



COVID-19 Future Path Modelling – Update report, week of 12/05/20

Commissioned by




Europe Economics
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Disclaimer and caveats

The charts that follow and the accompanying data sheet are intended to provide the NAFD and its members with an approximate indication of the range within which deaths in their areas might lie, under a set of plausible scenarios reflecting the very considerable scientific and policy uncertainty at this time. The models use epidemiological and other scientific assumptions drawn from the current literature. However, we do not endorse any specific such assumptions and we have sought to acknowledge and reflect the very considerable scientific debate there is about many aspects of these matters at present.

Our models are not intended to be used to guide NHS planning or government policymaking regarding future phases of the coronavirus crisis. Had our models been designed for that purpose they would have required additional features (eg analysis of ICU usage).

It is both the strength and the weakness of regional modelling that it is more local. It is a weakness in that data is less certain and ranges of uncertainty are higher than for more aggregated analysis. It is also a weakness in this case in that there may be interactions between regions (eg transmission of infection) that we have not modelled explicitly. Key strengths include information for local decision-makers and a recognition of the possibility of localised epidemics even if spread is controlled at a national level.

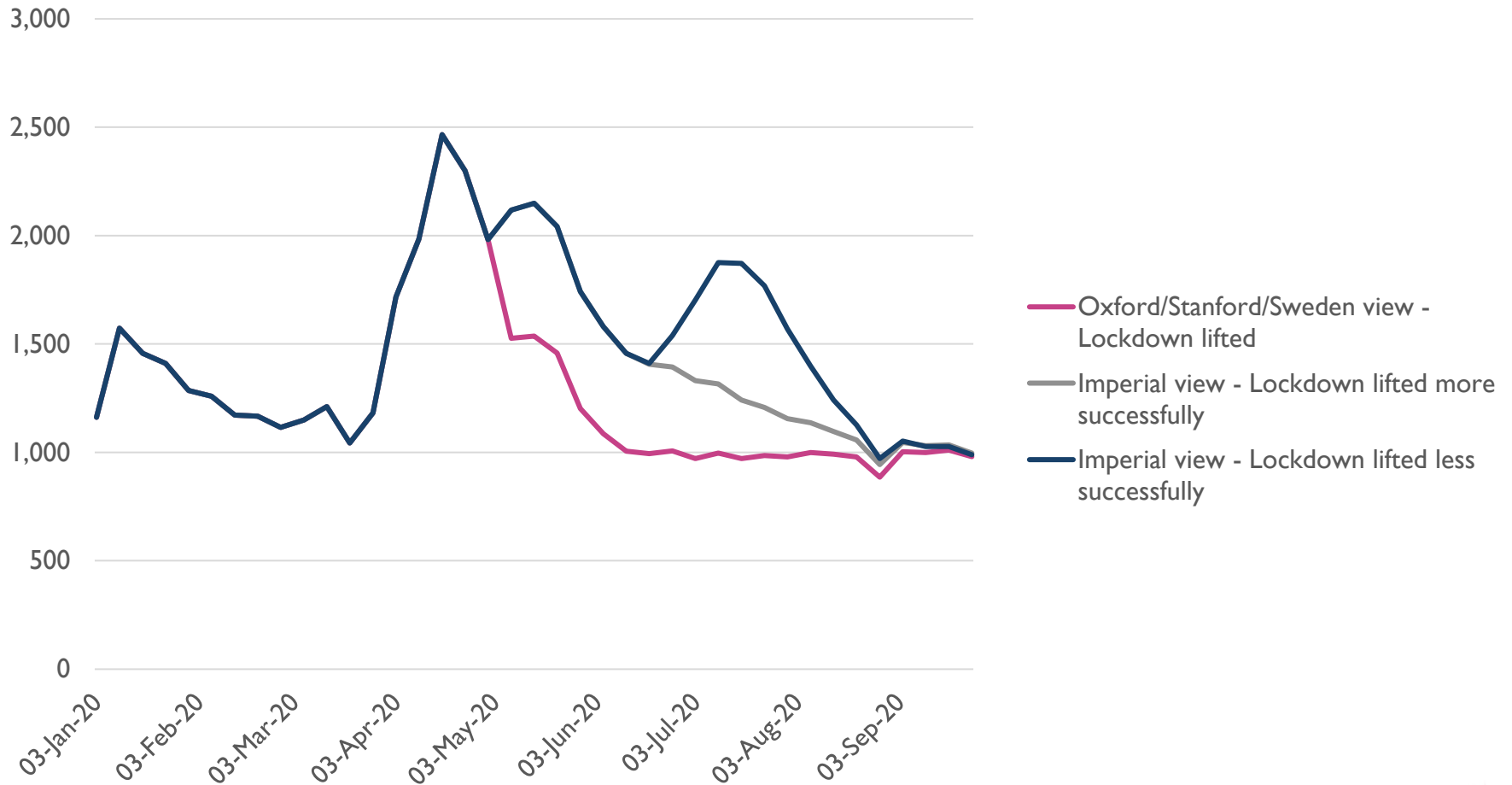


Our regional models allow for a wide variety of region-specific factors

- Different demographics lead to different fatality rates (eg under the Imperial view ranging from 0.6% in London to 1% in the South West).
- Epidemics start at different dates and spread at different speeds.
- The R_0 in lockdowns are different.
- Post-lockdown R_0 s are different, & hence the post-lockdown logistic progressions (the mathematical shapes of new infections) are different.
- We use not-fully-binding regional herd immunity thresholds.

