

# REPORT ON WEEKLY DEATHS IN SOUTH AFRICA

1 JANUARY – 2 JUNE 2020  
(WEEK 22)

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9 June 2020



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Research

**Warning:** The Department of Home Affairs is facing office closures, particularly in areas that are more affected by COVID-19. This means that the numbers of registered deaths for the most recent week, and possibly the week before that may be underestimates. This is particularly the case in this report for Cape Town and hence the Western Cape, possibly Buffalo City and hence Eastern Cape and, to a less marked extent, the country as a whole.

## 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<sup>1</sup> 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 of the weekly number of deaths up until epidemiological **week 22** (i.e. the period from **1 January 2020** till **2 June 2020**) based on the data received on 8 June 2020 are shown below. *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 processing registrations. Based on previous data, the numbers at the national level have been increased by 5%.

**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.**

Sub-national statistics have been compiled for the provinces and metros by allocating the deaths according to the Home Affairs office where the death was registered. It is assumed that most of the deaths within an area are registered at an office in the same area. The numbers of deaths from **natural causes** are reported for each of the metros.

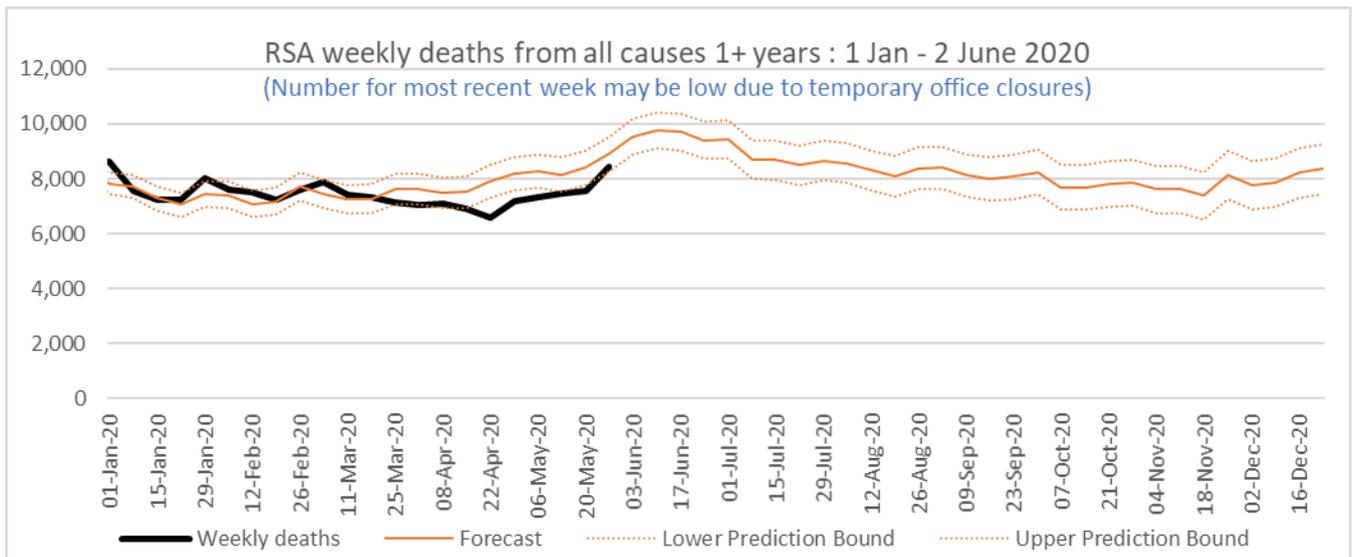
Births were not registered by the Department of Home Affairs during lockdown stage 5. This means any that die before the backlog is processed will not be placed on the National Population Register and thus that the deaths of these births will not be captured. **This report presents weekly deaths of persons 1 year and older.** Registered births are again being added to the population register, but it doesn't appear the backlog has been caught up yet. Once we have confidence that registration of deaths is back to previous levels we will include deaths under age 1.

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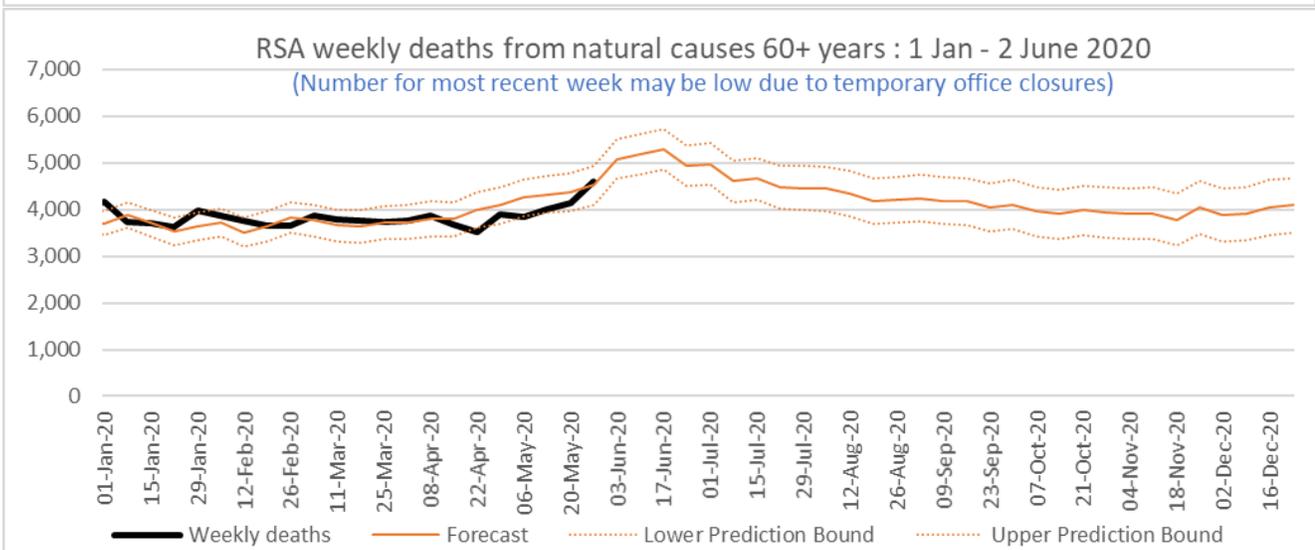
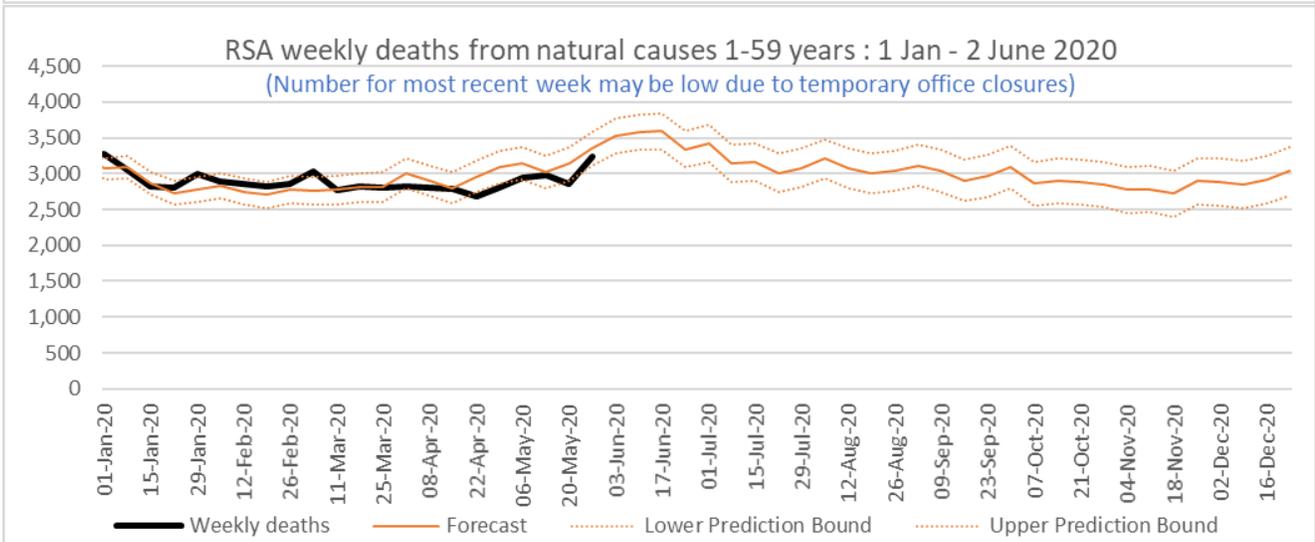
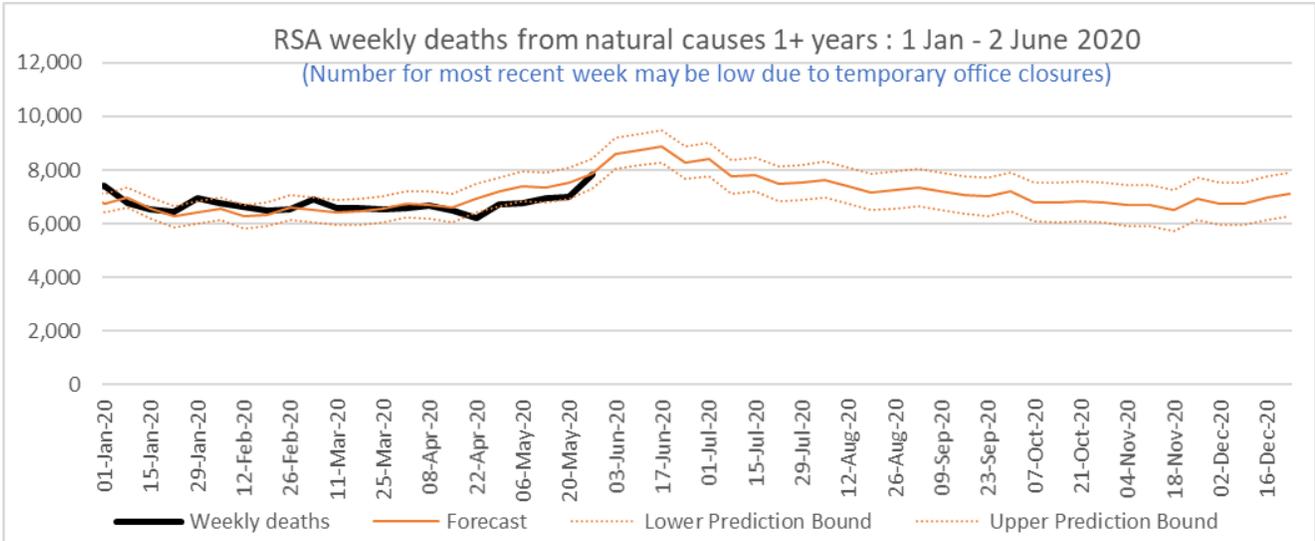
<sup>1</sup> The Excel function implements is the Holt-Winters triple exponential smoothing (the AAA sub-method).

## Trends

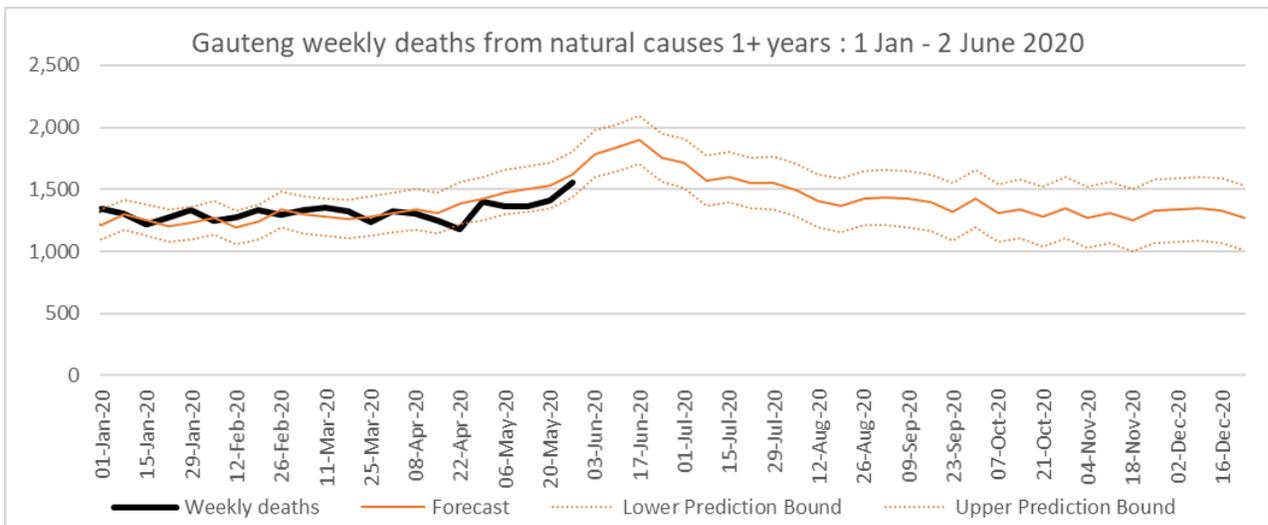
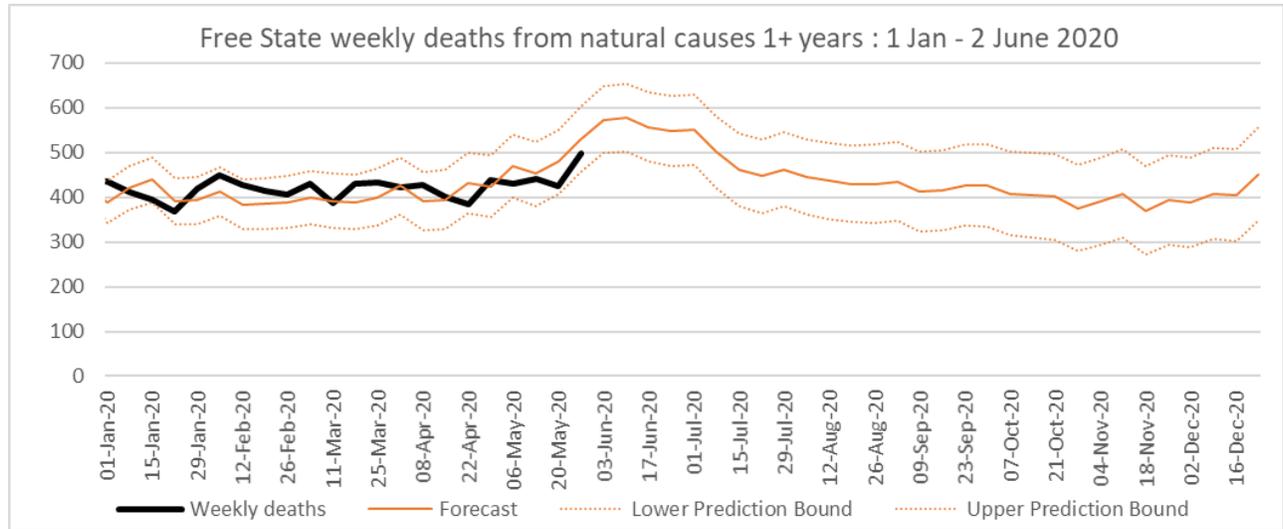
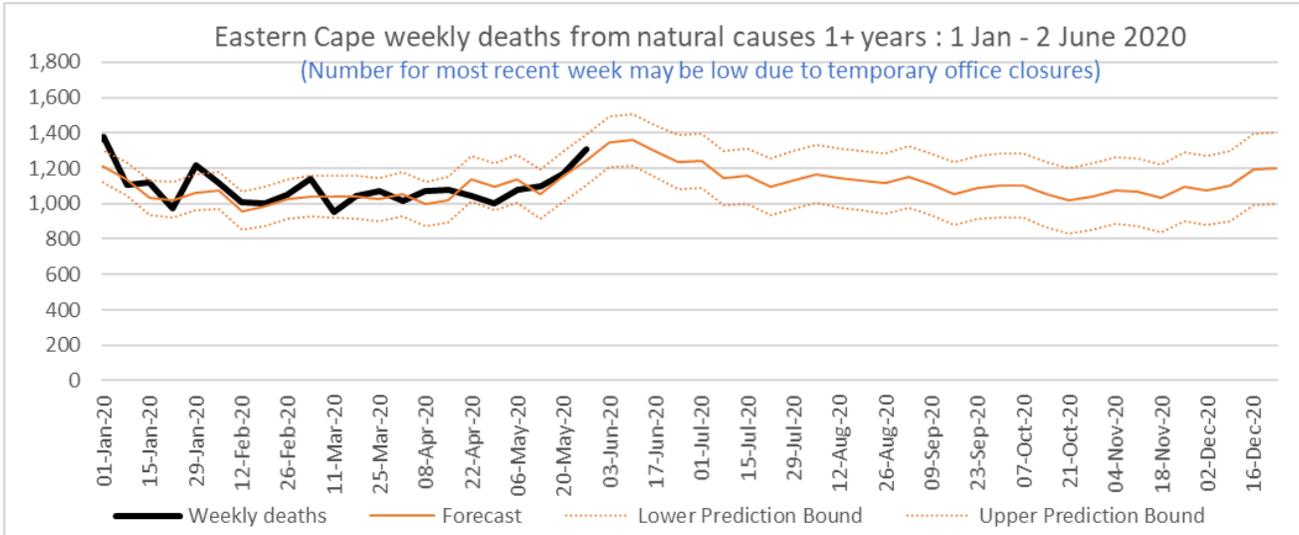
- The national weekly number of deaths from all causes of persons 1+ years of age has increased in the week ending **2 June 2020** but remains lower than the number that would have been expected based on the historical data. This is mainly due to the decline in the number of deaths from unnatural causes as well as a slight decrease in the number of natural deaths during the weeks of lockdown.
- The observed increase in the recent weeks may understate the actual increase in deaths as it appears that temporary closures of offices may have resulted in delays in processing death registrations.
- The number of natural deaths in the past week have increased or remained steady in all settings except for the **City of Cape Town**, which experienced an implausible dip in the most recent week. The increases were observed for persons 1-59 years as well as 60+ years.
- However, even with the decline there were 680 deaths from natural causes of persons 1+ years of age in the **City of Cape Town** in the week up till **2 June 2020**, which not only exceeds the predicted number of deaths of 568 but remains somewhat above the upper prediction bound indicating a statistically significant increase.
- **Nelson Mandela Bay** experienced 305 natural deaths of persons 1+ years of age in the week up till **2 June 2020** which was statistically scientifically higher than the predicted number of 254.
- The number of deaths from unnatural causes (e.g. road traffic fatalities and homicide) was significantly lower during lockdown than projected based on past trends but appears to have increased with the easing of lockdown. The number for the last three weeks appears to track the predicted trend, but at a much lower level.



