

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

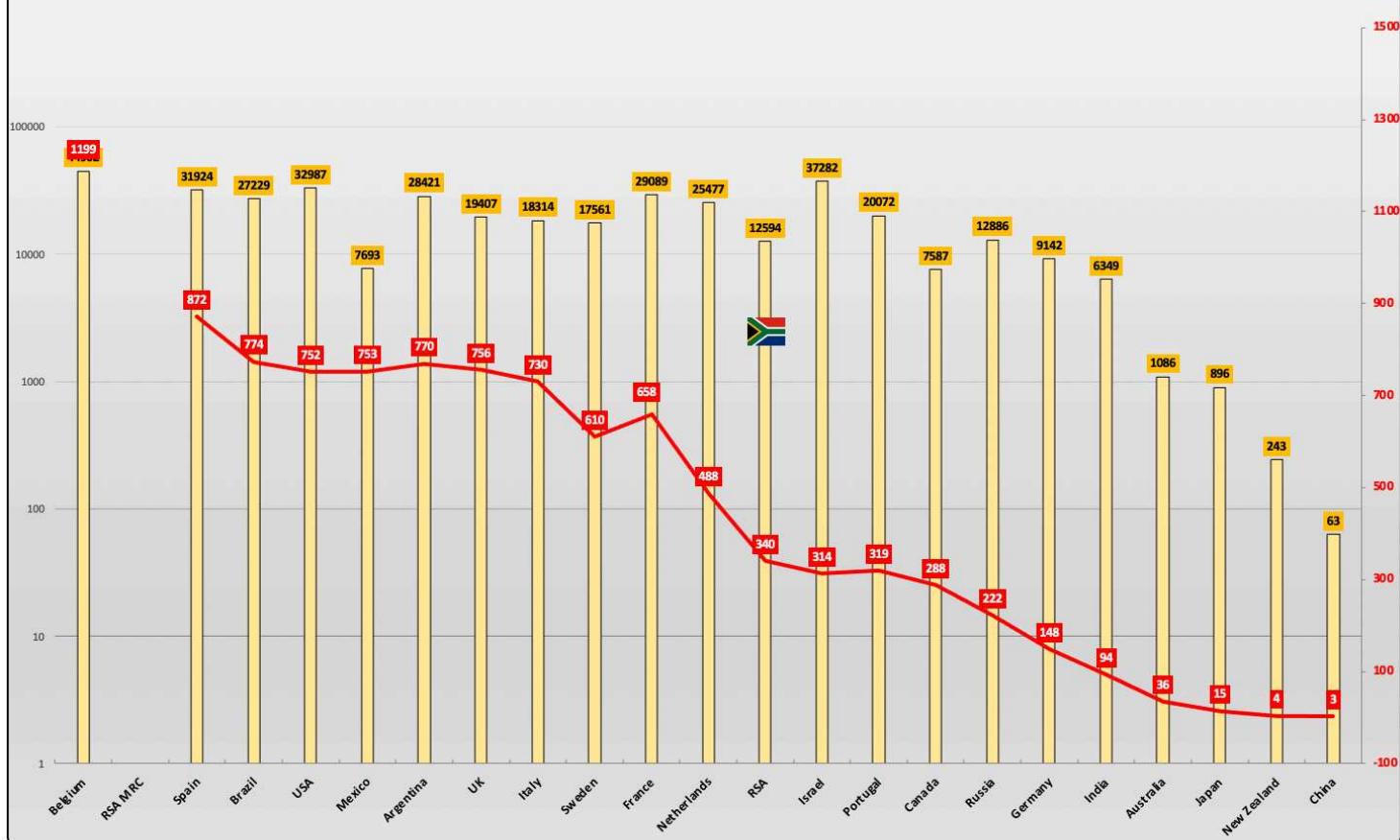
Page 2



## Current Cum Cases & Cum Deaths per million PoP

(Two axes primary Y Log 2nd Y Linear)