NB All projections
are to the final week
of September 2020

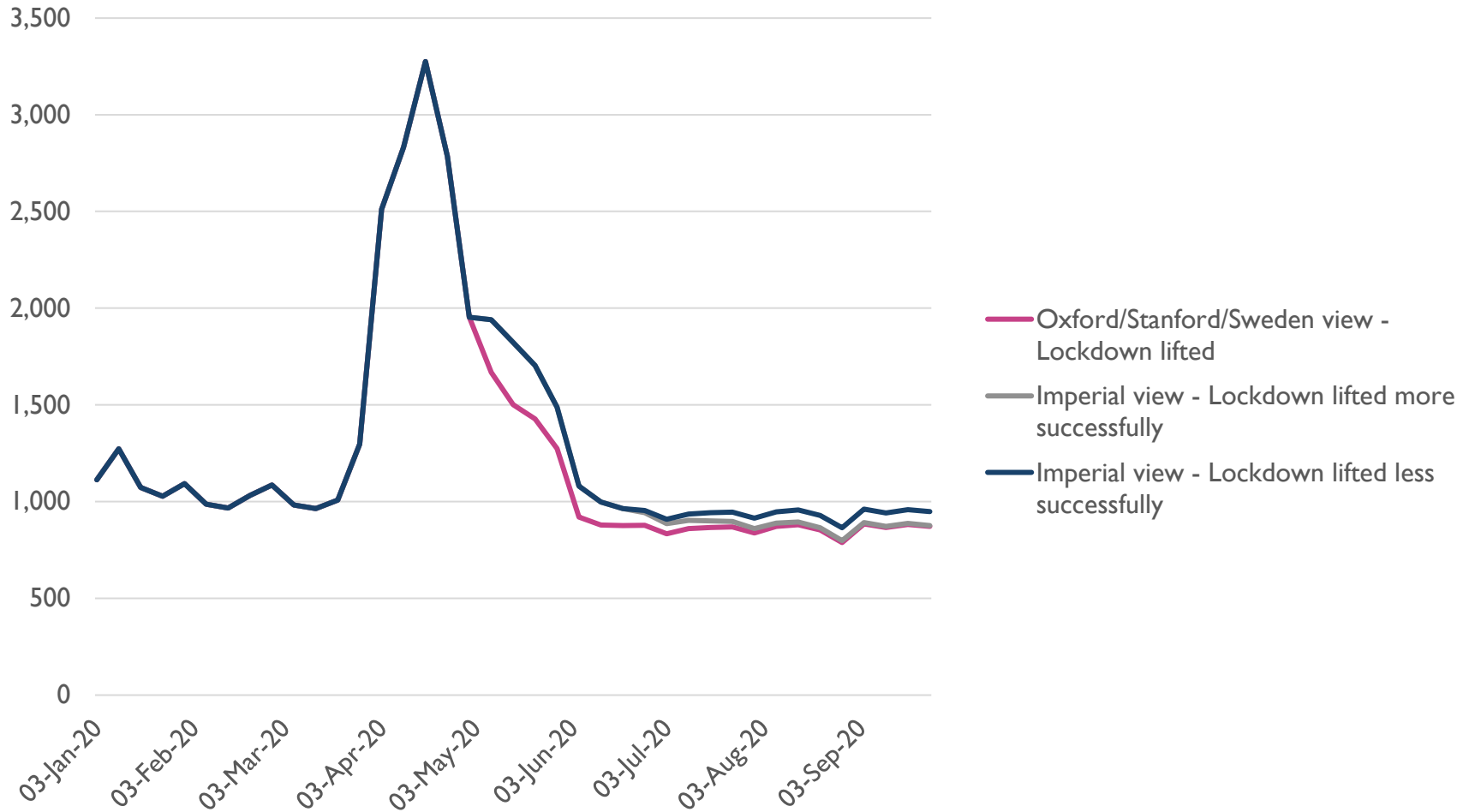
East of England total deaths, all causes



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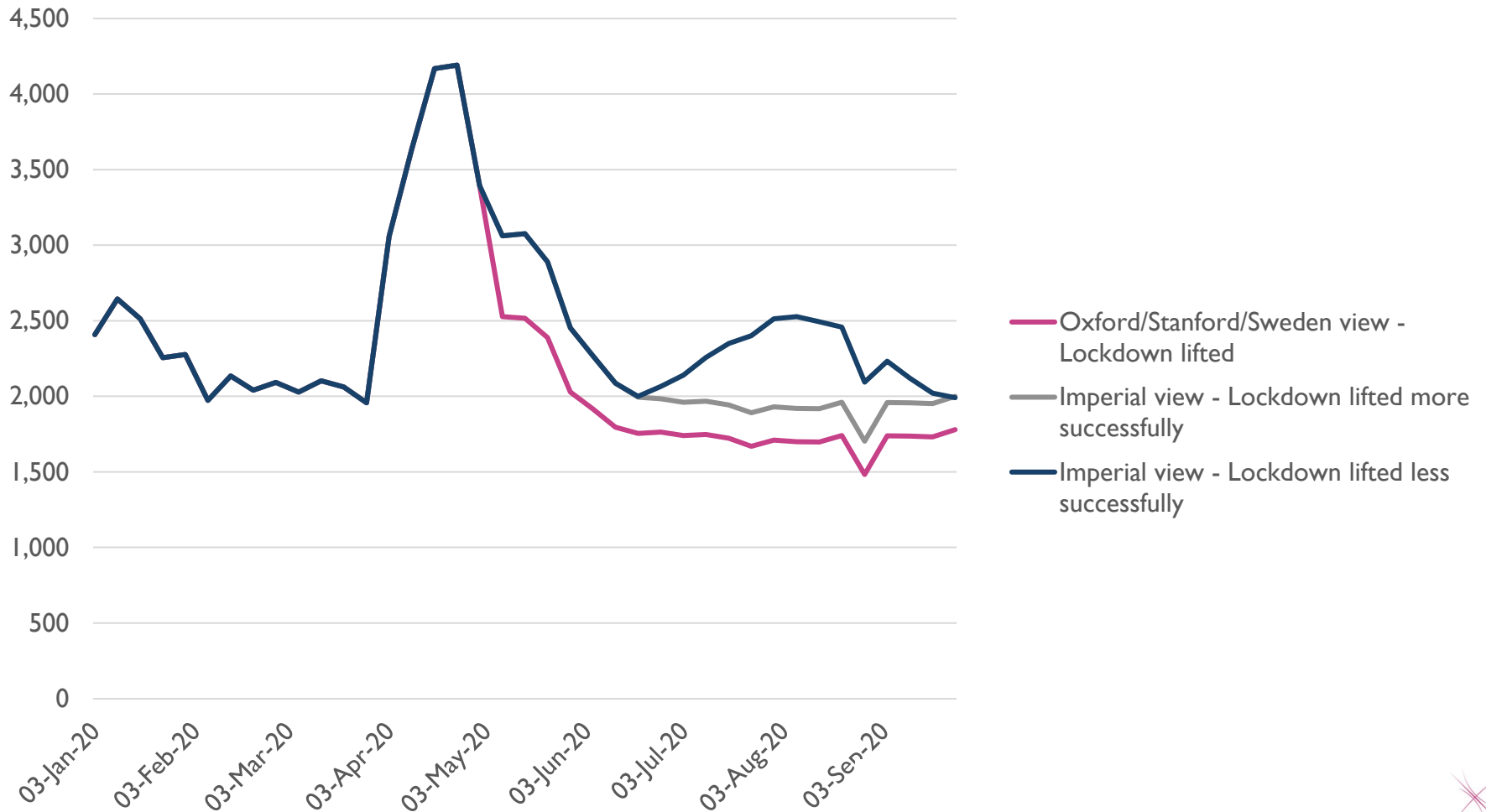
London total deaths, all causes



