REPORT ON WEEKLY DEATHS IN SOUTH AFRICA

1 JANUARY – 12 MAY 2020 (WEEK 19)

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UCT Centre for Actuarial Research

Data Source

Basic demographic information for all deaths registered on the National Population Register are provided to the SAMRC on a weekly basis. Since the weekly number of deaths has a seasonal trend, historical data from 2018 and 2019 have been used to predict the number of deaths that could be expected during 2020.

The excel forecast function[1] has been used to predict values for each week of 2020 based on a linear annual trend, allowing for a seasonal effect over the year. In addition, 95% prediction intervals have been estimated for the predicted weekly number of deaths for 2020 to give a basis to assess fluctuations.

Graphs in this report have been prepared of the weekly number of deaths up till epidemiological **week 19** covering the period from **1 January 2020** till **12 May 2020** based on the data received on 18 May 2020. *The figures plot the numbers at the start date of each week*.

Data for the most recent week has been scaled up to account for the lag in registrations. Based on previous data, a factor of 1.06 has been applied. Care has been taken to account for public holidays.

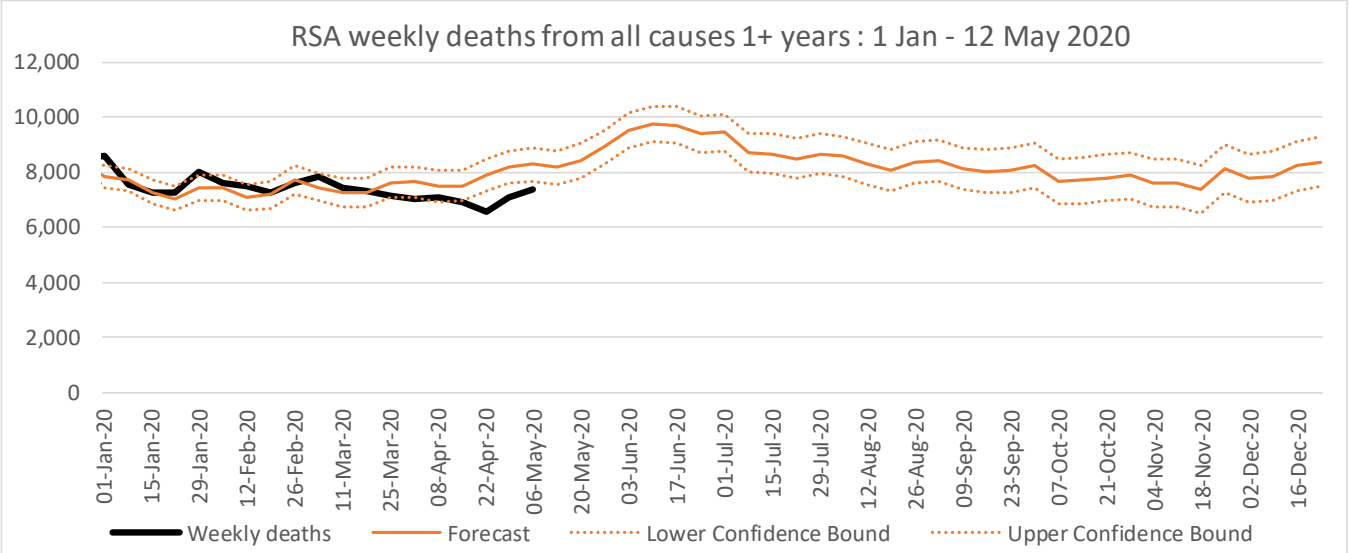
It must be noted that the National Population Register only includes deaths of persons with a national ID number. Unregistered deaths as well as the registered deaths of persons without a national ID number are not recorded.

Births were not registered by the Department of Home Affairs during lockdown stage 5. This means they will not be placed on the National Population Register and thus that the deaths of these births will not been captured. **This report presents weekly deaths of persons 1 year and older**. Registered births are again being added to the population register and once we have confidence that registration of deaths are back to previous levels we will include deaths under age 1.

