

C-19 in SA – Predictions versus reality – My Broadband 9 July 2020

Pandemics, Data, and Analytics (PANDA) co-ordinator Nick Hudson has slated South Africa's COVID-19 modelling, which he said amounts to scaremongering.

In his latest article, Hudson said that “just as one group of modellers goes to ground after getting things catastrophically wrong for foreseeable reasons, a new one emerges to repeat the trick”.

Hudson is referring to modelling which predicts that “the Western Cape is about to be ravaged by COVID-19”.

He previously highlighted that the official modelling of South Africa's projected mortalities from COVID-19 started at 375,000, which was completely wrong.

This exaggerated mortality figure “scared the living daylights” out of President Cyril Ramaphosa, which he said resulted in the strict and prolonged level 5 lockdown.

He said that over time, these forecasts have been significantly reduced to 40,000 mortalities, which he believes is still a drastic over-estimate.

Hudson has now shifted his attention to the latest Western Cape modelling, which shows that the province has not reached its peak yet.

Western Cape Premier Alan Winde recently said the peak in the province seems to be later than was originally projected and is likely to take place from end of July to beginning of August.

He further said this peak is flatter than was originally projected but would last longer and result in “potentially more cumulative deaths of about 10,000 people during the pandemic”.

“The virus could be with us for longer than we thought, with this first peak only ending towards the end of November,” said Winde.

Hudson slated this modelling, saying confirmed COVID-19 cases, hospitalisations, ICU admissions, and deaths are all slowing down in the province.

“The good news is that the Western Cape has passed peak mortality, our healthcare services have withstood the onslaught, and we are on the way out of this nightmare,” he said.

“Our healthcare workers have learned how to deal with the COVID-19 scourge and can now help the rest of South Africa.”

Projections versus reality

To support his views, Hudson compared the 12 June Modelling Consortium projection, which is used by the Western Cape, with PANDA’s own model.

He said the Modelling Consortium’s projection “is hardly a projection, predicting 2,600 to 9,000 deaths in the Western Cape by 15 July”.

“The model has already fallen below its mid-low confidence interval, and is heading below its lower bound by 13 July, just a month in.”

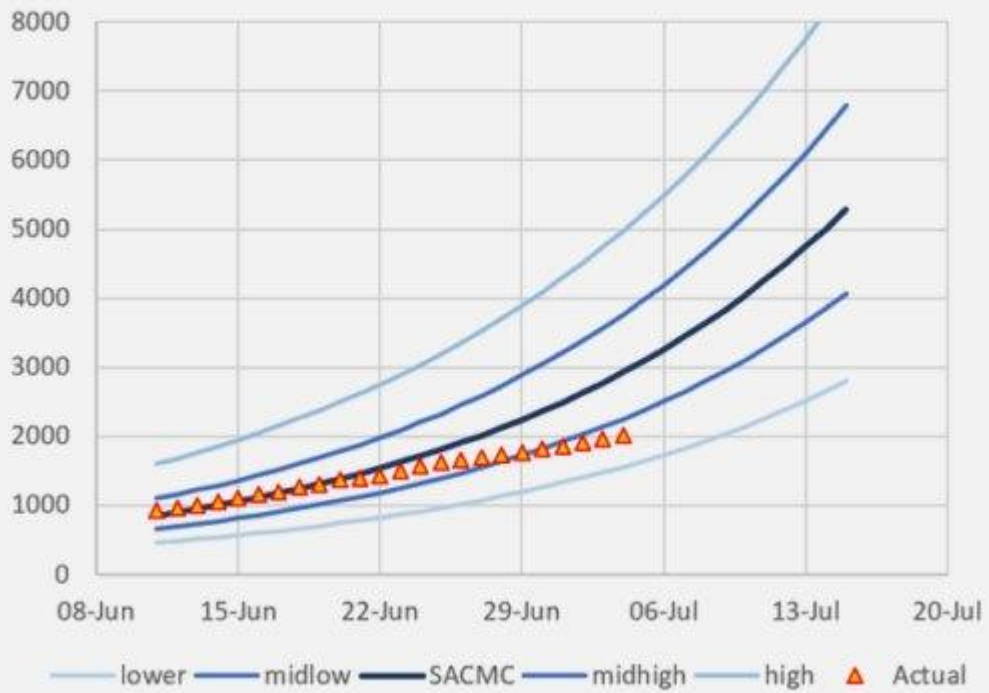
PANDA’s Gompertz projection, which was released on the same day, predicts a narrow range of 2,300 to 2,900 deaths by 15 July.

