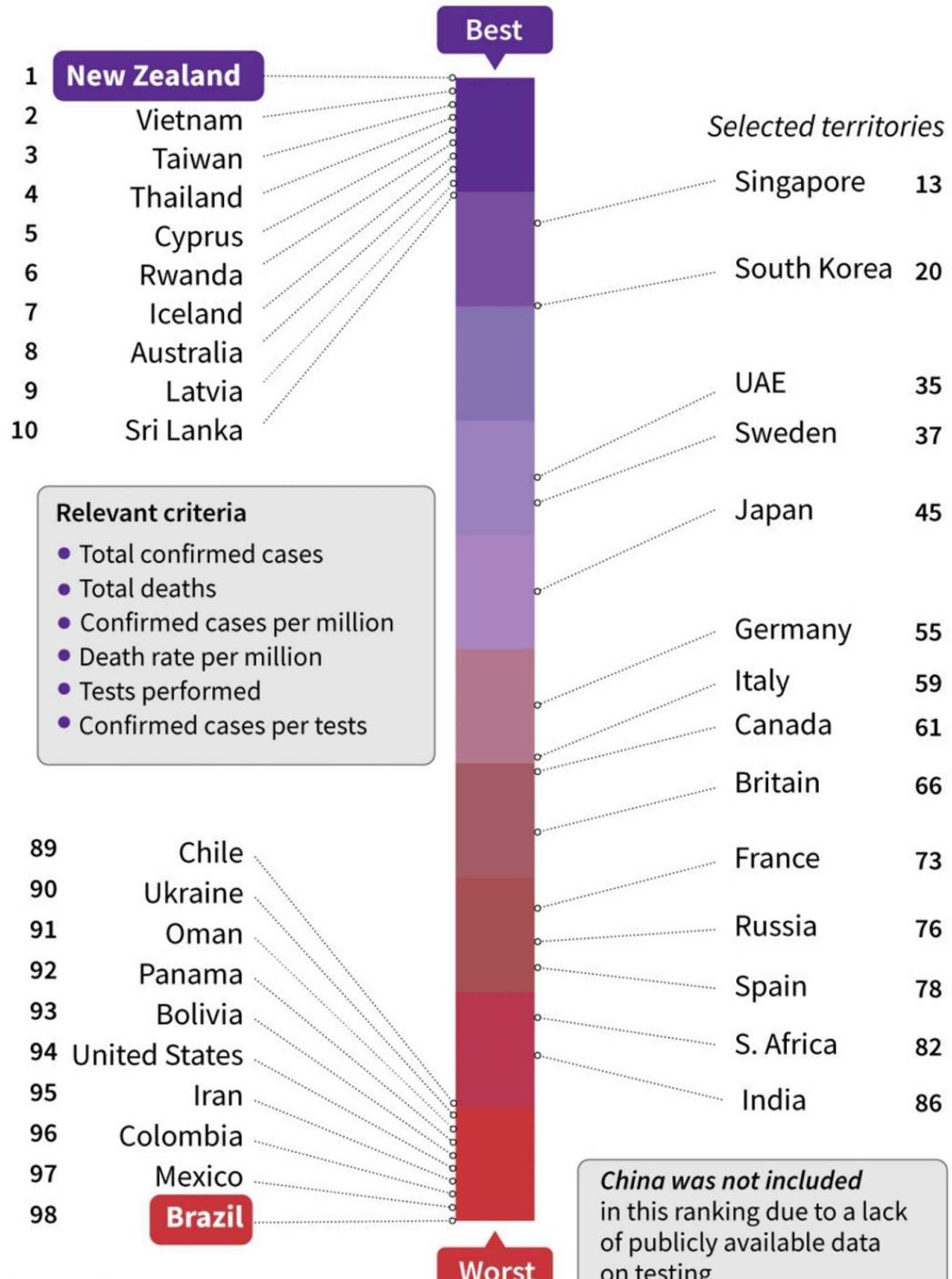


Some food for thought.....



Covid-19 response ranked

98 territories assessed by Australian think tank Lowy Institute,
based on data across six indicators, as of Jan 9



Source: Lowy Institute