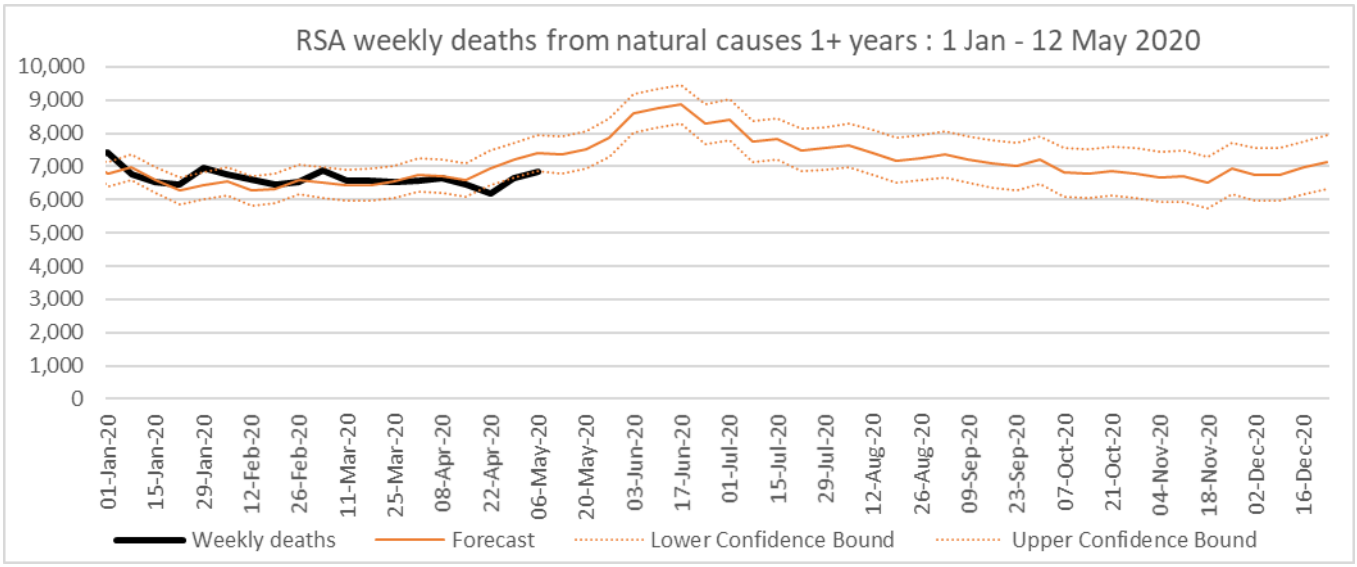
[1] The Excel function implements is the Holt-Winters triple exponential smoothing (the AAA sub-method).