“Actual deaths are currently tracking straight down the middle. This shows Western Cape mortality has already peaked,” said Hudson.

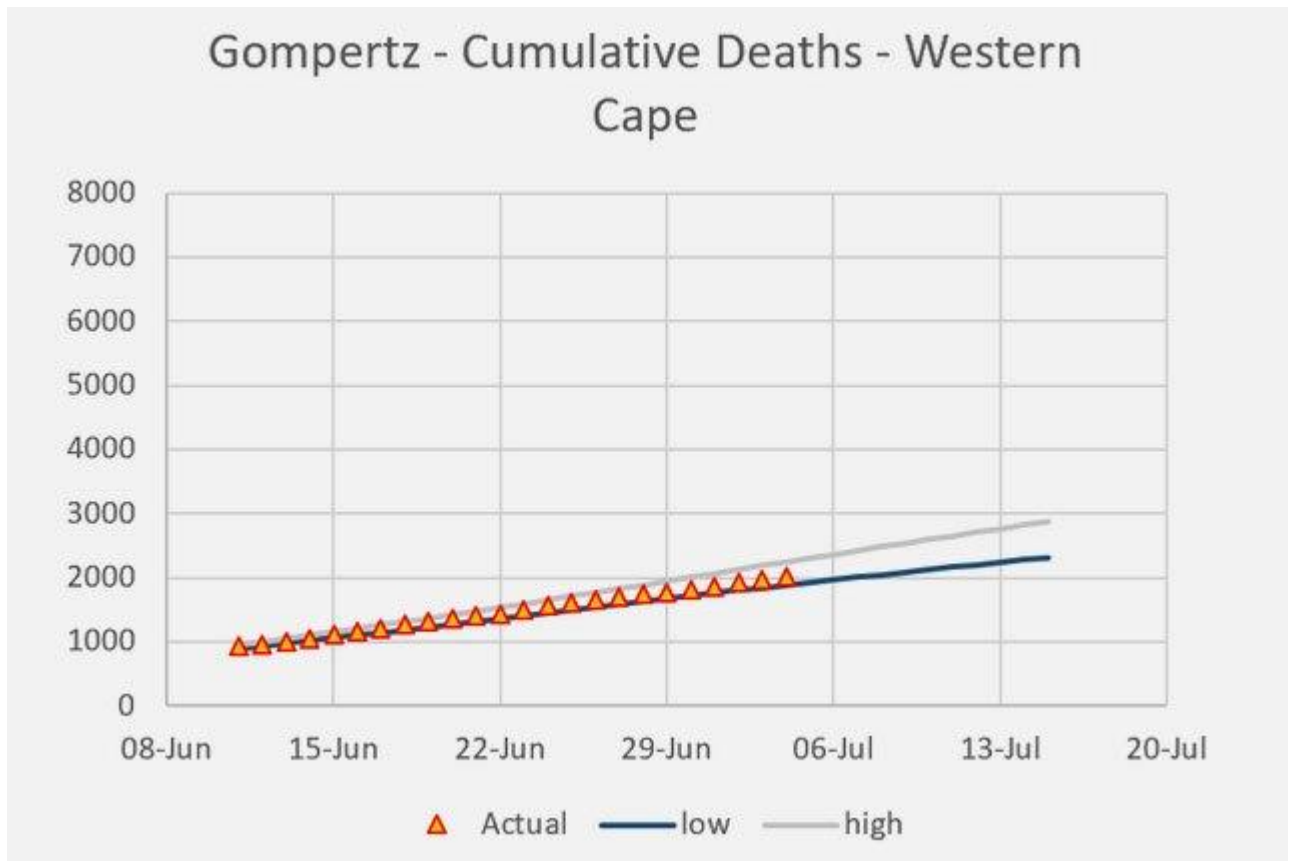
The charts below show the two predictions compared with the actual deaths in the Western Cape.

