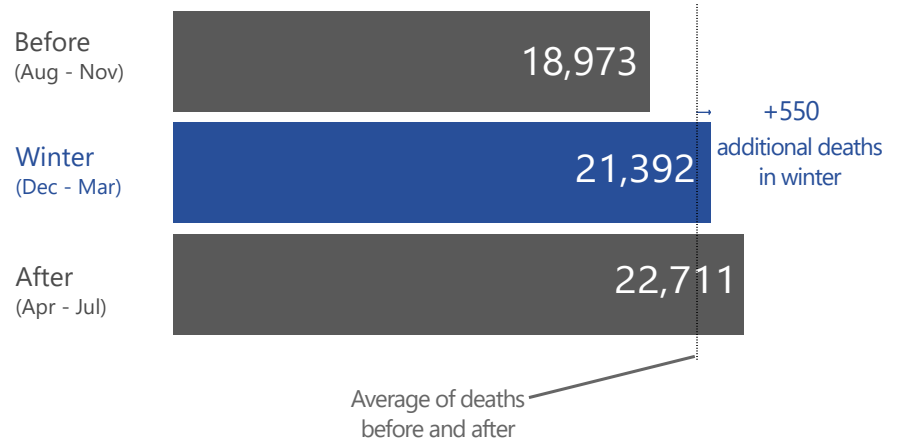## Low seasonal increase in winter 2019/20

Winter months see more deaths than other times of the year. We measure the size of this effect by looking at the difference between deaths registered over winter and the average number of deaths in the adjacent periods (before and after).

The 21, 392 winter deaths in 2019/20 is the third highest number of winter deaths in 20 years but the seasonal increase is lower than usual because of the high number of COVID-19 deaths in April - July 2020.

This is the first time more deaths have been registered in April - July than in December - March.

Deaths before, during and after winter 2019/20

Before (Aug - Nov)	18,973
Winter (Dec - Mar)	21,392
After (Apr - Jul)	22,711

+550 additional deaths in winter
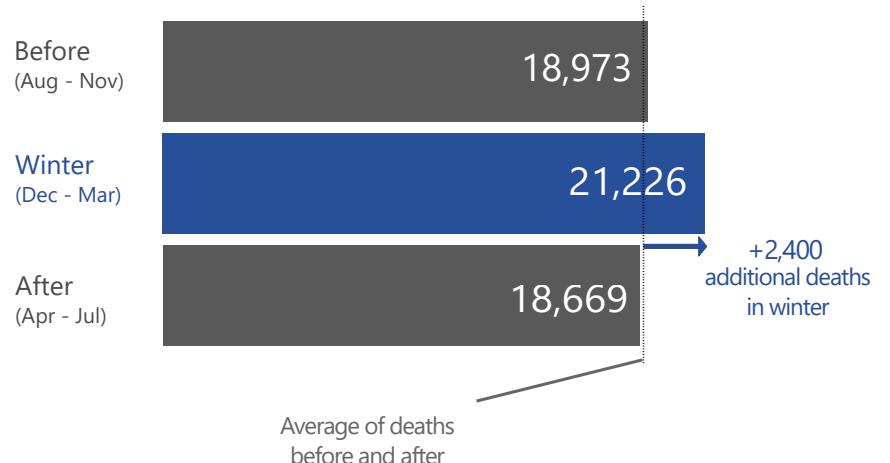
Average of deaths before and after

Impact of COVID-19 on winter mortality

We can't be sure what the increase in winter mortality would be if the pandemic had not happened, but there are various ways of estimating it. One is to remove all deaths involving COVID-19 from the calculation.

If we do so, the estimate of the increase in winter mortality for 2019/20 would be more in line with estimates for previous years.

Other methods of estimating what the winter increase would have been if the pandemic had not happened produce estimates ranging between 2,200 and 3,000.

Deaths (excluding COVID-19 deaths) before, during and after winter 2019/20

Before (Aug - Nov)	18,973
Winter (Dec - Mar)	21,226
After (Apr - Jul)	18,669

+2,400 additional deaths in winter
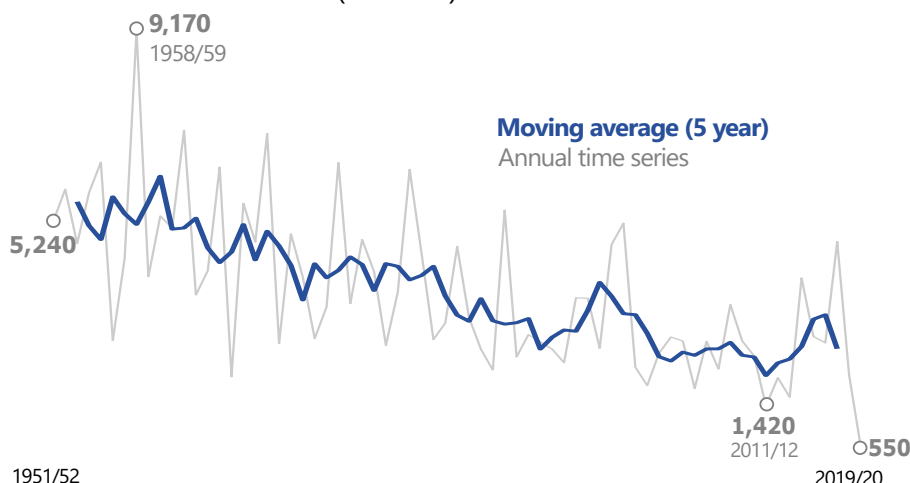
Average of deaths before and after

Winter mortality has decreased since 1951/52

Mortality in winter has been higher than in the seasons before and after for each winter since records began in 1951/52.

The scale of this difference has fluctuated year on year. The 5-year moving average shows a long-term downward trend, but has increased in recent years.

Additional deaths in winter (Dec-Mar)

9,170
1958/59

Moving average (5 year)
Annual time series

5,240

1,420
2011/12

550

1951/52

2019/20

Dementia and Alzheimer's biggest cause of increased winter mortality

COVID-19 had a huge negative impact on the estimate of increased winter mortality in 2019/20 due to the large number of deaths in April-July 2020.

Most other causes of death had an increase in deaths over the winter period.

Dementia and Alzheimer's deaths were the single biggest cause of increased winter mortality, with 400 additional deaths. Chronic lower respiratory diseases (350) and pneumonia (230) had the next biggest impact.

Increase in winter mortality by underlying cause, 2019/20

Dementia and Alzheimer's disease (F01, F03, G30)
Chronic lower respiratory diseases (J40-J47)
Pneumonia (J12-J18)
Coronary (ischaemic) Heart Disease (I20-I25)
Other respiratory system diseases (other J00-J99)
Cerebrovascular disease (I60-I69)
Other circulatory system diseases (other I00-I99)
Cancer (C00-C97)
Accidental falls (W00-W19)
Influenza (J09-J11)
Endocrine, nutritional and metabolic diseases (E00-E90)
Other mental and behavioural disorders and nervous system diseases (F04-G26, G31-G99)
Certain infectious and parasitic diseases (A00-B99)
Digestive system diseases (K00-K93)
All other
Ill-defined and unknown causes (R95-R99)
Genitourinary system diseases (N00-N99)
Other external causes of death (V00 - Y98)
COVID-19 (U07)

-1500   -1000   -500   0   500