Cases per million PoP — Deaths per million PoP



## Daily Deaths Curves & Rate of Onset and 2nd Wave "Inclinometers"

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

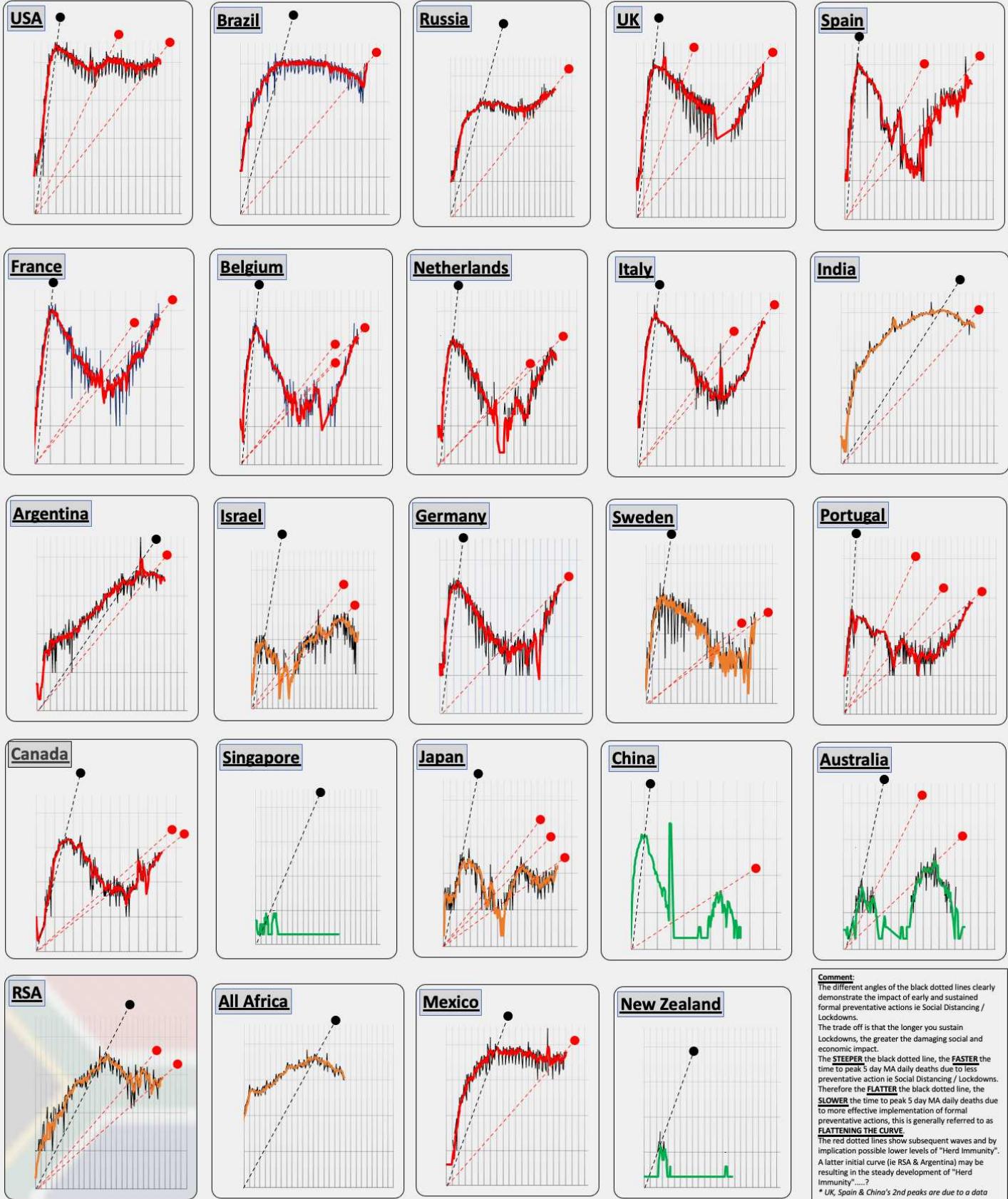
Peaked but spiking again

Passed peak but could rebound OR 2nd wave

Well past peak, unlikely to rebound

● Onset/1st wave

● 2nd & 3rd waves



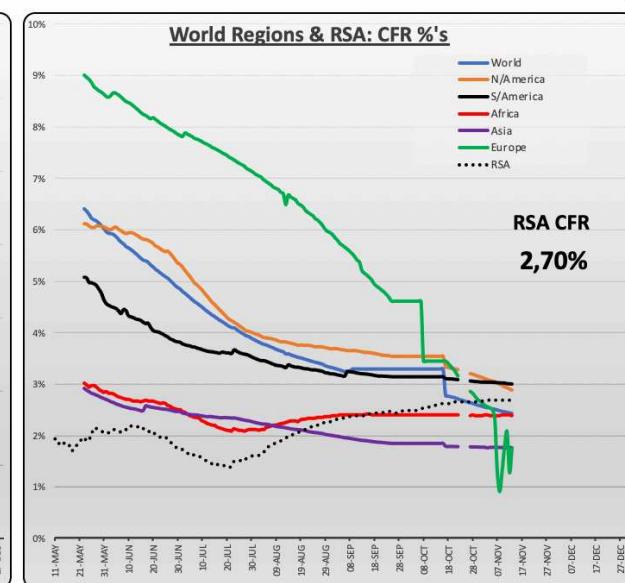
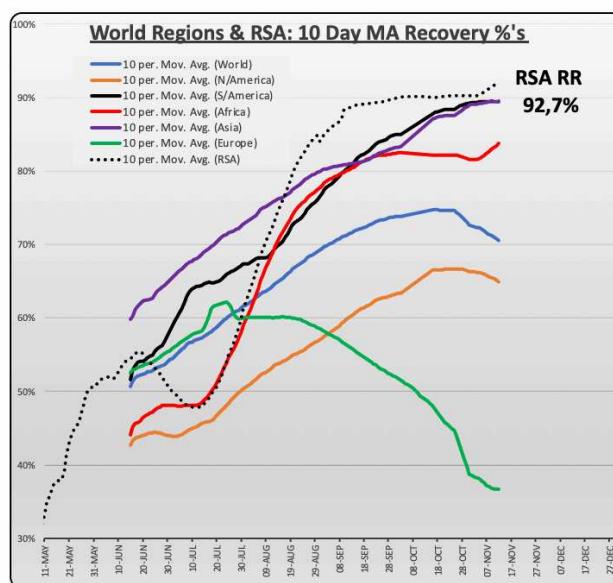
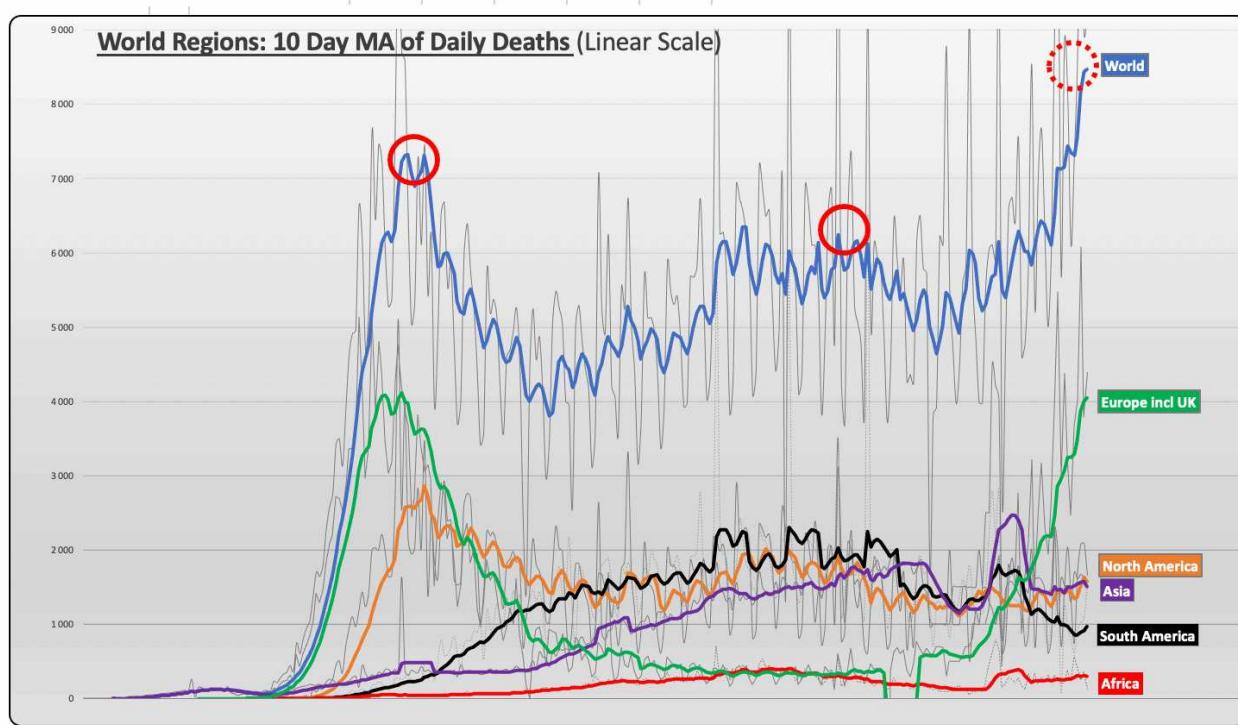
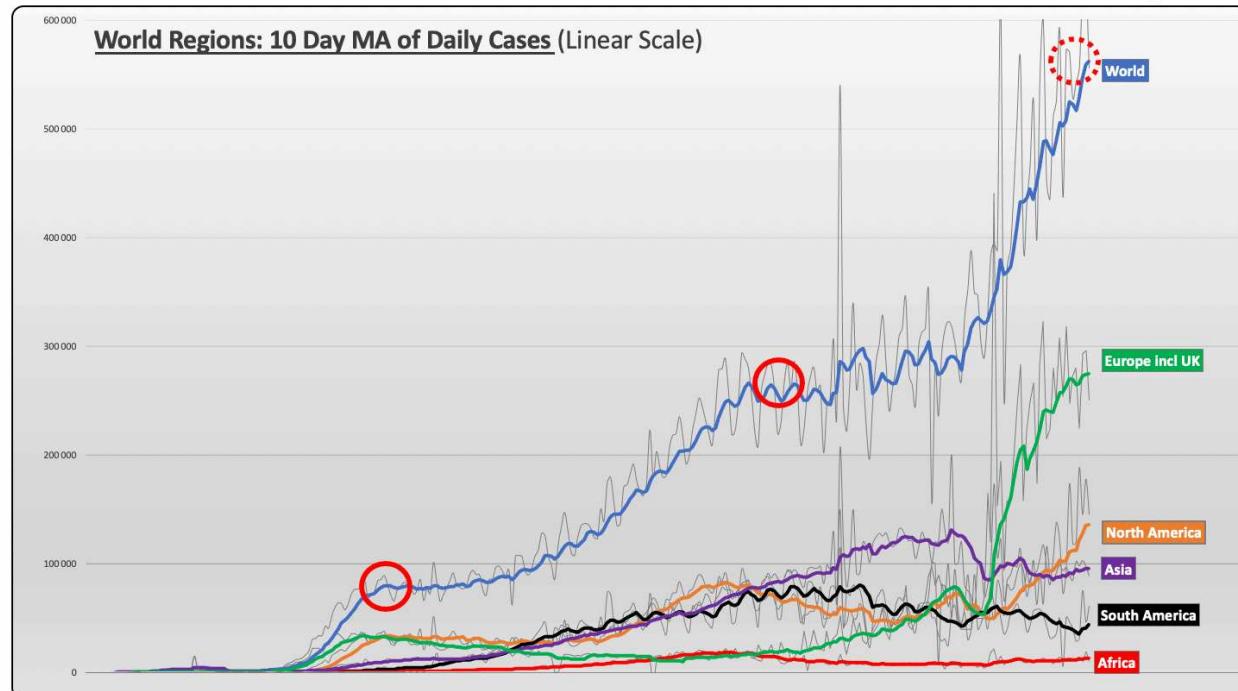
**Comment:**  
The different angles of the black dotted lines clearly demonstrate the impact of early and sustained formal preventative actions ie Social Distancing / Lockdowns.

