



Population Health & Healthcare Surveillance

Preventable Premature Death

March 2022 Update

Summary Dashboard

	Indicator	Time Period	North East Value	North East Rank	National Average	Direction of Travel
Preventable Premature Death	5. Leading Causes of Death: % of deaths with an underlying cause of:	2020				
	COVID-19		13.9%		12.2%	
	Dementia and Alzheimer's disease		10.1%		11.6%	
	Ischaemic heart diseases		9.0%		9.1%	
	Malignant neoplasm of trachea, bronchus and lung		5.8%		4.7%	
	Chronic lower respiratory diseases		5.3%		4.6%	
	Total		44.1%		42.2%	
	6. Infant Mortality Rate (deaths per 1,000 live births)	2018 - 2020	3.5	4	3.9	
	7. Suicide Rate (per 100,000)	2018 - 2020	12.4	8	10.4	
	8. Deaths from Drug Misuse	2018 - 2020	9.9	9	5.0	
	9. Under 75 Mortality Rate from Cardiovascular Diseases considered preventable (per 100,000)	2020	33.6	7	29.2	
	10. Under 75 Mortality Rate from Cancer considered preventable (per 100,000)	2020	63.2	9	51.5	
	11. Under 75 Mortality Rate from Liver disease considered preventable (per 100,000)	2020	26.1	9	18.2	
	12. Under 75 Mortality Rate from Respiratory disease considered preventable (per 100,000)	2020	23.2	8	17.1	
	13. Mortality Rate from a range of specified communicable diseases, including influenza (per 100,000)	2020	9.0	7	8.3	
	14. Mortality Rate from dementia and Alzheimer's disease (per 100,000)	2020	124.2	5	120.5	

Compared with England ■ Significantly Better ■ Similar ■ Significantly Worse

North East Rank amongst the 9 Regions 1 - Best 9 - Worst

What do the detailed pages show?

The following pages contain further information for each indicator, including, where available, data comparing each region in England, and trend data over time for England and the North East / North East and North Cumbria. The latest information at local authority or CCG level for the North East and North Cumbria is also presented. A narrative section explains the key findings from the data and also includes data sources and definitions.

5. Leading Causes of Death (2020)

% of deaths with an underlying cause of:	North East	England
COVID-19	13.9%	12.2%
Dementia and Alzheimer's disease	10.1%	11.6%
Ischaemic heart diseases	9.0%	9.1%
Malignant neoplasm of trachea, bronchus and lung	5.8%	4.7%
Chronic lower respiratory diseases	5.3%	4.6%
TOTAL	44.1%	42.2%

Leading Causes of Death in the North East, by age group (2020)

Age	1st	2nd	3rd	4th	5th
1 to 19 years	Suicide and injury/poisoning of undetermined intent	Congenital malformations, deformations and chromosomal abnormalities	* Multiple lead causes occupy 3rd position for 1 to 19 year olds, see data note below table	Land transport accidents	Accidental threats to breathing
20 to 34 years	Accidental poisoning	Suicide and injury/poisoning of undetermined intent	Cirrhosis and other diseases of liver	Homicide and probable homicide	Malignant neoplasms, stated or presumed to be primary of lymphoid, haematopoietic and related tissue
35 to 49 years	Accidental poisoning	Cirrhosis and other diseases of liver	Suicide and injury/poisoning of undetermined intent	Ischaemic heart diseases	COVID-19
50 to 64 years	Ischaemic heart diseases	Malignant neoplasm of trachea, bronchus and lung	Cirrhosis and other diseases of liver	COVID-19	Malignant neoplasm of colon, sigmoid, rectum and anus
65 to 79 years	COVID-19	Ischaemic heart diseases	Malignant neoplasm of trachea, bronchus and lung	Chronic lower respiratory diseases	Dementia and Alzheimer's disease
80+ years	COVID-19	Dementia and Alzheimer's disease	Ischaemic heart diseases	Cerebrovascular diseases	Symptoms, signs and ill-defined conditions
All Ages	COVID-19	Dementia and Alzheimer's disease	Ischaemic heart diseases	Malignant neoplasm of trachea, bronchus and lung	Chronic lower respiratory diseases

* Please note the following lead causes all have the same score: Accidental poisoning; Homicide and probable Homicide; Malignant neoplasms, stated or presumed to be primary of lymphoid, haematopoietic and related tissue; Malignant neoplasms of bone and articular cartilage

Data Source: NOMIS - ONS Crown Copyright Reserved [from Nomis on 24 November 2021].

<https://www.nomisweb.co.uk/query/construct/summary.asp?reset=yes&mode=construct&dataset=161&version=0&anal=1&init=1>

Definitions / Notes

In the infographic above causes of death are ranked according to the number of deaths from each cause in the specified age group within the North East. Percentages included above the chart are based on all ages and represent the leading five causes of deaths in the North East. Please note, England values are included as a comparison but do not necessarily represent the leading five causes of death across England.

Infant mortality is not included in the analysis because deaths under 28 days do not record an underlying cause of death in the same way as those 28 days and over. It must also be noted that due to the pressure resulting from the COVID-19 pandemic longer death registration delays occurred in 2020 which could impact the pattern of leading causes of death for 2020^{1,2}.

What is the data telling us?

In 2020 the most common cause of death in the North East was COVID-19, accounting for 13.9% of deaths. Also amongst the top five causes of death were Dementia and Alzheimer's disease (10.1%), Ischaemic heart diseases (9.0%), Malignant neoplasm of trachea, bronchus and lung (5.8%) and Chronic lower respiratory diseases (5.3%). These five diseases accounted for just over 44% of all deaths in the region in 2020.

Deaths from suicide and injury/poisoning of undetermined intent, and birth defects were leading causes in those under 20 years. However, the number of deaths, from any cause, in young people is small and therefore the leading causes vary from year to year.

COVID-19 features heavily in the leading cause of death, appearing in the top five for all age bands aged 35+ and being the leading cause of death for those aged 65+. In 2020, COVID-19 replaced Dementia and Alzheimer's disease as the overall leading cause of death for both sexes combined. However, the leading cause of death in females was Dementia and Alzheimer's disease. Furthermore, nationally 25% of death certificates listing COVID-19 as the underlying cause of death also had Dementia and Alzheimer's disease mentioned as a pre-existing condition so could have been a contributory factor³.