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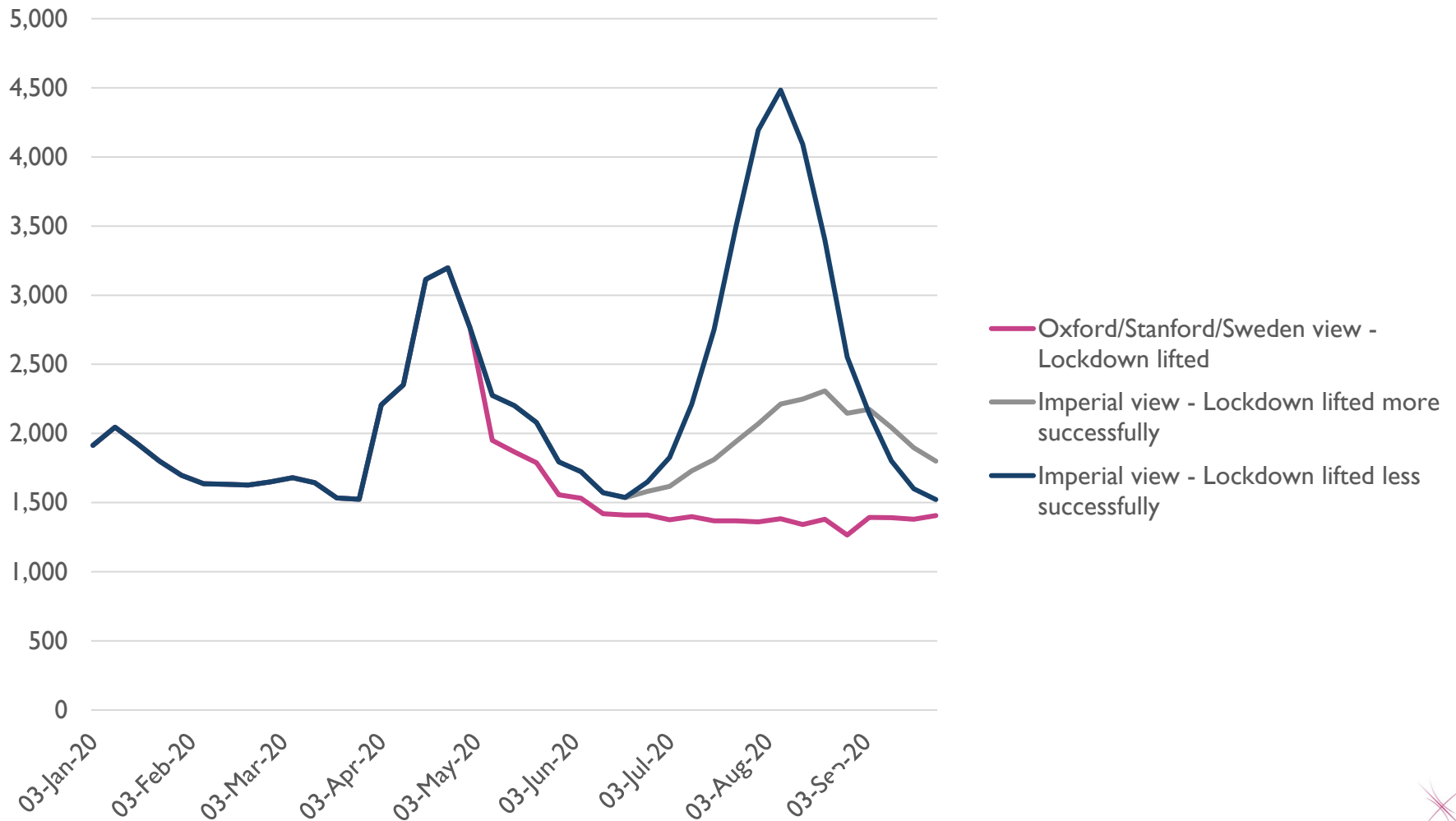
Midlands total deaths, all causes