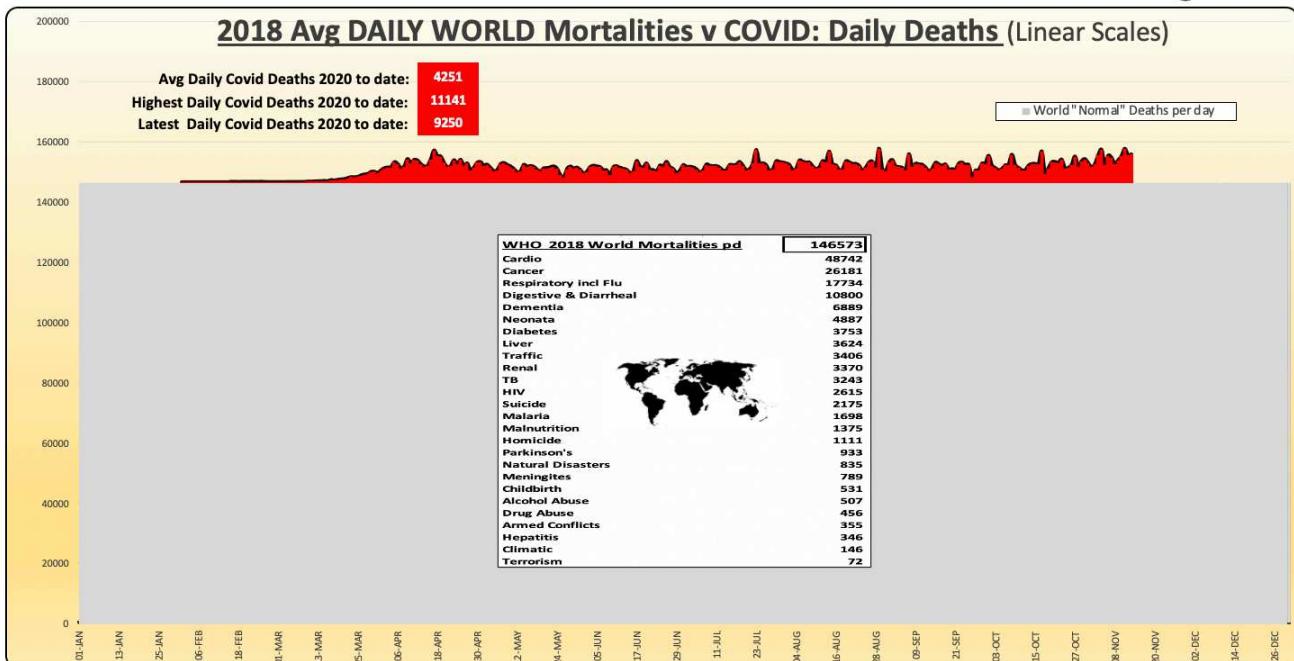
The trade off is that the longer you sustain Lockdowns, the greater the damaging social and economic impact.

The **STeeper** the black dotted line, the **FASTER** the time to peak 5 day MA daily deaths due to less preventative action ie Social Distancing / Lockdowns. Therefore the **FLATTER** the black dotted line, the **SLOWER** the time to peak 5 day MA daily deaths due to more effective implementation of formal preventative actions, this is generally referred to as **FLATTENING THE CURVE**.

The red dotted lines show subsequent waves and by implication possible lower levels of "Herd Immunity". A latter initial curve (ie RSA & Argentina) may be resulting in the steady development of "Herd Immunity" ....?

\* UK, Spain & China's 2nd peaks are due to a data



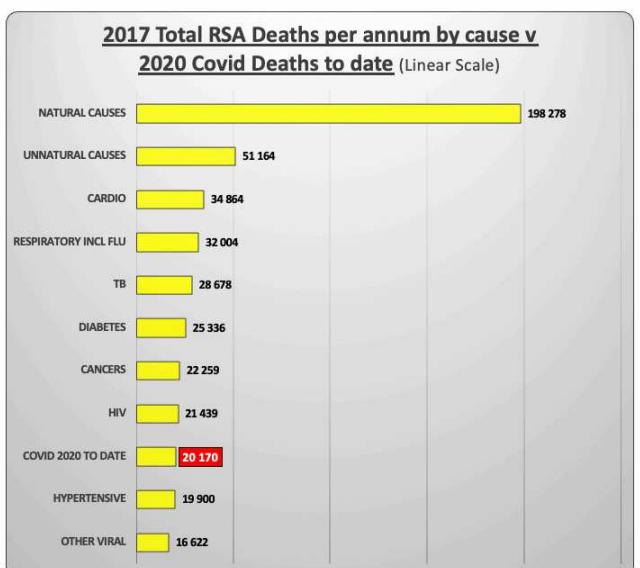
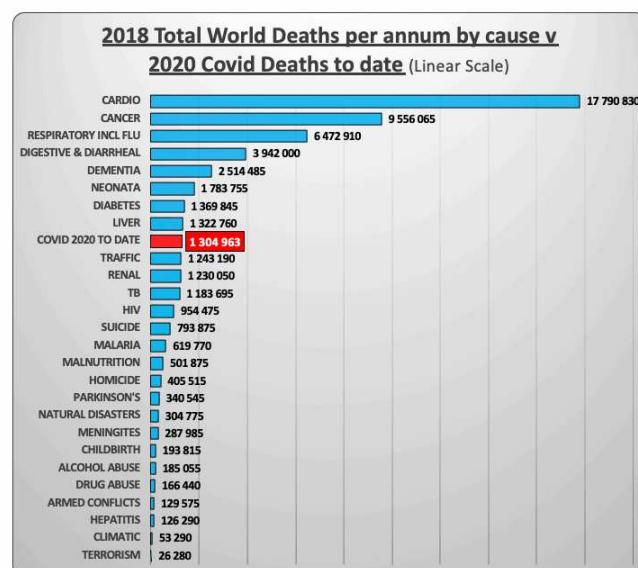
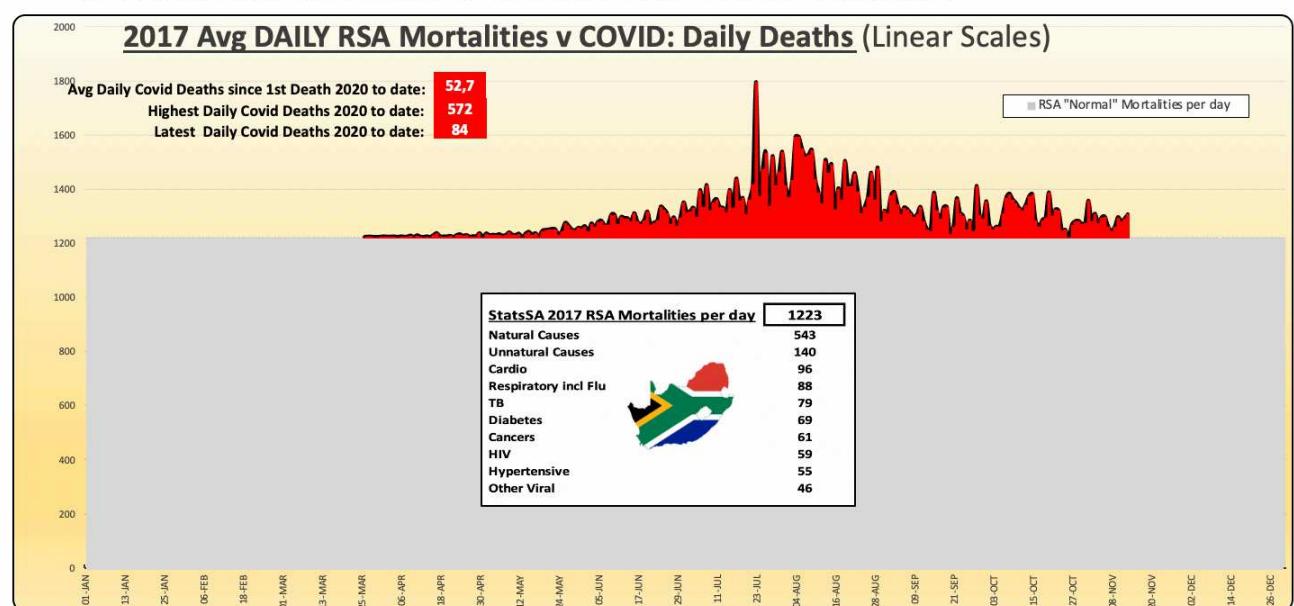


The two graphs WORLD (above) and RSA (below) attempt to put the number of Covid Deaths into some sort of perspective graphically.

