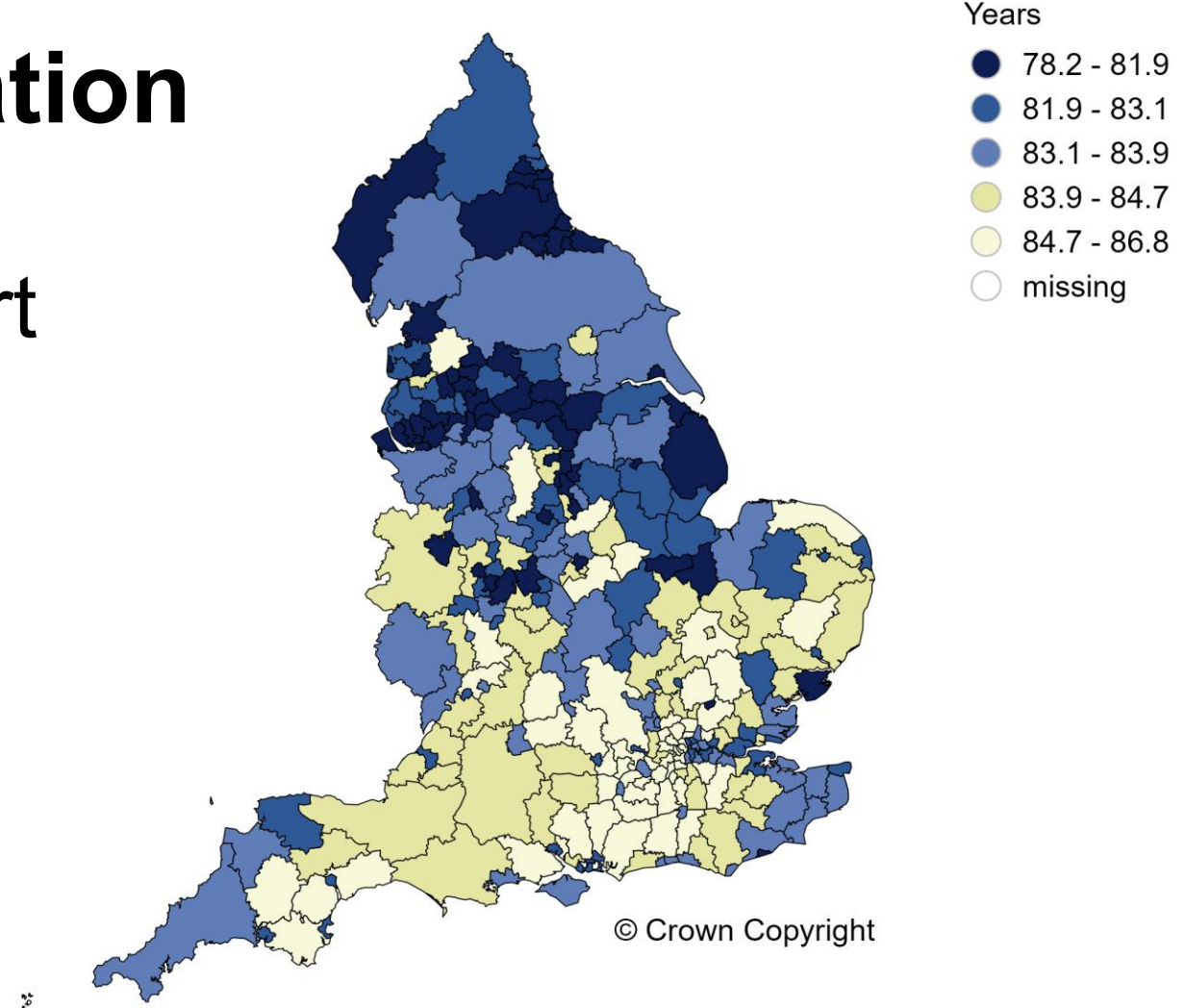


Health trends and variation in England, 2025

A Chief Medical Officer report



Female life expectancy in England 2023

Contents

Health trends and
variation in England,
2025

Foreword

3

How to use this report

4

Chapter 1 Life expectancy and population change

5

Chapter 2 Mortality and morbidity

29

Chapter 3 Maternal and child health

77

Chapter 4 Risk factors and wider determinants

105

Chapter 5 Screening and vaccination

139

Abbreviations

156

Acknowledgements

158

References

160



This report provides a snapshot on health in England and, where relevant, the wider United Kingdom. It shows major trends over time, many of which are likely to continue for the foreseeable future, which is important for planning out NHS and public health work. It also highlights the very substantial variation in good and poor health over geography, socioeconomic status, gender, age and ethnicity. It shows health in England relative to our neighbours. By identifying groups who have the poorest health we can aim to reduce illness in the most effective, efficient and equitable way. We can also learn from areas and groups where the best health is seen.

Some of the trends are longstanding and predictable, such as the changing age structure of the population, and the improvements in health following substantially reduced smoking prevalence and outdoor air pollution in previous decades. Some important trends are less predictable, including cohort effects such as alcohol use, with lower median consumption by young people now than 3 decades ago (but still significant harmful drinking). Some are sudden, and of these the impact of COVID-19 is the most obvious, with direct effects on mortality but also indirect effects via changes in lifestyle, and impact on the provision of secondary prevention and treatment whilst the pandemic was at its peak and dominated medical services.