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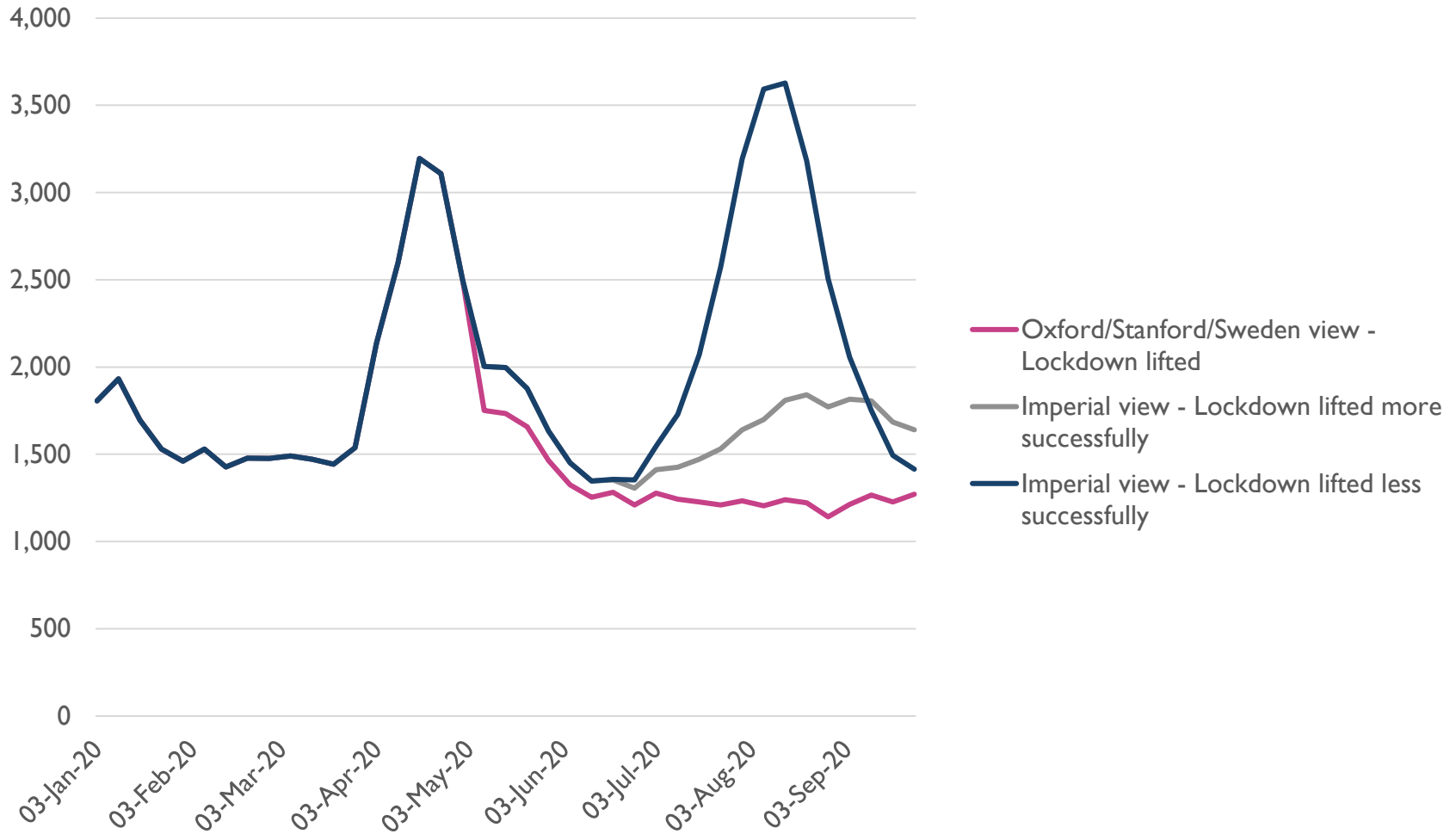
North-East and Yorkshire total deaths, all causes



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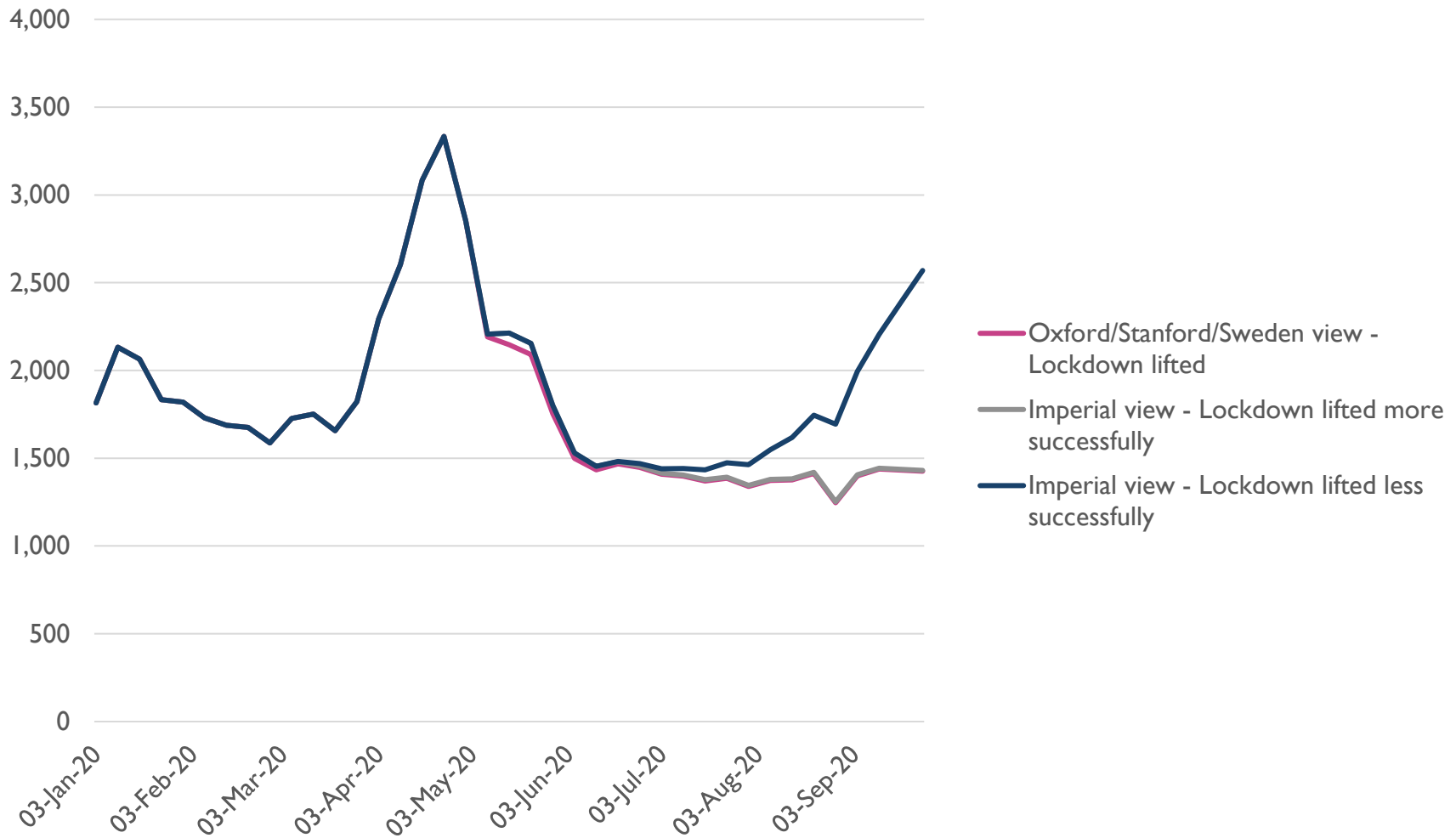
North West total deaths, all causes