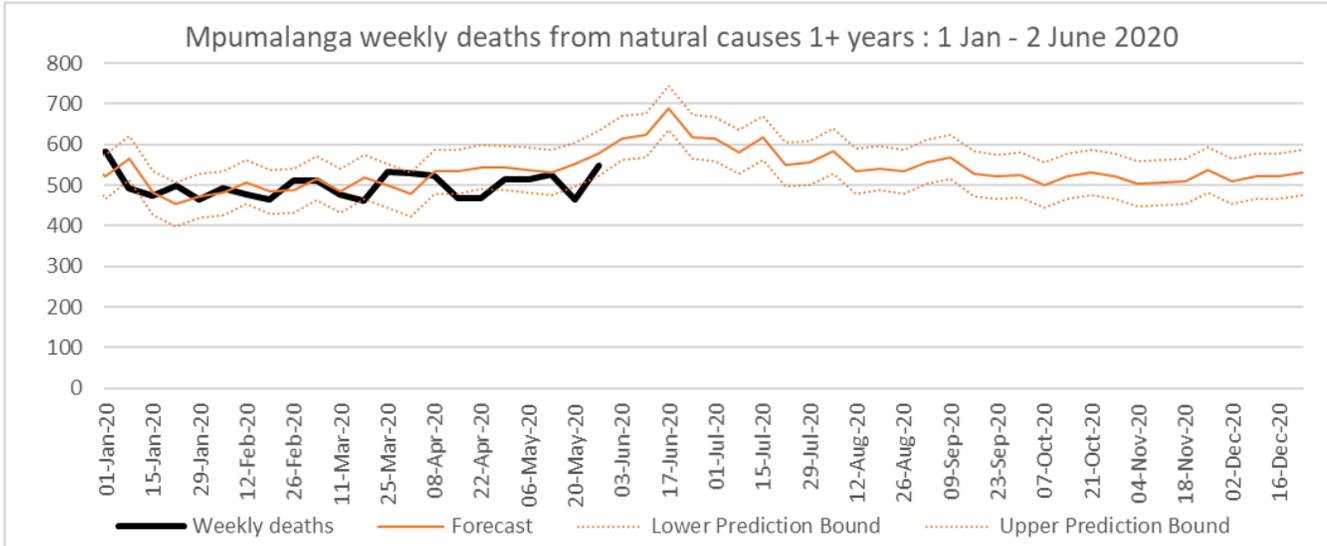
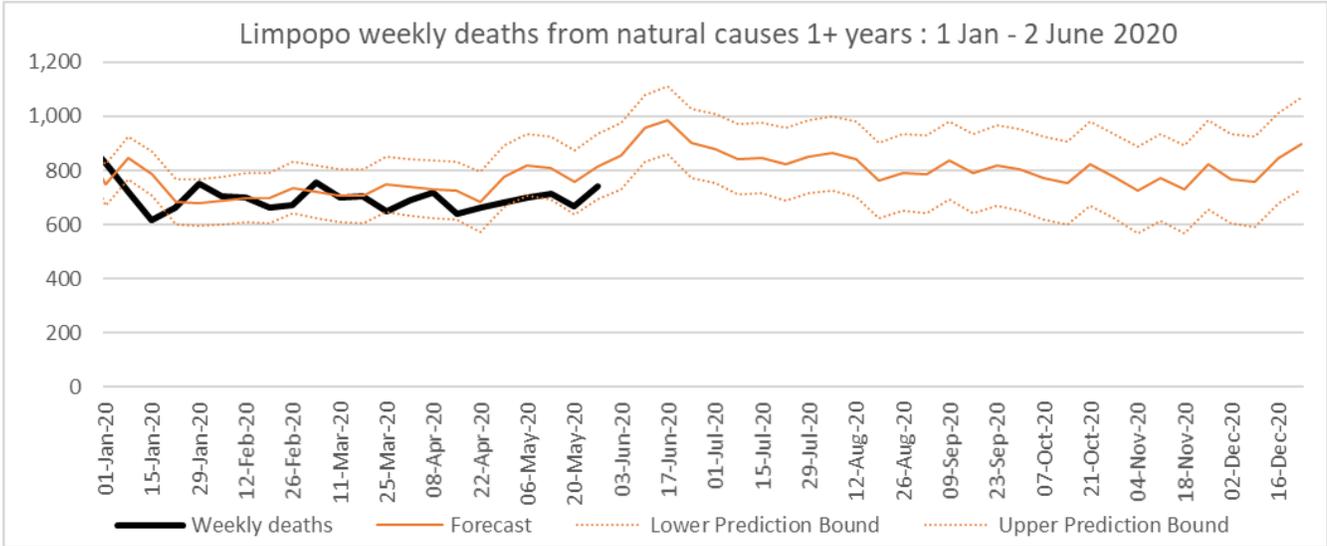
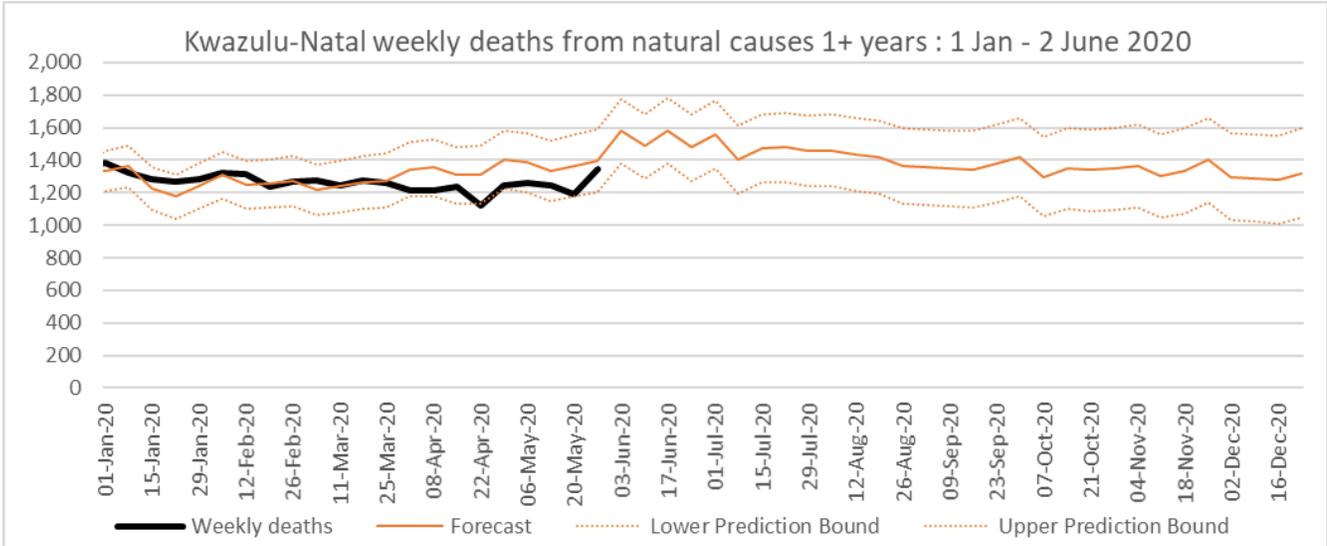
Numbers for the last week has been adjusted for delayed registrations



