

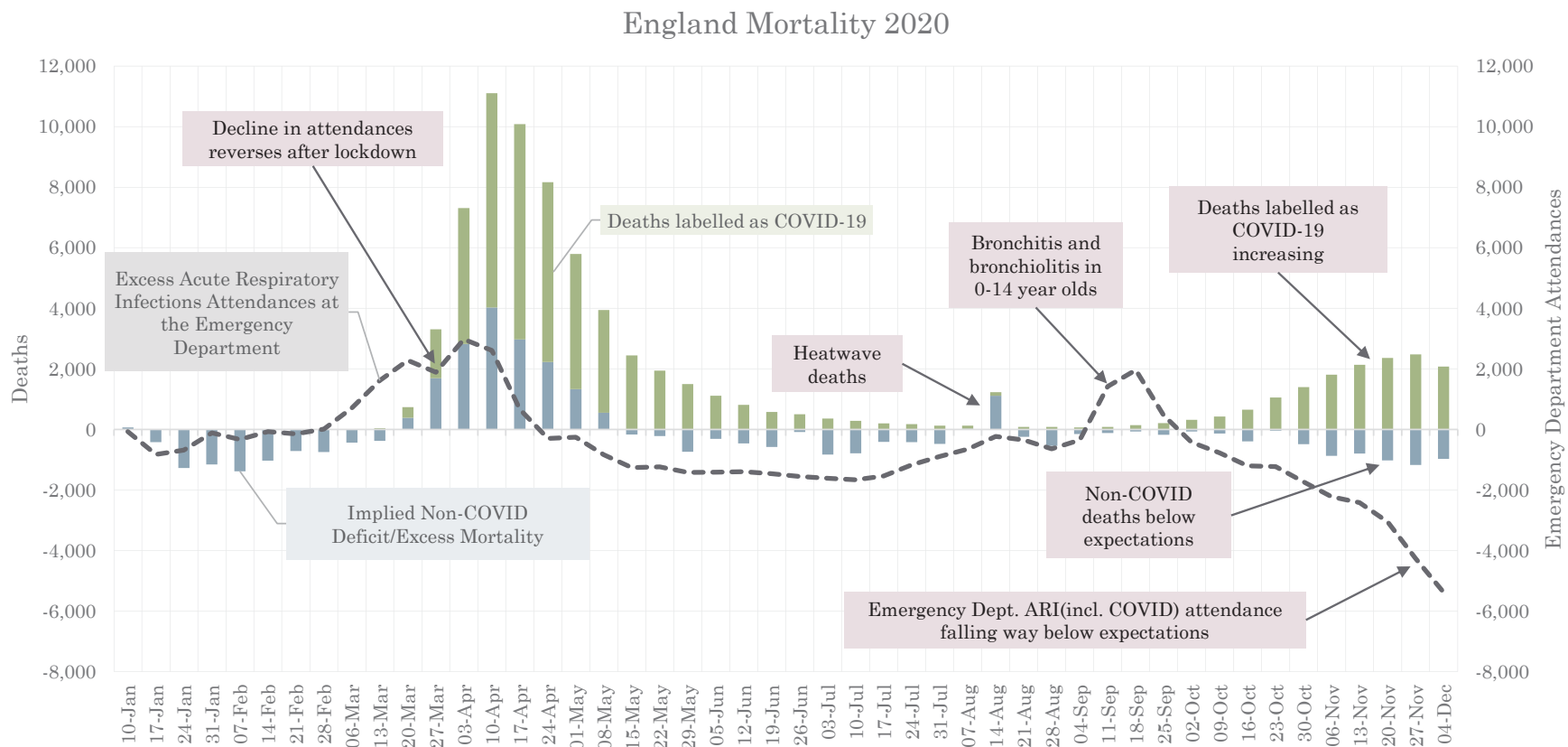
COVID-19

England 2020 – Questions for the UK government in consideration of the empirical data.

Joel Smalley, MBA, Quantitative Analyst

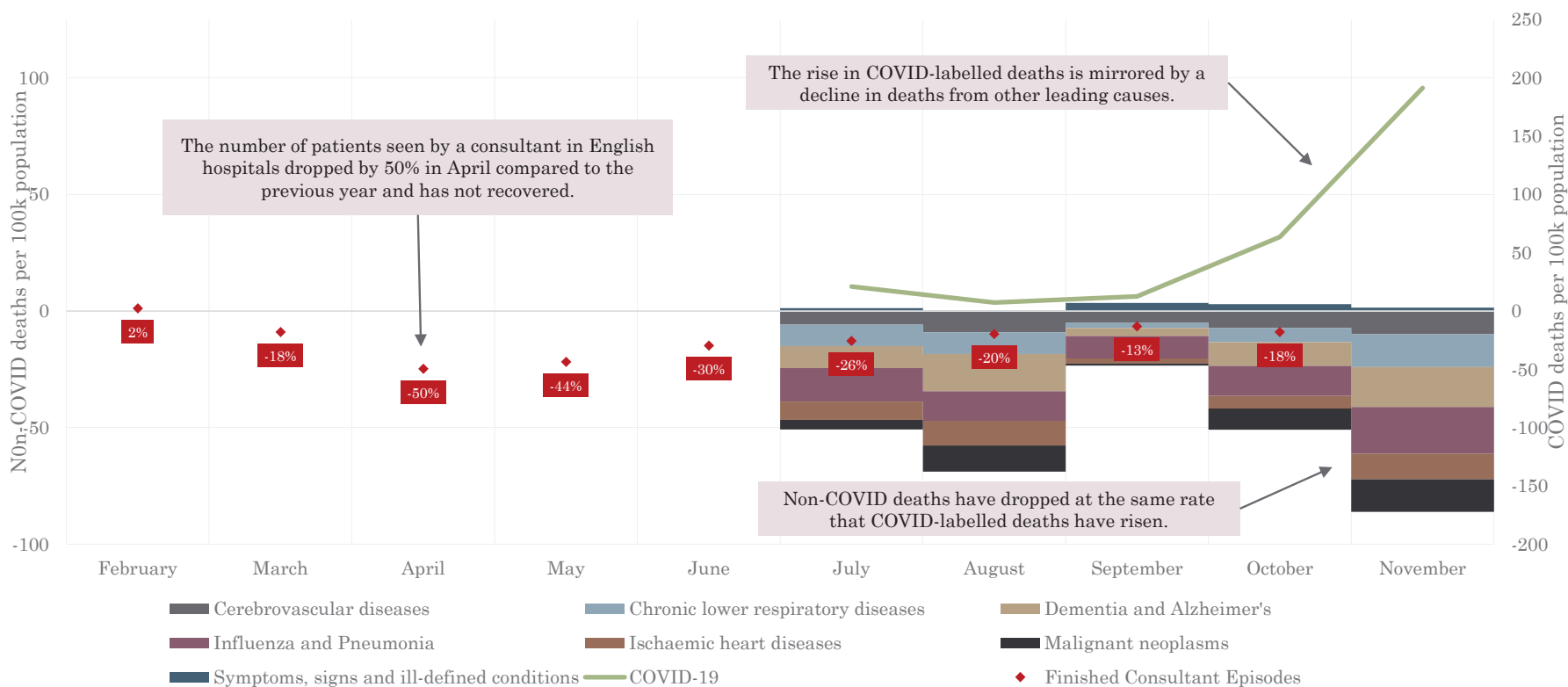
Marie Oldfield, CStat, CSci, Statistician

How can you explain the increase of deaths labelled as COVID-19 in Autumn while emergency department acute respiratory attendances are way below expectations?