South African COVID-19 Modelling Consortium Prediction

SACMC - Cumulative Deaths - Western Cape



PANDA Gompertz Prediction



No comment from Professor Andrew Boulle

MyBroadband asked Professor Andrew Boulle, who is cited in the PANDA article as the person behind the Western Cape’s modelling, for comment, but he said he was unable to provide feedback.

Instead, he pointed MyBroadband to the opinion piece by the Premier of the Western Cape published in Business Day.

“This opinion piece gives context to the scenarios I presented on behalf of the Department, which while attributed to myself are actually those of two national modelling consortia,” said Boulle.

Full article by PANDA

The full article from Pandemics, Data, and Analytics (PANDA) is provided below.

Just as one group of modellers goes to ground after getting things catastrophically wrong for foreseeable reasons, a new one emerges to repeat the trick. A game of modeller whack-a-mole, anybody?

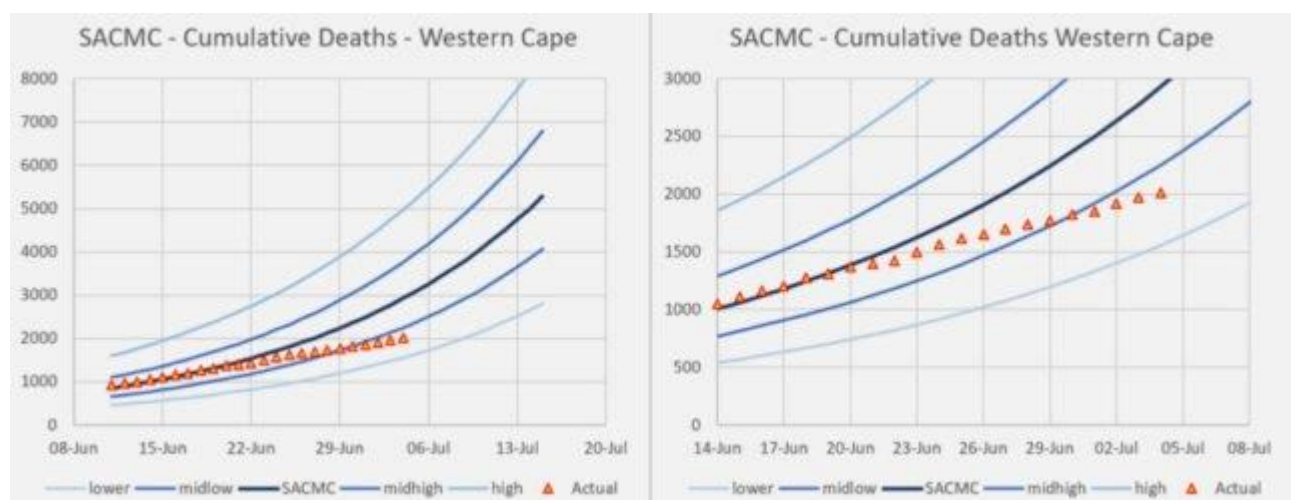
From news on 3 July, it would appear that the Western Cape is about to be ravaged by Covid-19. Professor Andrew Boulle of the Western Cape Provincial Department of Health believes the Western Cape has not yet reached its peak.

He also claims that the peak is going to be “flatter, later and longer” and that some districts’ eventual mortality rate could easily reach 1,500 per million, “which would take those communities into the realm of New York state, Madrid or Stockholm”.

Unfortunately the wise professor seems to be wagging the dog, the dog being the people of the Western Cape. He attempts to explain why his projections don’t match reality in a presentation.

He presents this to UCT and MRC saying that he generally presents “this to an audience that know these models reasonably well”. We hope the luminaries in attendance were able to grasp his brilliance nonetheless. Sadly, it is all made of fail, and we shall explain why.