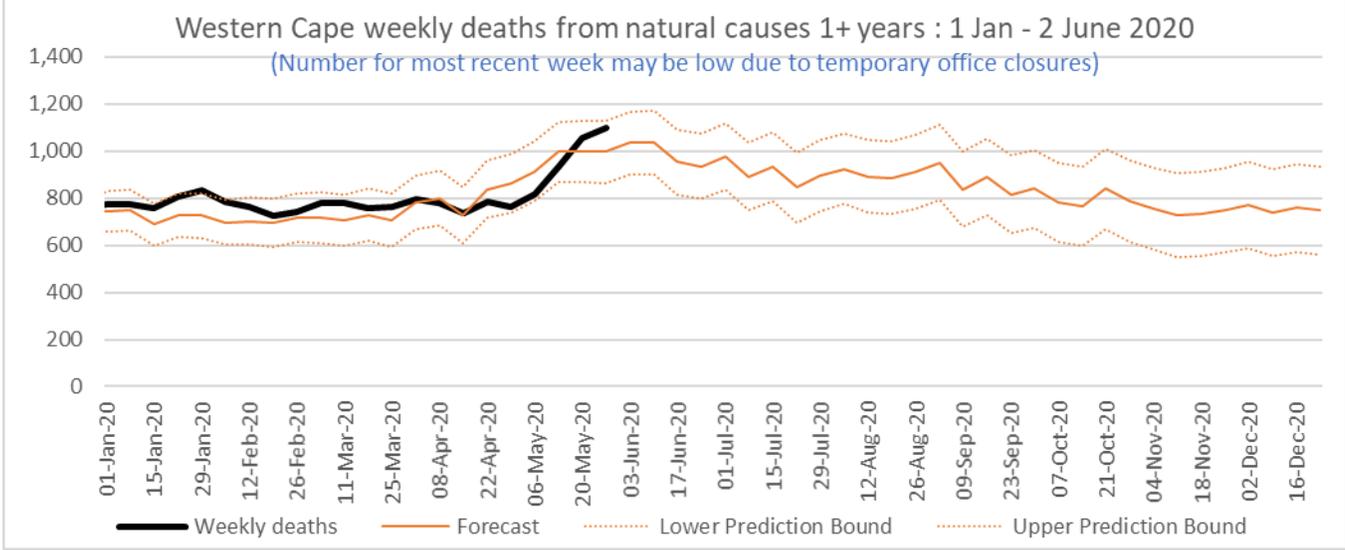
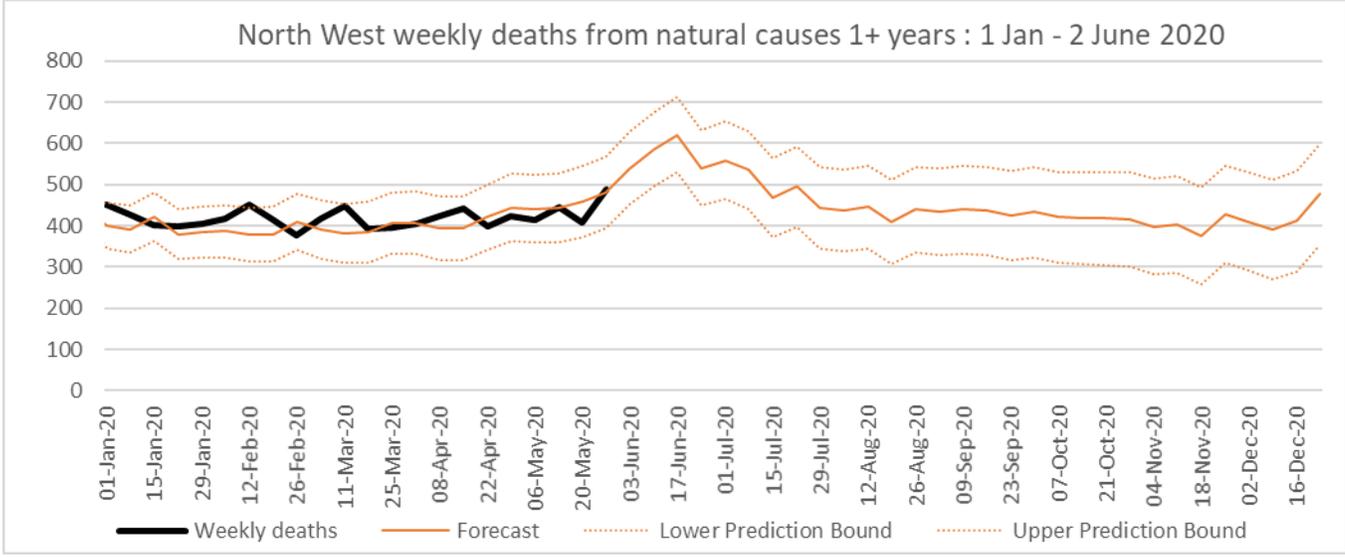
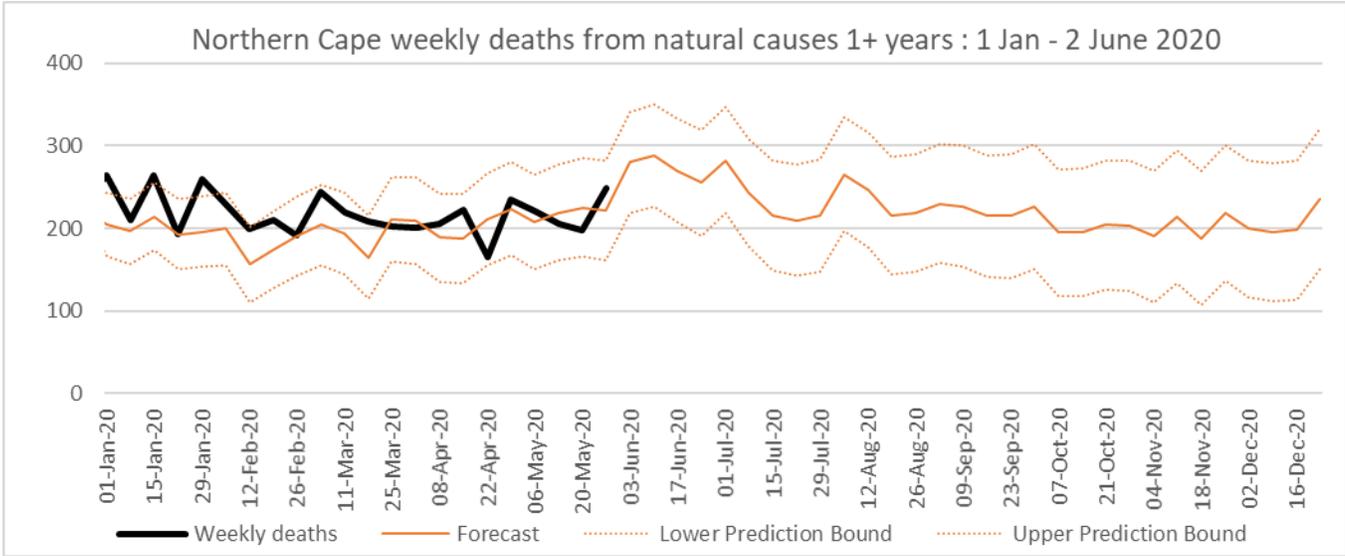
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