1. PHE. (2021). Health Profile for England 2021. https://fingertips.phe.org.uk/static-reports/health-profile-for-england/hpfe_report.html

2. ONS. (2021). Impact of registration delays on mortality statistics in England and Wales: 2020. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/impactofregistrationdelaysonmortalitystatisticsinenglandandwales/2020>

3. ONS. (2021). Deaths registered in England and Wales: 2020. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsregistrationsummarytables/2020>

Compared with England

Significantly Better

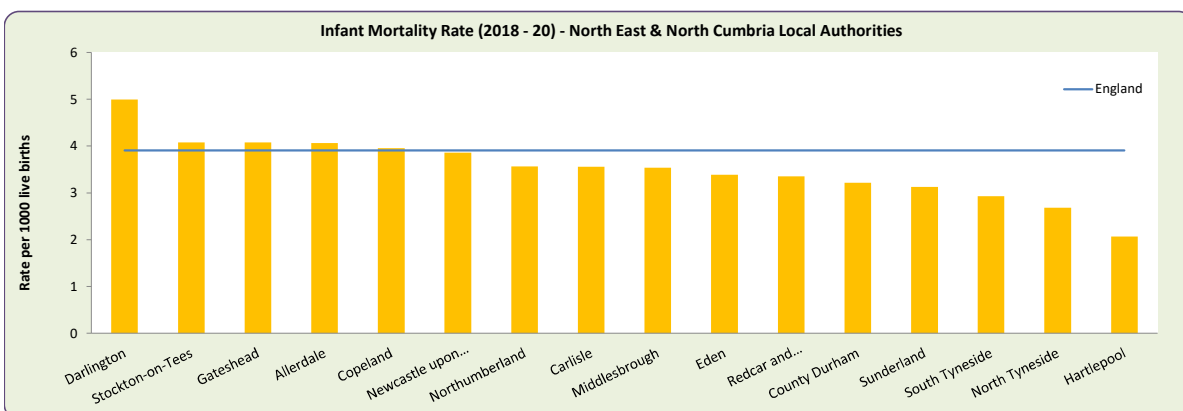
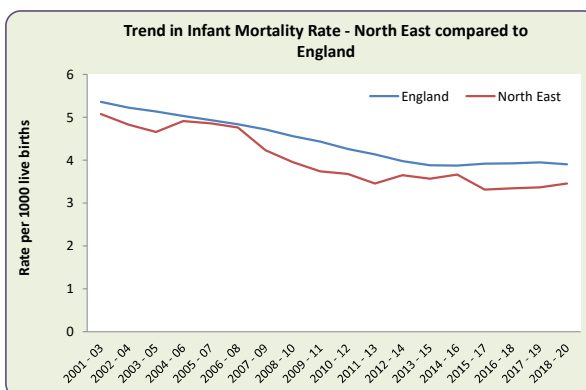
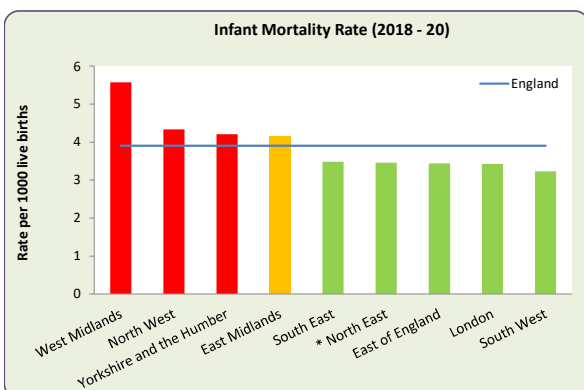
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Significantly Worse

6. Infant Mortality Rate (2018 - 2020)

Rate of deaths in infants aged under 1 year per 1,000 live births.

West Midlands	North West	Yorkshire and the Humber	East Midlands	South East	North East	East of England	London	South West	England
5.6	4.3	4.2	4.2	3.5	3.5	3.4	3.4	3.2	3.9



Data source: Office for Health Improvement and Disparities. Public Health Profiles. 2021 (<http://fingertips.phe.org.uk>) © Crown copyright 2022

Definitions / Notes

Infant mortality is an internationally recognised indicator of the general health of an entire population. It reflects the relationship between causes of infant mortality and upstream determinants of population health such as economic, social and environmental conditions. Deaths occurring during the first 28 days of life (the neonatal period), in particular, are considered to reflect maternal and newborn health and care. Infant deaths are infrequent events so data are compared over rolling three year periods.

It should be noted that comparisons of infant mortality rates between regions are difficult to interpret because of variation in registration practices with regard to extremely premature births (at <24 weeks of gestation)⁴. Historically there has been wide variation in whether NHS trusts report births before 24 weeks as a late fetal loss (that will not be reflected in ONS birth or death registration figures) or as live births resulting in neonatal deaths (registered as both a live birth and a death)⁵.

What is the data telling us?

Infant mortality had been steadily declining between 2001-03 and 2014-16 in England. Since then the rate has been fairly stable⁵, with very slight increases in recent years up to 2017-19, and a small decline in the latest data for 2018-20.

Analysis which explored the increase in infant mortality rates in England between 2014 and 2016 reported that it was wholly explained by the increasing number of deaths in the first 6 days of life, occurring amongst babies born at <24 weeks of gestation⁶. With advances in perinatal care⁷ the proportion of babies born alive at under 24 weeks completed gestation has been increasing since 2010, but sadly a high percentage of these babies survive for only a short time^{5,7}.

With regards to the North East region, the infant mortality rate has fluctuated considerably due to the relatively small number of infant deaths in the region, but in general the trend has been downward. However, in recent years the rate has been slightly increasing. In 2015-17 the North East's infant mortality rate was 3.3 per 1,000 live births, whereas in 2018-20 the rate had increased to 3.5 per 1,000 live births. Despite this the North East region still has a significantly lower rate than that seen nationally (3.5 in the North East in 2018-20 versus 3.9 in England). All Local Authority areas in the region had rates that were similar to the national average.

4. Smith, L., Draper, E. S., Manktelow, B. N., Pritchard, C., & Field, D. J. (2013). Comparing regional infant death rates: the influence of preterm births <24 weeks of gestation. *Archives of Disease in Childhood. Fetal and Neonatal Edition*, 98(2), F103-F107. <https://doi.org/10.1136/fetalneonatal-2011-301359>

5. ONS. (2021). Child and infant mortality in England and Wales: 2019. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/childhoodinfantandperinatalmortalityinenglandandwales/2019>

6. Nath, S., Handeji, P., & Zybersztein, A. (2020). Are infant mortality rates increasing in England? The effect of extreme prematurity and early neonatal deaths. *Journal of Public Health (Oxford, England)*, 43(3), 541-550. <https://doi.org/10.1093/pubmed/ftaa025>

7. ONS. (2020). Explaining trends in baby loss in England and Wales. <https://blog.ons.gov.uk/2020/02/20/explaining-trends-in-baby-loss-in-england-and-wales>

