

REPORT ON WEEKLY DEATHS IN SOUTH AFRICA

1 JANUARY – 16 JUNE 2020
(WEEK 24)

Debbie Bradshaw, Ria Laubscher,
Rob Dorrington, Pam Groenewald, Tom Moultrie

Burden of Disease Research Unit
South African Medical Research Council
23 June 2020



UCT Centre
for Actuarial
Research

Warning: The Department of Home Affairs is facing sporadic temporary office closures, particularly in areas that are more affected by COVID-19. This may affect our allocation of a death to a metro area. For example, a death that occurred in the City of Cape Town might have been registered at an office outside of the City because of the temporary closure. Closure may also cause a delay in the processing of the death registration which would result in an underestimate of the deaths in the most recent week. This accounts for the kinks in what should otherwise be a smooth increase in numbers of deaths in Cape Town and Buffalo, for example.

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 function¹ 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 24** (i.e. the period from **1 January 2020** till **16 June 2020**) based on the data received on 15 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 5.2%. This includes some allowance for the possible impact of the public holiday on the 16 June on the processing of registrations, particularly of the unnatural deaths.

It must be noted that the National Population Register includes only 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.

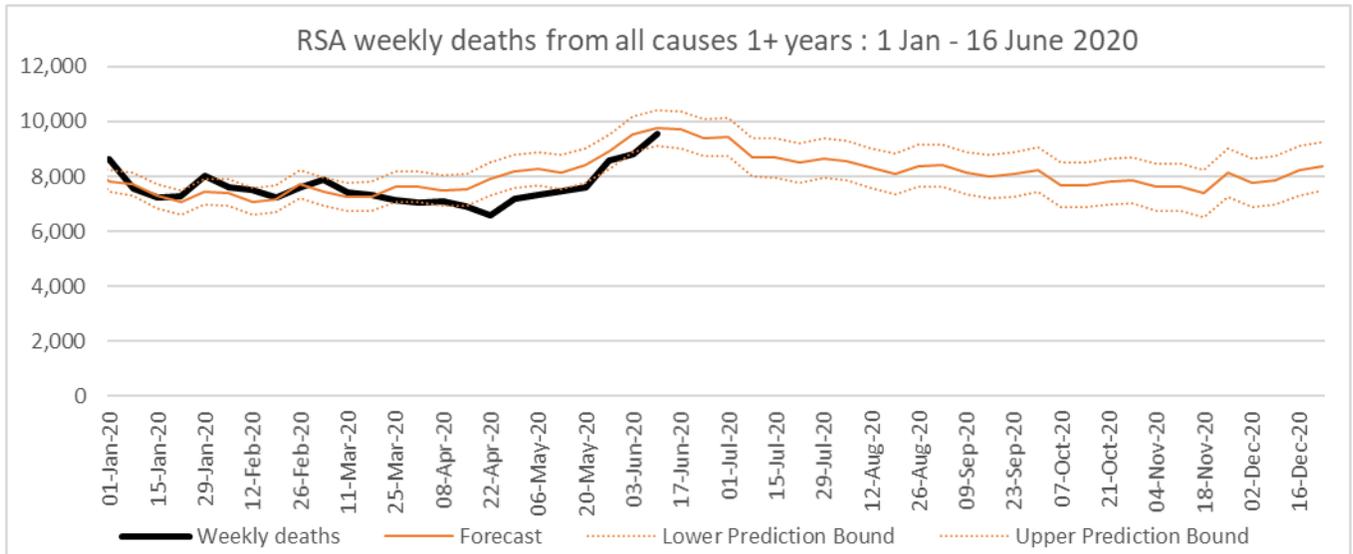
Sub-national statistics have been compiled for the provinces and metros by allocating the deaths according to the Home Affairs office where the death was registered. It is assumed that most of the deaths within an area are registered at an office in the same area. The numbers of deaths from **natural 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 either there remains a backlog in processing or a lower proportion of births are being registered since lockdown. Once we have confidence that registration of deaths is back to previous levels we will include deaths under age 1.