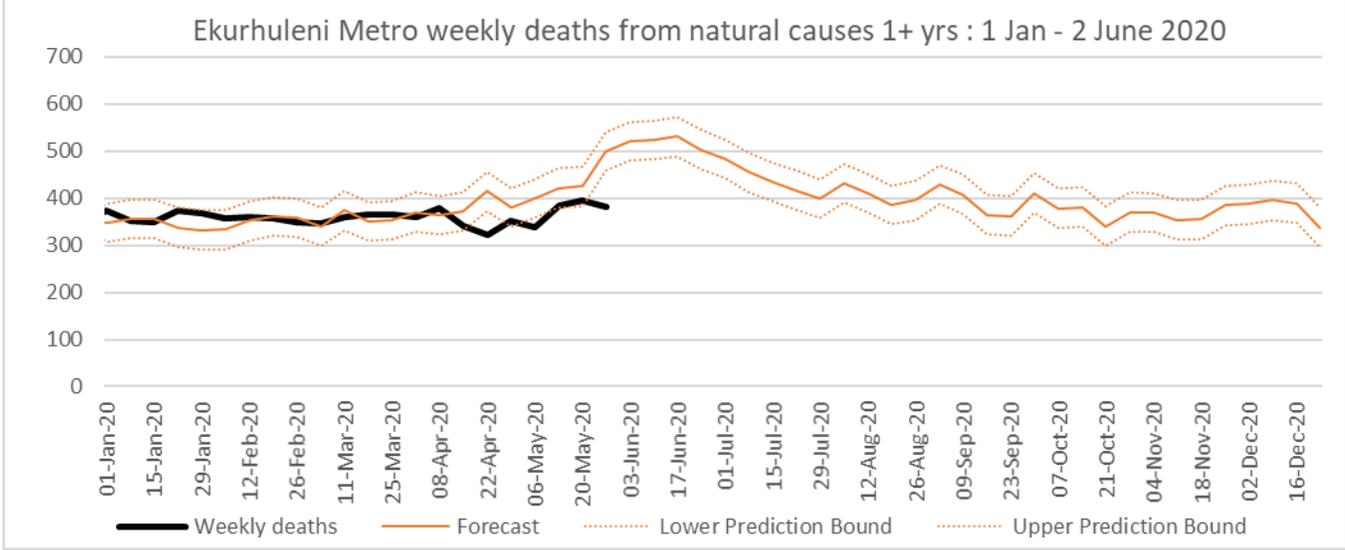
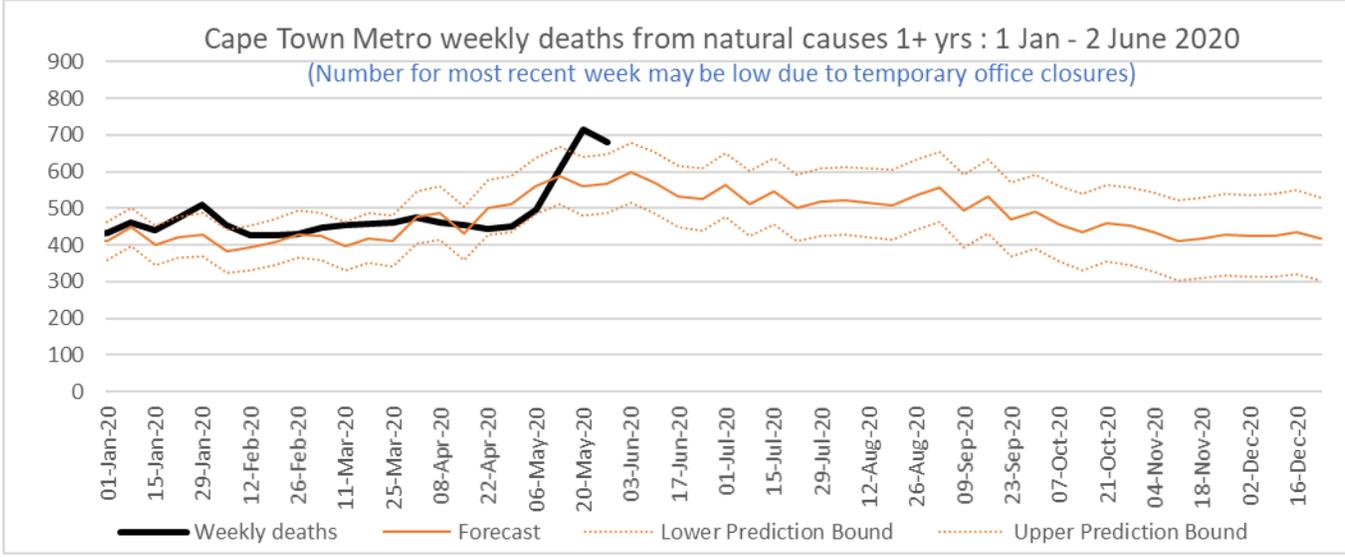
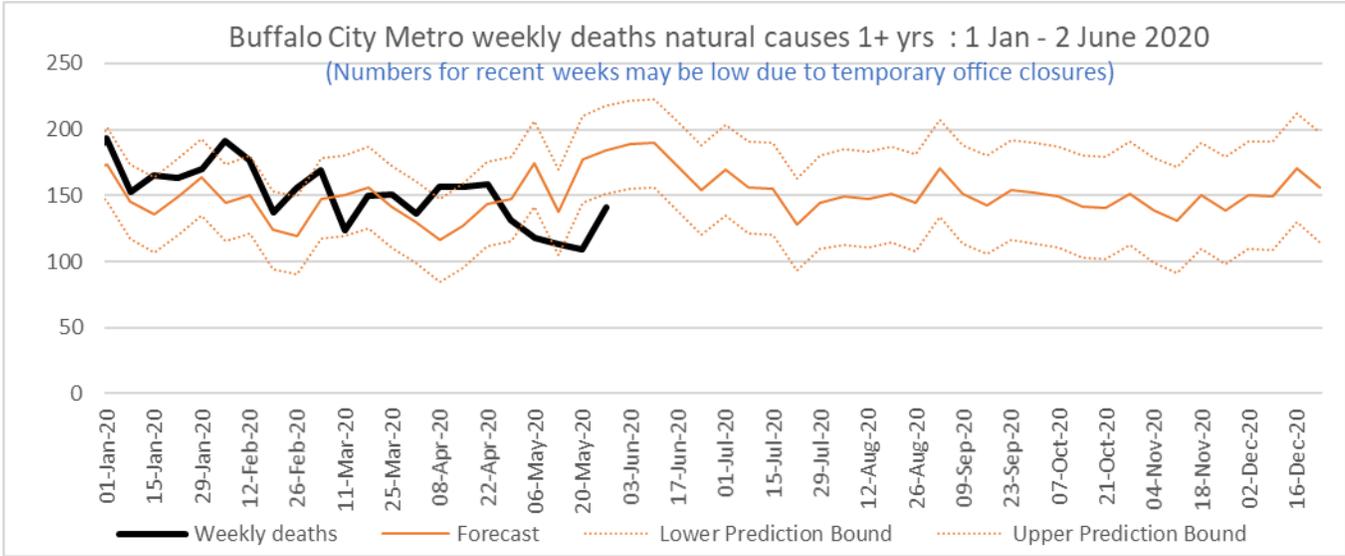
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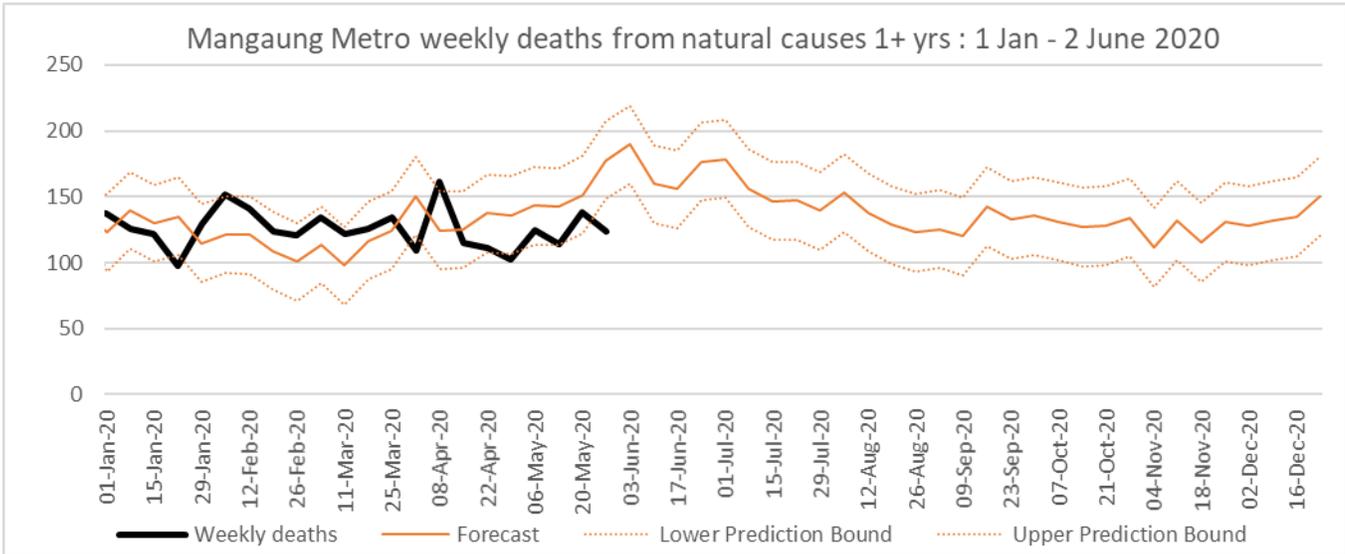
