



ESTIMATING COVID AND COLLATERAL DEATHS IN SOUTH AFRICA

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What does “excess deaths” measure?

Difference between actual deaths and the expected number

Why is it being measured?

To measure all COVID deaths (including unreported)

What is the standard approach?

Actual all-cause deaths minus the expected/predicted no.
... if positive

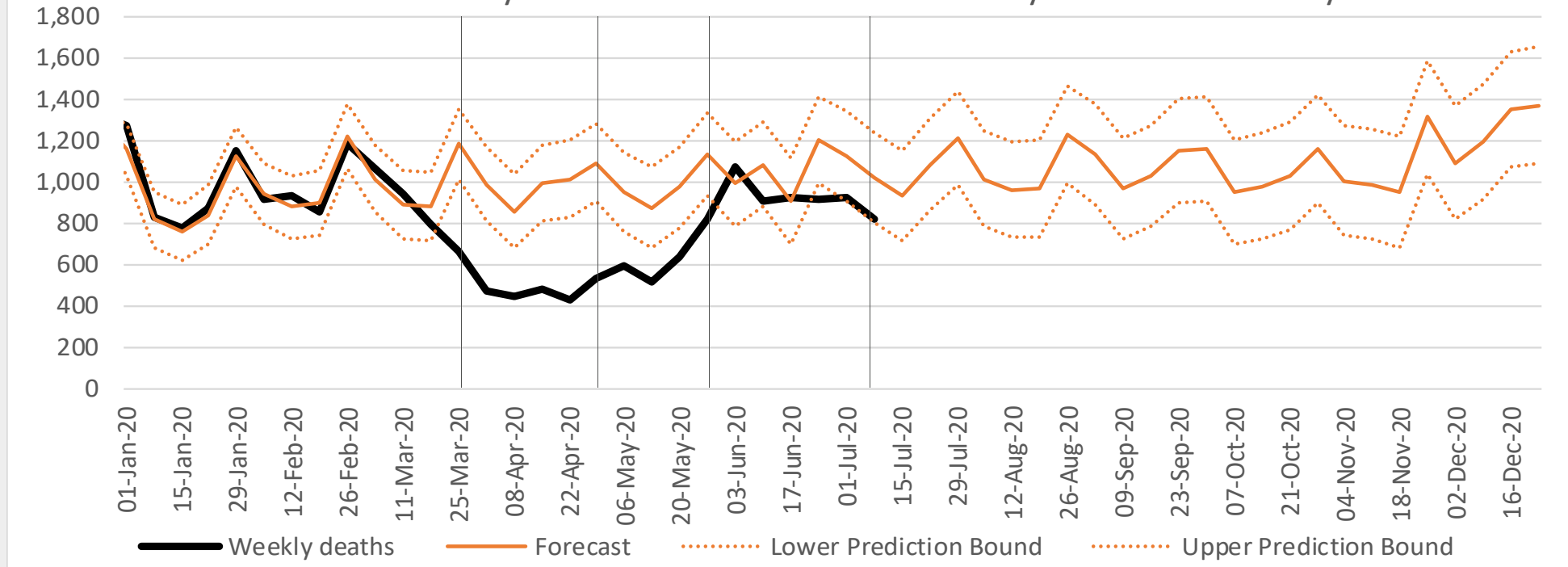
Hidden assumptions (for this to represent the number of COVID deaths)

- Prior to the rapid increase in numbers due to COVID the deaths were tracking the expected/predicted number
- Unnatural deaths are low relative to the natural deaths
- Collateral deaths are low

Why are we doing it differently?

- **Use natural only**, because unnatural deaths are more significant, and significantly impacted by lockdown levels