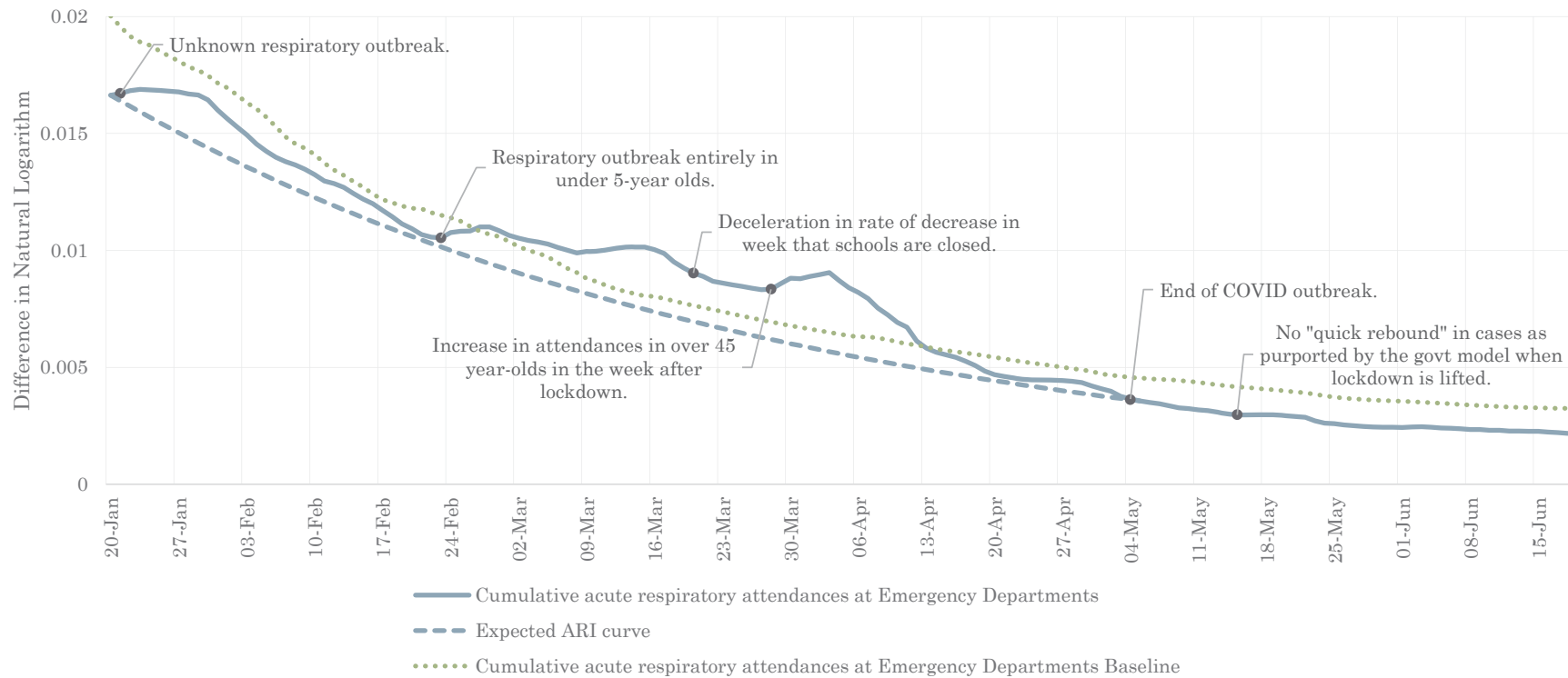
Conversely, how can you explain the decrease in deaths of other leading causes despite up to 50% reduction in hospital consultations?

Age-standardised mortality rate for leading causes of death relative to five-year average, England 2020



Why does the rate of attendances for acute respiratory infections (including COVID) slow down the week before schools are closed and actually rise immediately after lockdown?

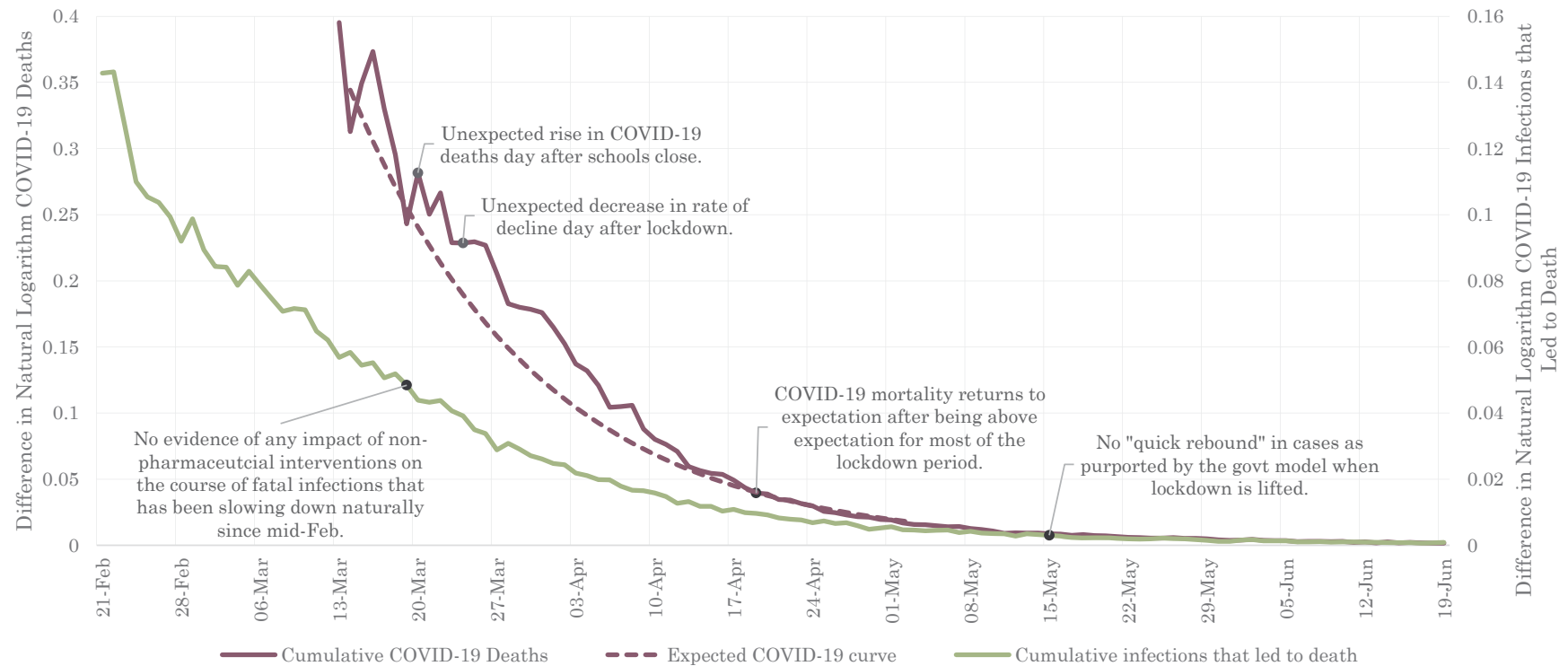
Course of COVID according to syndromic surveillance
 Source: Public Health England Emergency Department Syndromic Surveillance System



If interventions have significant impact on the key objective of fatal transmission, why is there no evidence? What could explain the unexpected rise in deaths after schools close and lockdown begins?