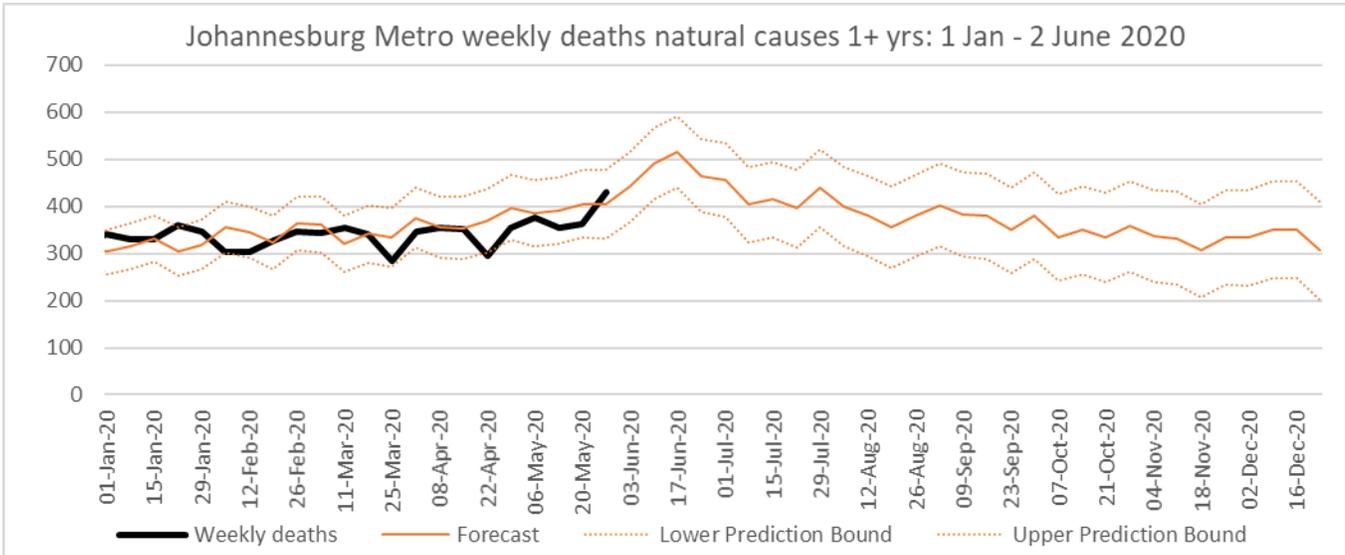
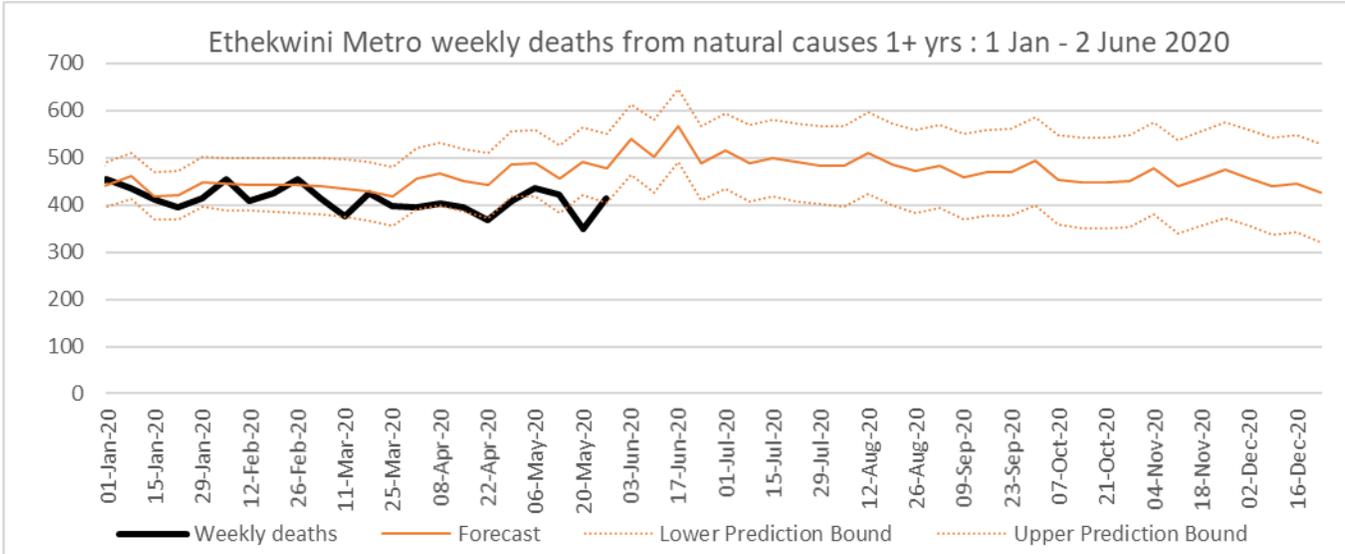
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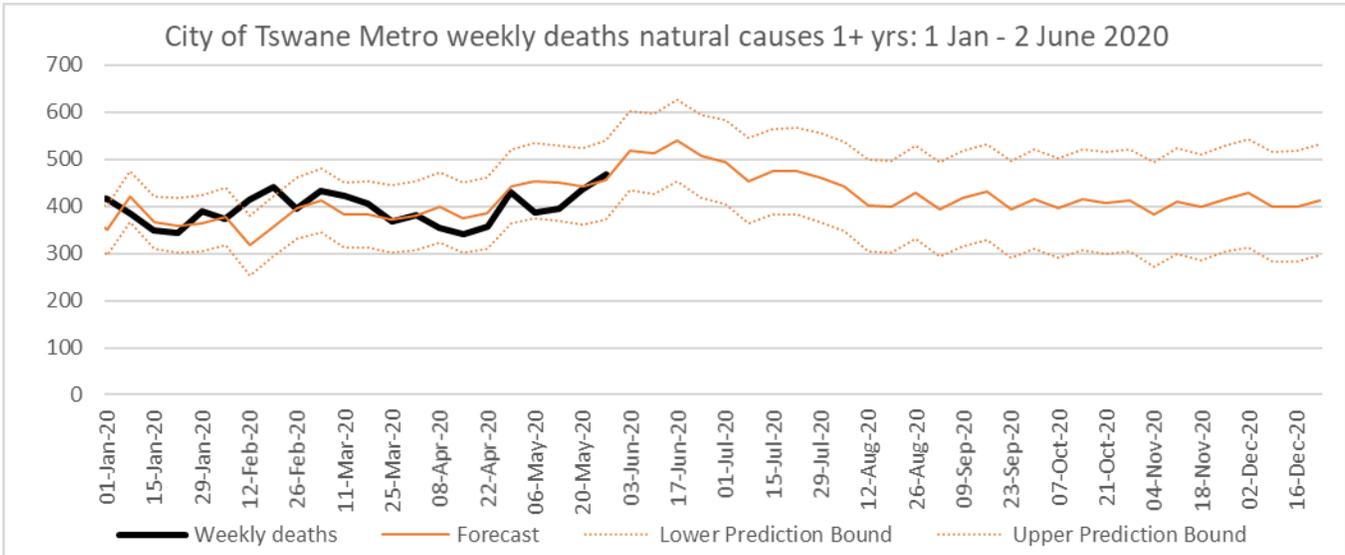