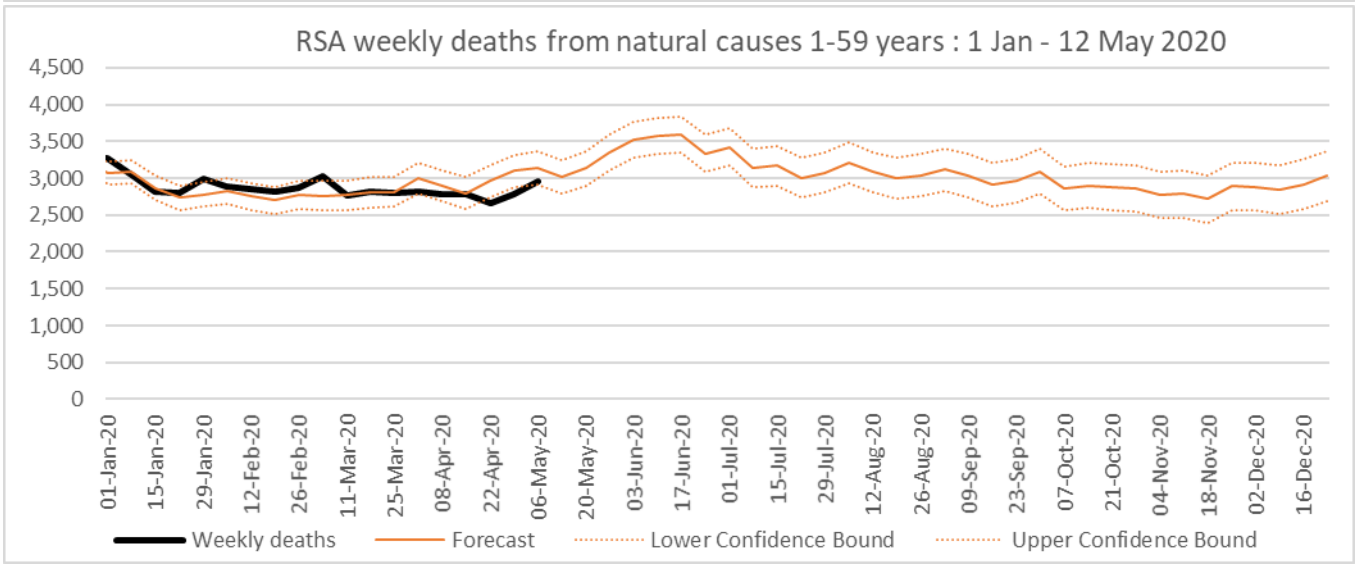
Trends

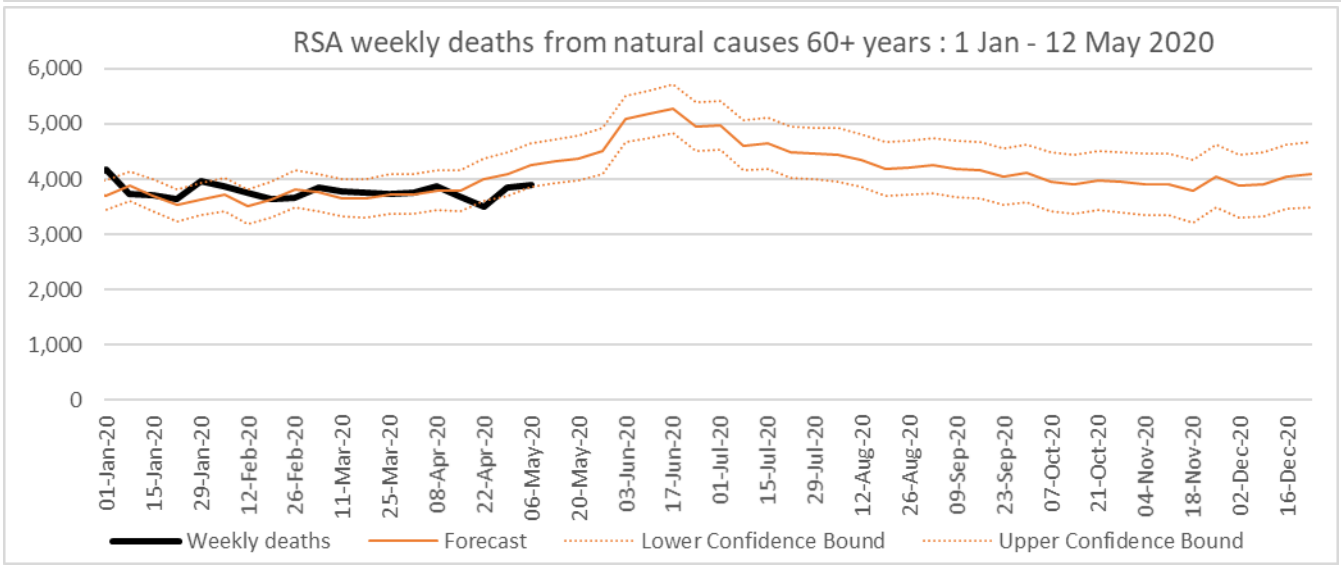
- The weekly number of deaths of persons 1+ years of age up till **12 May 2020** are significantly lower than the number that would have been expected based on the historical data, mainly due to the decline in the number of deaths from unnatural causes.
- The number of deaths from unnatural causes (e.g. road traffic fatalities and homicide) was significantly lower during lockdown than