The big 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)

16 Scenarios and 3 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.

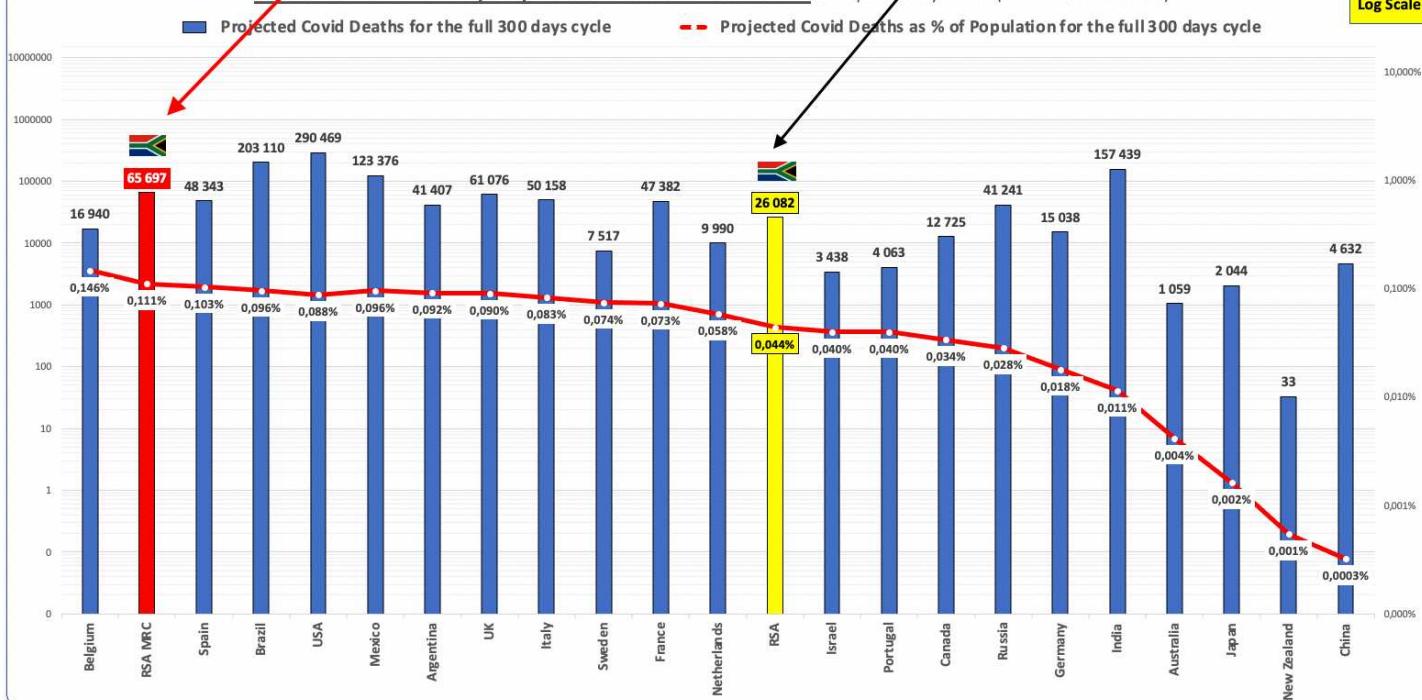
This projection uses the SA Medical Research Council data on "Excess Deaths". The assumption is that 90% of their reported Excess Deaths are probably due to Covid. The ratios are updated bi-weekly by the MRC but I apply these ratios to the official stats on a daily basis for this projection.

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

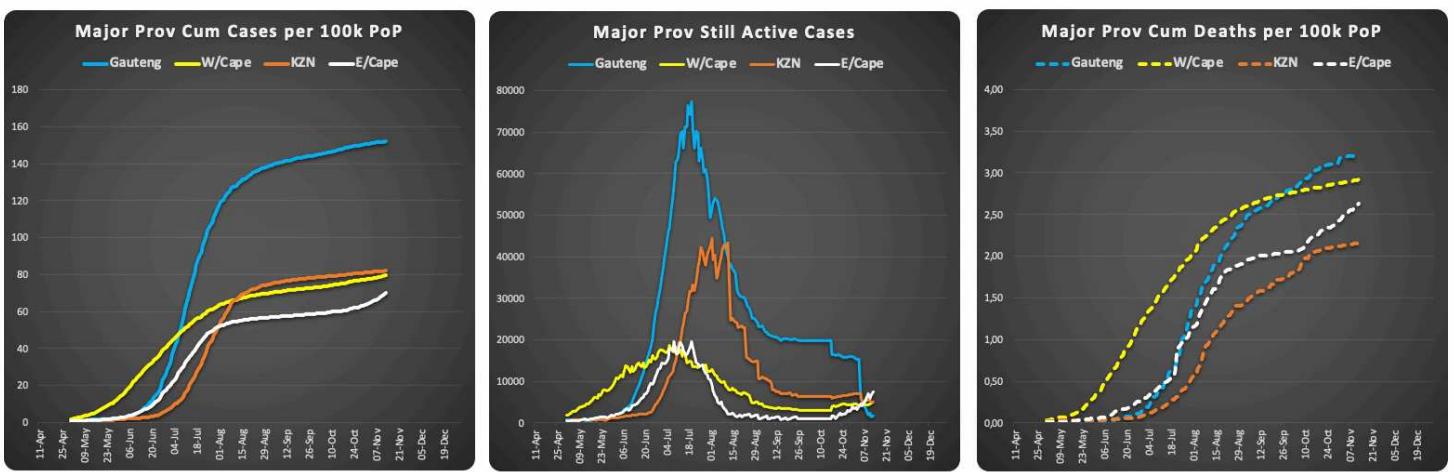
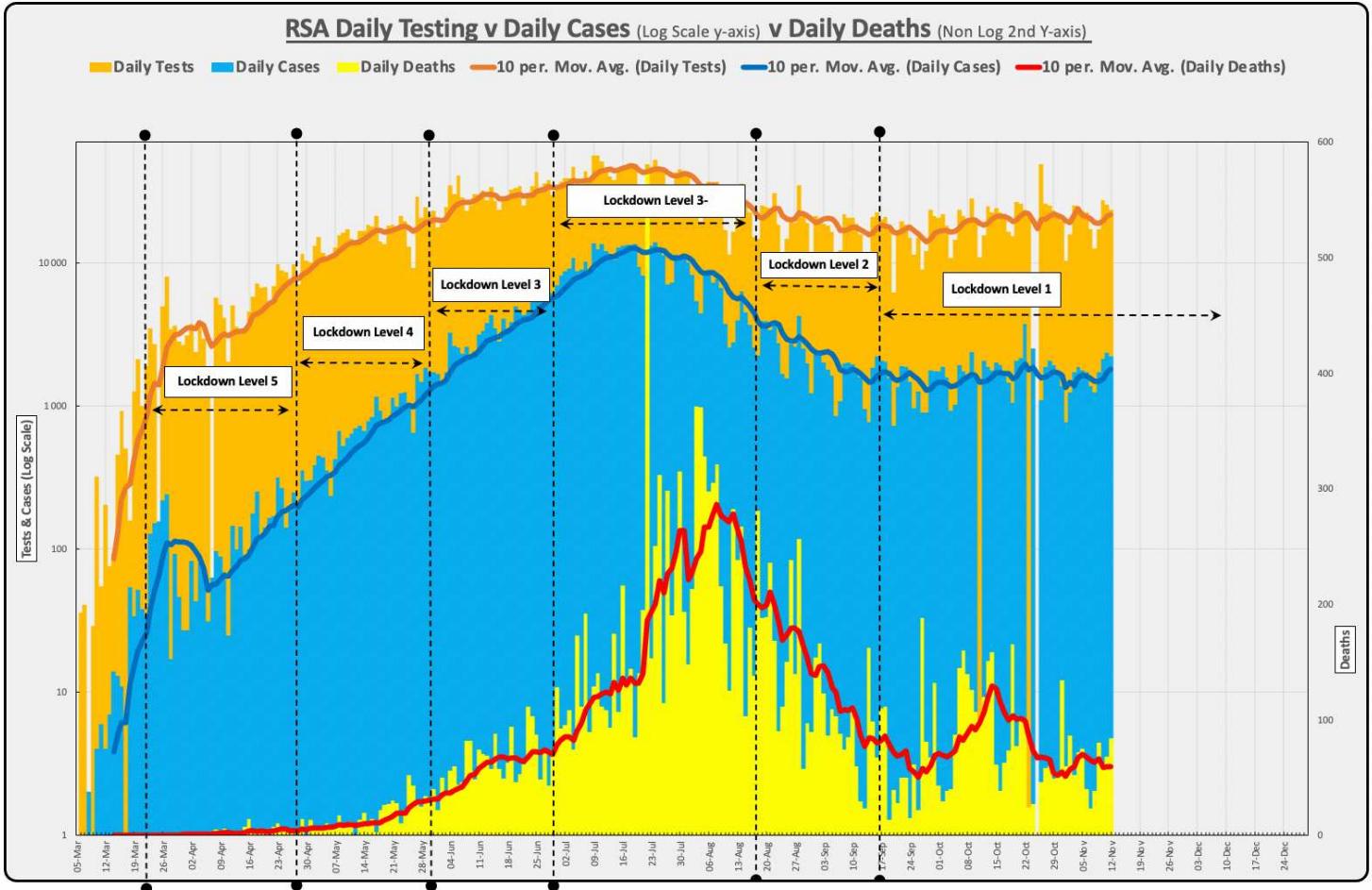
## Projected Deaths by end Dec 2020 per country and % Deaths per Country Populations

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).