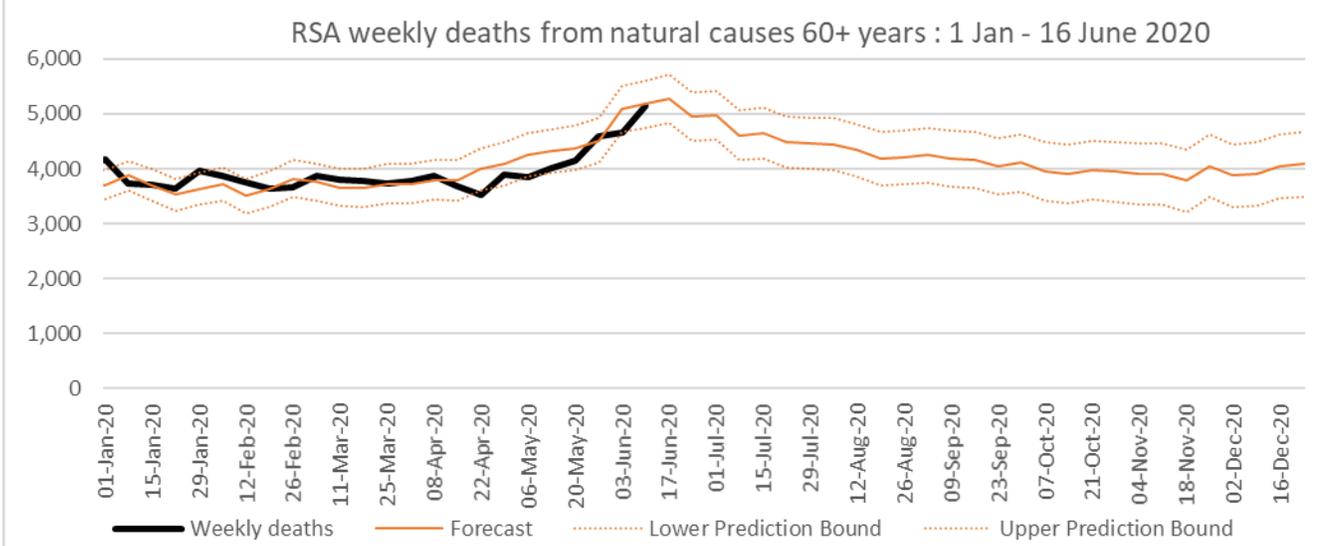
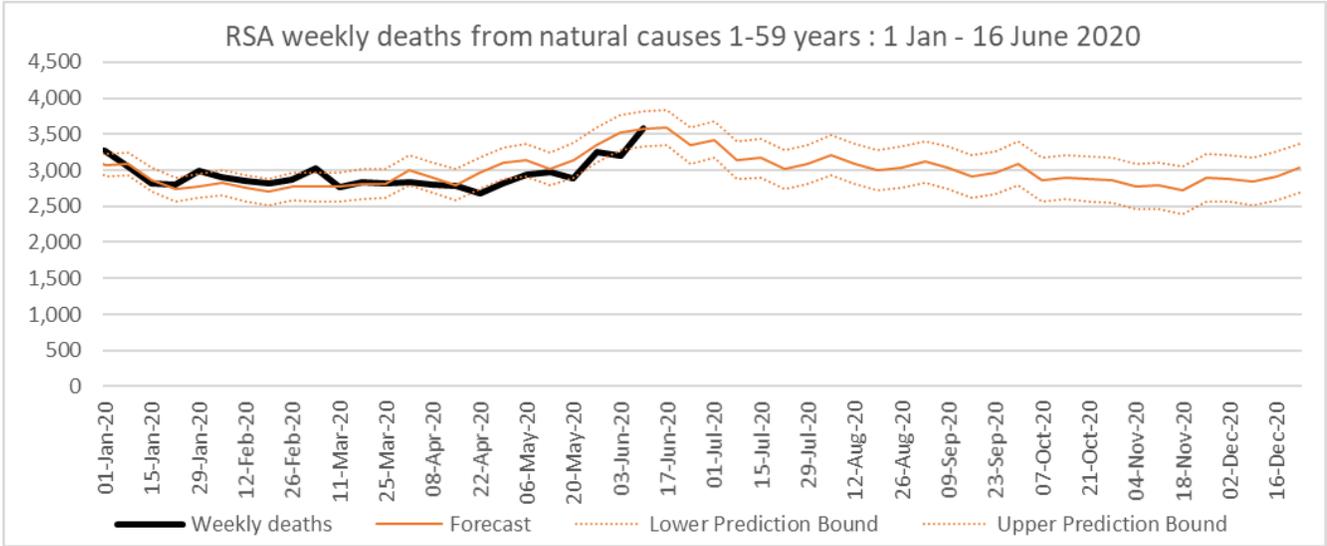
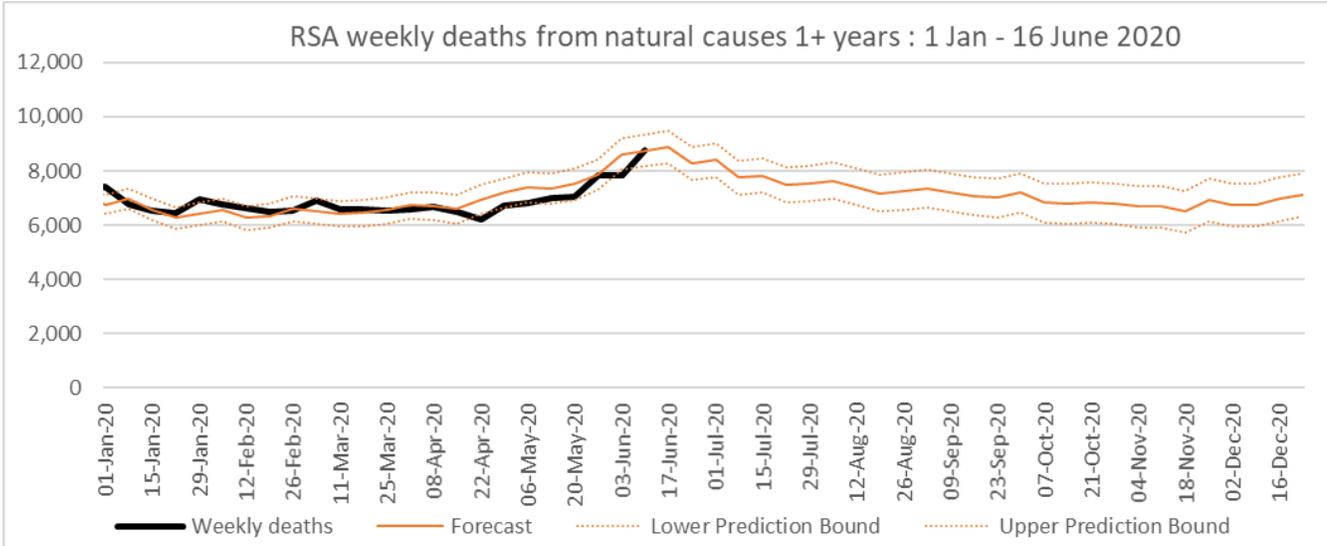
¹ The Excel function implements is the Holt-Winters triple exponential smoothing (the AAA sub-method).