projected on the basis of past trends, but appears to be increasing with the easing of lockdown.
- Deaths from natural causes show no unusual sign of increase by **12 May 2020** among people less than 1-59 years nor those 60 years and over, and appear to be tracking consistently below the projected numbers.



Numbers for the last week has been adjusted for delayed registrations







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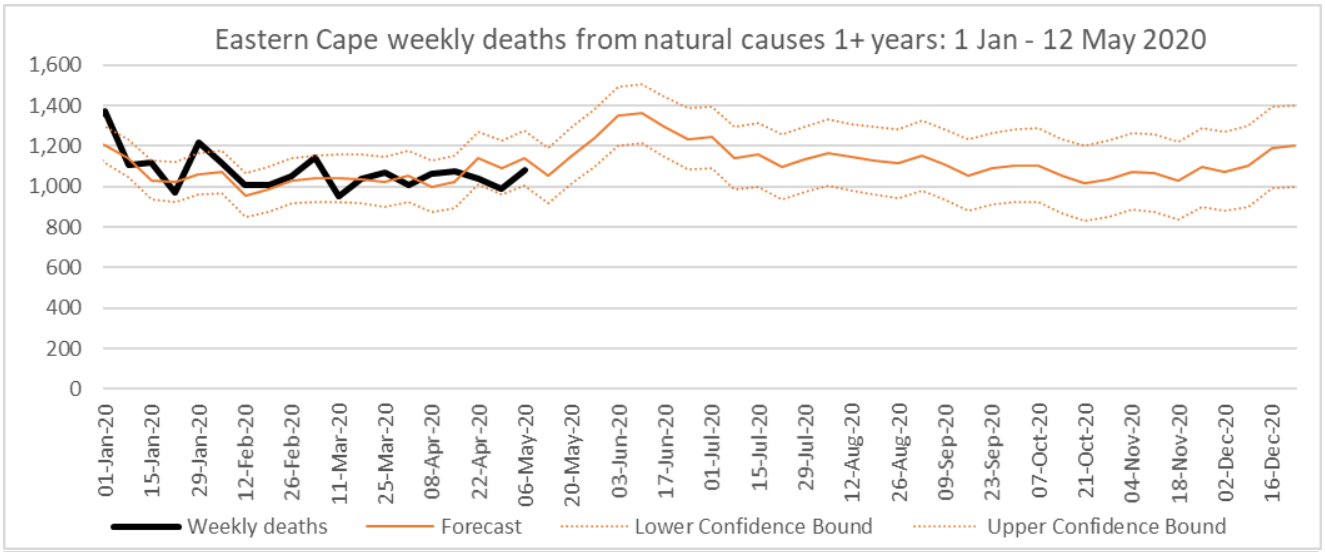