Compared with England

Significantly Better

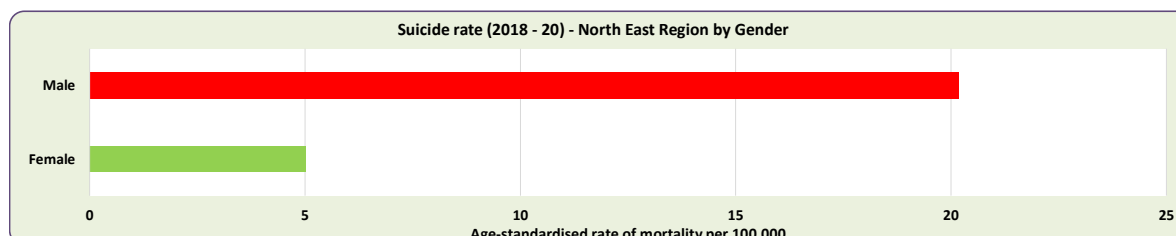
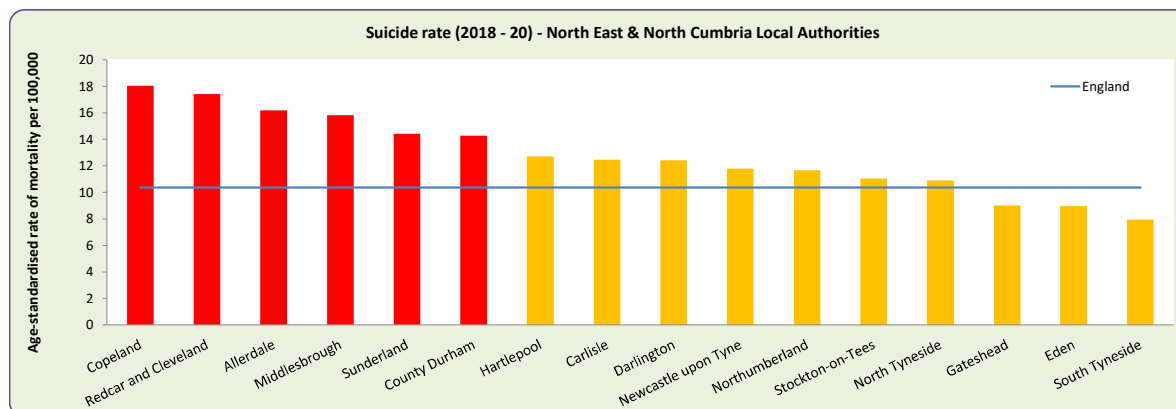
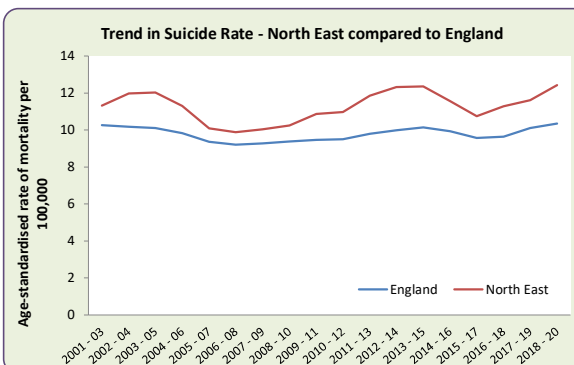
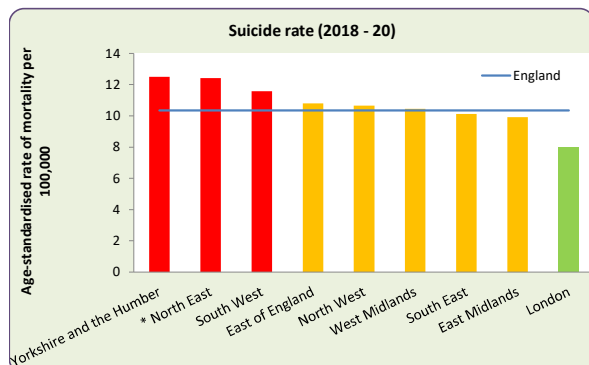
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7. Suicide rate (2018 - 2020)

Age-standardised mortality rate from suicide and injury of undetermined intent per 100,000 population.

Yorkshire and the Humber	North East	South West	East of England	North West	West Midlands	South East	East Midlands	London	England
12.5	12.4	11.6	10.8	10.7	10.5	10.1	9.9	8.0	10.4



Data source: Office for Health Improvement and Disparities. Public Health Profiles. 2021 (<http://fingertips.phe.org.uk>) © Crown copyright 2022

Definitions / Notes

Suicide is a significant cause of death especially in young adults, and is widely used as an indicator of mental health and health care. Please note: Figures in the charts above are based on deaths registered in each calendar year, rather than the date on which the death occurs. Delays with death registrations due to pandemic are likely to have affected the figures for 2020⁸.

What is the data telling us?

During 2018-20, the North East experienced the second highest suicide rate of all the English regions at 12.4 per 100,000 compared with 10.4 per 100,000 nationally. The gap between the North East and England fluctuates over time, as demonstrated by the trend chart. Currently the region's rate is showing an increasing trend and the latest data shows the highest suicide rate in the region across the entire time period since 2001. Data shows that mental health deteriorated during the pandemic, particularly during lockdowns⁹. However, due to registration delays it is not possible yet to fully understand how this impacted suicide rates in 2020⁸, though early observational data suggests no rise during lockdown periods or the post-lockdown periods of 2020¹⁰.

During 2018-20, wide intra-regional variation remained across Local Authority areas with suicide rates of 8.0 per 100,000 in South Tyneside but more than twice as high in Copeland at 18.0 per 100,000.

Nationally and regionally there are marked gender differences with males experiencing much higher suicide rates than females. In the North East, in the 2018-20 period, the rate for males was 20.2 per 100,000 compared to 5.0 per 100,000 for females.

8.ONS. (2021). Suicides in England and Wales: 2020 registrations.

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/suicidesintheunitedkingdom/2020registrations>

9.Office for Health Improvement and Disparities. (2020). COVID-19 mental health and wellbeing surveillance: report. <https://www.gov.uk/government/publications/covid-19-mental-health-and-wellbeing-surveillance-report>

10. Appleby, L., Richards, N., Ibrahim, S., Turnbull, P., Rodway, C., Kapur, N. (2021). Suicide in England in the COVID-19 pandemic: Early observational data from real time surveillance. The Lancet Regional Health, Europe, 4, 100110 - 100110. <https://doi.org/10.1016/j.lanepe.2021.100110>

Compared with England

Significantly Better

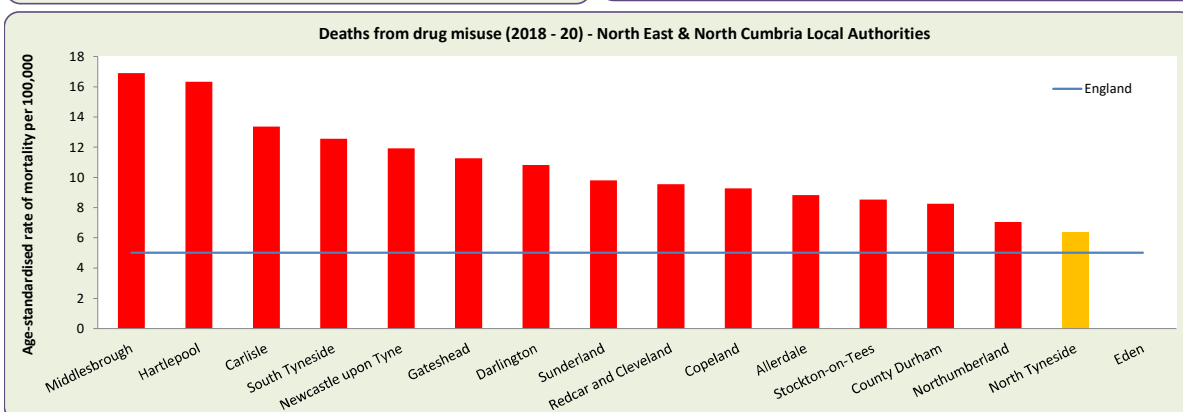
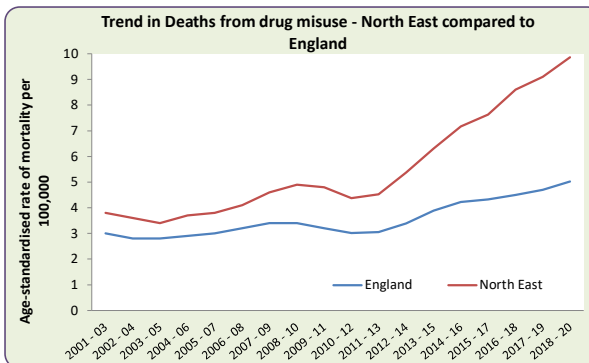
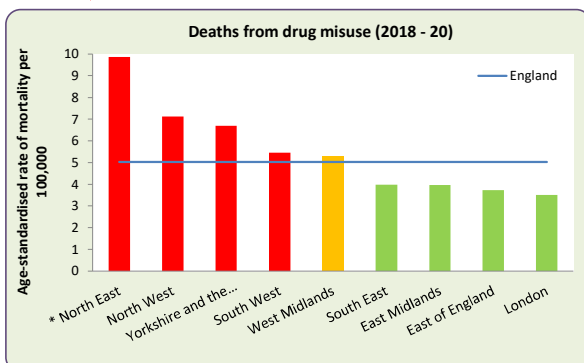
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Significantly Worse

8. Deaths from drug misuse (2018 - 2020)

Age-standardised mortality rate from drug misuse per 100,000 population.