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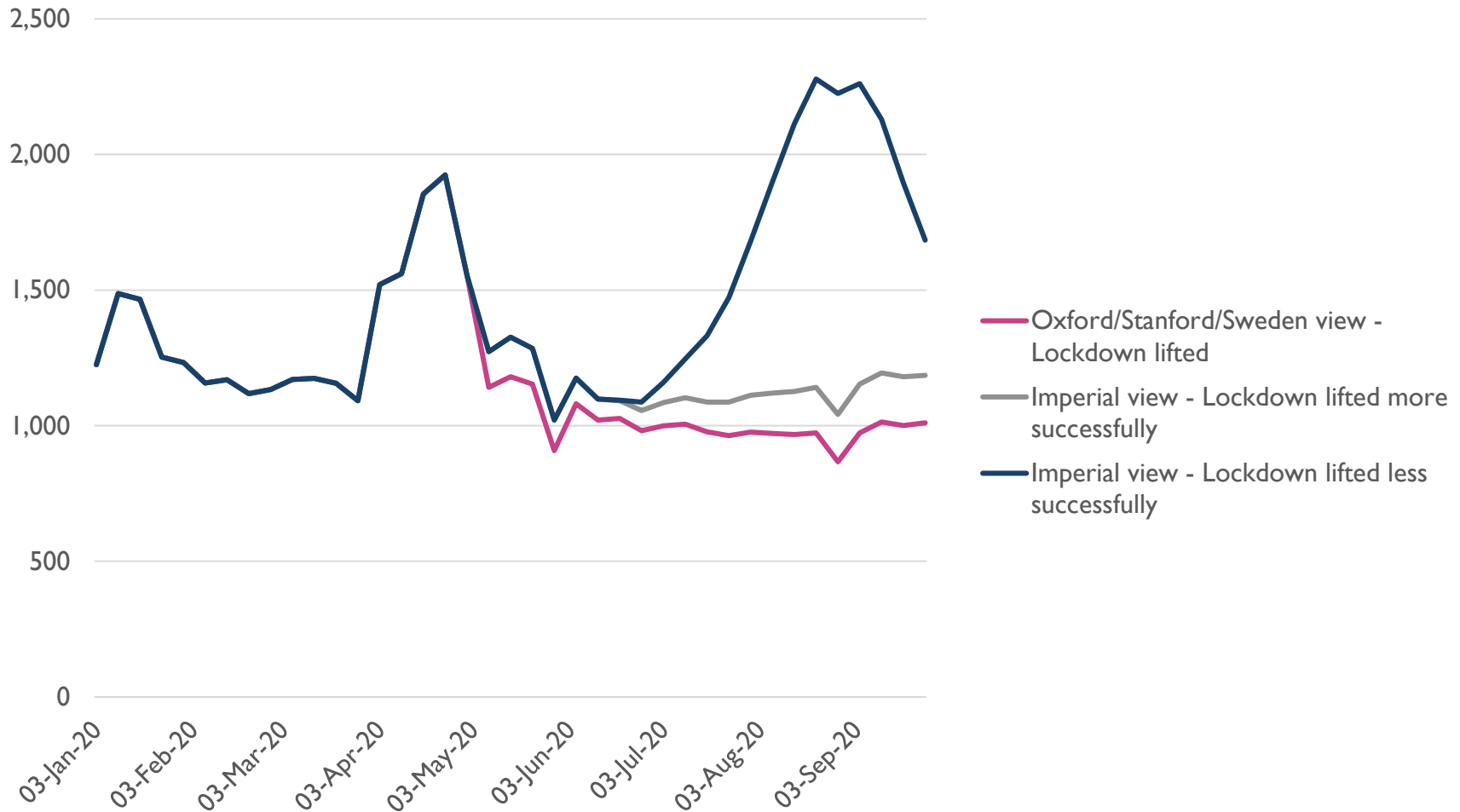
South East total deaths, all causes