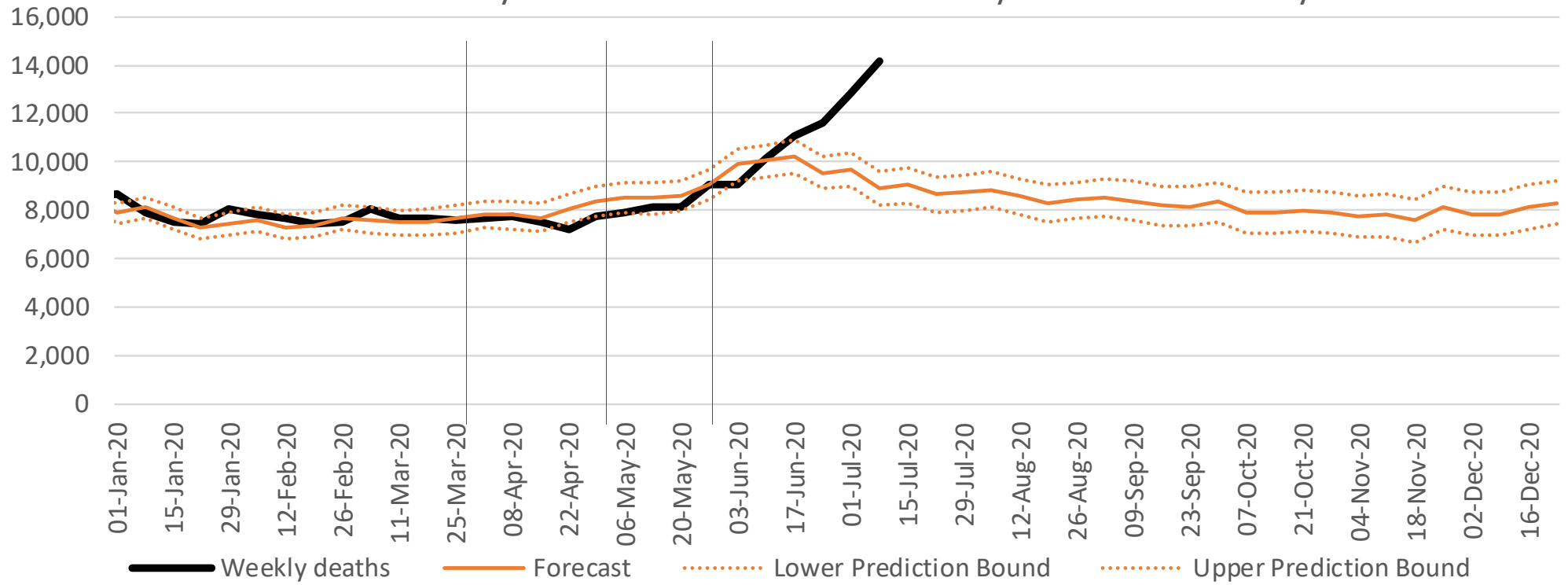
RSA weekly deaths from unnatural causes 1+ years : 1 Jan - 14 July 2020



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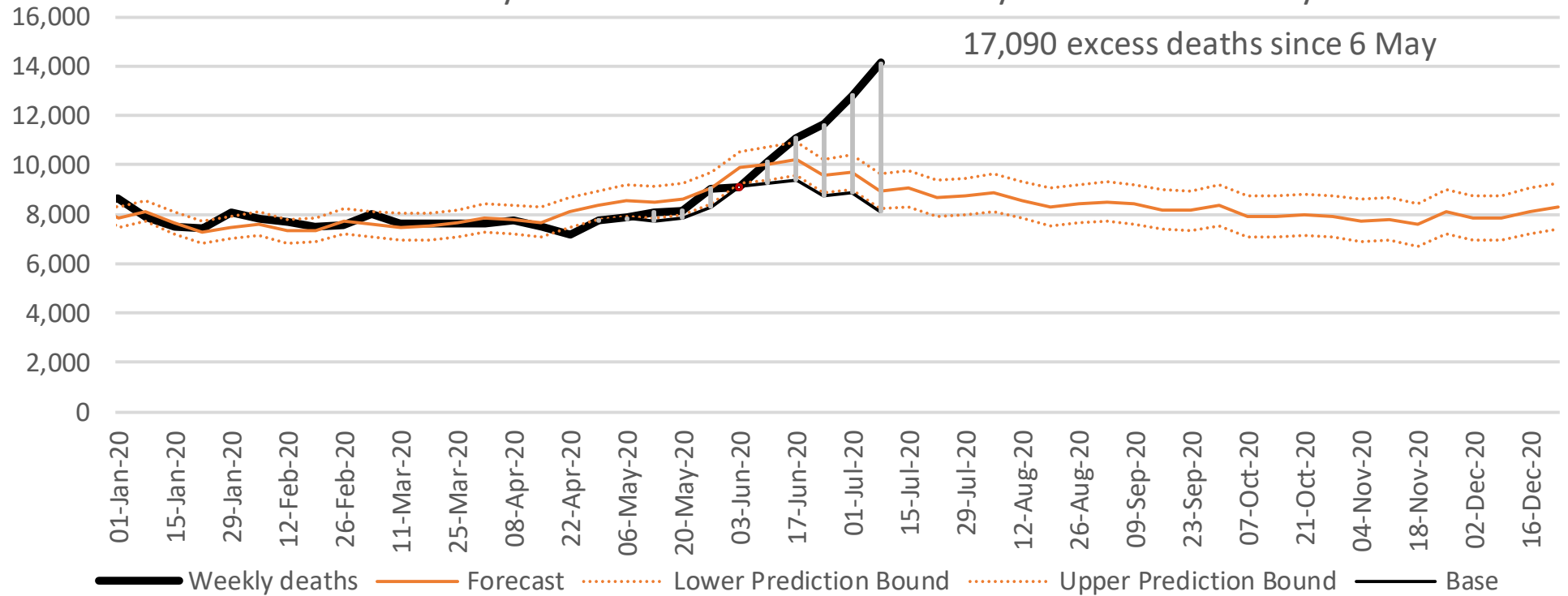
- **Use natural only** because unnatural are more significant and significantly impacted by lockdown levels
- Baseline lower than expected/predicted to start with because naturals tracking below the predicted prior to rapid increase