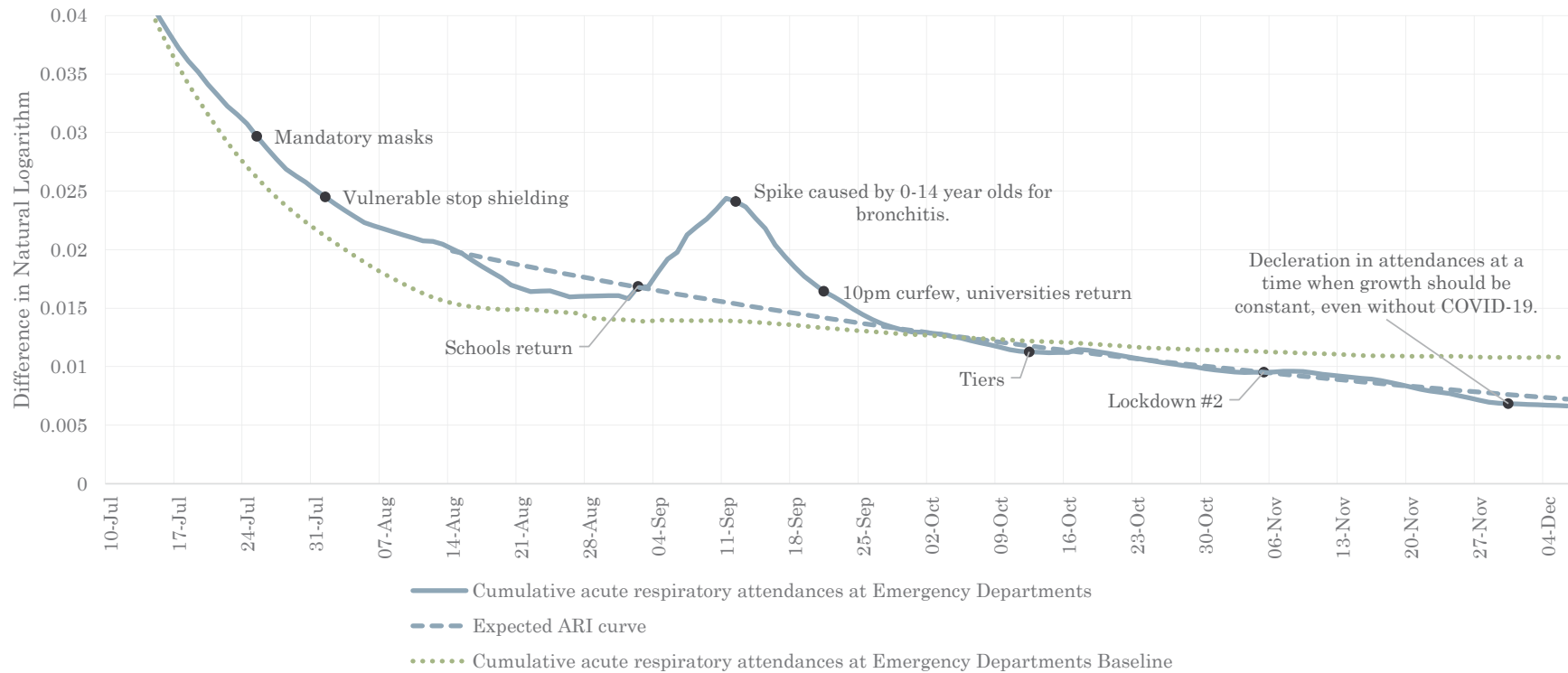
COVID-19 Labelled Deaths

Source: Office for National Statistics



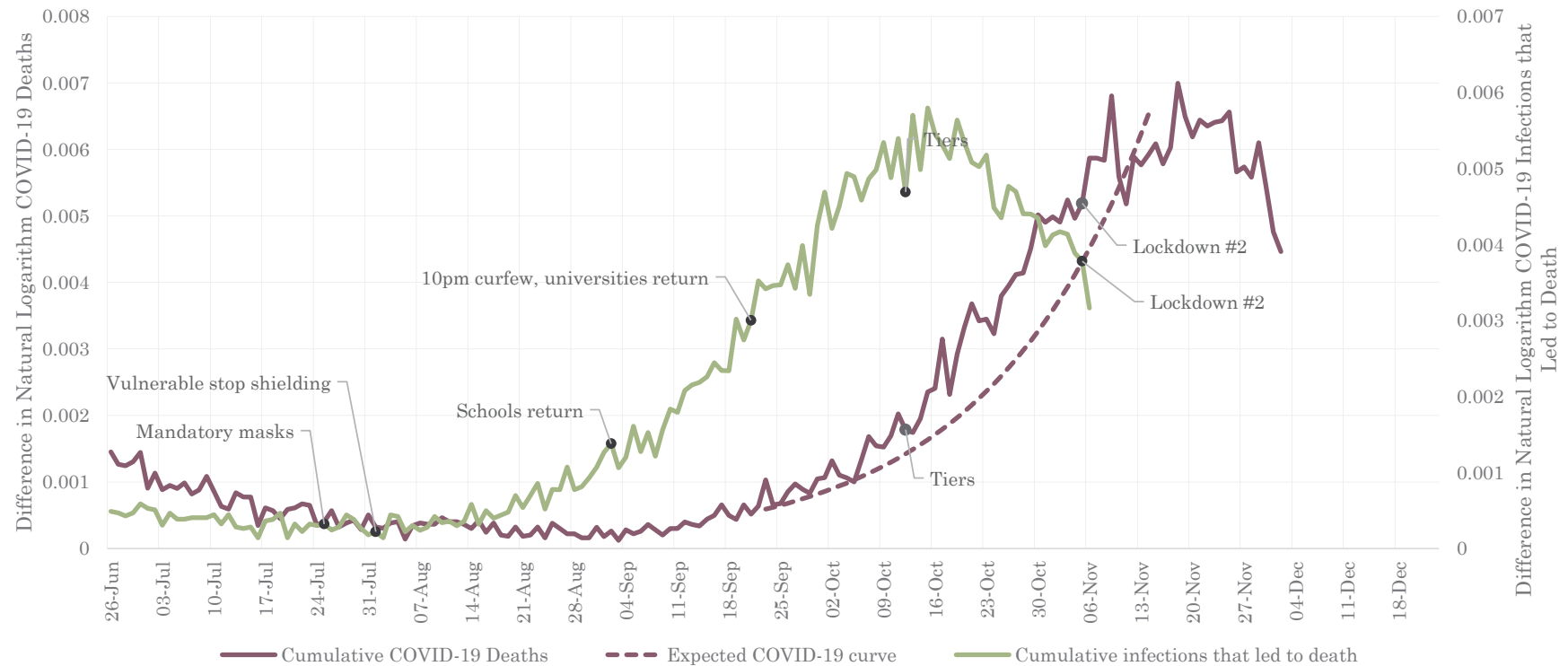
Where is the COVID since May? How can acute respiratory attendances at Emergency Departments be tracking below a downward trend that should actually be upward in the middle of a respiratory epidemic?

Course of COVID according to syndromic surveillance
 Source: Public Health England Emergency Department Syndromic Surveillance System