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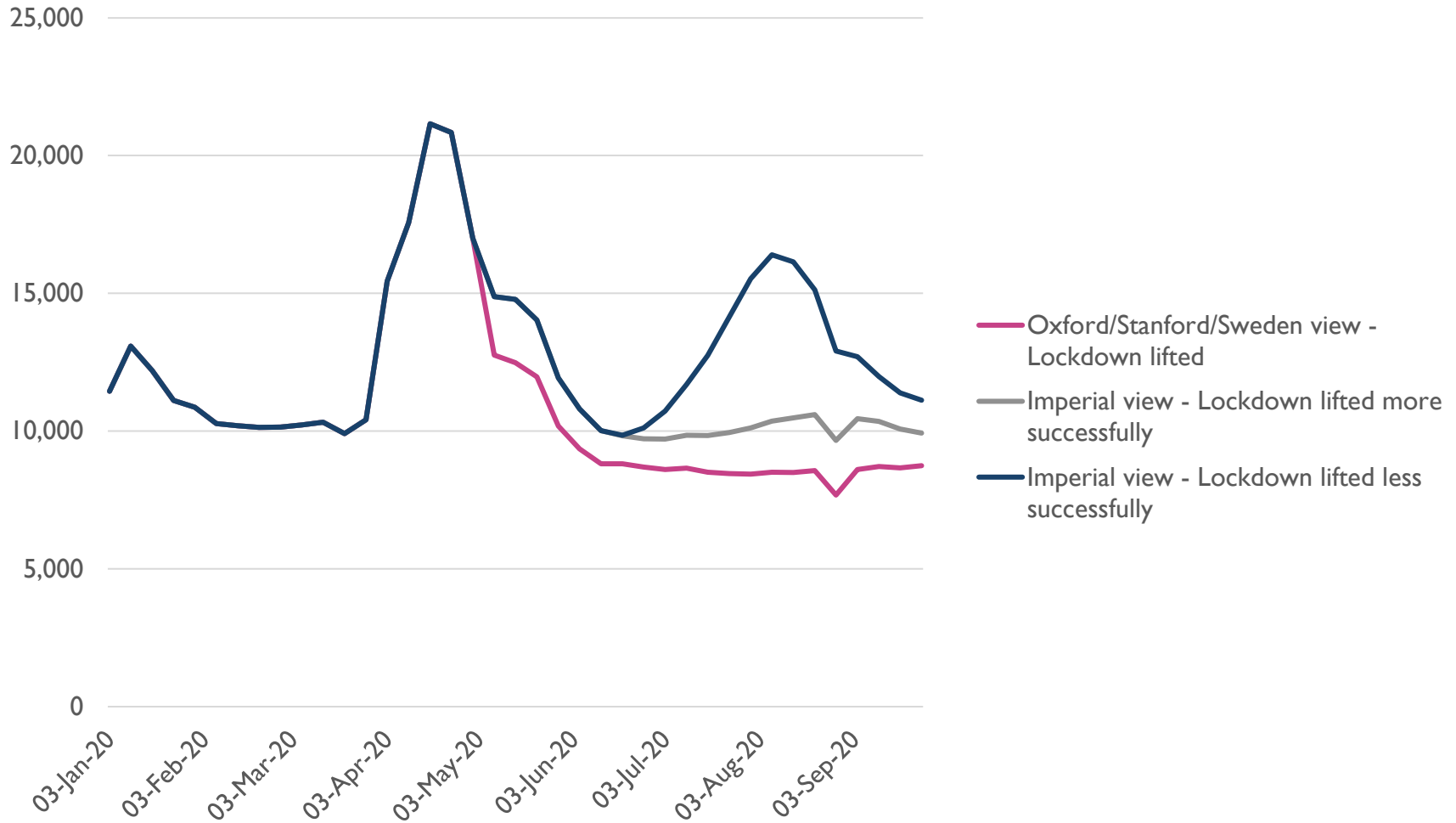
South West total deaths, all causes



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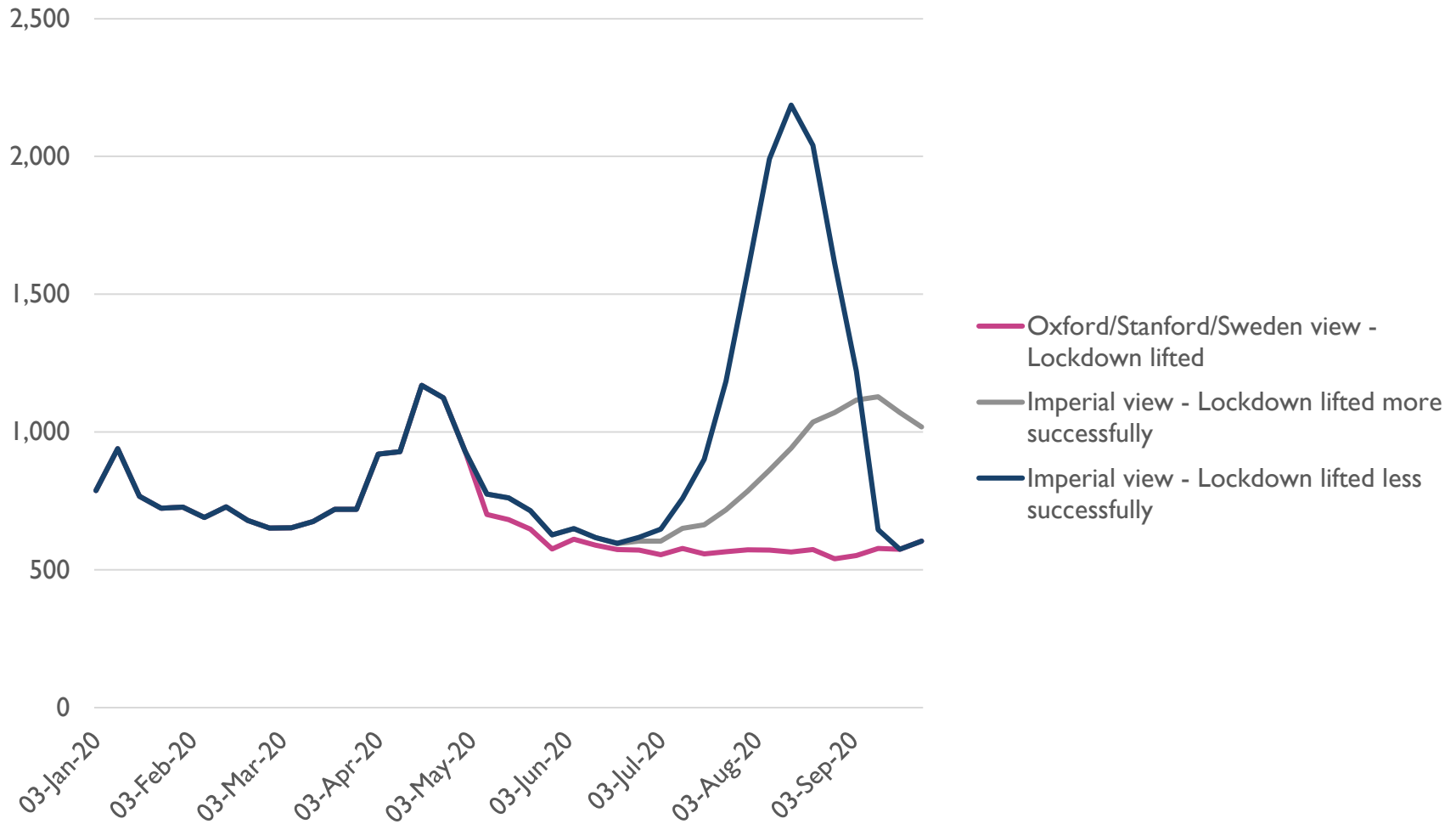
England total deaths, all causes