RSA weekly deaths from natural causes 1+ years : 1 Jan - 14 July 2020



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17,090 excess deaths since 6 May

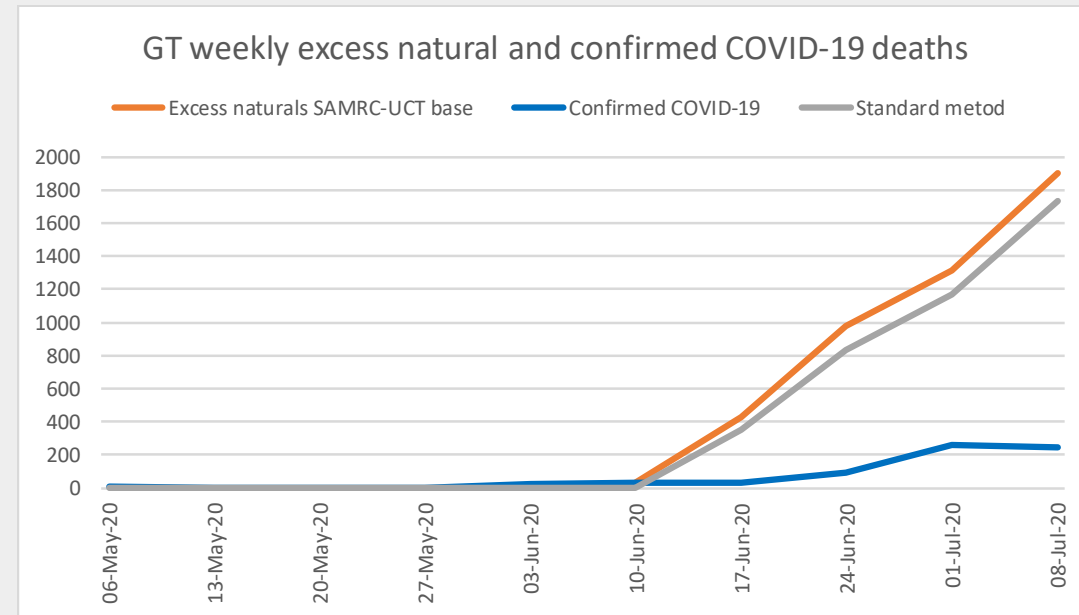
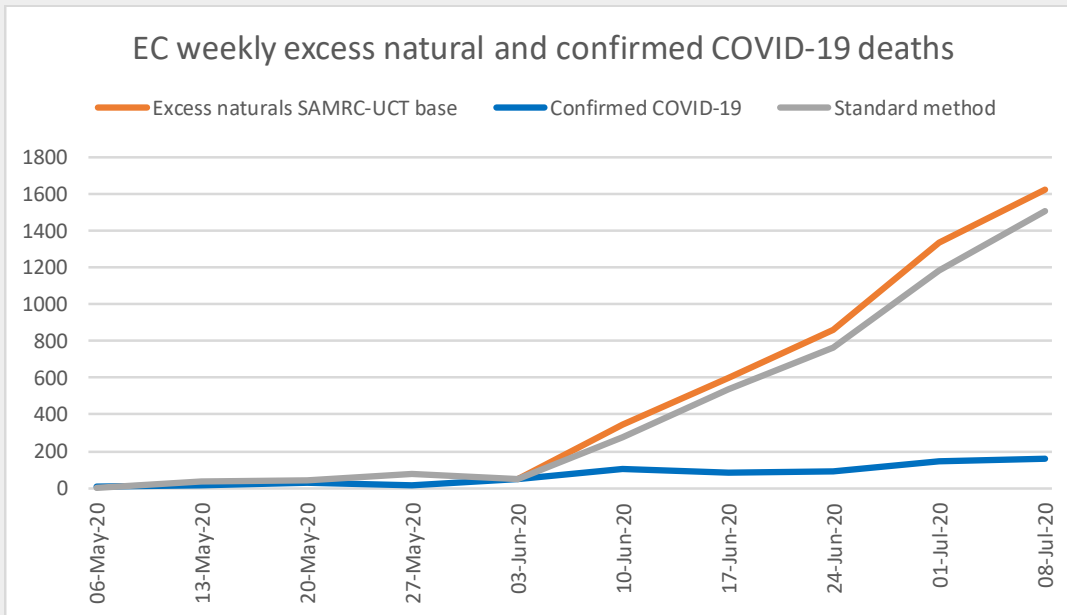