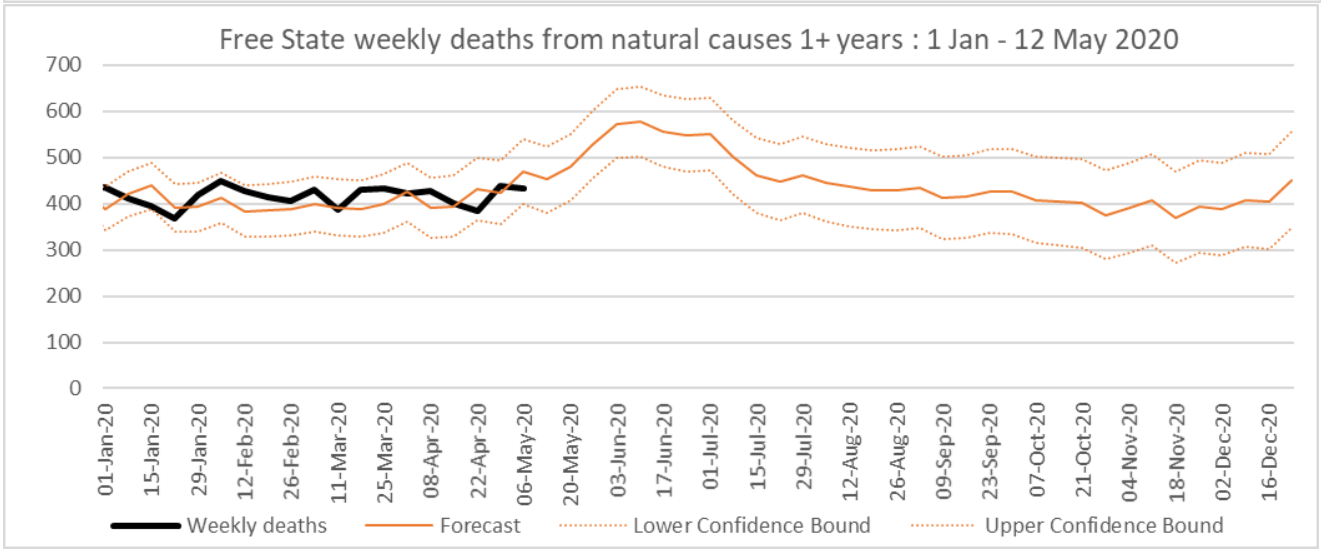

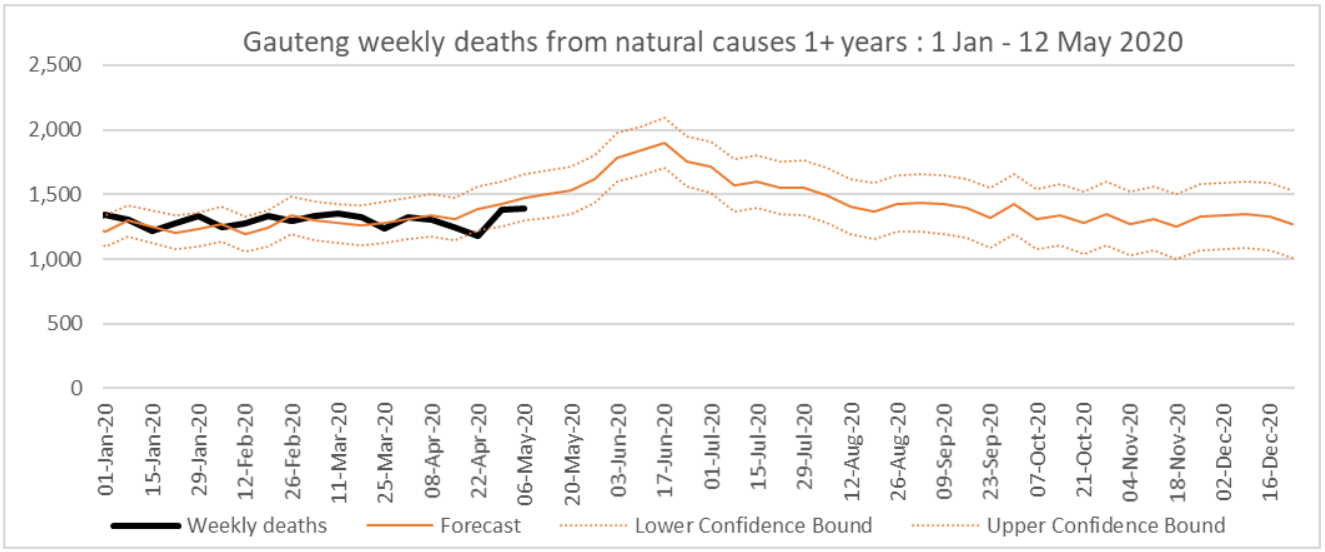

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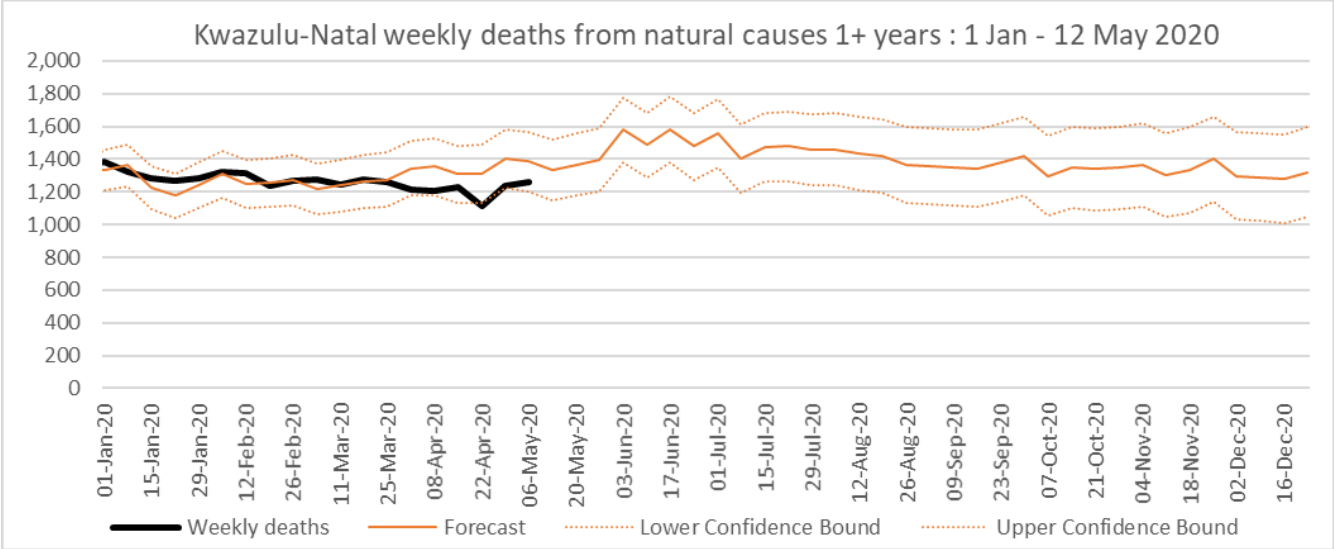