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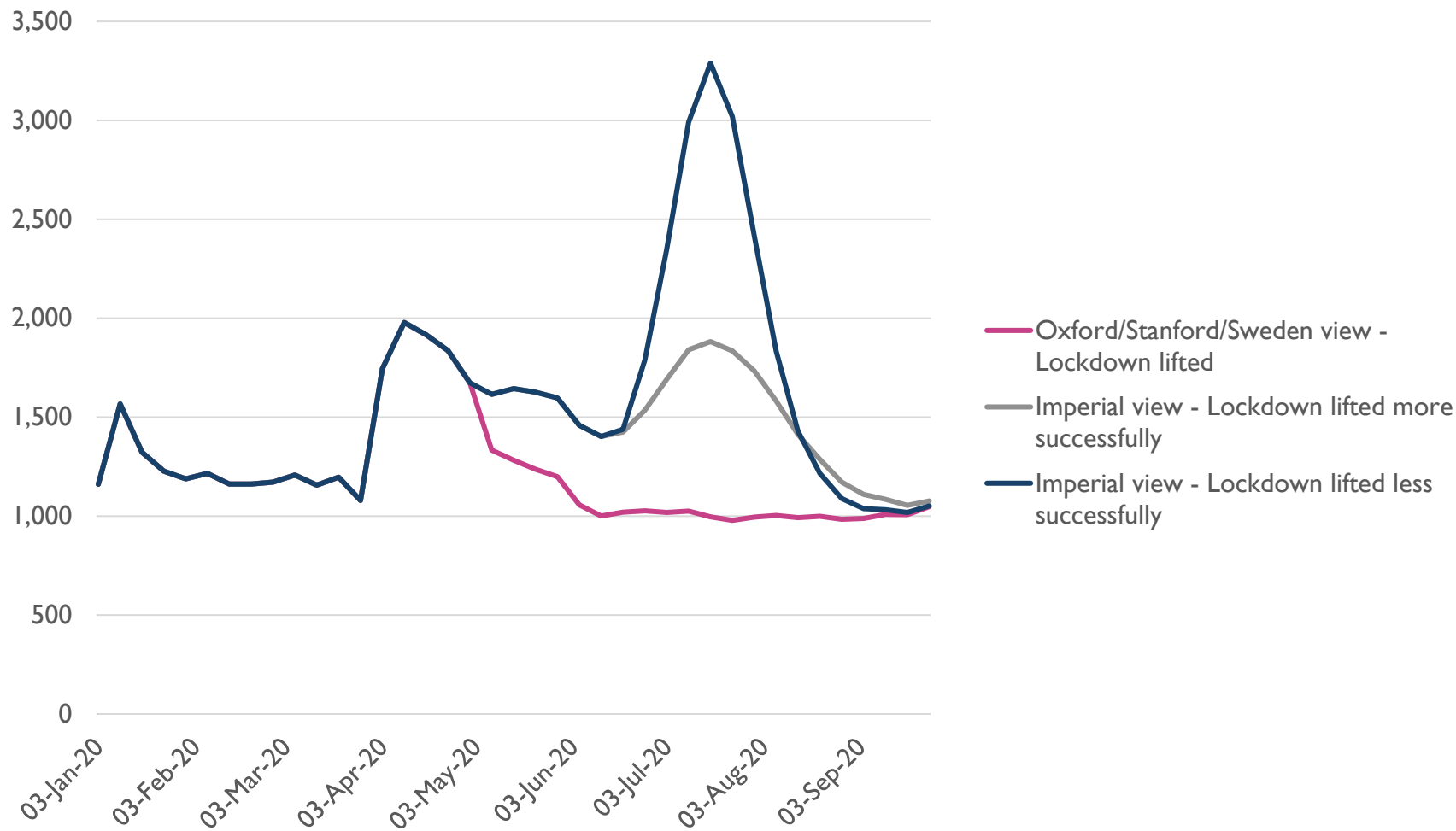
Wales total deaths, all causes