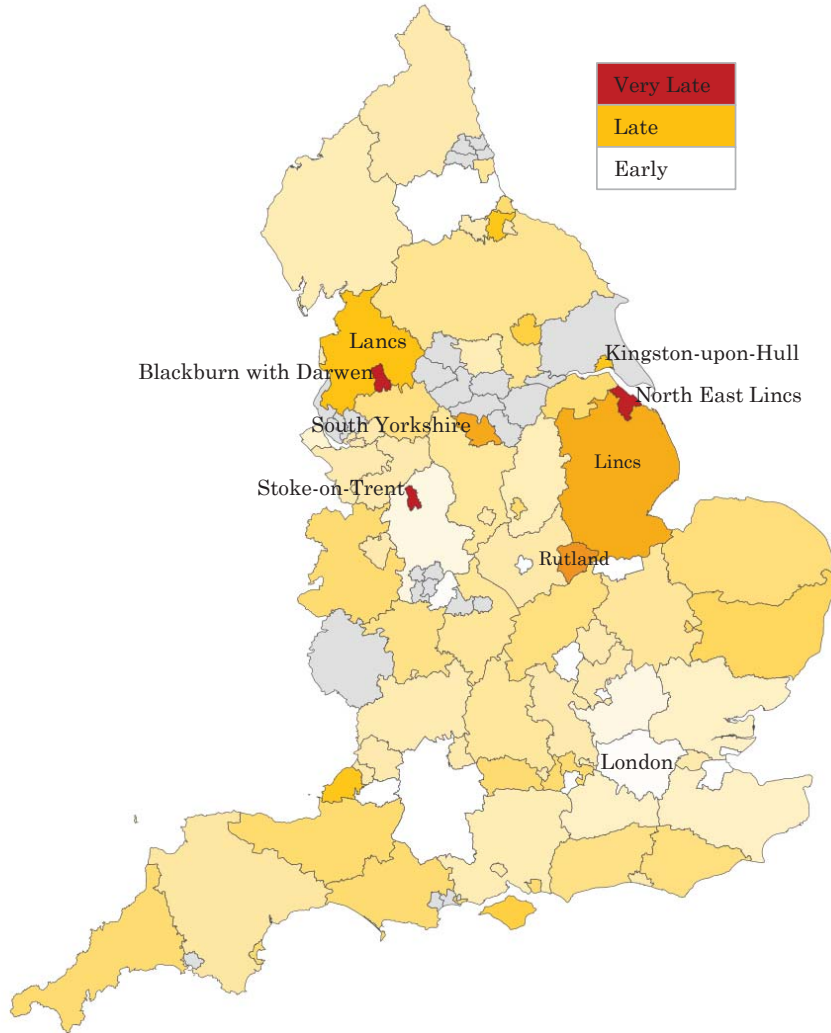


Why is the rise in Autumn COVID-labelled deaths so much shallower than a usual epidemic curve? Why isn't it following a classic Gompertz curve despite not being affected by interventions?

COVID-19 Labelled Deaths and Non-Pharmaceutical Interventions
 Source: Office for National Statistics