Why are we doing it differently?

- **Use natural only** because unnatural are more significant and significantly impacted by lockdown levels
- Baseline lower than expected/predicted because naturals tracking below prior to rapid increase
- We produce both our measure and the standard measure of excess all-cause deaths

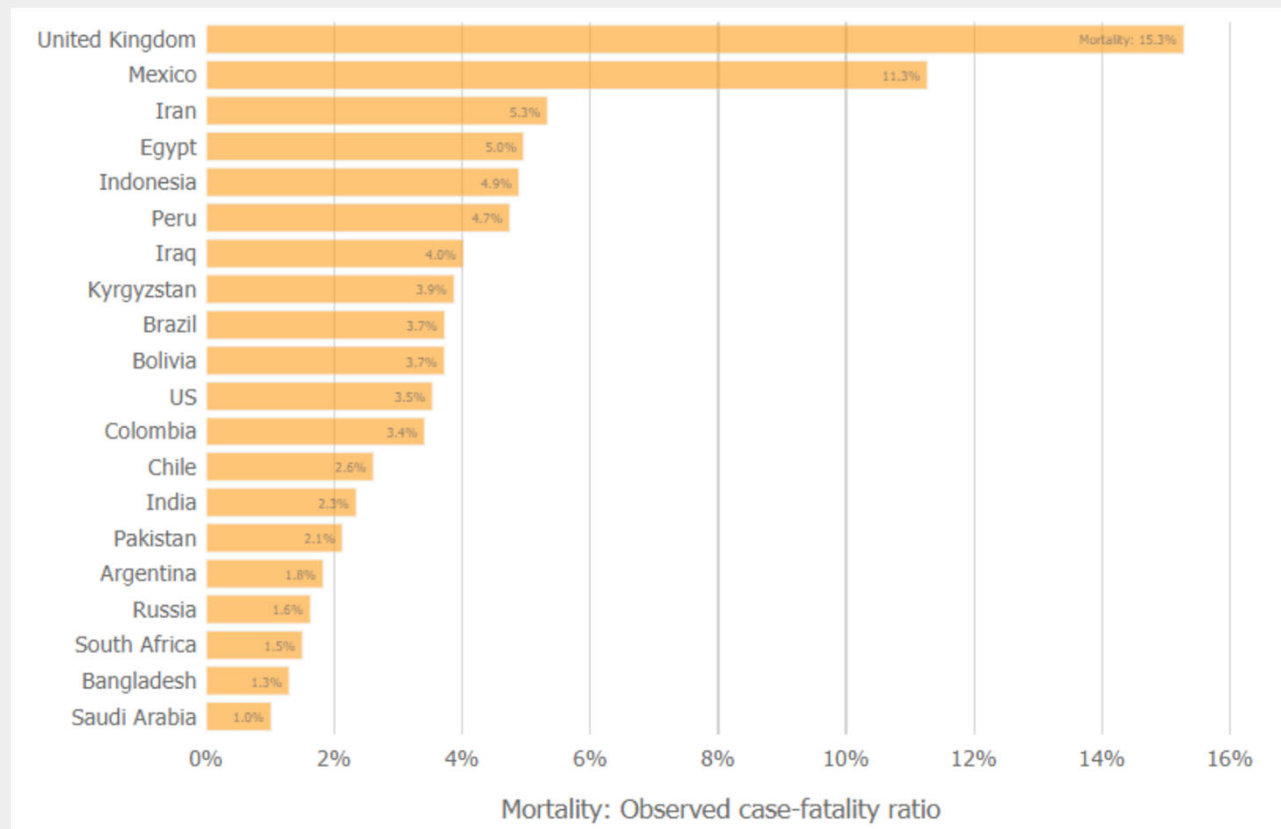
Week starting	06-May-20	13-May-20	20-May-20	27-May-20	03-Jun-20	10-Jun-20	17-Jun-20	24-Jun-20	01-Jul-20	08-Jul-20
Estimate of COVID + collateral deaths	206	559	852	1,621	1,615	2,508	4,197	7,093	11,041	17,090
Standard excess deaths	0	0	0	0	0	0	889	2,677	5,598	10,620
DoH confirmed deaths	206	312	524	755	1,162	1,625	2,102	2,657	3,502	4,346

Put differently...