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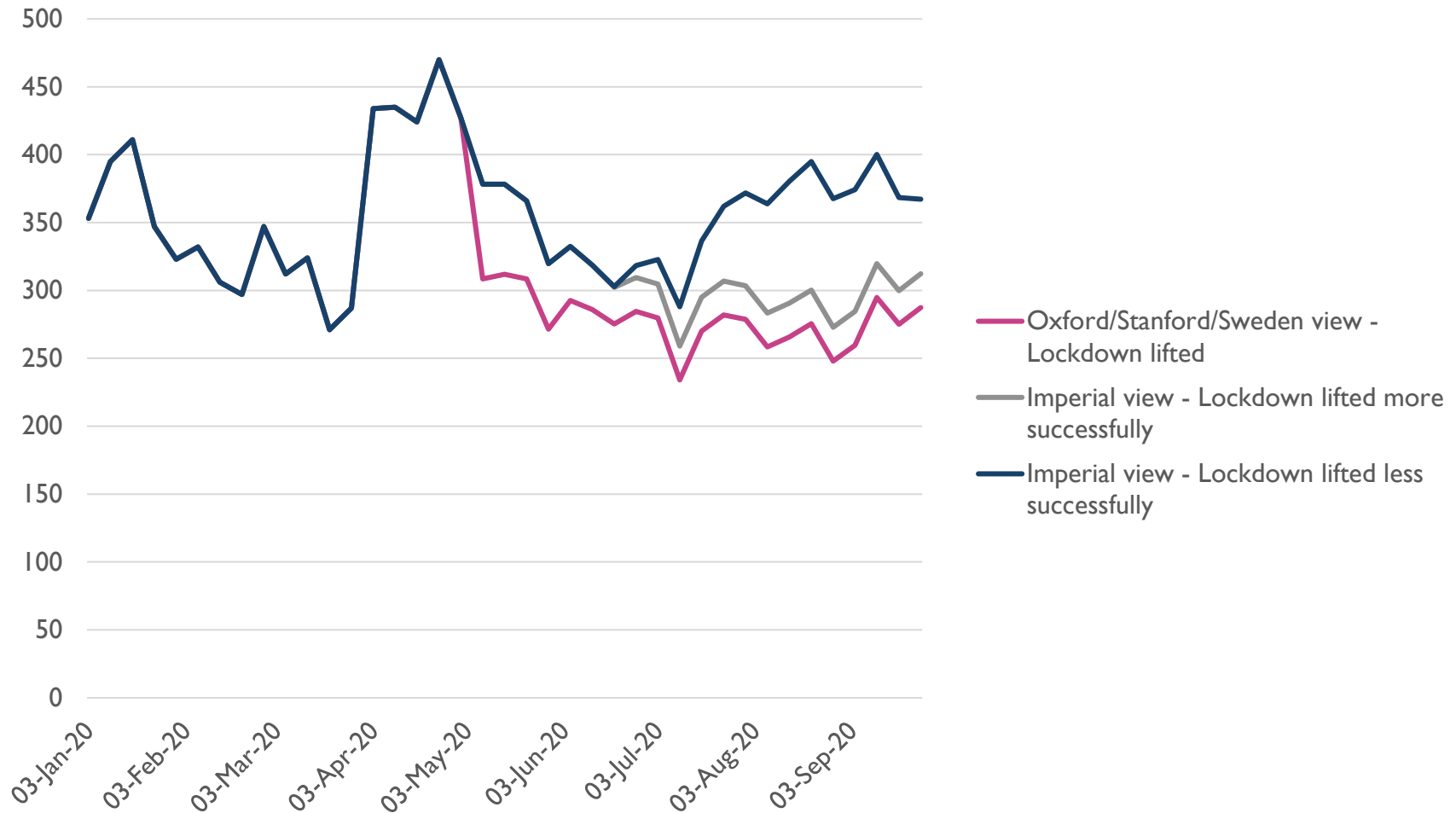
Scotland total deaths, all causes



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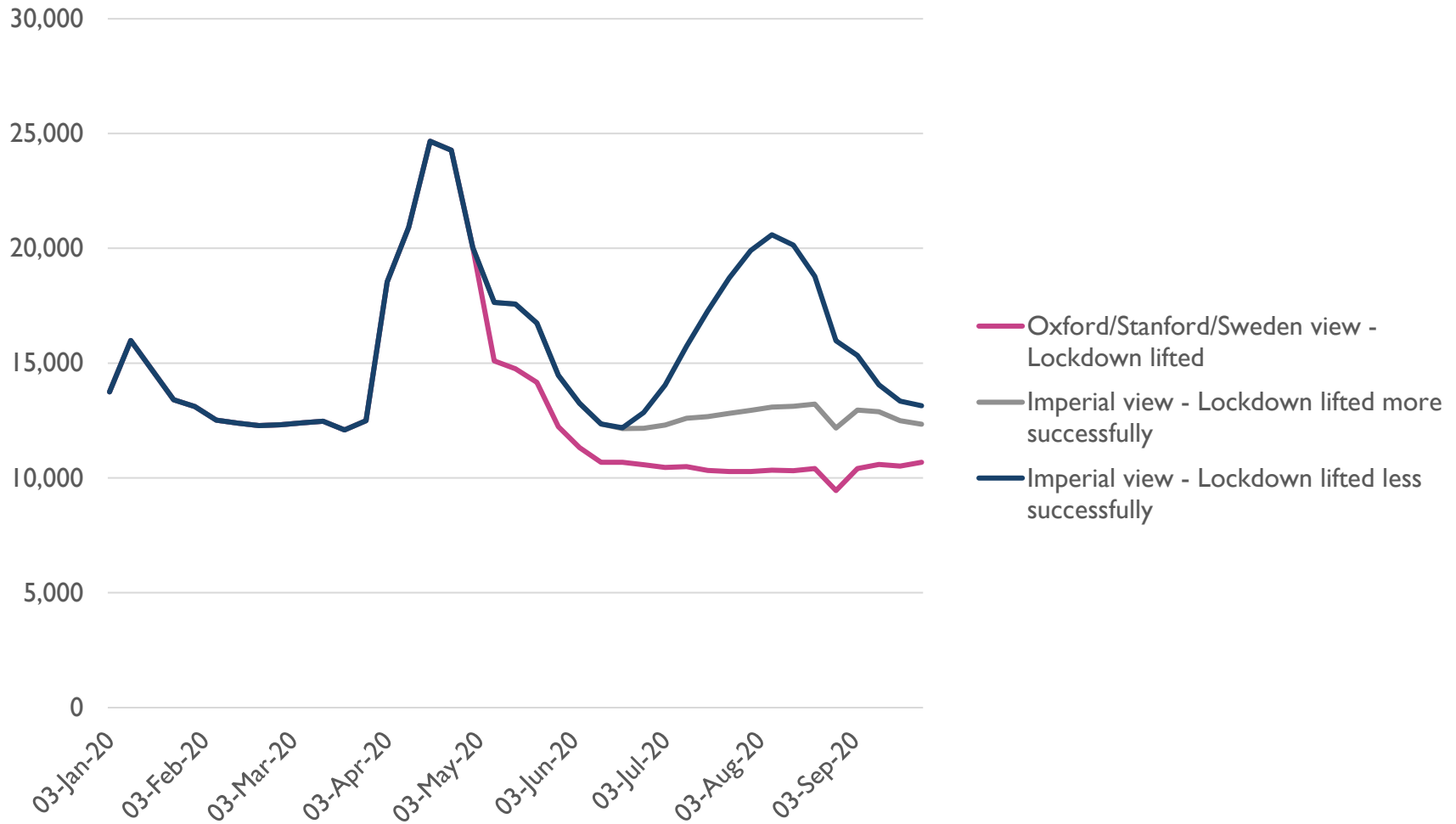
Northern Ireland total deaths, all causes



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UK total deaths, all causes



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