Trends

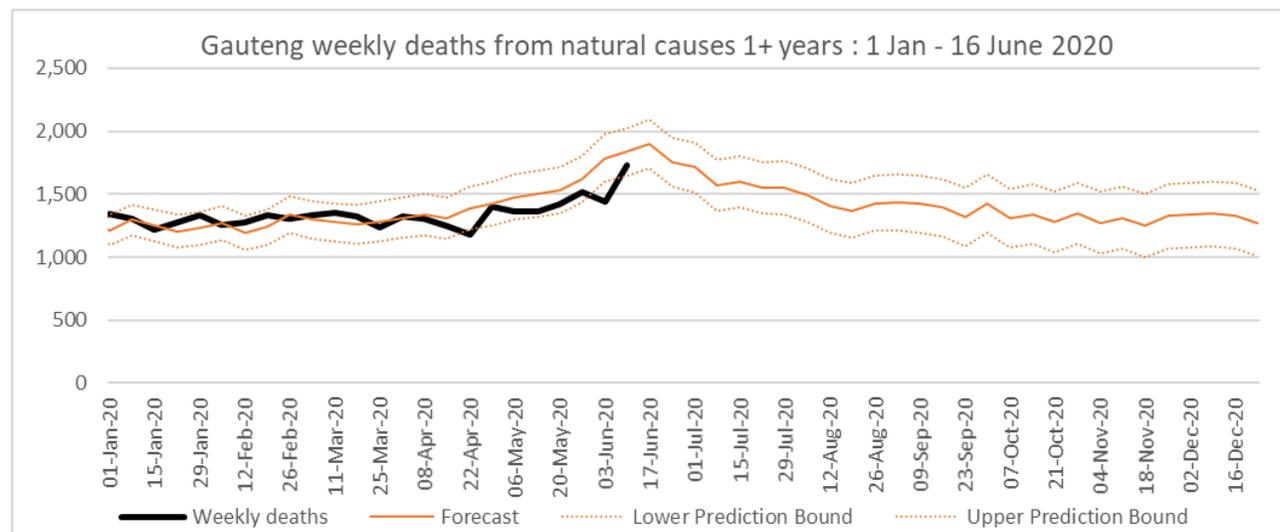
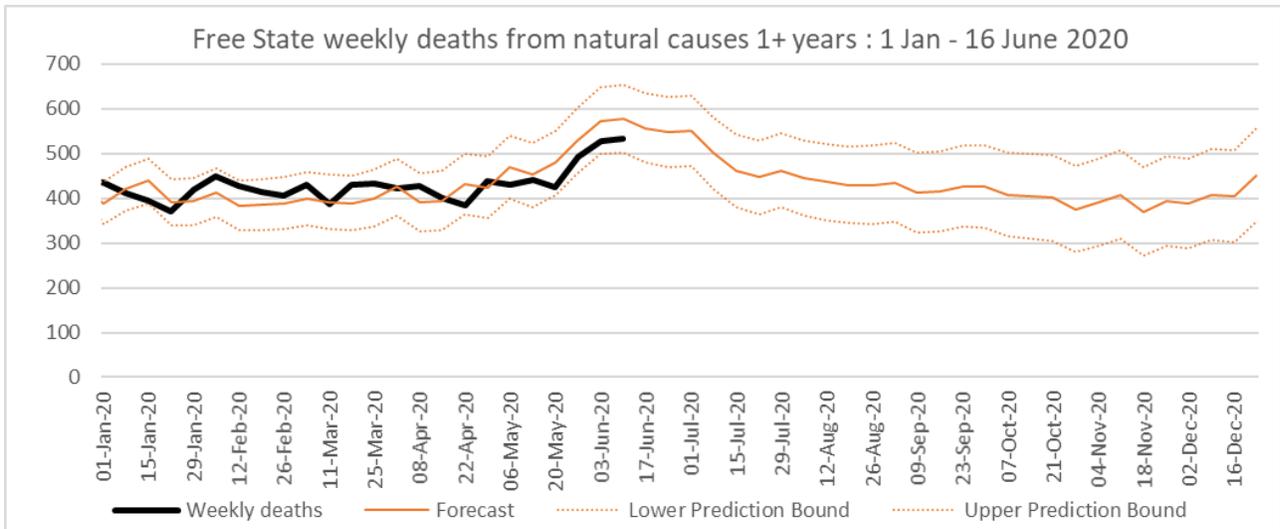
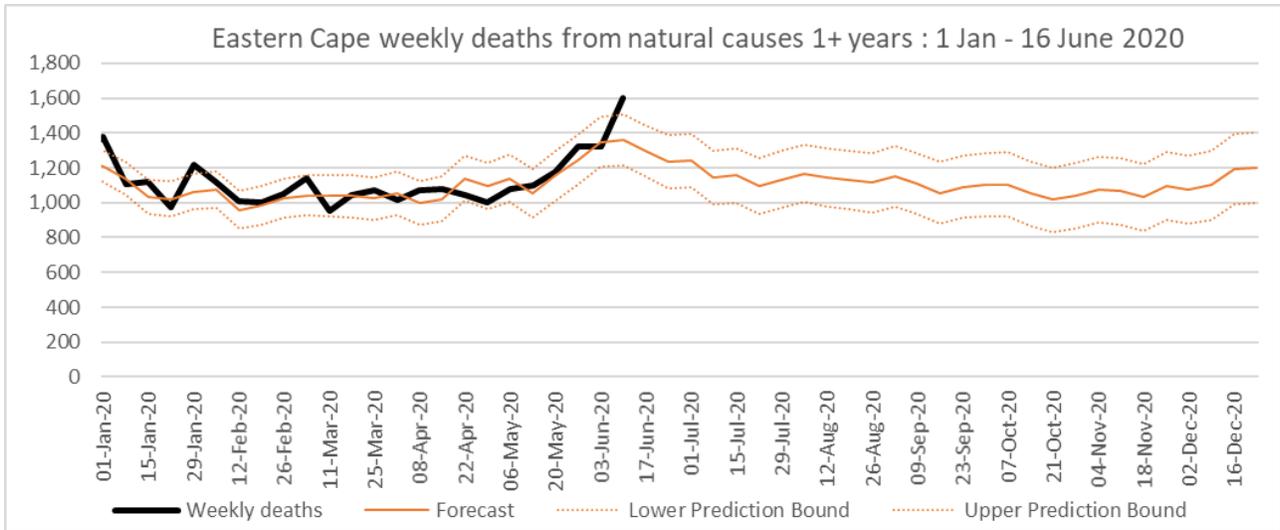
- The national weekly number of deaths from all causes of persons 1+ years of age has increased in the week ending **16 June 2020** but is slightly lower than the number that would have been expected based on the historical data.
- The **City of Cape Town** and **Nelson Mandela Bay** metros again experienced numbers of natural deaths for persons 1+ years of age that are statistically significantly above the predicted value for the week up till **16 June 2020**. The difference is **278** deaths in **Cape Town** and **79** in **Nelson Mandela Bay**, while the difference for the **Western Cape** province the difference is **287** deaths and the difference in the Eastern Cape, where the number of deaths from natural causes of persons 1+ years has become statistically significantly above the predicted value in the week up till **16 June 2020**, is **236**.
- After tracking the lower prediction bound for the past few weeks, the number of deaths from natural causes has increased in the week ending **16 June**, reaching the expected values.
- The number of deaths from unnatural causes (e.g. road traffic fatalities and homicides) appears, somewhat unexpectedly to have fallen, after rising dramatically with the relaxing of lockdown, including the resumption of the sale of alcohol.