North East	North West	Yorkshire and the Humber	South West	West Midlands	South East	East Midlands	East of England	London	England
9.9	7.1	6.7	5.5	5.3	4.0	4.0	3.7	3.5	5.0



Data source: Office for Health Improvement and Disparities. Public Health Profiles. 2021 (<http://fingertips.phe.org.uk>) © Crown copyright 2022

Definitions / Notes

There were no data available for Eden. This was due to the fact that the number of deaths in each of these areas was fewer than 10, a number considered too few from which to calculate directly standardised rates reliably, and therefore the data has been suppressed.

Please note: Figures in the charts above are based on deaths registered in each calendar year, rather than the date on which the death occurs. Delays with death registrations due to pandemic are likely to have affected the figures for 2020².

What is the data telling us?

During the period 2018-20 the population in the North East region experienced mortality rates from drug misuse which were higher than any other region and significantly higher than the national rate. During this period the mortality rate in the North East was almost double the national average: 9.9 per 100,000 compared with 5.0 per 100,000 nationally.

Trend data show increasing mortality rates both regionally and nationally although the picture is significantly worse in the North East. Since 2012-14 rates in the North East have been increasing more sharply than those in England so the gap continues to widen. In fact the North East has had the highest rate of drug misuse deaths of any English region for eight consecutive years¹¹.

During 2018-20, fourteen out of the sixteen local authorities in the North East and North Cumbria region had rates which were significantly above the national average and there was over a two and a half fold difference between the area with the lowest rate (North Tyneside - 6.4 per 100,000) and that with the highest (Middlesbrough - 16.9 per 100,000).

A number of possible reasons have been suggested for the increasing mortality from drug misuse. In their 2020 release of deaths related to drug poisoning, the ONS puts forward the following explanations: the increased use of cocaine, with high availability, low prices and high purity levels; 'an ageing cohort of drug users, likely to be suffering from the effects of long-term drug use and becoming increasingly susceptible to a fatal overdose'; new trends in the use of drugs such as gabapentinoids and benzodiazepines, which taken alongside heroin and morphine, may increase the risk of an overdose; and 'disengagement or non-compliance with opiate substitute therapy'¹¹.

Another paper discusses concerns regarding shortages of drugs due to restrictions on movement imposed by COVID-19 lockdowns¹². The authors suggest that this may be increasing the risk to drug users by increasing variability in drug quality and purity and by increasing the likelihood of contamination, as well as encouraging shifts to more risky drug using behaviours. They also mention reduced access to drug services during the pandemic and risks of overdose due to self-isolation as concerns.

11. ONS. (2021). Deaths related to drug poisoning in England and Wales: 2020 registrations.

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsrelatedtodrugpoisoninginenglandandwales/2020>

12. Chiappini, S., Guirguis, A., John, A., Corkery, J., & Schifano, F. (2020). COVID-19: The Hidden Impact on Mental Health and Drug Addiction. *Frontiers in Psychiatry*, 11, 767. <https://doi.org/10.3389/fpsyt.2020.00767>

Compared with England

Significantly Better

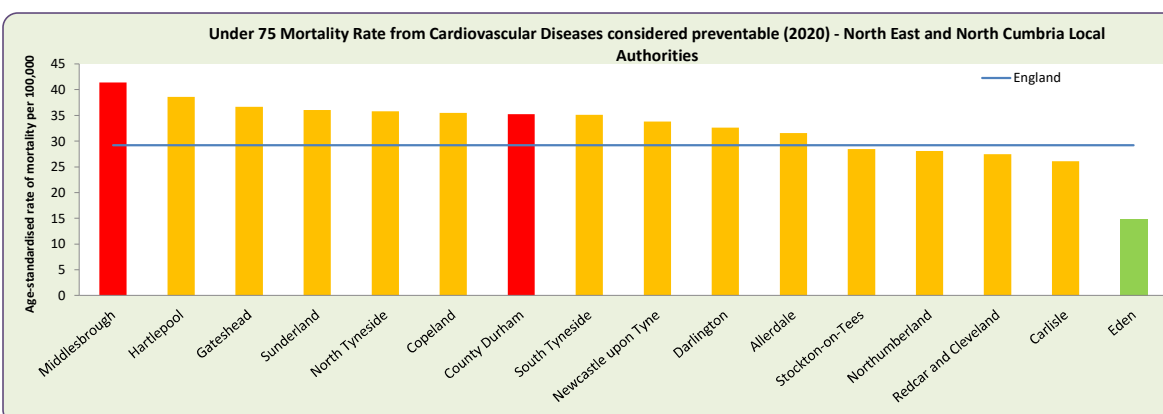
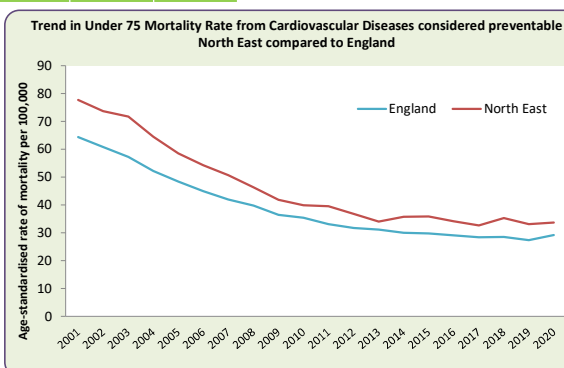
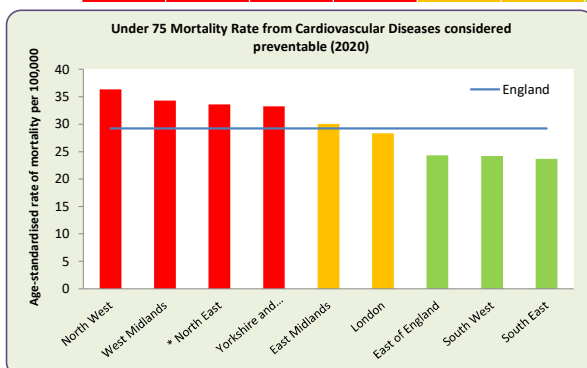
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Significantly Worse

9. Under 75 Mortality Rate from Cardiovascular Diseases considered preventable - 2019 definition (2020)

Age-standardised rate of mortality that is considered preventable from all cardiovascular diseases (including heart disease) in persons aged less than 75 years per 100,000 population.