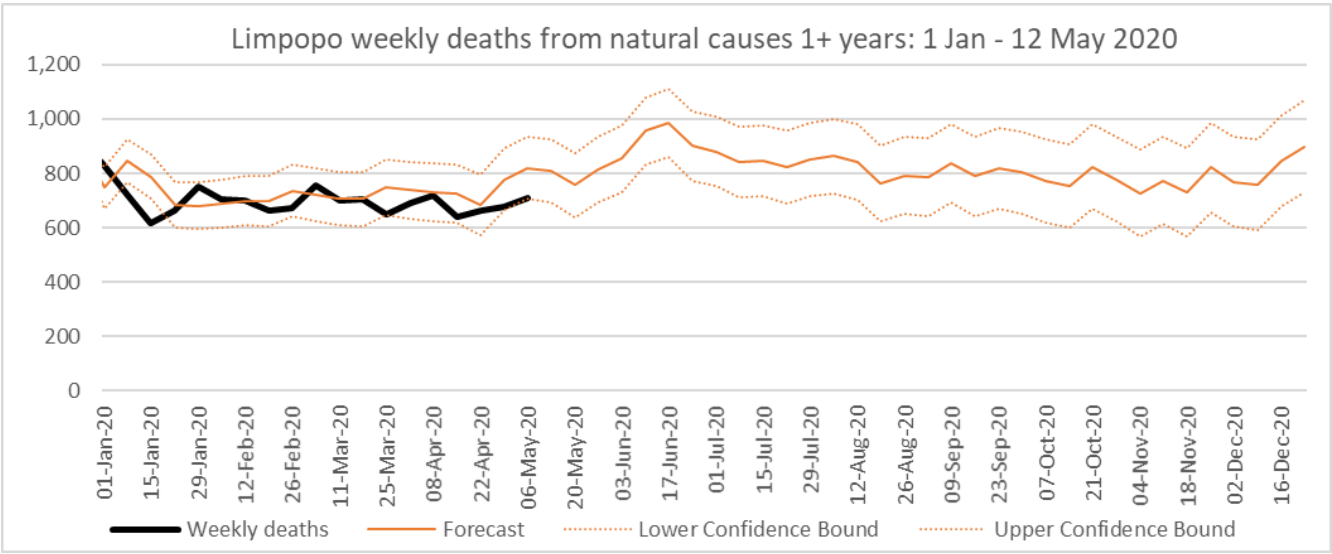

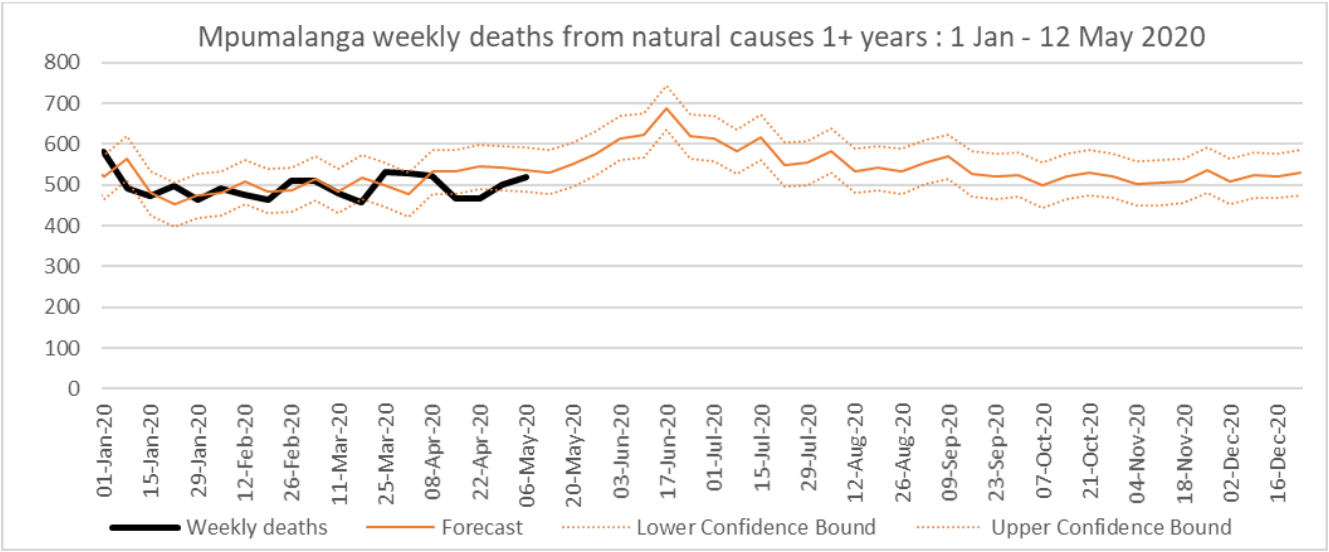

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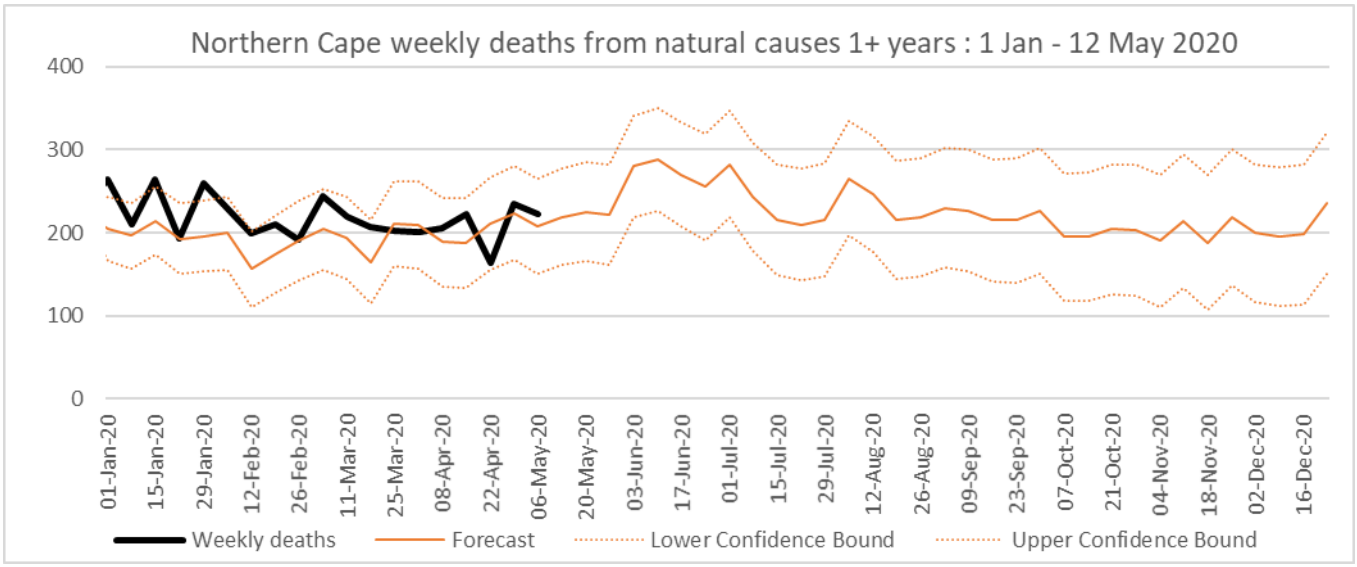