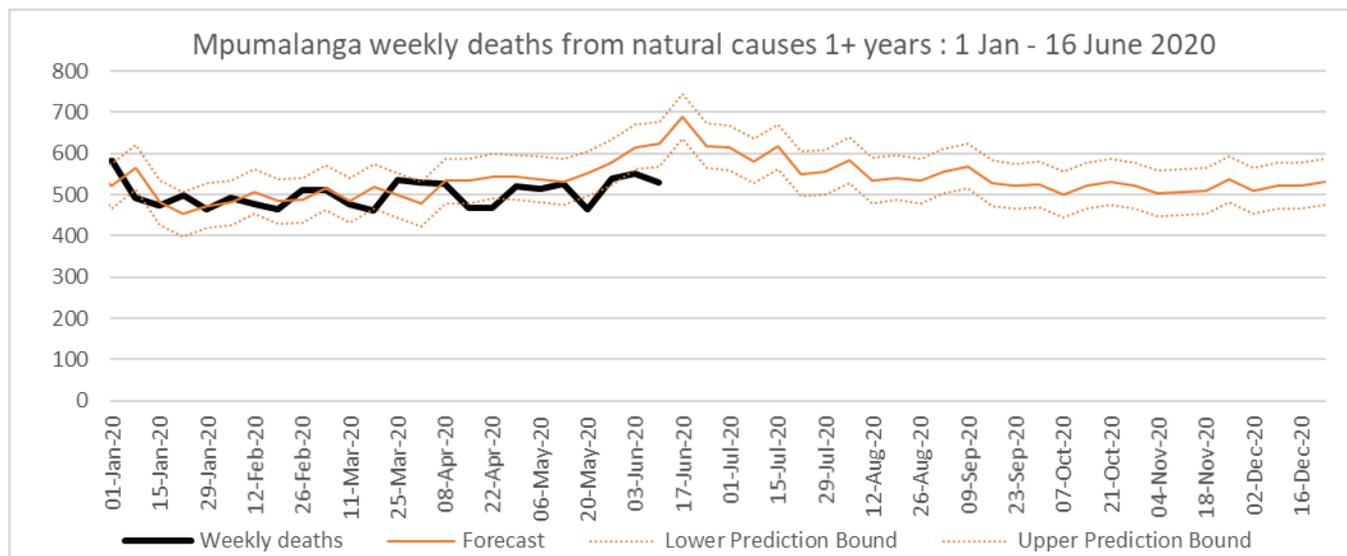
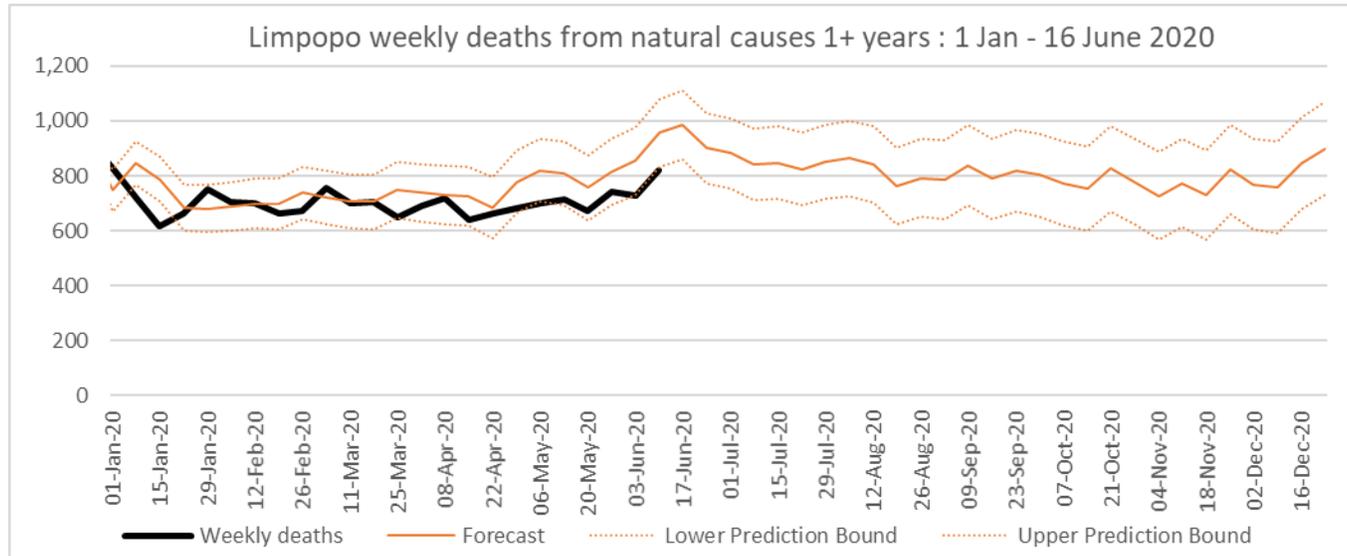
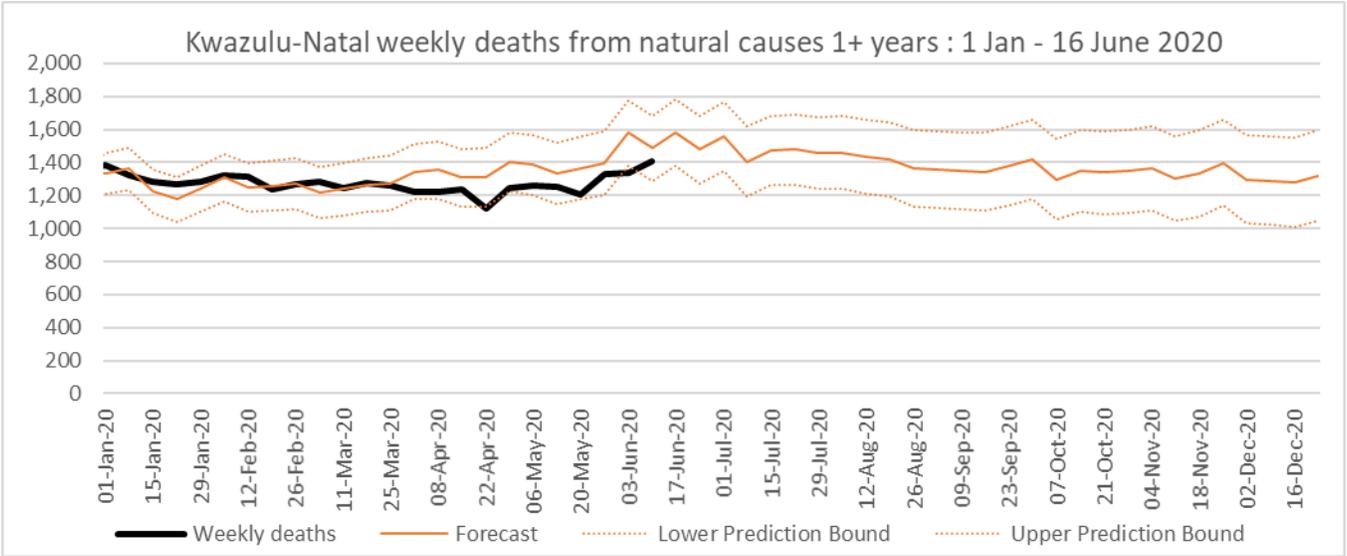
Numbers for the last week has been adjusted for delayed registrations