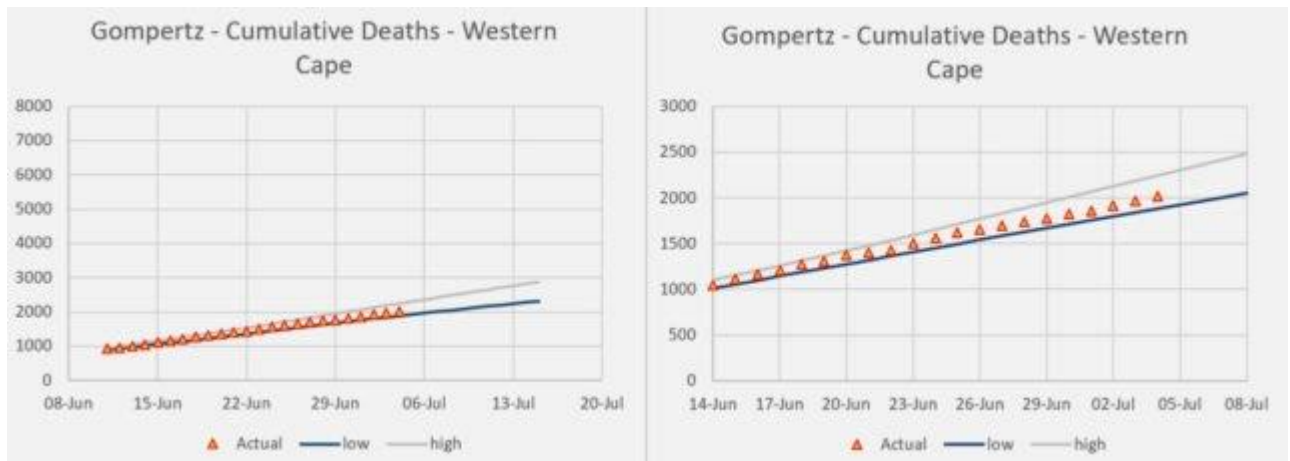
This is the 12 June Modelling Consortium projection he uses. It is hardly a projection, predicting 2600 to 9000 deaths in the W Cape by 15 July. The model has already fallen below its mid-low confidence interval, and is heading below its lower bound by 13 July, just a month in!



This toy's new. His old toy predicted calamity, but Boulle explains with these pearls: "The previous projections weren't a definitive version of would happen. They were a version of what the data prior to the calibration were consistent with in terms of what could happen." Right.

These are "standard compartment models", presumably SEIR models that have so many thumbsuck initial parameters that you could plot the shape of Bart Simpson's head with them. Boulle has used it like Neil Ferguson, to overestimate, so as not to be blamed for an underestimate!

This is Panda's Gompertz projection—same release day. It predicts a narrow range of 2,300 to 2,900 deaths by 15 July. Actual deaths are currently tracking straight down the middle. This shows Western Cape mortality has already peaked. This is totally at odds with what Boulle says.



Boulle doesn't like the Gompertz model because it did not work on AIDS in the 90s. HIV has extremely low infectivity compared to Covid-19, and infection prevention methods that actually work. Boulle needs to learn that all viruses are not the same.