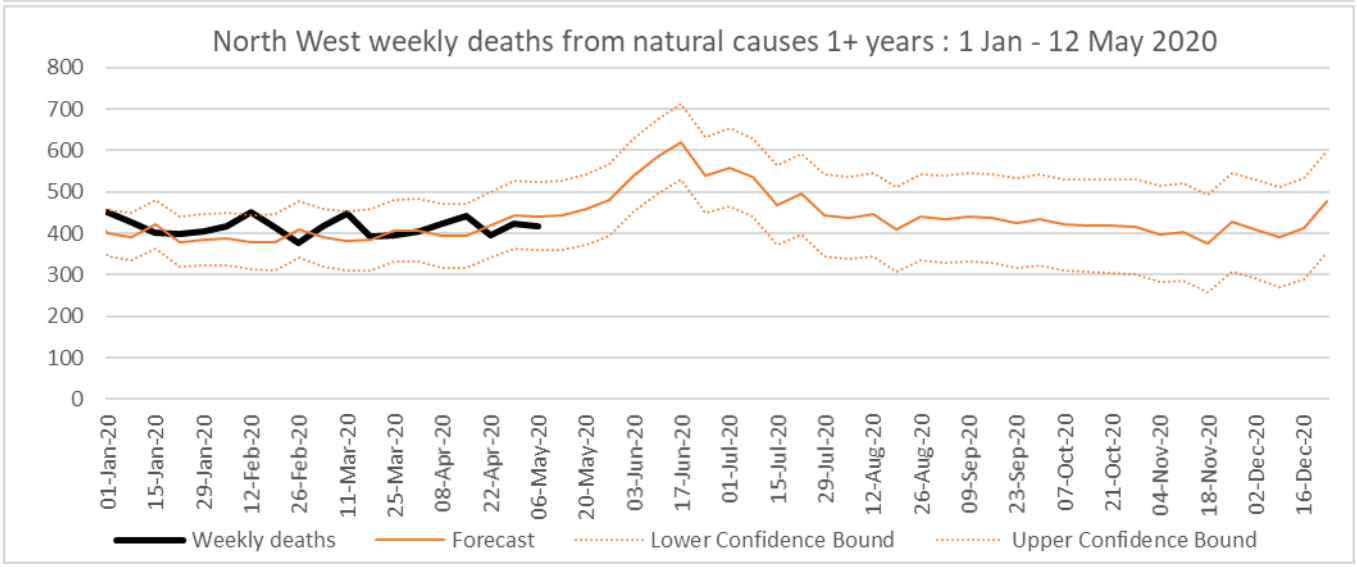

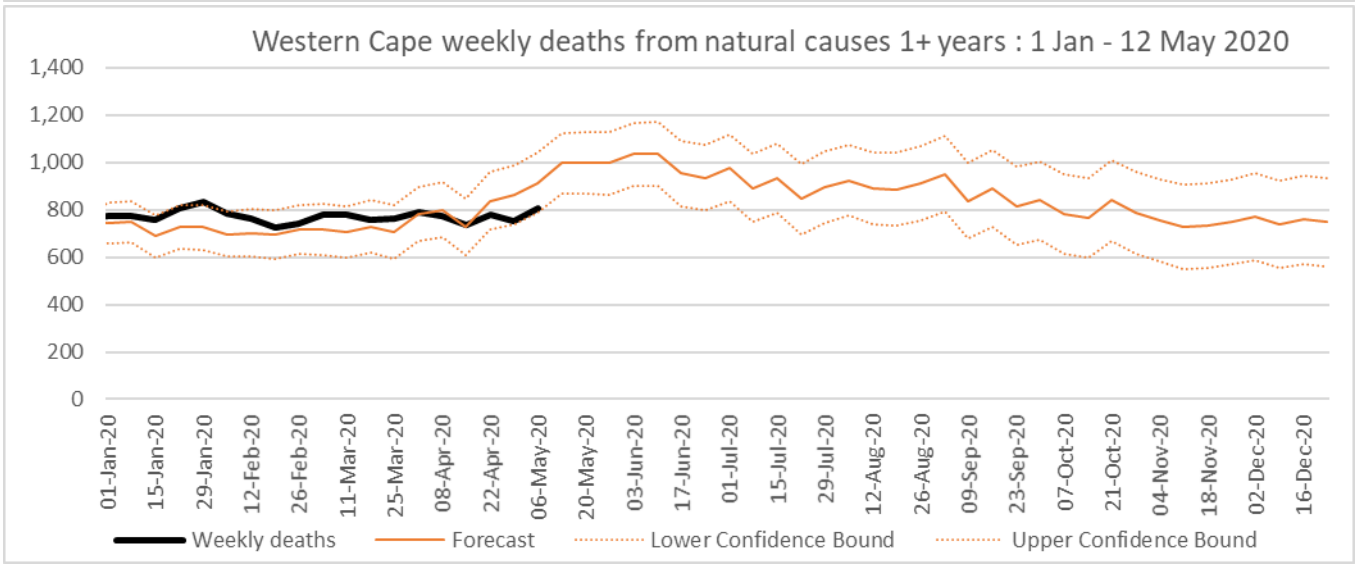

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