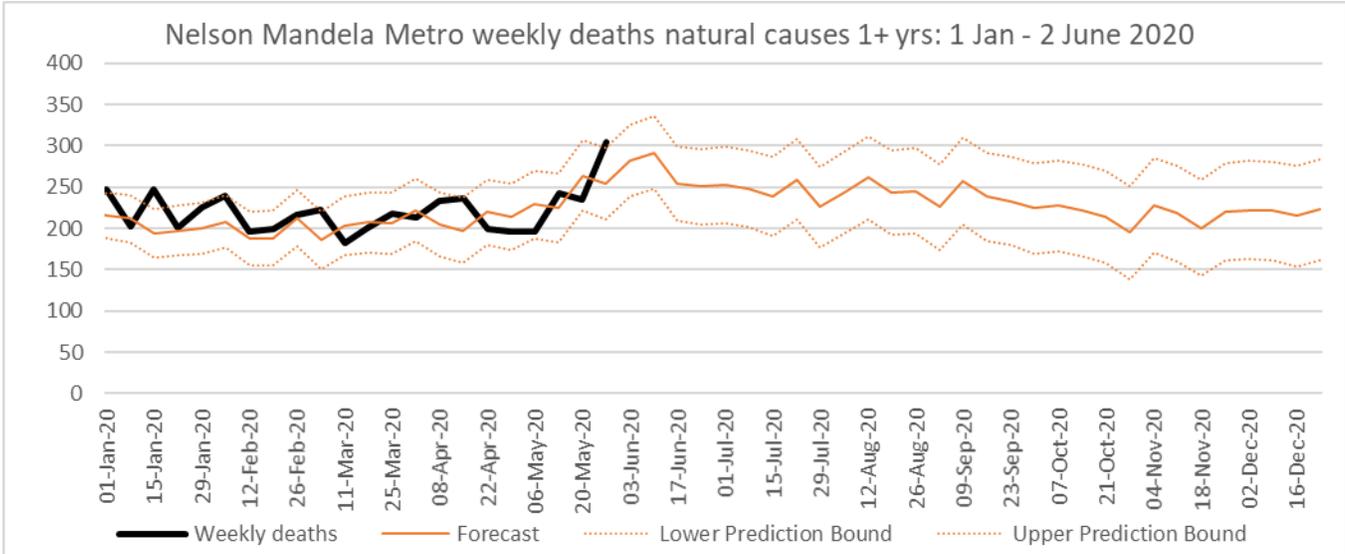
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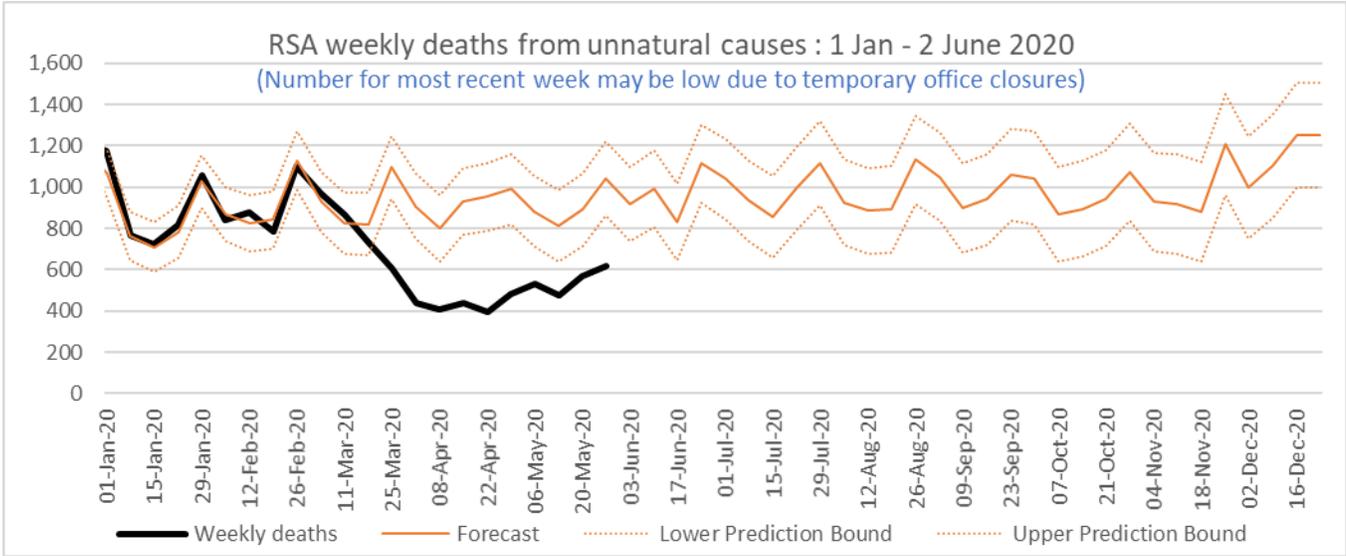
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