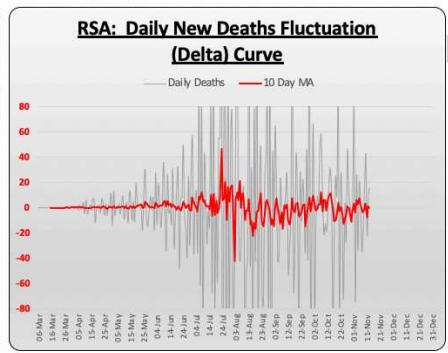
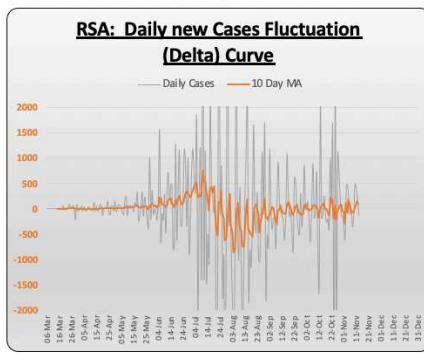
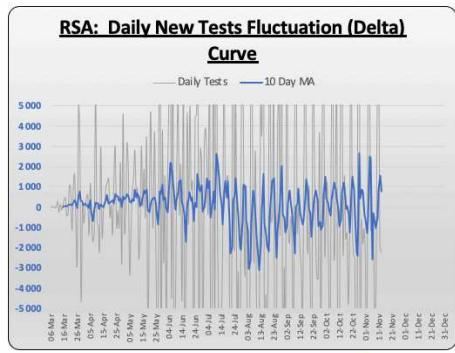
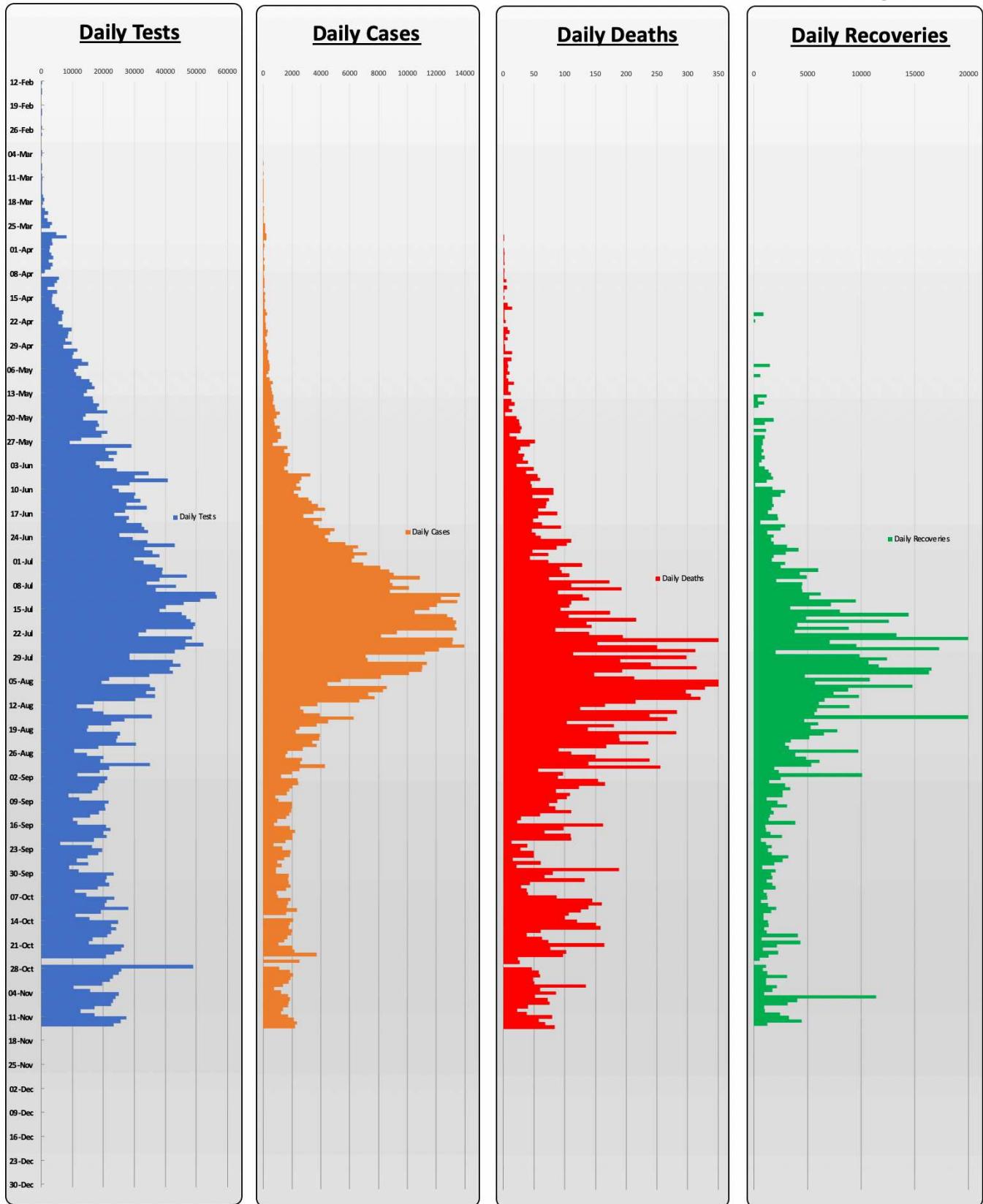
Data as at: 13 November 2020