North West	West Midlands	North East	Yorkshire and the Humber	East Midlands	London	South West	East of England	South East	England
36.3	34.3	33.6	33.2	30.0	28.4	24.3	24.2	23.7	29.2



Data source: Office for Health Improvement and Disparities. Public Health Profiles. 2022 (<http://fingertips.phe.org.uk>) © Crown copyright 2022

Definitions / Notes

Cardiovascular disease (CVD) is one of the major causes of premature death (i.e. under the age of 75 years) in England. CVD was recognised as a clinical priority in the NHS Long Term Plan¹³. Nationally, a CVD Prevention programme has been set up 'to develop targeted interventions to optimise care by maximising diagnosis and treatment to minimise both individual risk factors, and population risk¹³.'

Preventable mortality is defined as causes of death that can be mainly avoided through effective public health and primary prevention interventions¹⁴.

In our previous report an indicator which reported on all CVD deaths was included, rather than solely those 'considered preventable', as the definition of preventable mortality was under review by the ONS at the time.

That definition has now been revised and so NEQOS took the decision to revert to reporting the under 75 mortality rate from CVD considered preventable, using the revised definition, commonly referred to as the '2019 definition'.

What is the data telling us?

In 2020, the rate of under 75 mortality from CVD considered preventable in the North East region was the third highest of all the English regions, and significantly higher than the national rate (33.6 versus 29.2 per 100,000).

Between 2001 and 2013, the death rate fell by 52% in England and 56% in the North East, resulting in a closing of the inequalities gap as seen in the trend chart above. However, since 2013, improvements have largely stalled, with the rate increasing slightly, both regionally and nationally, in the latest time period.

During 2020, there was wide intra-regional variation in rates of preventable death from CVD, with a rate as low as 14.8 per 100,000 in Eden compared with 41.4 per 100,000 in Middlesbrough.

13. NHS England. Cardiovascular disease (CVD). <https://www.england.nhs.uk/ourwork/clinical-policy/cvd/>

14. OECD. (2022). Avoidable mortality: OECD/Eurostat lists of preventable and treatable causes of death (January 2022 version). <https://www.oecd.org/health/health-systems/Avoidable-mortality-2019-Joint-OECD-Eurostat-List-preventable-treatable-causes-of-death.pdf>

Compared with England

Significantly Better

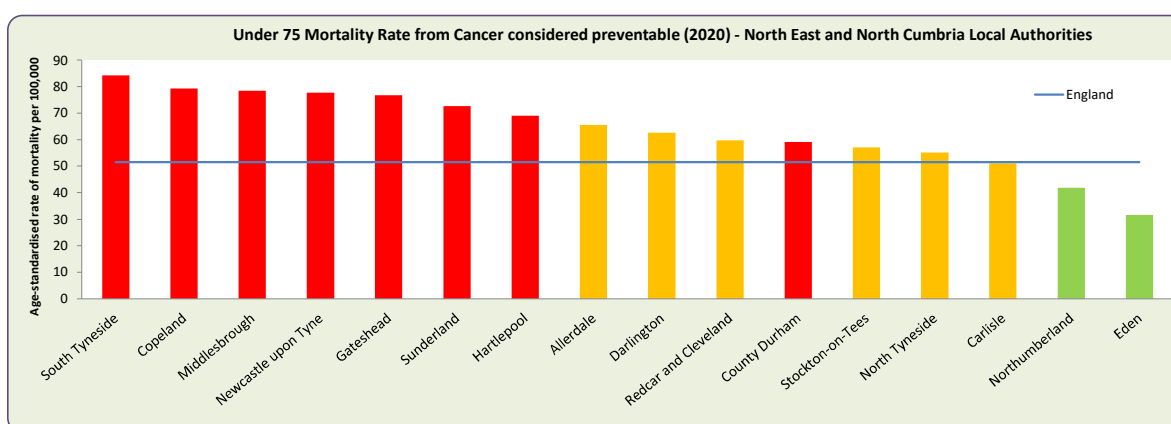
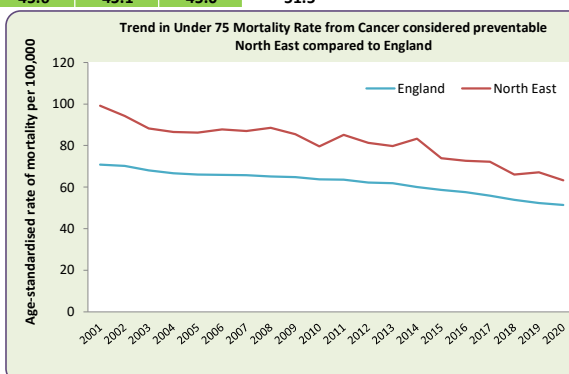
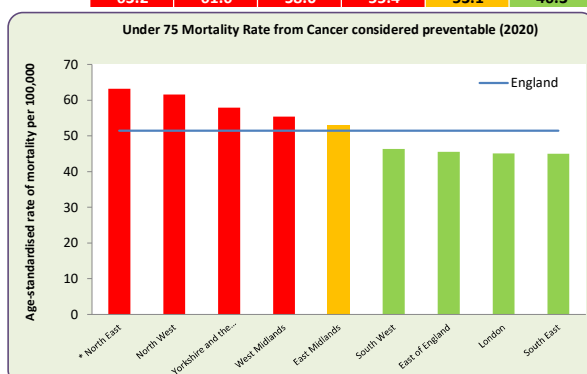
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Significantly Worse

10. Under 75 Mortality Rate from Cancer considered preventable - 2019 definition (2020)

Age-standardised rate of mortality considered preventable from all cancers in those aged <75 per 100,000 population.

North East	North West	Yorkshire and the Humber	West Midlands	East Midlands	South West	East of England	London	South East	England
63.2	61.6	58.0	55.4	53.1	46.3	45.6	45.1	45.0	51.5



Data source: Office for Health Improvement and Disparities. Public Health Profiles. 2022 (<http://fingertips.phe.org.uk>) © Crown copyright 2022

Definitions / Notes

The inclusion of this indicator (alongside several other indicators in the Public Health and NHS Outcomes Frameworks) reinforces the Government's commitment to reducing avoidable deaths through public health policy and interventions and sends out a clear signal that prevention of cancer is just as important as treatment.

As with CVD, the definition of 'preventable' deaths has been revised since this indicator's inclusion in our previous report.

What is the data telling us?

Of all the English regions, the North East had the worst under 75 mortality rate from cancer considered preventable in 2020, significantly higher than the national rate (63.2 per 100,000 compared to 51.5 per 100,000). Trend data over the past two decades show preventable cancer deaths declining both regionally and nationally, with the North East slowly closing the gap with England. However, it is anticipated that an increase in the number of cancer deaths will occur in future years due to the diagnostic delays experienced as a result of the COVID-19 pandemic¹⁵.