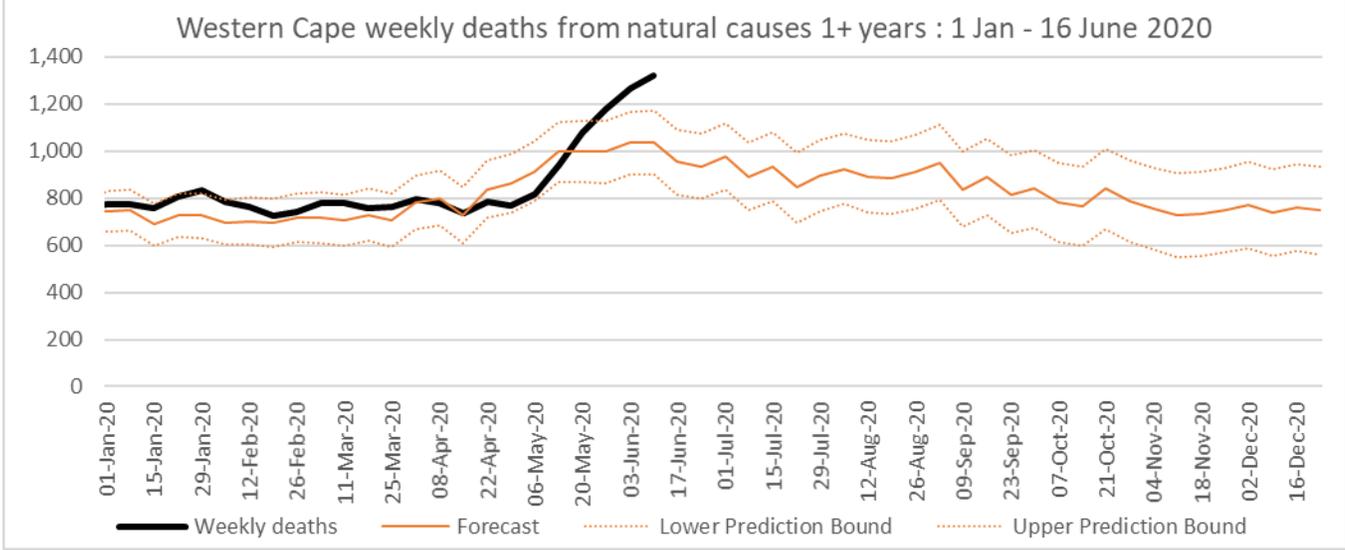
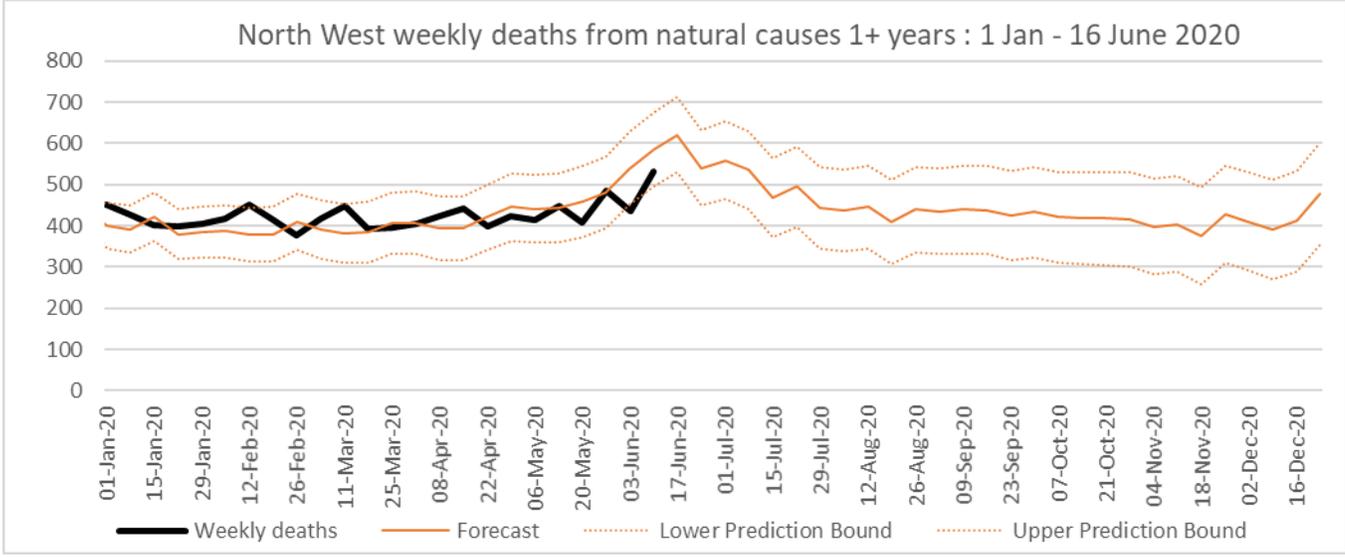
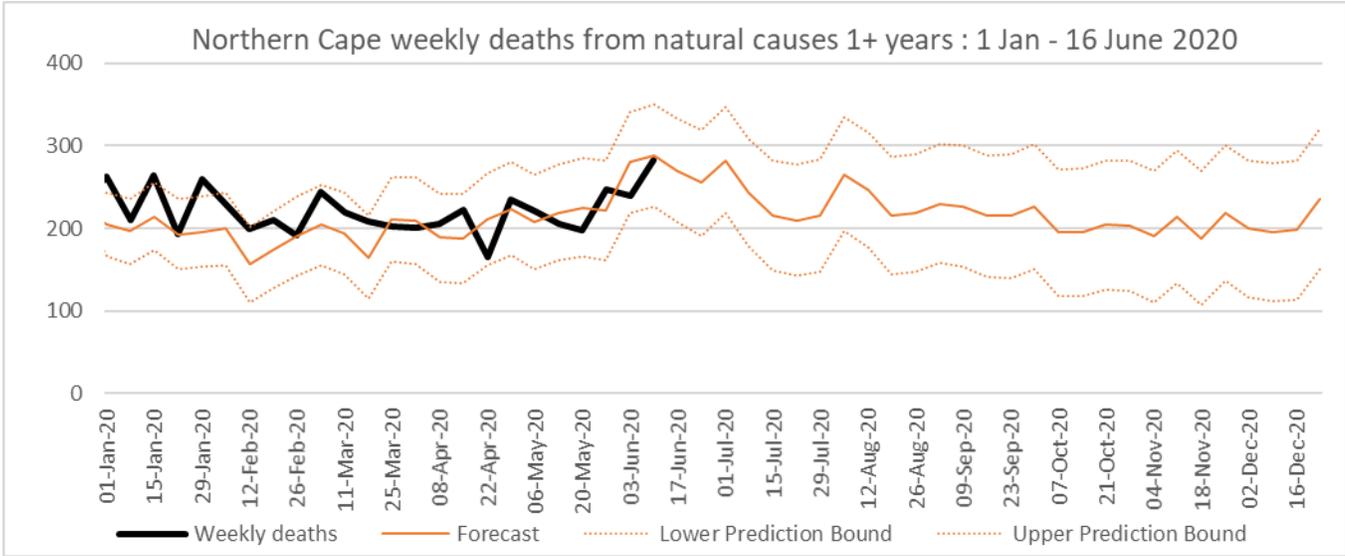
Numbers for the last week have been adjusted for delayed registrations