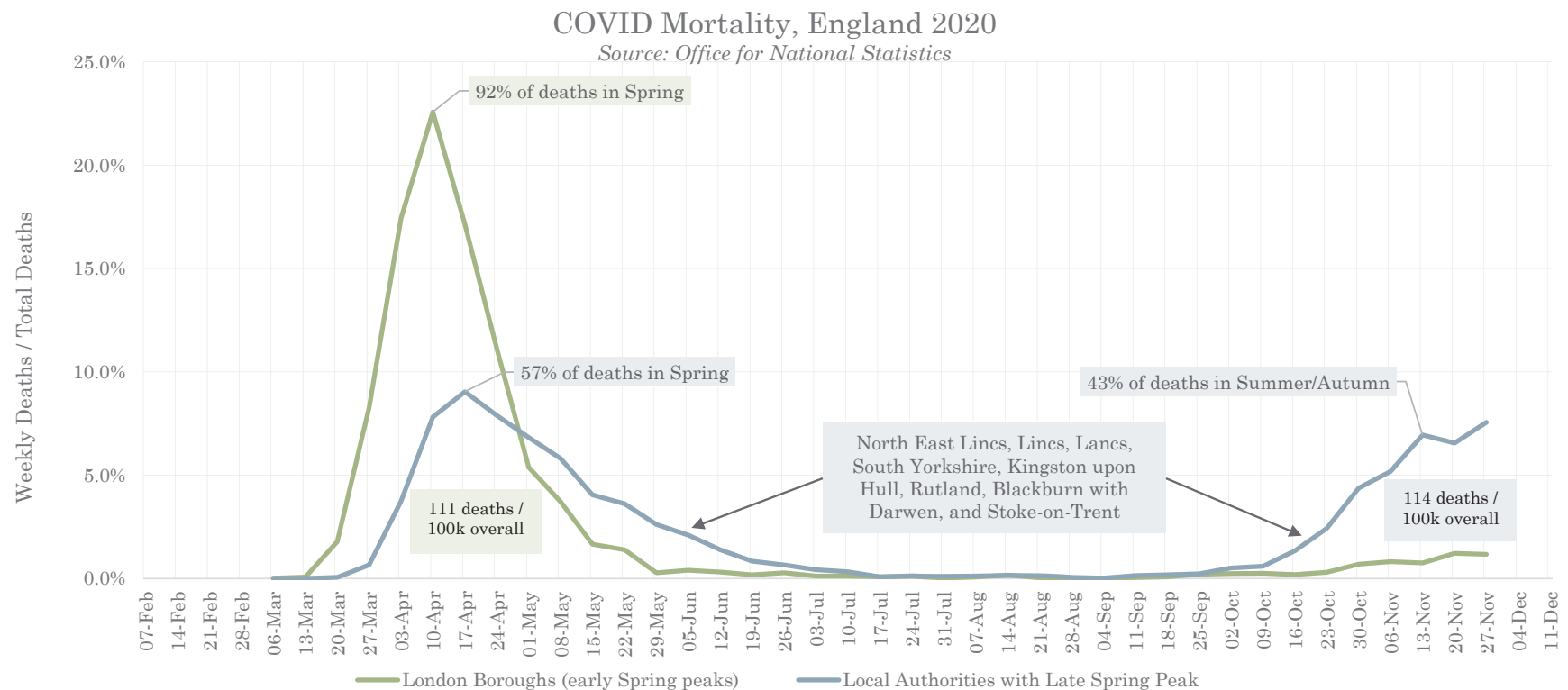


Heat Map of Lateness of Spring COVID Mortality Peak

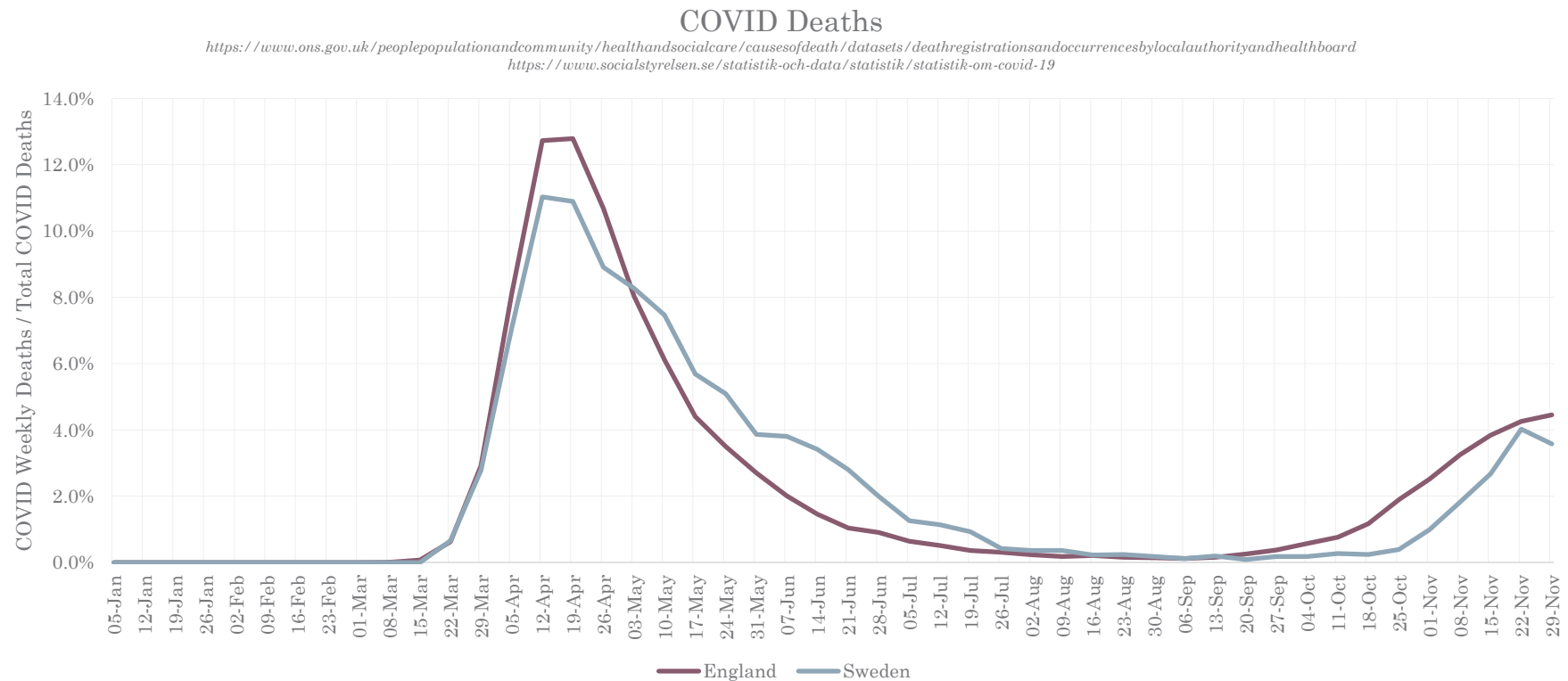


If social geography were responsible for slowing the spread of the virus, why is there a significant relationship between Spring mortality peak and physical geography, i.e. remoteness, distance from the epicentre of London and seasonality?

If susceptibility remains high across the whole country, why do the regions with late Spring COVID account for the majority of alleged Autumn COVID mortality, and appear to have flattened out at the same mortality rate per 100k population as the early Spring regions?

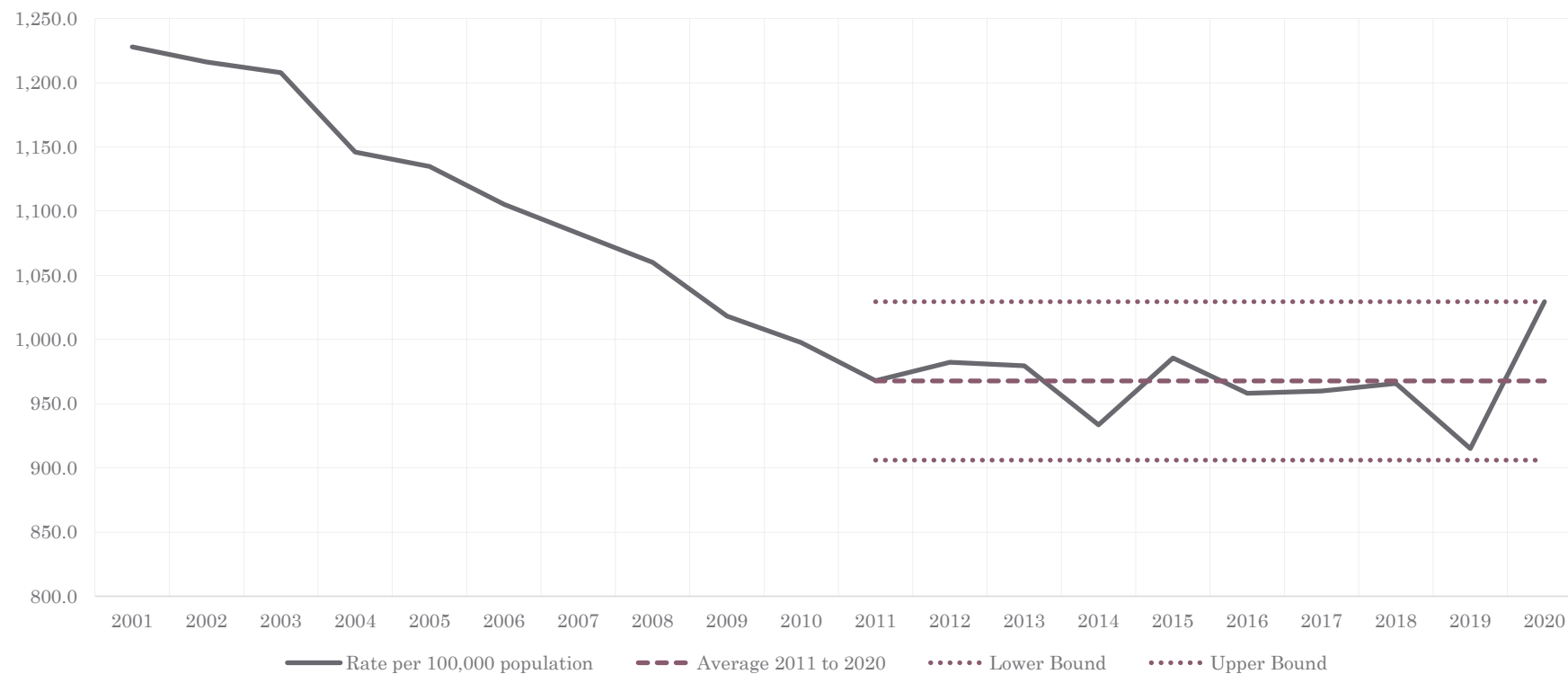


For all the differences in demographics and, more importantly, intervention policy, how is the distribution of COVID mortality in England no different to Sweden?



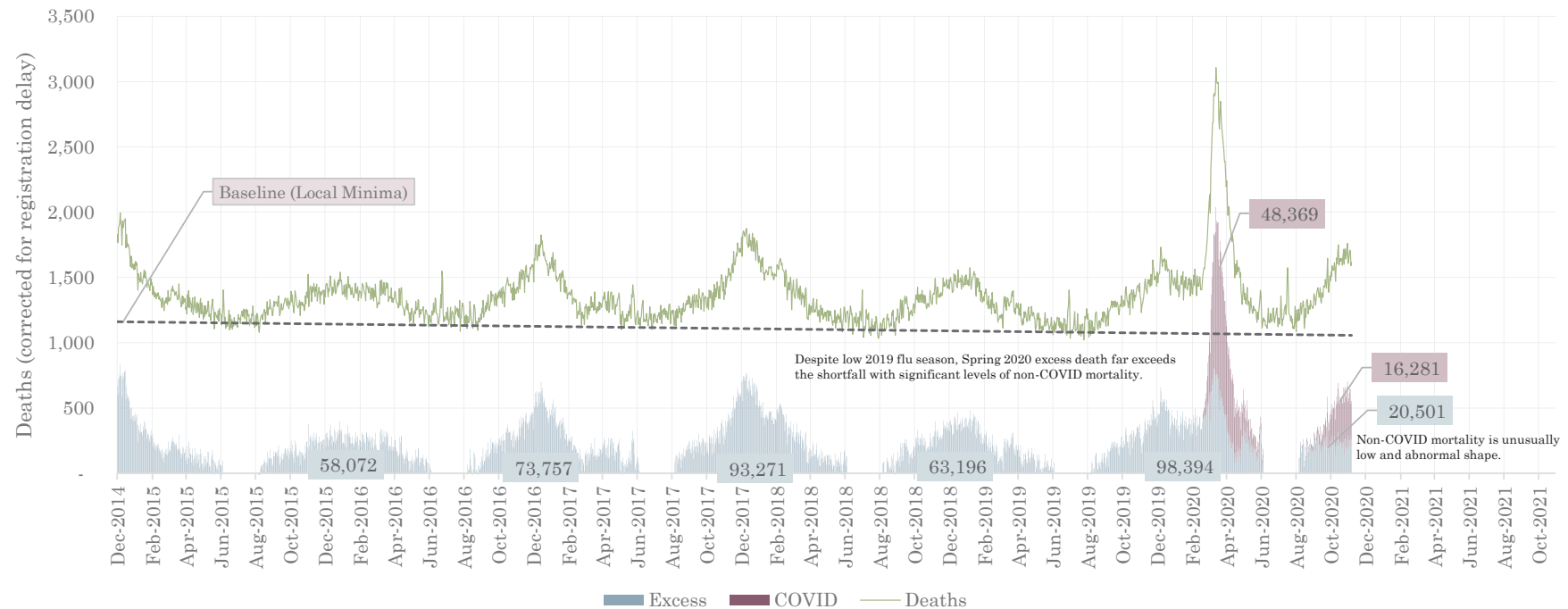
Just as the rest of Europe, after a relatively low mortality last year, how does 2020 stand out as a year that required the level of draconian intervention experienced?