Unless otherwise indicated

hdg 13 November 2020

# RSA Daily Raw Data Trackers

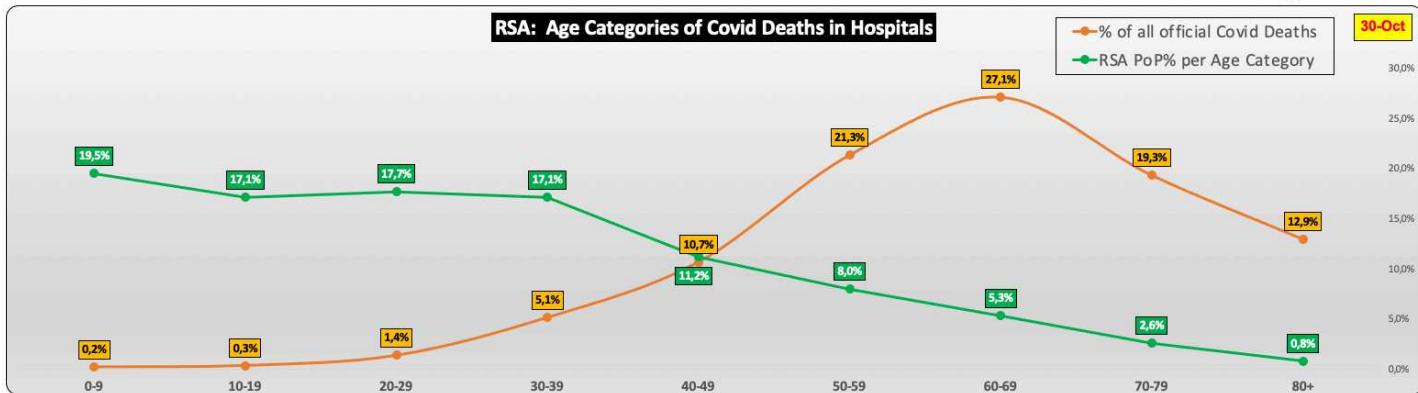
Page 5.1



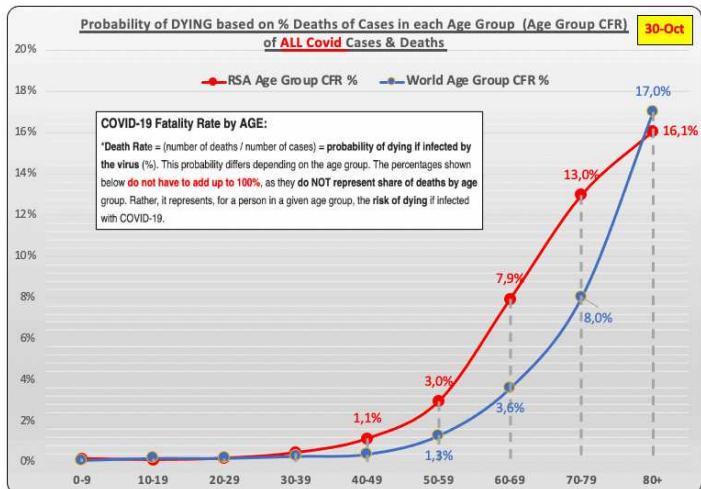
# RSA Age & Gender Stats

Page 5.2

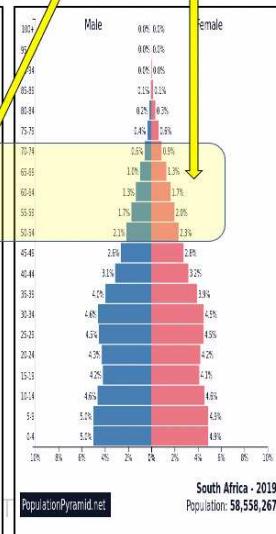
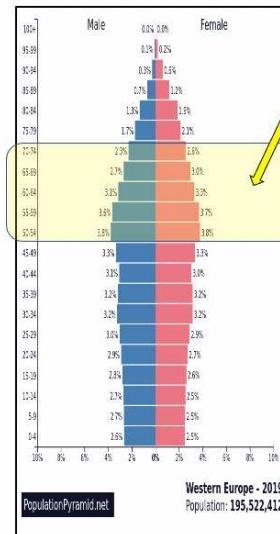
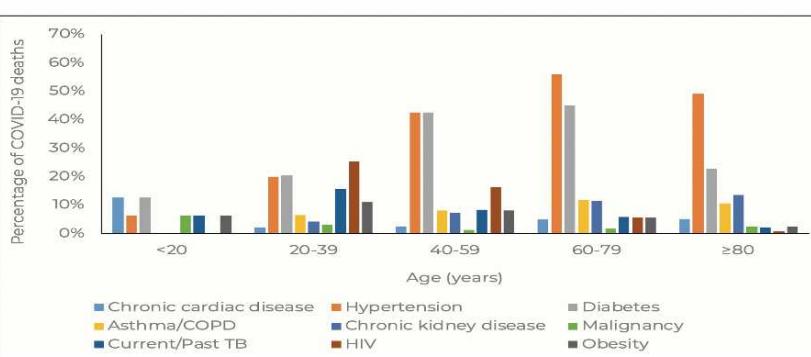
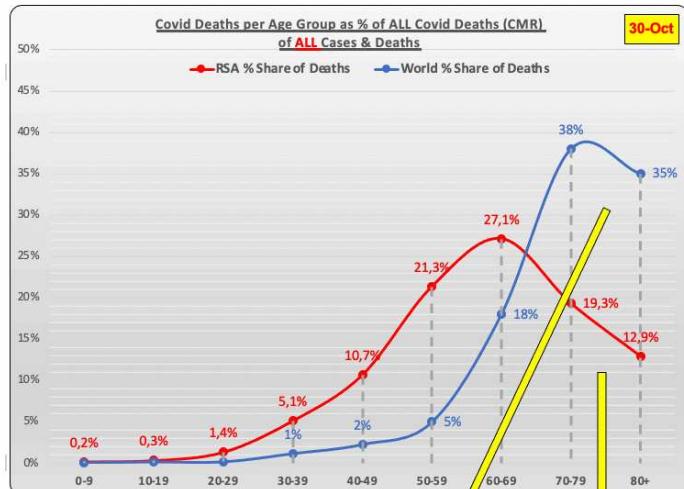
## RSA: Age Categories of Covid Deaths in Hospitals



## Probability of DYING based on % Deaths of Cases in each Age Group (Age Group CFR) of ALL Covid Cases & Deaths



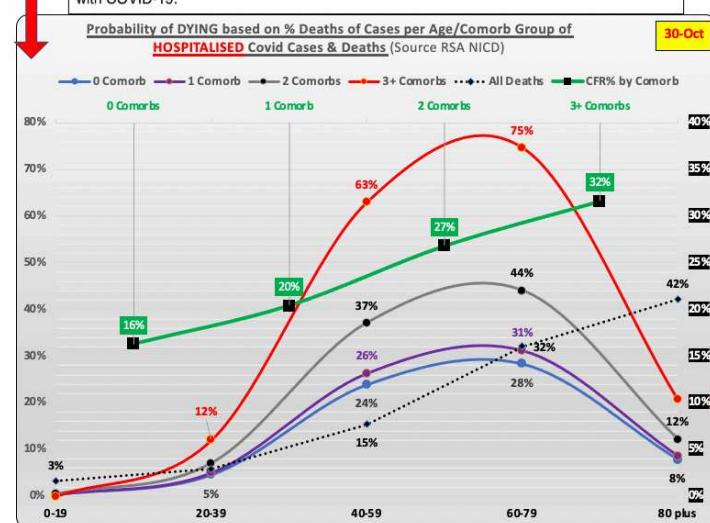
## Covid Deaths per Age Group as % of ALL Covid Deaths (CMR) of ALL Cases & Deaths



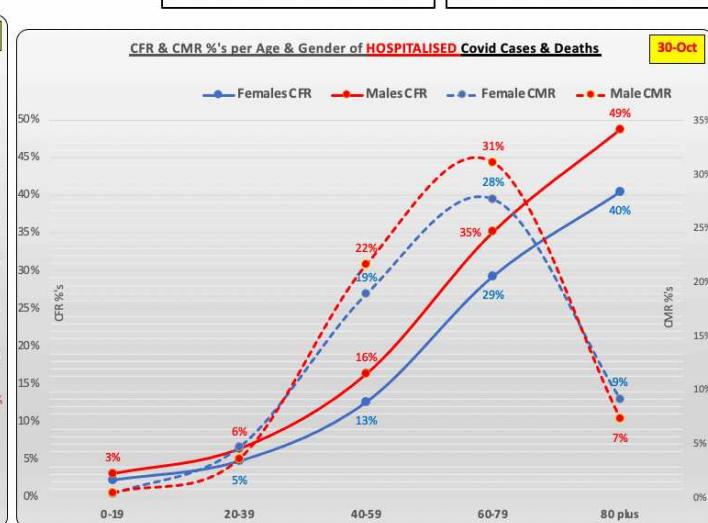
## COVID-19 Fatality Rate by AGE:

\*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.

## Probability of DYING based on % Deaths of Cases per Age/Comorb Group of HOSPITALISED Covid Cases & Deaths (Source RSA NICD)