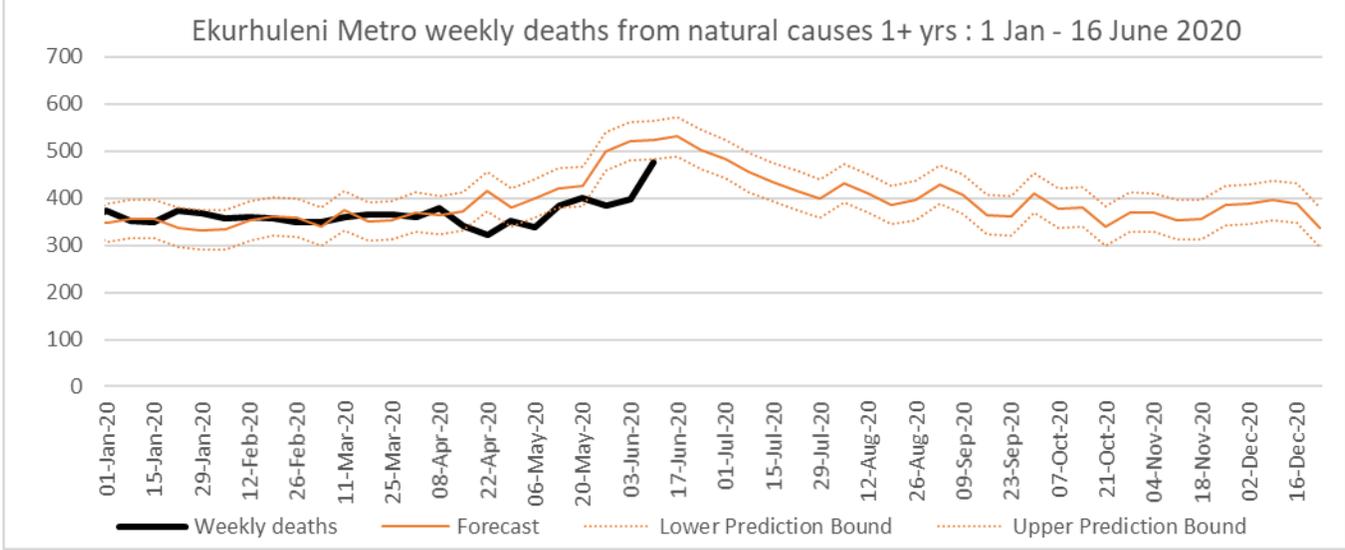
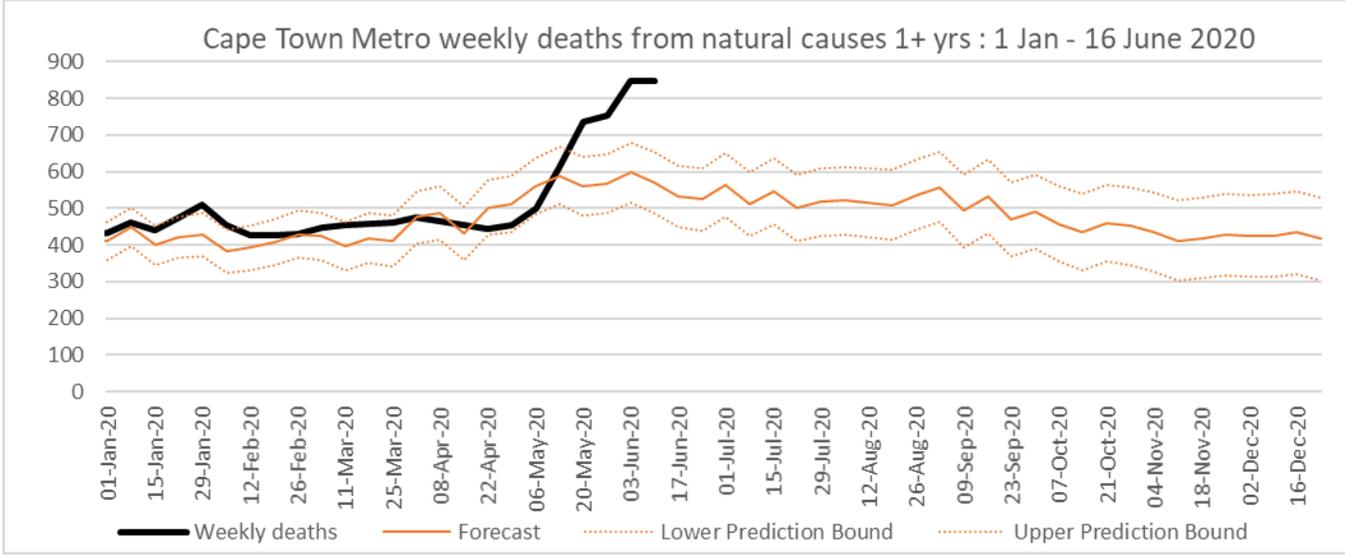
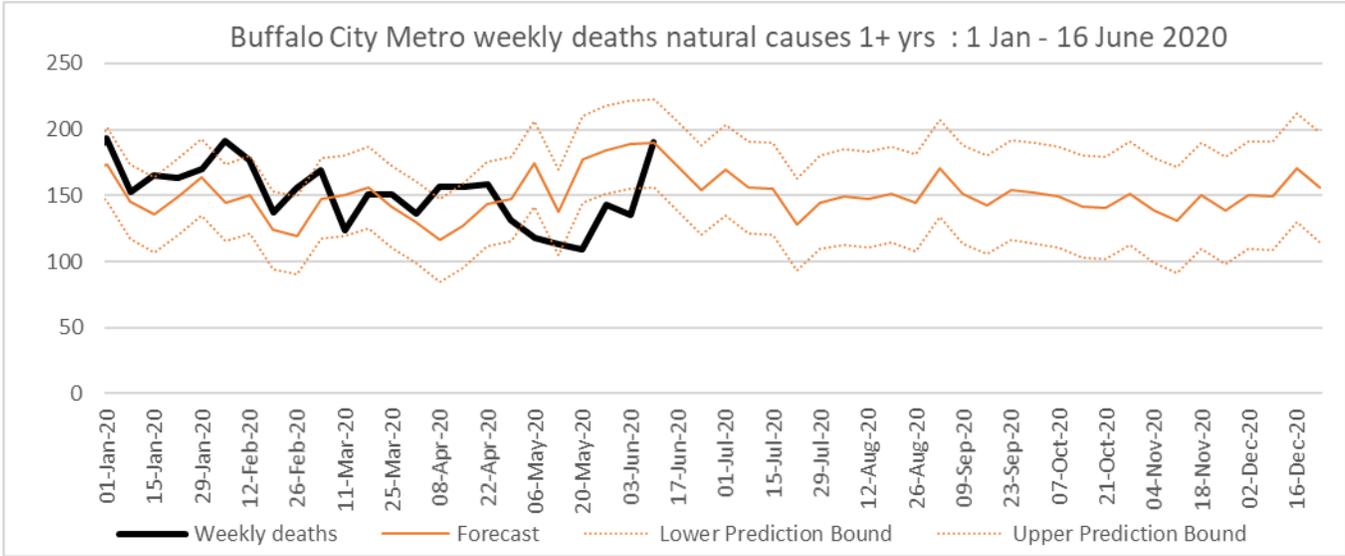
Numbers for the last week have been adjusted for delayed registrations