Age-standardised mortality rates, deaths registered between 1-Jan and 30-Nov, 2001 to 2020, England
Source: Office for National Statistics



Recognising that interventions never purported to do anything but postpone death and relieve pressure on the health service, how come mortality is generally following normal seasonal patterns?

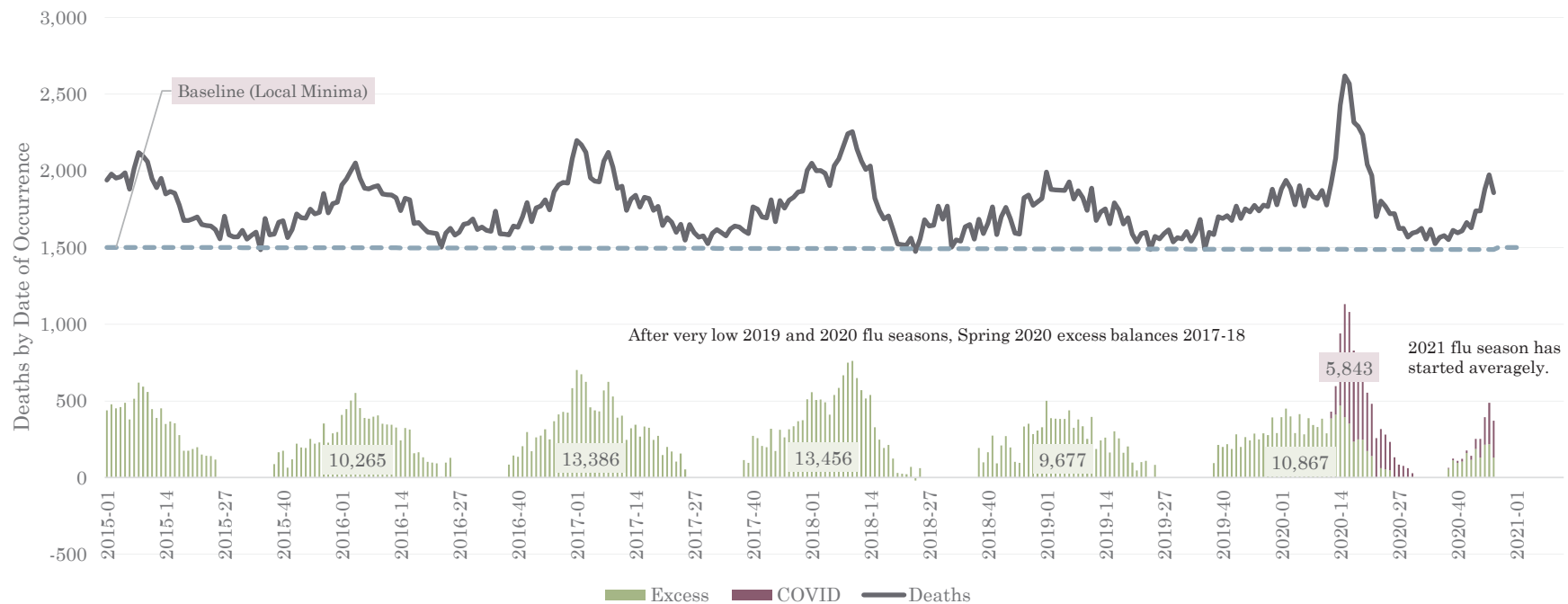
All-Cause Mortality by Date of Occurrence, England 2020
 Source: Public Health England



But why has England suffered so many more excess deaths than just the shortfall from the prior two soft flu seasons like much of the rest of Europe, including Sweden?

All-Cause Mortality, Sweden

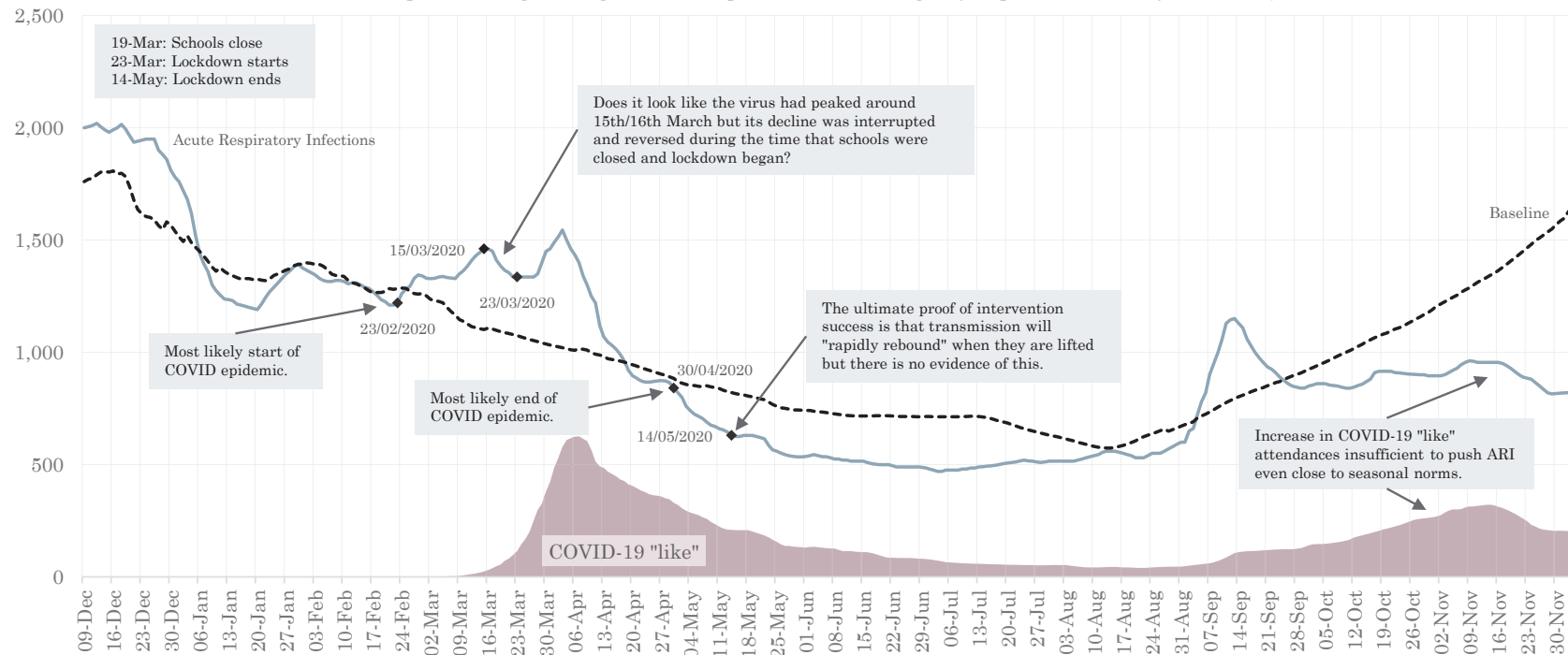
<https://www.socialstyrelsen.se/statistik-och-data/statistik/statistik-om-covid-19>



How could hospitals have been overwhelmed with COVID patients when emergency ARI attendance was lower in Spring than the previous Dec and below normal since 19-Apr apart from a non-COVID spike in Sept?