15. Maringe, C., Spicer, J., Morris, M., Purushotham, A., Nolte, E., Sullivan, R., Rachet, B., Aggarwal, A. (2020). The impact of the COVID-19 pandemic on cancer deaths due to delays in diagnosis in England, UK: A national, population-based, modelling study. *The Lancet Oncology*, 21(8), 1023-1034. [https://doi.org/10.1016/S1470-2045\(20\)30388-0](https://doi.org/10.1016/S1470-2045(20)30388-0)

Compared with England

Significantly Better

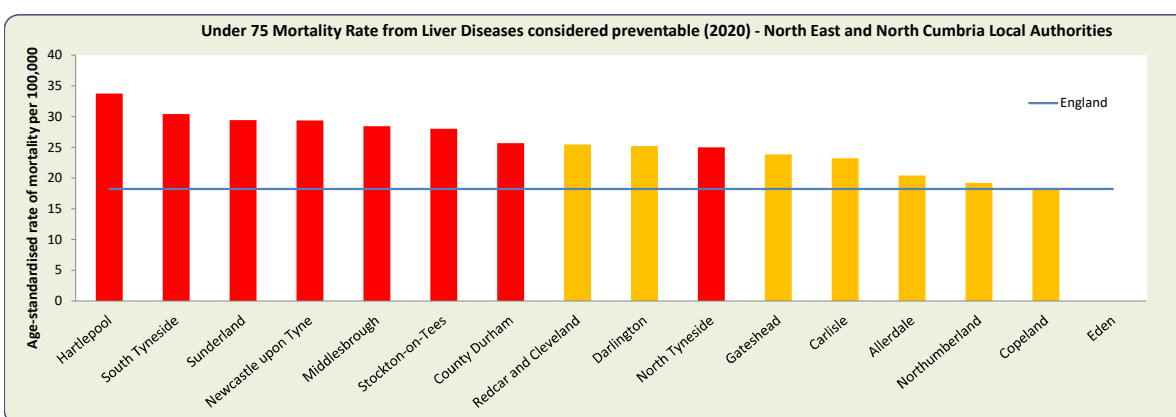
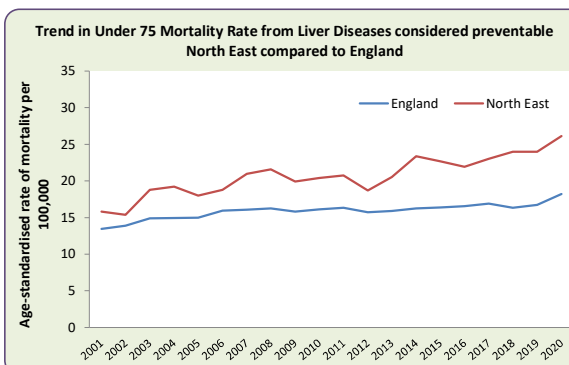
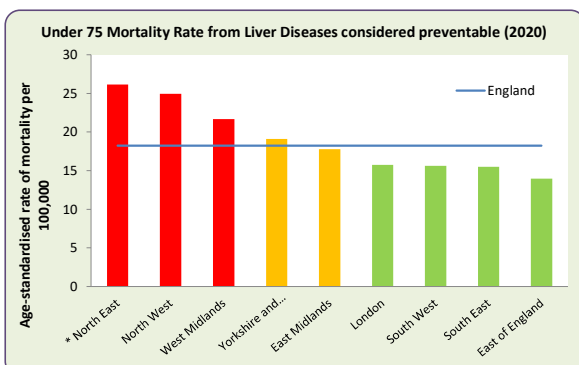
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Significantly Worse

11. Under 75 Mortality Rate from Liver Diseases considered preventable - 2019 definition (2020)

Age-standardised rate of mortality considered preventable from liver disease in those aged <75 per 100,000 population.

North East	North West	West Midlands	Yorkshire and the Humber	East Midlands	London	South West	South East	East of England	England
26.1	24.9	21.7	19.1	17.8	15.7	15.6	15.5	14.0	18.2



Data source: Office for Health Improvement and Disparities. Public Health Profiles. 2022 (<http://fingertips.phe.org.uk>) © Crown copyright 2022

Definitions / Notes

Liver disease is one of the top causes of death in England and is strongly linked to alcohol consumption and obesity prevalence, which are both amenable to public health interventions.

There were no data available for the Eden Local Authority as the total number of deaths for this area was fewer than 10, a number considered too few with which to calculate directly standardised rates reliably, and therefore the data has been suppressed.

To note, the definition of 'preventable' deaths has been revised since this indicator's inclusion in our previous report.

What is the data telling us?

Over the past 20 years there has generally been an upward trend, both regionally and nationally, in under 75 preventable mortality from liver disease. However, the rate of increase has been much higher in the North East than that seen nationally, so that the gap with England is widening. In 2001 the North East rate was 17% higher than the national average. By 2020 the North East rate was 43% higher than the England rate.

It is perhaps noteworthy that, in 2020, the England mortality rate increased by 9% compared to the previous year, a much greater annual increase than in any of the previous years since 2001. The North East also saw a 9% increase in its rate. It is thought that the steep rise in the England rate may be as a result of increased alcohol consumption and higher risk drinking during the COVID-19 pandemic¹⁶.

Eight NENC local authorities had significantly higher preventable mortality rates than the England average, the highest being Hartlepool with a rate of 33.7 per 100,000.

16. PHE. (2021). Monitoring alcohol consumption and harm during the COVID-19 pandemic. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1002627/Alcohol_and_COVID_report.pdf

Compared with England

Significantly Better

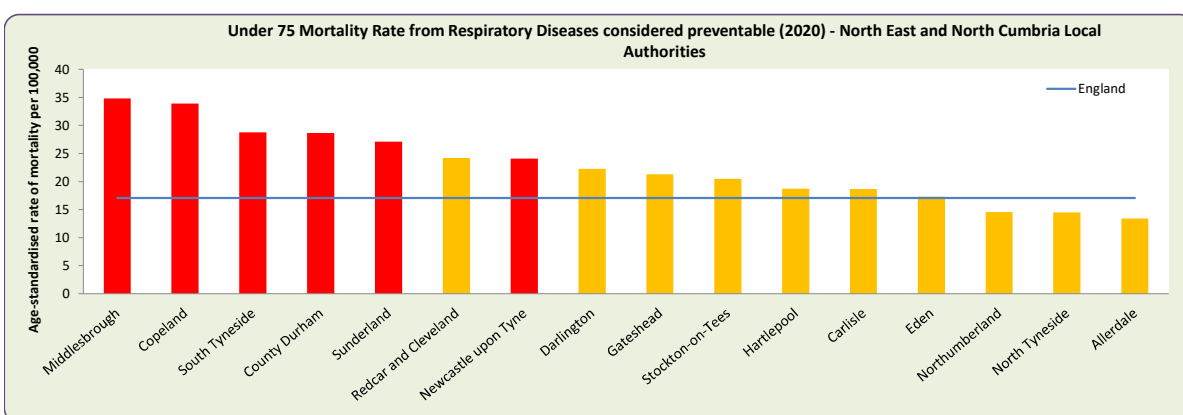
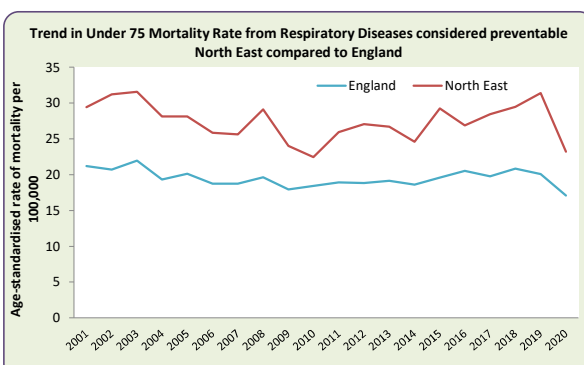
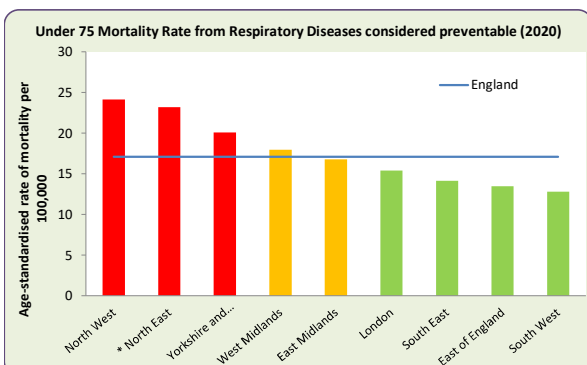
Similar