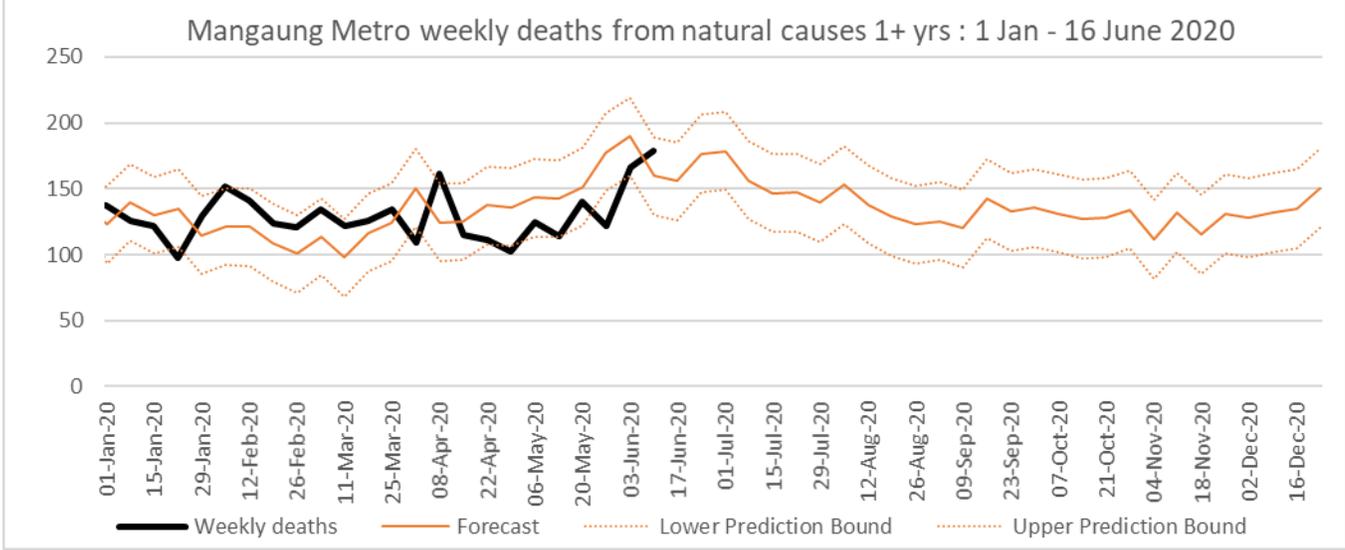
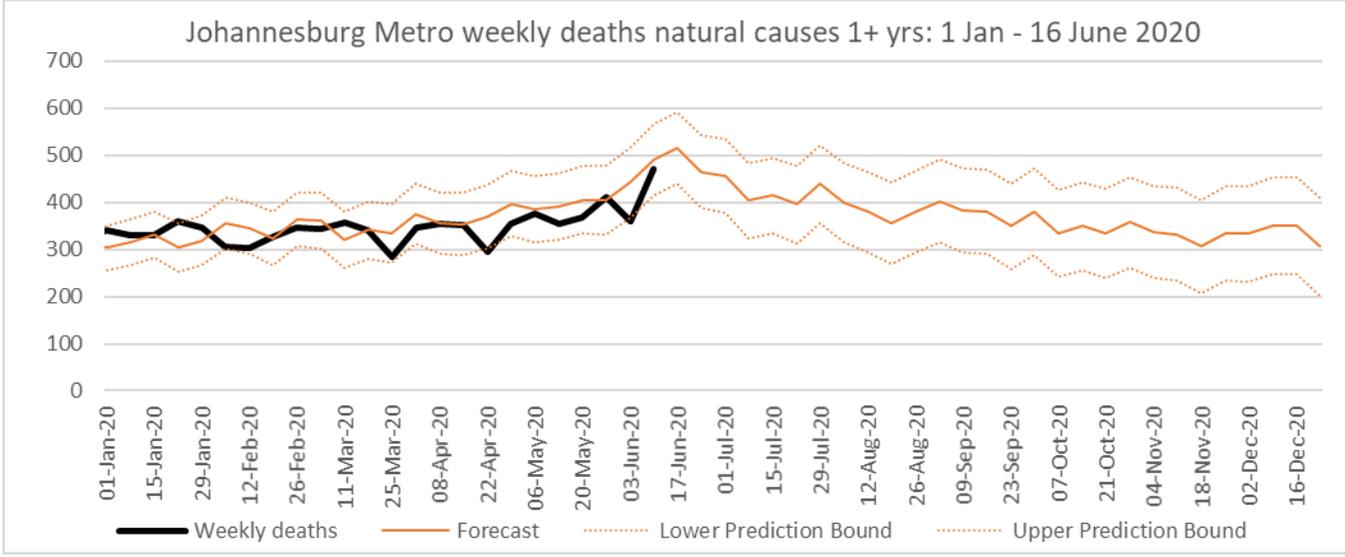
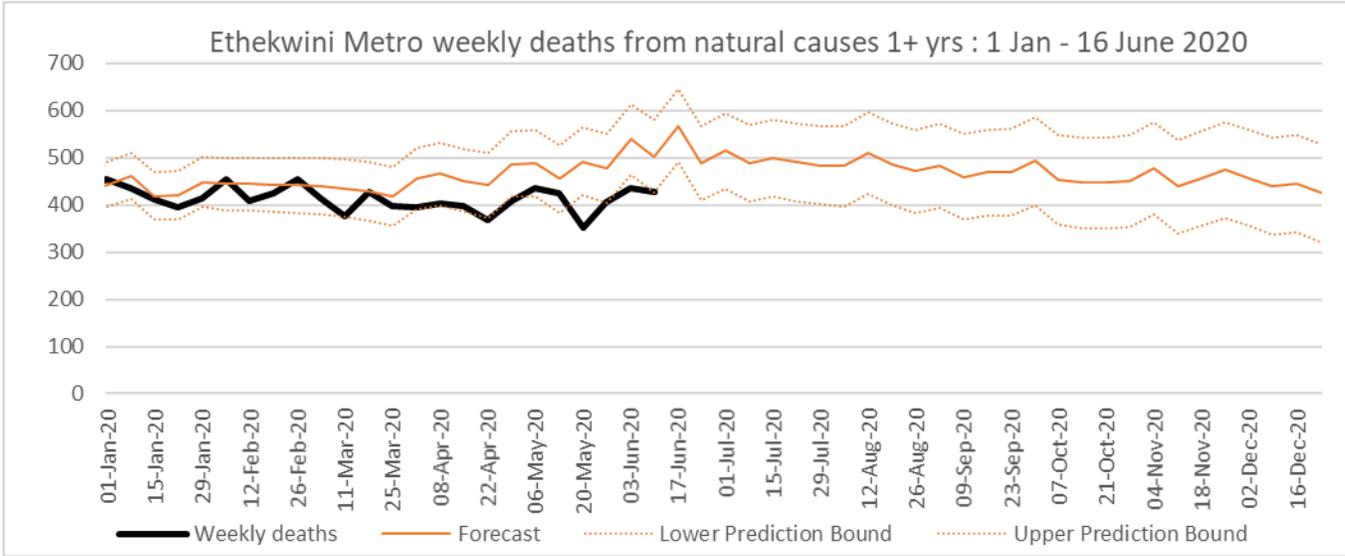
Numbers for the last week have been adjusted for delayed registrations