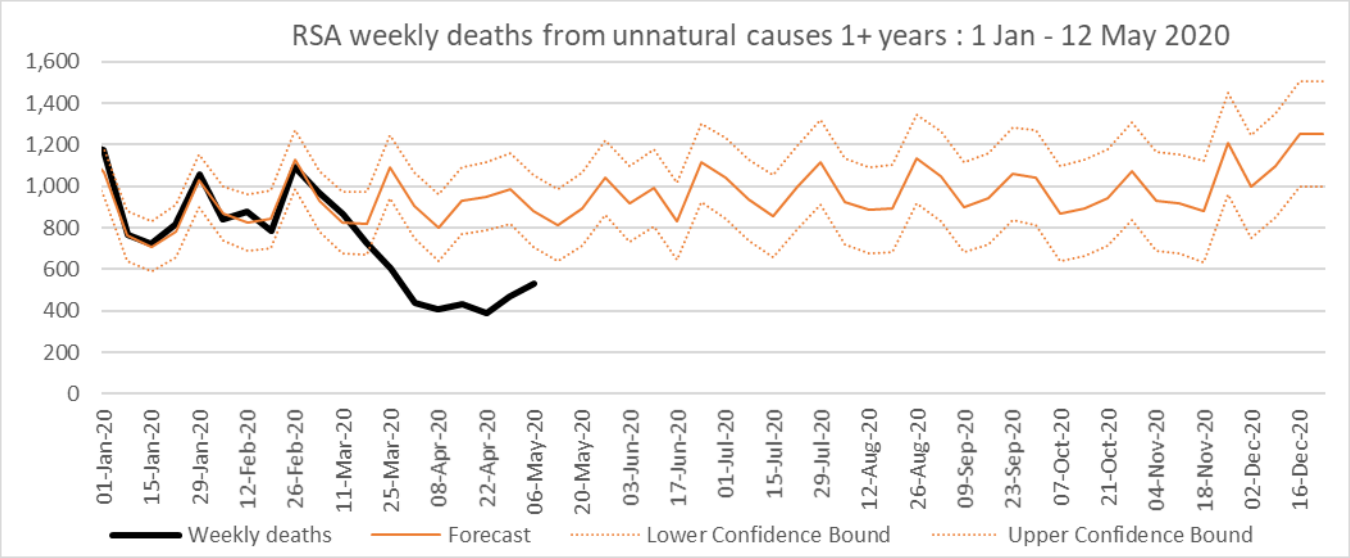

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