Significantly Worse

12. Under 75 Mortality Rate from Respiratory Diseases considered preventable - 2019 definition (2020)

Age-standardised rate of mortality considered preventable from respiratory disease in those aged less than 75 years per 100,000 population.

North West	North East	Yorkshire and the Humber	West Midlands	East Midlands	London	South East	East of England	South West	England
24.1	23.2	20.1	18.0	16.8	15.4	14.1	13.5	12.8	17.1



Data source: Office for Health Improvement and Disparities. Public Health Profiles. 2022 (<http://fingertips.phe.org.uk>) © Crown copyright 2022

Definitions / Notes

Premature mortality from respiratory disease is a problem in the North East region and widely considered to reflect its industrial legacy (mining and ship building) as well as historic smoking rates.

To note, the definition of 'preventable' deaths has been revised since this indicator's inclusion in our previous report.

What is the data telling us?

The rate of under 75 preventable mortality from respiratory diseases in the North East was the second highest of all the English regions, and significantly higher than the England average (23.2 compared to 17.1 per 100,000).

For most of the last decade the trend data indicate a worsening picture for the North East. However, data for the latest time period (i.e. 2020) show an improvement in the rate which, in the North East, fell by 26% from the 2019 rate. The England rate fell by 15% over the same time period. The reason for these significant reductions in respiratory disease mortality in 2020 is unclear at present. Research¹⁷ which reported reduced hospitalisations for COPD exacerbations during the pandemic suggests that these reductions may have resulted from enforced lockdown and public health measures decreasing the incidence of respiratory viral infections that trigger exacerbations such as influenza. Other possible explanations put forward were reductions in air pollutants during the pandemic, and increased medication adherence due to anxiety / fear regarding COVID-19. However, that research did not look at mortality rates, so it is not clear at present whether any of the factors impacting hospitalisation rates for respiratory conditions may also have impacted respiratory death rates. One possible explanation for the declining rates of mortality from respiratory diseases in 2020 is that they may represent the displacement of respiratory diseases as the underlying cause of death on death certificates by COVID-19¹⁸.

Across the NENC region, rates ranged from a high of 34.8 per 100,000 (Middlesbrough) to 13.4 per 100,000 (Allerdale).

17. Alqahtani, Oyelade, T., Aldahir, A. M., Mendes, R. G., Alghamdi, S. M., Miravittles, M., Mandal, S., & Hurst, J. R. (2021). Reduction in hospitalised COPD exacerbations during COVID-19: A systematic review and meta-analysis. *PLoS One*, 16(8), e0255659–e0255659. <https://doi.org/10.1371/journal.pone.0255659>

18. Office for Health Improvement & Disparities. (2021). Interactive Health Atlas of Lung conditions in England (INHALE): November 2021 update. <https://www.gov.uk/government/statistics/interactive-health-atlas-of-lung-conditions-in-england-inhale-november-2021-update>

Compared with England

Significantly Better

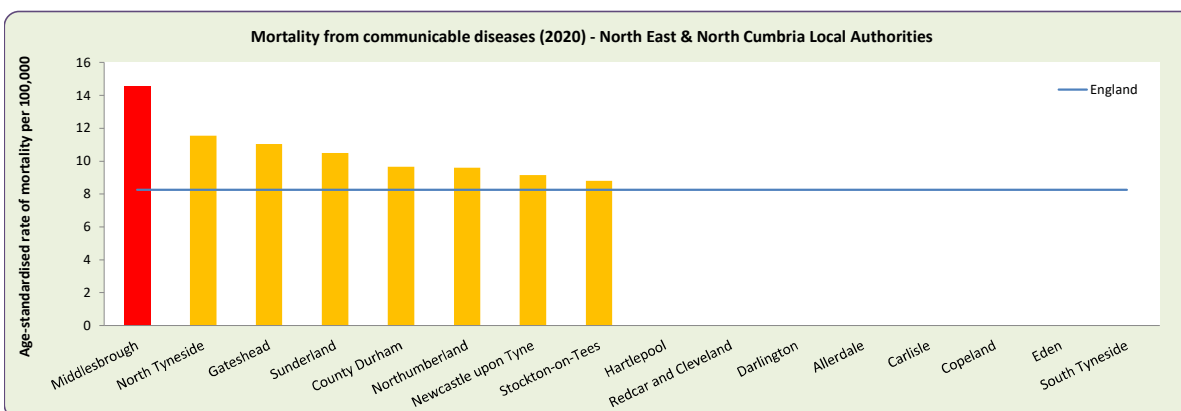
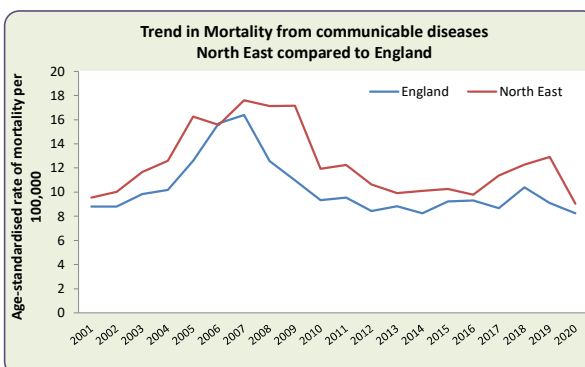
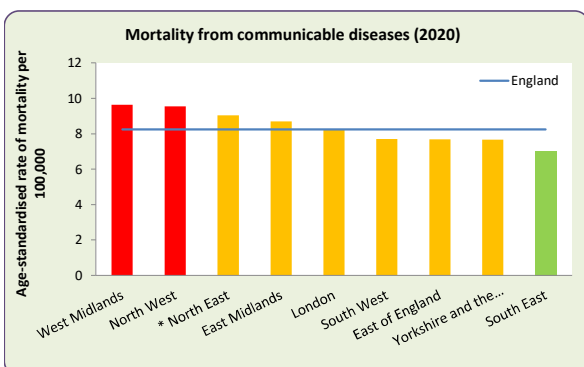
Similar

Significantly Worse

13. Mortality rate from a range of specified communicable diseases, including influenza (2020)

Age-standardised rate of mortality from communicable diseases per 100,000 population.