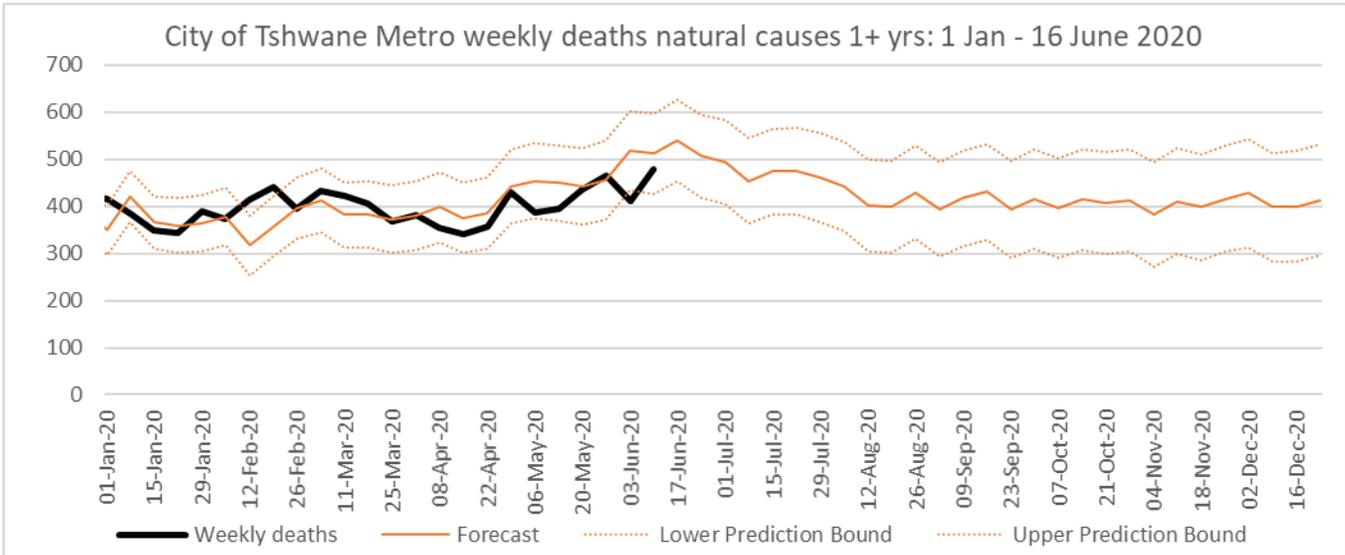
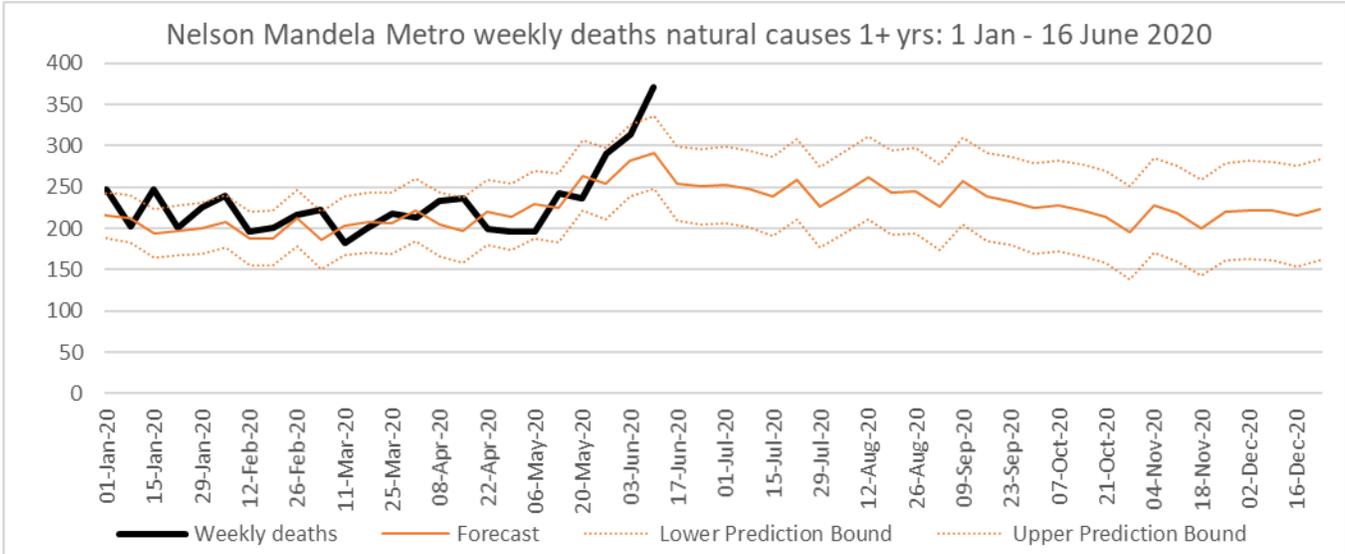
Numbers for the last week have been adjusted for delayed registrations



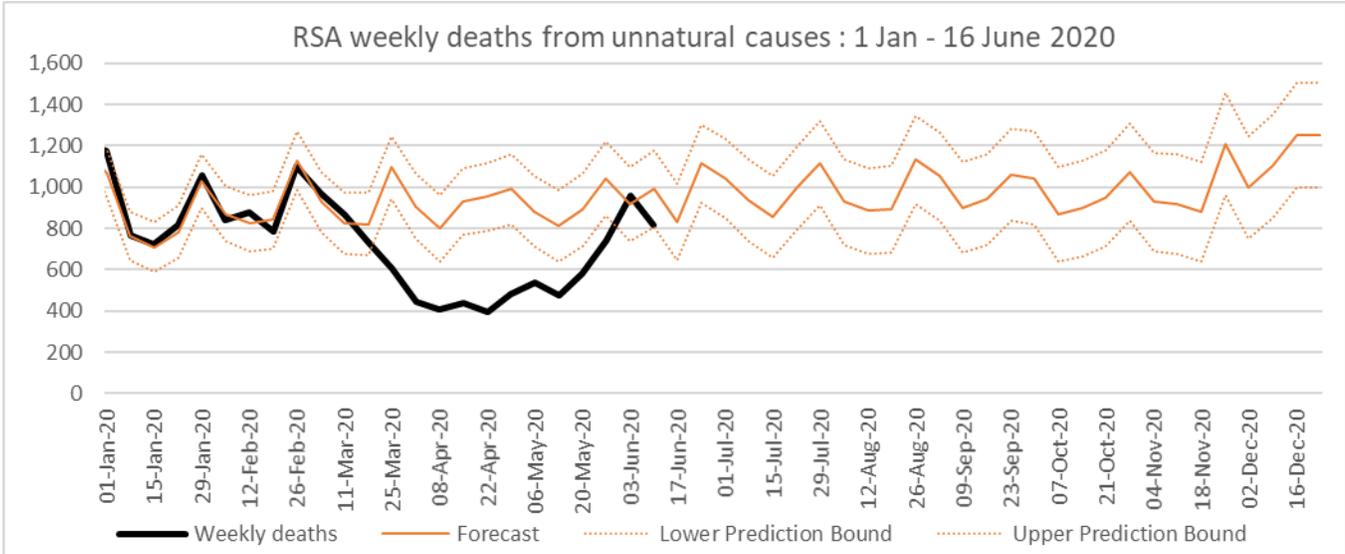
Numbers for the last week has been adjusted for delayed registrations



Numbers for the last week has been adjusted for delayed registrations



Numbers for the last week has been adjusted for delayed registrations



Numbers for the last week has been adjusted for delayed registrations