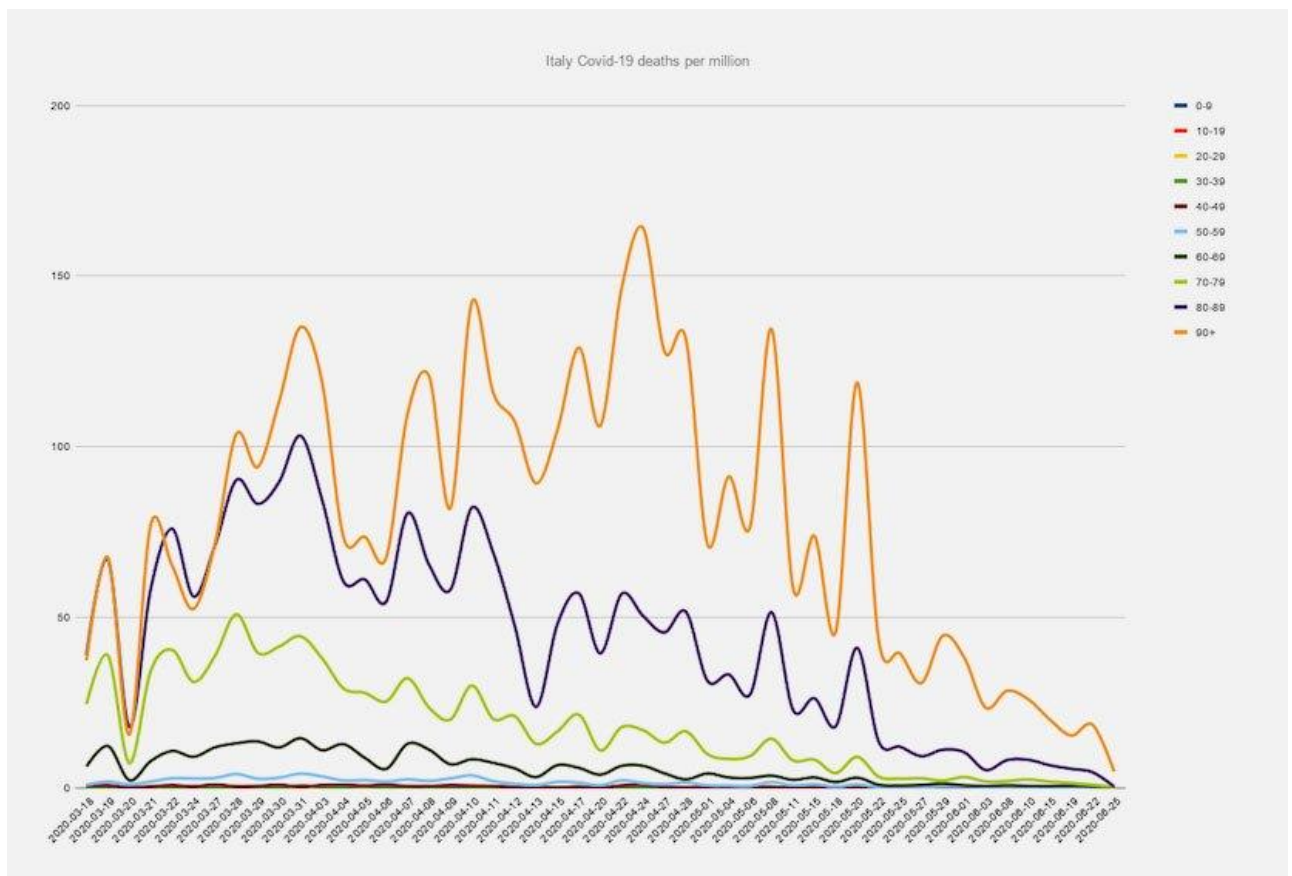
Boulle says hospital admissions have dropped below his projections because actual admissions have "become quite flat because of our capacity constraints". W Cape has plenty of empty beds with two new field hospitals, but this is how he explains his deviation from reality.

Boulle explains recent reduced deaths as "reporting lag", but his projection has been wrong for a while. He also counts some excess deaths as Covid to "correct" his figures. He is using people who died due to lack of healthcare access during lockdown to make his model work. Sies!