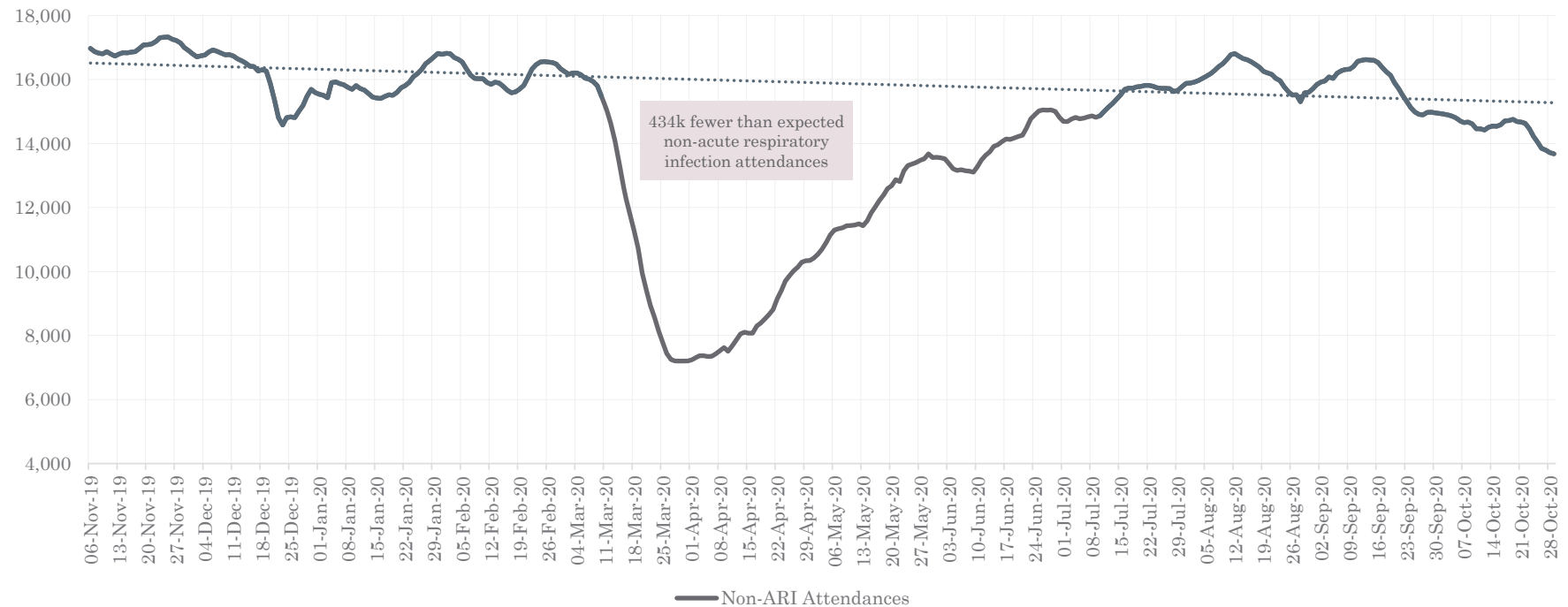
Acute Respiratory Infections & Regional COVID-19 "like" Attendances at Emergency Departments

Source: <https://www.gov.uk/government/publications/emergency-department-weekly-bulletins-for-2020>

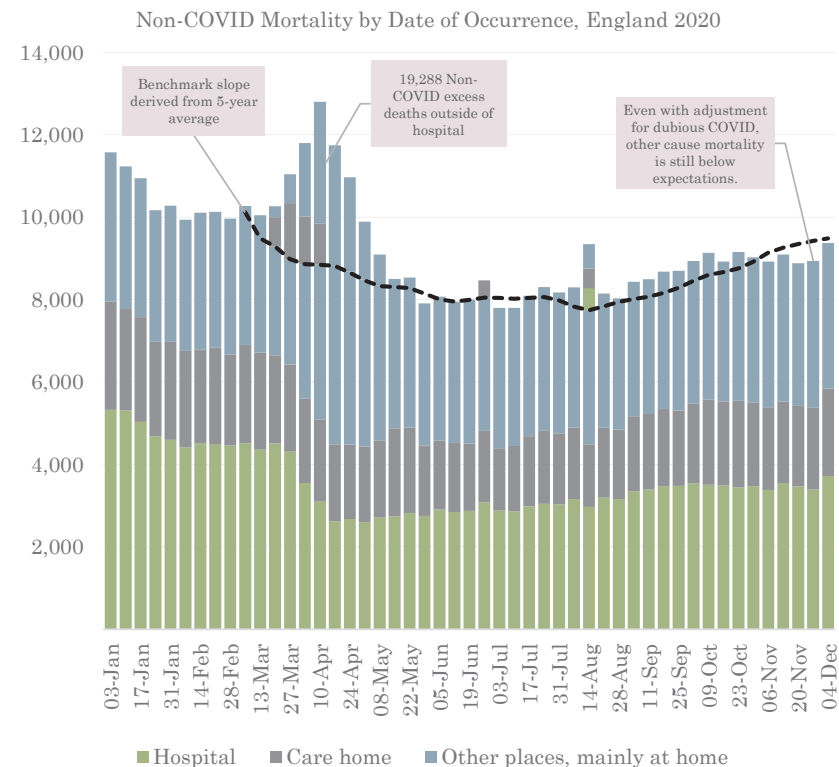
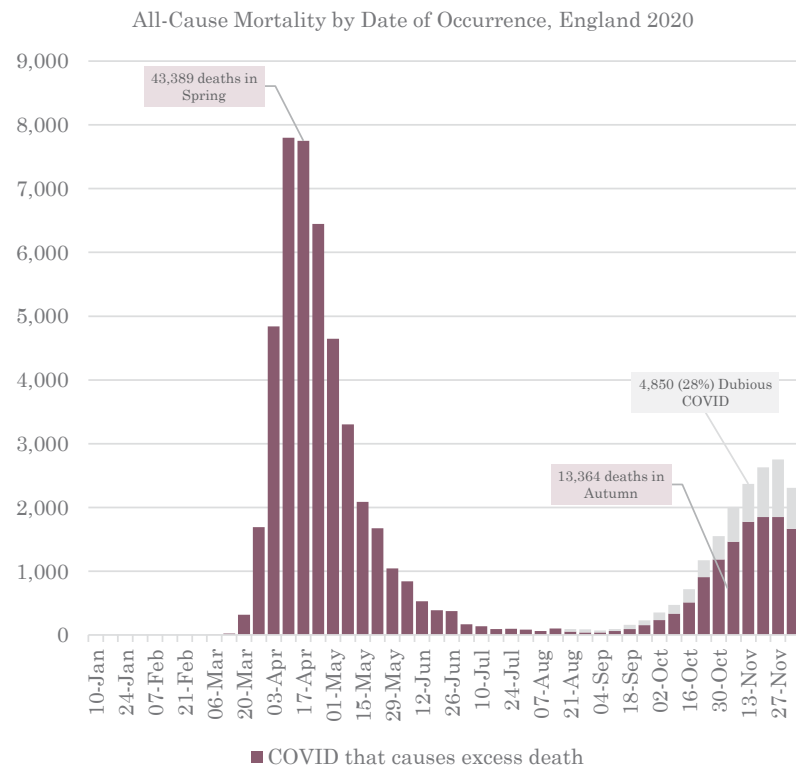


What should be the expected consequence of almost ½ million fewer emergency attendances for non-ARI causes?