## CFR & CMR %'s per Age & Gender of HOSPITALISED Covid Cases & Deaths



Data as at: As indicated per graph

Unless otherwise indicated

hdg 13 November 2020

# Covid REPRODUCTIVE NUMBER (Rt) in RSA & Provinces

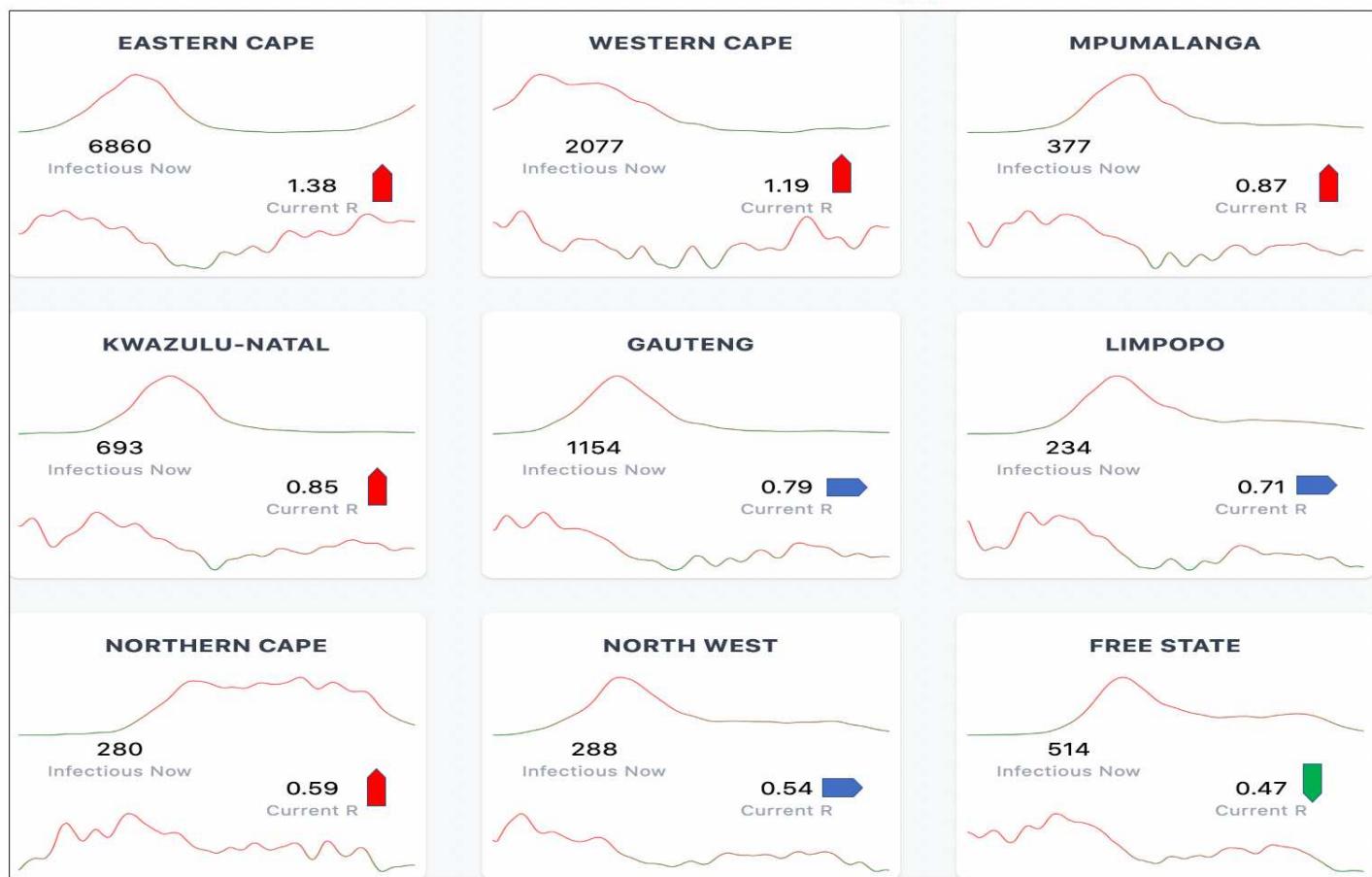
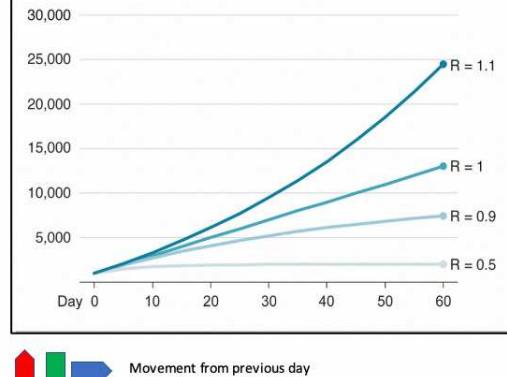
Data as at: 12 November 2020

Page 5.3

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

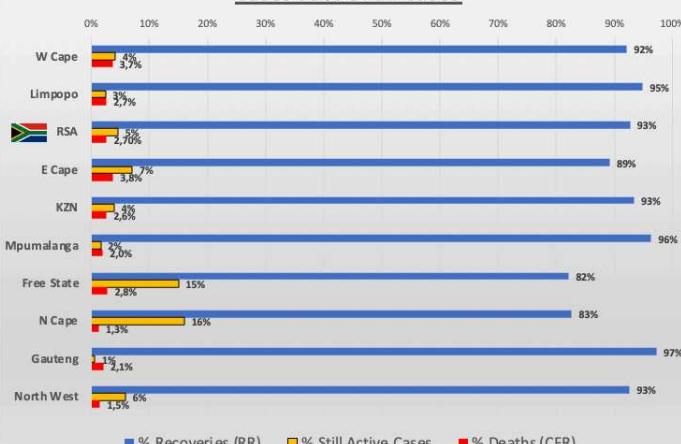


How 1,000 cases would increase under different infection rates

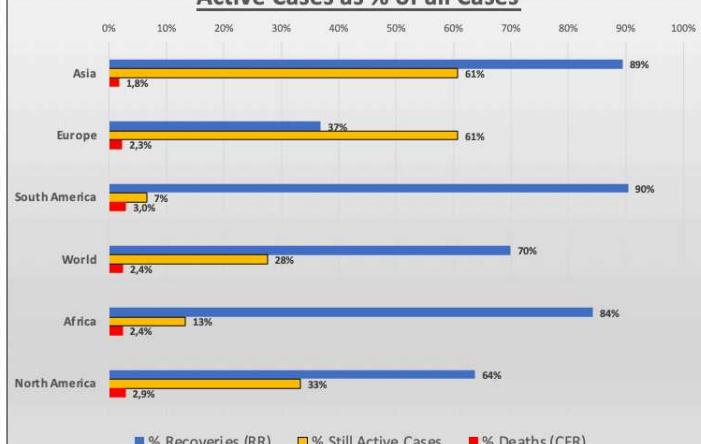


Rt graphs from: <https://reproduction.live/world/ZA>

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



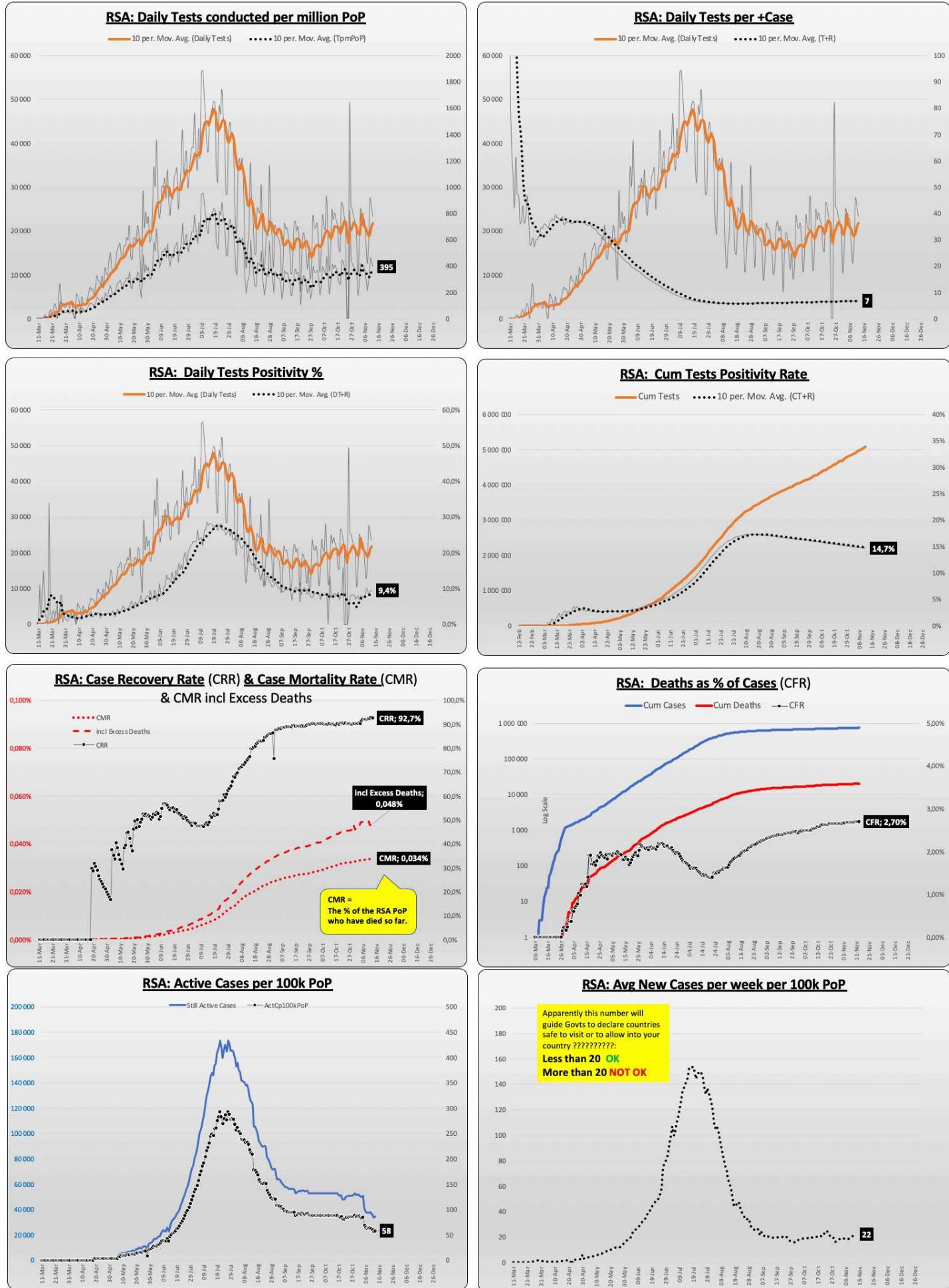
## World Deaths (CFR), Recoveries (RR) and still-Active Cases as % of all Cases