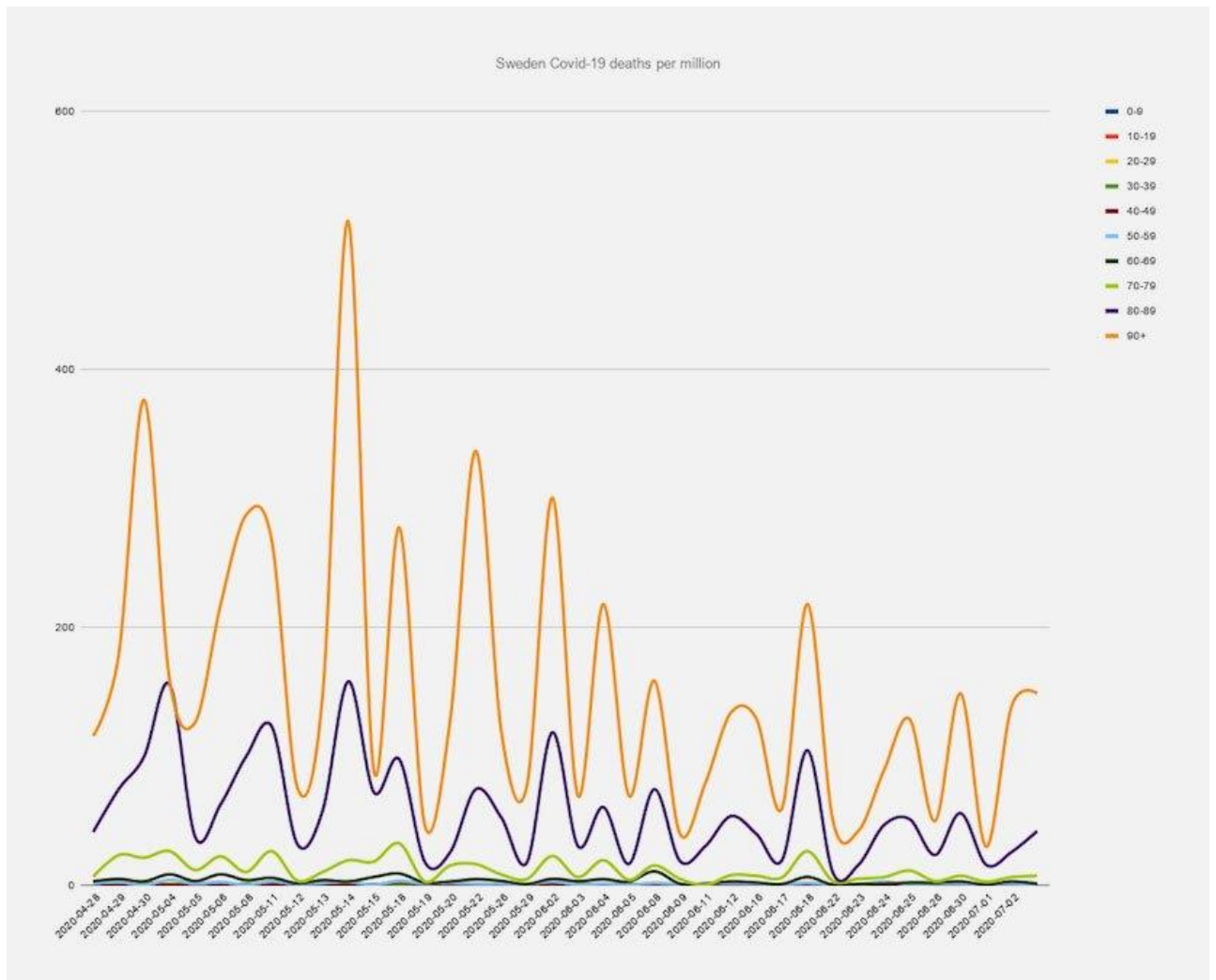
Confirmed cases, hospitalisations, ICU admissions, and Covid deaths are all slowing down, but Boule's projection is still exponential. He offers a different reason for each parameter's deviation from his projection. There is only one reason for all of them — his model is wrong.

Boule says that reality will follow his projection, but in a flatter, later and longer way. He predicts that the current 600 to 700 deaths per million in some W Cape communities could easily reach 1500 per million. This "square mile" analysis is bad science.

Deaths over 80 years old are responsible for Italy's flatter, longer, later curve. The young stopped dying in significant numbers back in April. Both viral replication and host immune response are slower in the elderly. Covid takes longer to kill the elderly.



Same is happening in Sweden. Deaths under 80 are approximating zero. How many octogenarians does Boule think live in Khayelitsha and Klipfontein that are capable of helping him keep his projection on track to take them "into the realm of New York state, Madrid or Stockholm"?



The good news is that the Western Cape has passed peak mortality, our healthcare services have withstood the onslaught, and we are on the way out of this nightmare. Our healthcare workers have learned how to deal with the Covid scourge and can now help the rest of South Africa.

The bad news is that there are some actors that are so invested in their authority that they wish to keep us living in fear, dread and lockdown until they can find a way out of their own flawed thinking. Shame on them.