And South Africa has a very low CFR compared to others in the top 20 most affected countries

Johns Hopkins



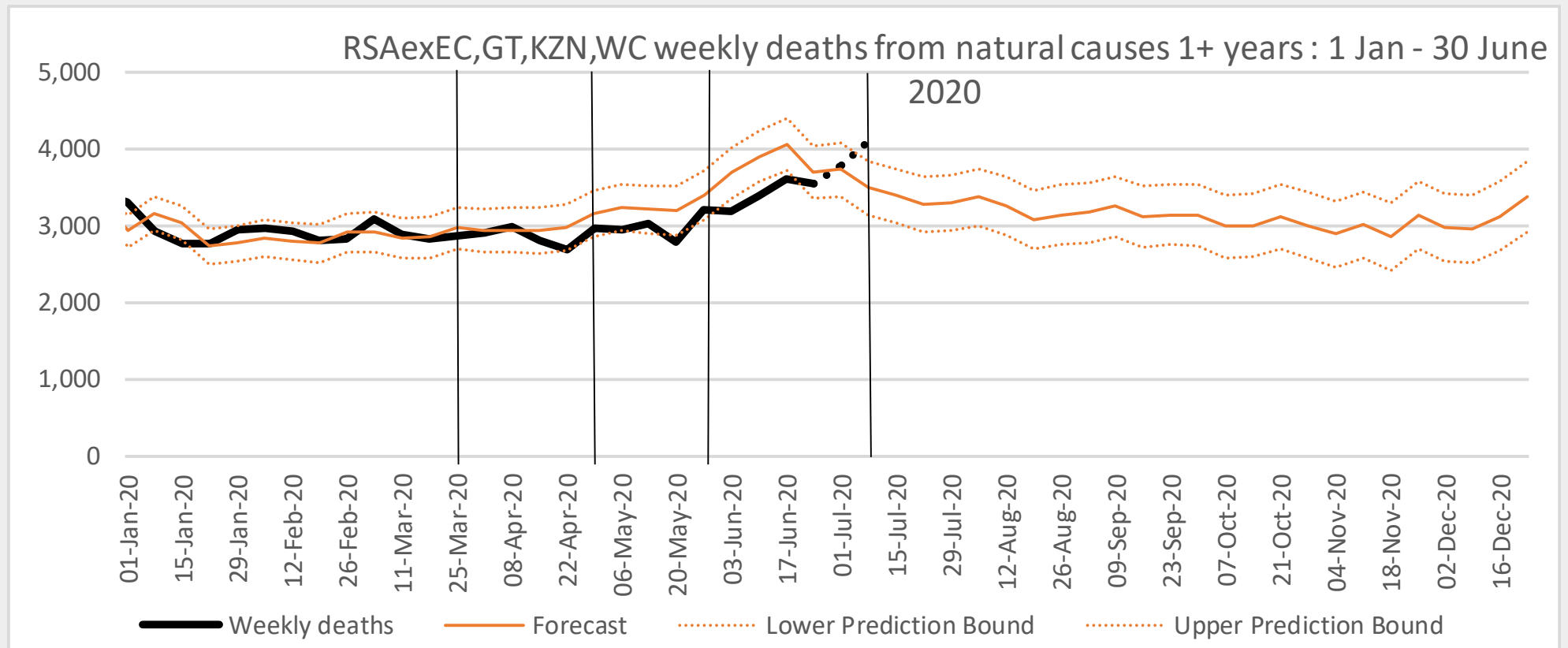
Burden of Disease Research Unit



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How do we know the baseline remains at this level going forward?

- We don't, but can probably assume it does until at least end June....



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- We don't but can probably assume it does until at least end June....
- Also those under age 25 continue to track below the predicted beyond this
- As we are past the winter peak, and there is uncertainty beyond the end of June, the benchmark transitions to meet the predicted on or before the week starting 22 July

Are these deaths all COVID?

- No. Although, given the rapid increase, the bulk probably are, a significant (and growing?) number will be collateral deaths (due to constraints on health care resources, etc.).