West Midlands	North West	North East	East Midlands	London	South West	East of England	Yorkshire and the Humber	South East	England
9.6	9.5	9.0	8.7	8.2	7.7	7.7	7.7	7.0	8.3



Data source: Office for Health Improvement and Disparities. Public Health Profiles. 2021 (<http://fingertips.phe.org.uk>) © Crown copyright 2022

Definitions / Notes

Preventing the incidence of communicable diseases is an important issue for Public Health. There is evidence that rapid diagnosis, treatment and prevention of spread can reduce mortality. Immunisation is an important intervention and this region has high coverage rates for immunisation.

There were no data available for Hartlepool, Redcar and Cleveland, Darlington, Allerdale, Carlisle, Copeland, Eden and South Tyneside Local Authorities. This was due to the fact that the total number of deaths for this area was fewer than 10, a number considered too few with which to calculate directly standardised rates reliably, and therefore the data has been suppressed.

Please note: Deaths from COVID-19 are not included in this indicator.

What is the data telling us?

In 2020 the North East region had the third highest mortality rate from communicable diseases of all the English health regions, but similar to that observed nationally - 9.0 per 100,000 compared with 8.3 per 100,000.

Trend data shows a considerable decrease in the mortality rate for the most recent time period, both nationally and regionally, in contrast to the recent increasing trend in the North East between 2016 and 2019. There is emerging evidence that the reduction in mortality may be due to the implementation of public health measures, to prevent the spread of COVID-19, also reducing the transmission of certain other infectious diseases, such as influenza^{19, 20}.

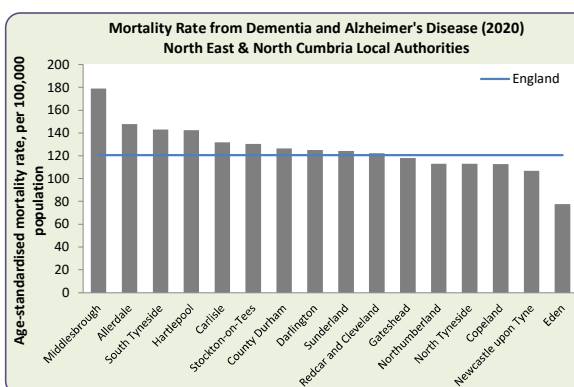
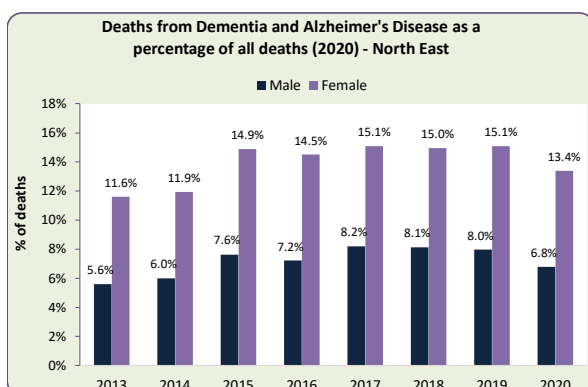
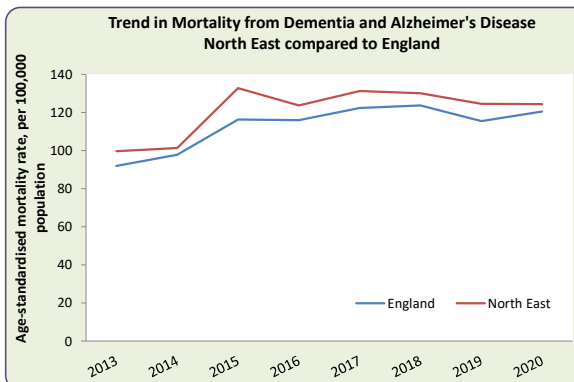
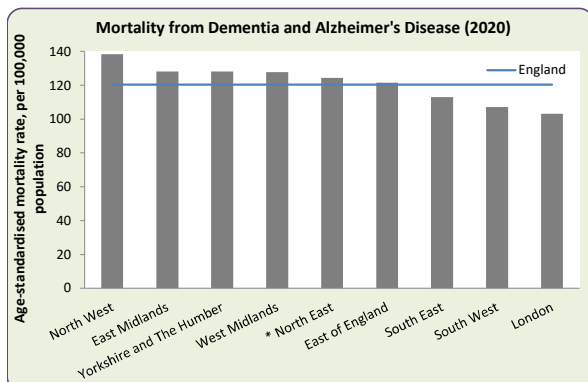
Of those local authorities in the region where data is available, only one, Middlesbrough, had a rate significantly higher (14.6 per 100,000) than the England rate (8.3 per 100,000).

19. Bramley, A., Crocker-Buque, T., Breuer, J., & Mahungu, T. W. (2021). Evidence of the reduction of acute circulating communicable viruses during the SARS-CoV-2 pandemic in London. *The Journal of Infection*, 83(4), 496–522. <https://doi.org/10.1016/j.jinf.2021.08.029>

20. Dadras, O., Alinaghi, S. A. S., Karimi, A., MohseniPour, M., Barzegary, A., Vahedi, F., Pashaei, Z., Mirzapour, P., Fakhouri, A., Zargari, G., Saeidi, S., Mojdeganlou, H., Badri, H., Qaderi, K., Behnezhad, F., & Mehraeen, E. (2021). Effects of COVID-19 prevention procedures on other common infections: a systematic review. *European Journal of Medical Research*, 26(1), 1–67. <https://doi.org/10.1186/s40001-021-00539-1>

14. Age-standardised rate of mortality from dementia and Alzheimer's disease per 100,000 population (2020)

North West	East Midlands	Yorkshire and The Humber	West Midlands	North East	East of England	South East	South West	London	England
138.4	128.2	128.1	127.8	124.2	121.6	113.1	107.2	103.2	120.5



Source: NOMIS - ONS Crown Copyright Reserved [from Nomis on 25 November 2021]
<https://www.nomisweb.co.uk/query/construct/summary.asp?mode=construct&version=0&dataset=161>

Definitions / Notes

ICD-10 codes used to define dementia and Alzheimer's disease are F01, F03 and G30.

What is the data telling us?

Following steep increases in mortality rates, both regionally and nationally, as a result of better recognition, improved diagnosis and reporting, and coding changes²¹, the rates in recent years have been more stable. However, in 2019, there was a statistically significant decrease in the England rate compared to 2018 driven by a decrease in the number of female deaths, as opposed to males²¹. However, in 2020 the rate had increased again nationally.

The rate in the North East also dropped in 2019 but the reduction was smaller than that seen nationally, and the 2020 rate is similar to 2019.

The trend data above also show that regionally deaths from dementia and Alzheimer's disease, as a proportion of all deaths, have decreased in the past year. This indicator uses leading cause of death so does not take into consideration pre-existing or contributory conditions. Therefore, this trend could be as a result of the displacement of the 'leading cause of death' to COVID-19 with almost 25% of the people who died from COVID-19 in 2020 also having Alzheimer's disease or another disease that causes dementia²². It could also be as a result of the reported reduced rate of diagnosis during 2020, impacting the recording of dementia and Alzheimer's on death certificates²².

21. ONS. (2020). Dementia and Alzheimer's disease deaths including comorbidities, England and Wales: 2019 registrations. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/dementiaandalzheimersdiseasedeathsincludingcomorbiditiesenglandandwales/2019registrations>

22. Alzheimer's Society. (2021) Biggest killer in the UK is now COVID-19, but deaths from dementia remain high. <https://www.alzheimers.org.uk/blog/research-UK-biggest-killer-high-dementia-deaths>