Data as at: 13 November 2020

Unless otherwise indicated

hdg 13 November 2020



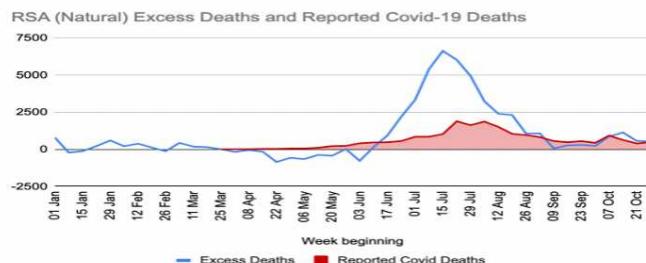
# RSA Covid Stats: National & Provincial Analysis

Page 6

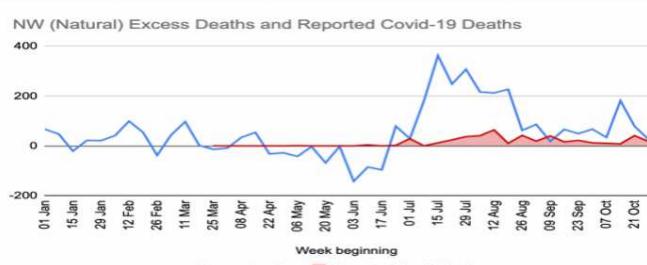
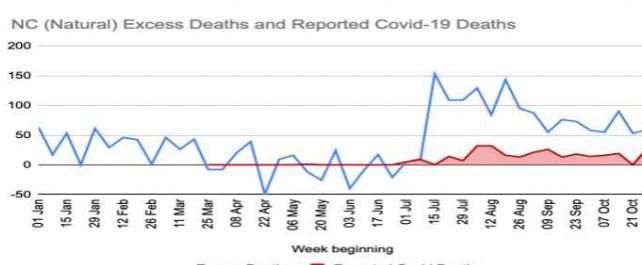
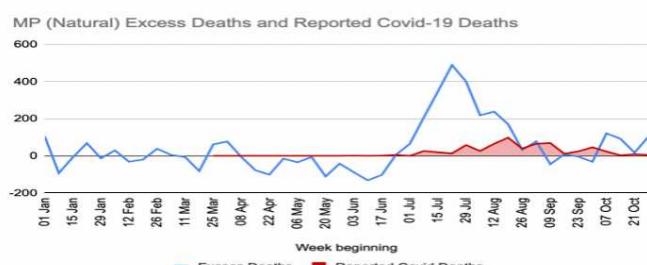
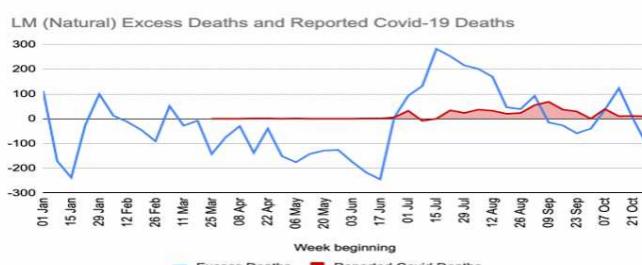
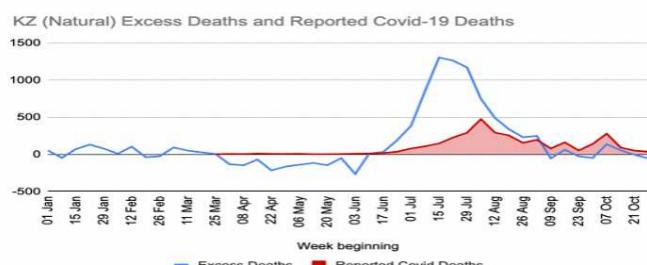
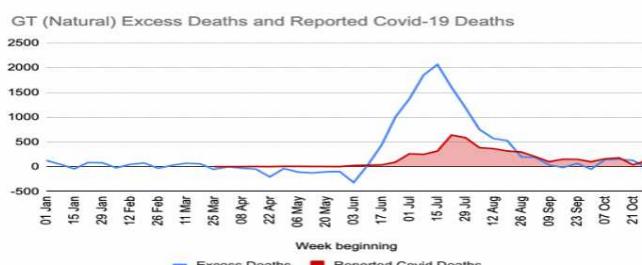
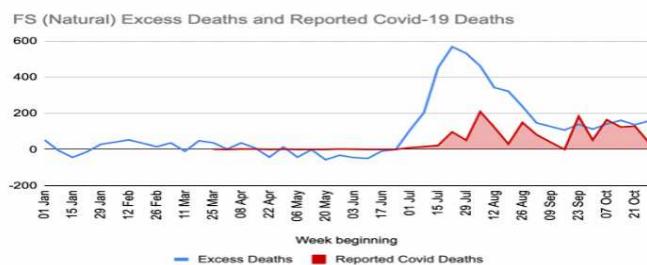
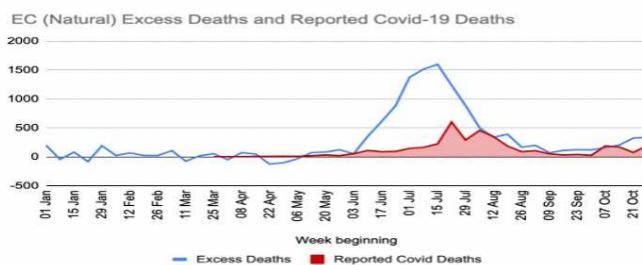


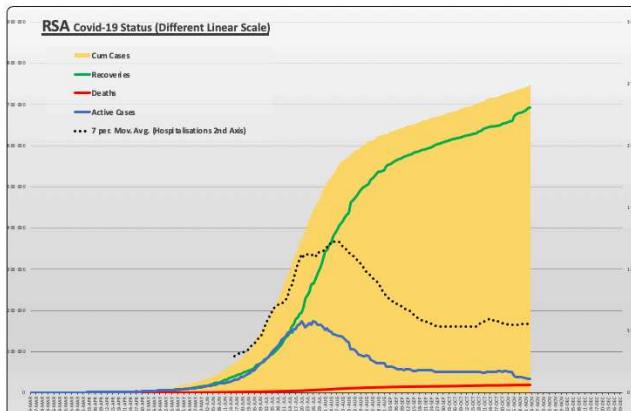
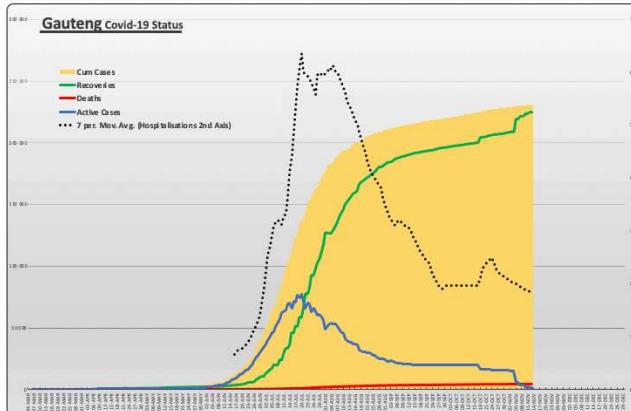
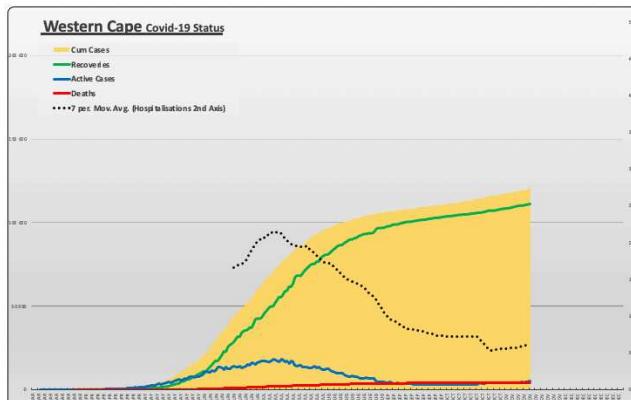
## RSA Excess Deaths as per SA Medical Research Council

Page 6.1



## Provinces





Data as at 11 November 2020 Unless otherwise indicated

RSA PoP:	59.3 #####	Test%: 8.6%	+Case%: 14.7%	Actv/C%: 4.6%	Recov%: 92.7%	Deaths: 340.09	CFR: 2.70%
----------	------------	-------------	---------------	---------------	---------------	----------------	------------