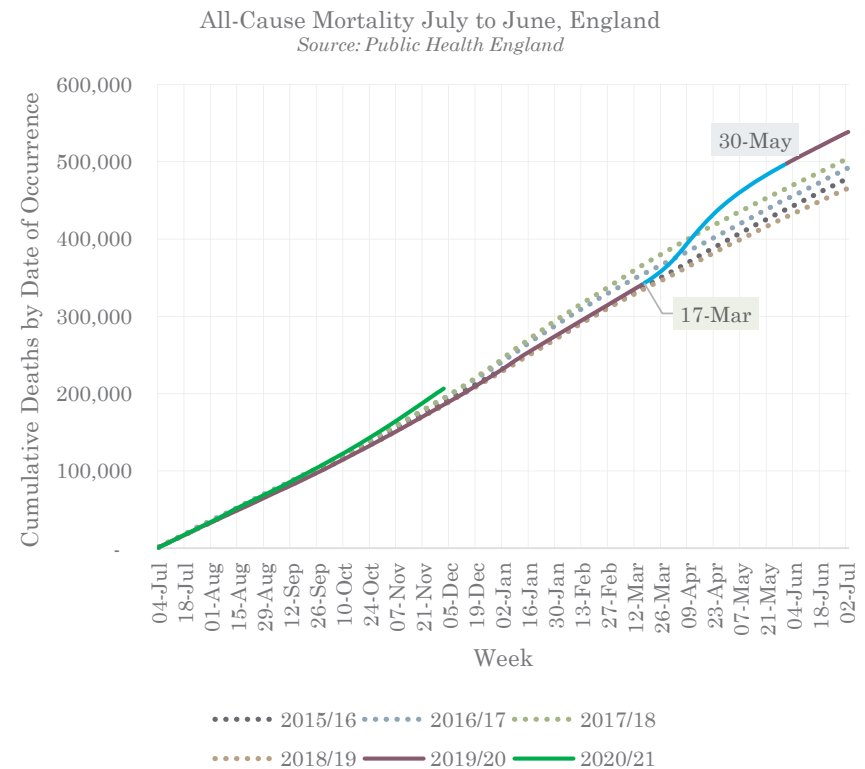
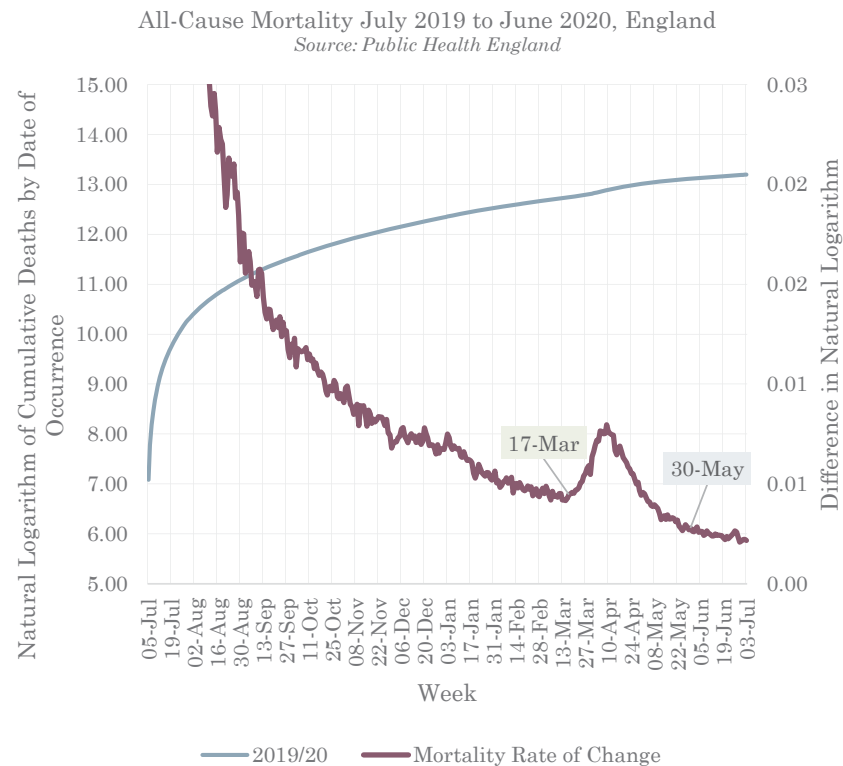
Non-Acute Respiratory Infection Attendances at Emergency Departments, England
Source: <https://www.gov.uk/government/publications/emergency-department-weekly-bulletins-for-2020>



Interventions didn't save any lives, but probably caused the death of at least 20k already. How is this justification for the continued and considerable damage caused by government policy in response to the virus?



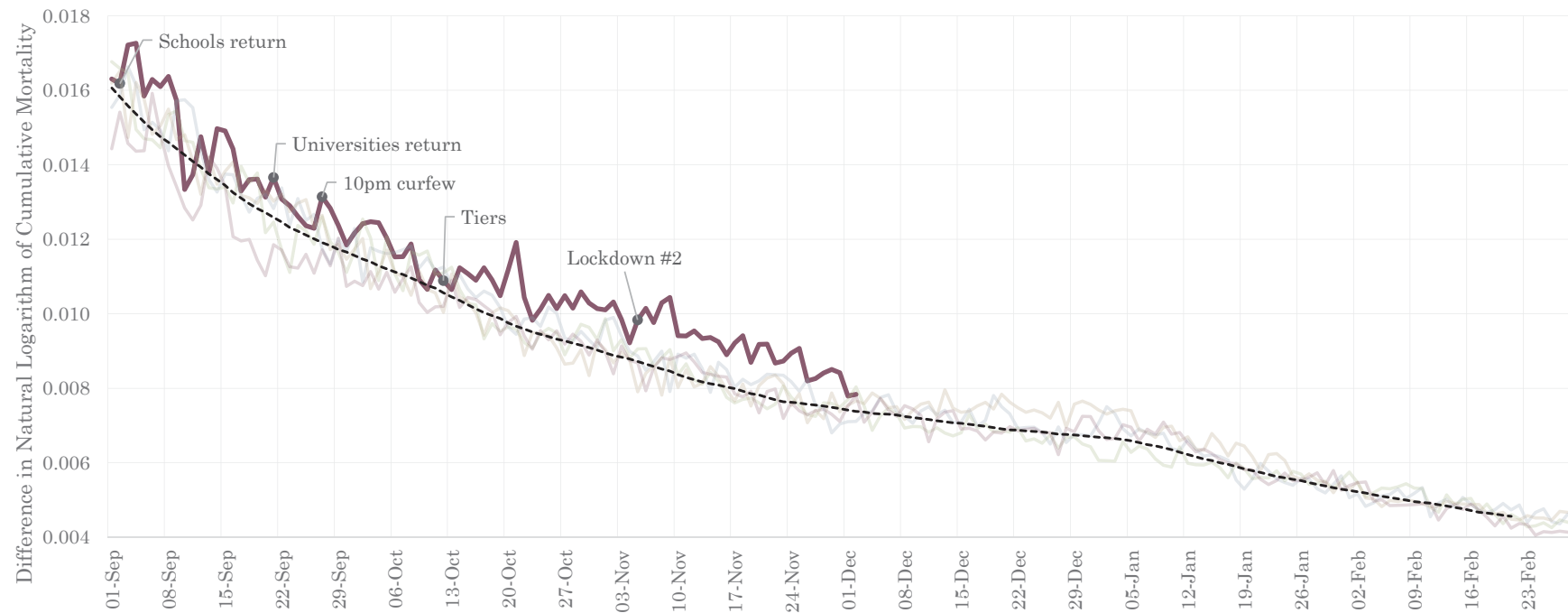
Why is it clear that the epidemic was over by the end of May, even using mortality which is the most lagged indicator and yet interventions persisted throughout the Summer?



In contrast, isn't it clear that there is no unusual impact on mortality in the new season? Where is the epidemic shock that was so apparent in the last season?

All-Cause Mortality July 2020 to Nov 2020, England

Source: Public Health England



Why is there logical consistency in surveillance sources in Spring but PCR-dependent COVID cases and Emergency Department attendances peak more than 6 weeks after the other sources in Autumn?

Different Sources of COVID-19 Surveillance Data