The biggest trend overall has been the remarkable improvement in many areas of health over the last decades, including cardiovascular diseases, many cancers and infections. These slowed around 15 years ago, and the pandemic temporarily reversed some of the gains, but they will not stop improving in the future provided we tackle the root causes of disease. Unfortunately, some communities and geographies have been left behind, suffering very high burdens of largely preventable disease. Addressing these disparities and inequalities has to be a major priority of public health and the NHS.

Professor Chris Whitty, Chief Medical Officer for England, 2025

How to use this report



This compendium of health statistics has been designed to be easy to navigate and use, either to be read through from top to bottom or as a resource to come back to. It is light on text with a focus on charts and maps in a slide deck format. Interactive navigation bars and contents pages allow the reader to jump between chapters and the charts contained within each.

A headline on each page summarises a particular take-away point, but note that many charts and maps demonstrate more than one point. Below each chart is a description of the data. Further footnotes and a link to the original data source can be found at the end of the report in the references section. The source will often provide datasets available for download, more detail about the context of the topic, and notes about the data.

Geographic variation is displayed throughout this report using maps and column charts. Quintiles for these are assigned based on indicator value to ensure an equal number of areas within each group. The population ageing maps are an exception to this method. These apply an equal range of indicator values to each group. Note that map legend value ranges are rounded for display purposes.

This slide deck is supported by a series of data download files (one per chapter) for those wishing to see or re-use the underlying data from the charts and maps presented.

Note: the COVID-19 pandemic disrupted data collection for a number of health indicators. Where possible, this has been accounted for in the headlines or chart annotations. However, we advise readers to exercise caution when interpreting data collected during this period. International comparisons were chosen to demonstrate features of England's population and based on availability of data.

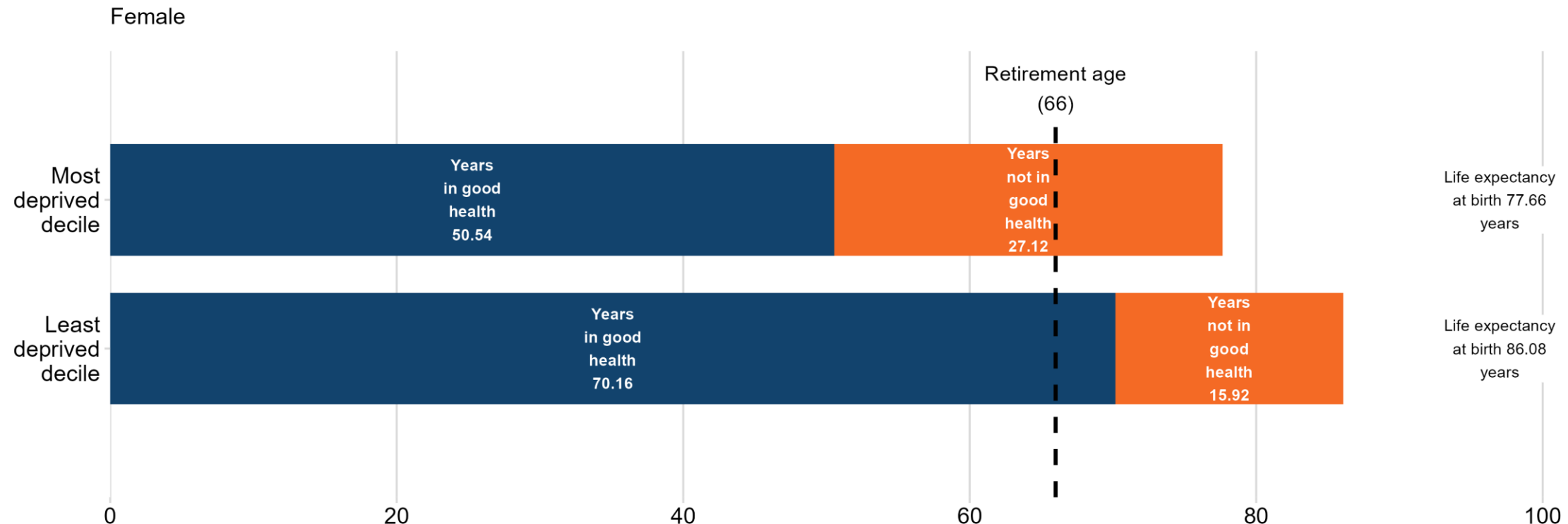


1.1 Years lived in good and not good health - female (summary)	6	1.15 Population ageing - international comparison	20
1.2 Years lived in good and not good health - male (summary)	7	1.16 Age structure by geography	21
1.3 Years lived in good and not good health (summary)	8	1.17 Population pyramids for city and rural areas	22
1.4 Years lived in good and not good health - female	9	1.18 Population ageing by geography	23
1.5 Years lived in good and not good health - male	10	1.19 Old age dependency ratio	24
1.6 Geographic variation in healthy life expectancy	11	1.20 Old age dependency ratio - city and rural areas	25
1.7 Trend in life expectancy - 1838 to 2022	12	1.21 Population living in care homes	26
1.8 Trend in life expectancy - 1980 to 2024	13	1.22 Population aged 65 years and over living alone	27
1.9 Life expectancy - international comparison	14	1.23 Total fertility rate	28
1.10 Geographic variation in female life expectancy - shown with map of deprivation	15	1.24 Age of parenthood	28
1.11 Geographic variation in male life expectancy - shown with map of deprivation	16		
1.12 Life expectancy trend by deprivation	17		
1.13 Population pyramids - international comparison	18		
1.14 Population pyramids - change over time by age and sex	19		



Those who live the longest often have the shortest period of ill health. Those living in the most deprived areas have shorter lives and longer periods of preventable ill health (female).

Figure 1.1 Years lived in good and not good health - female (summary)

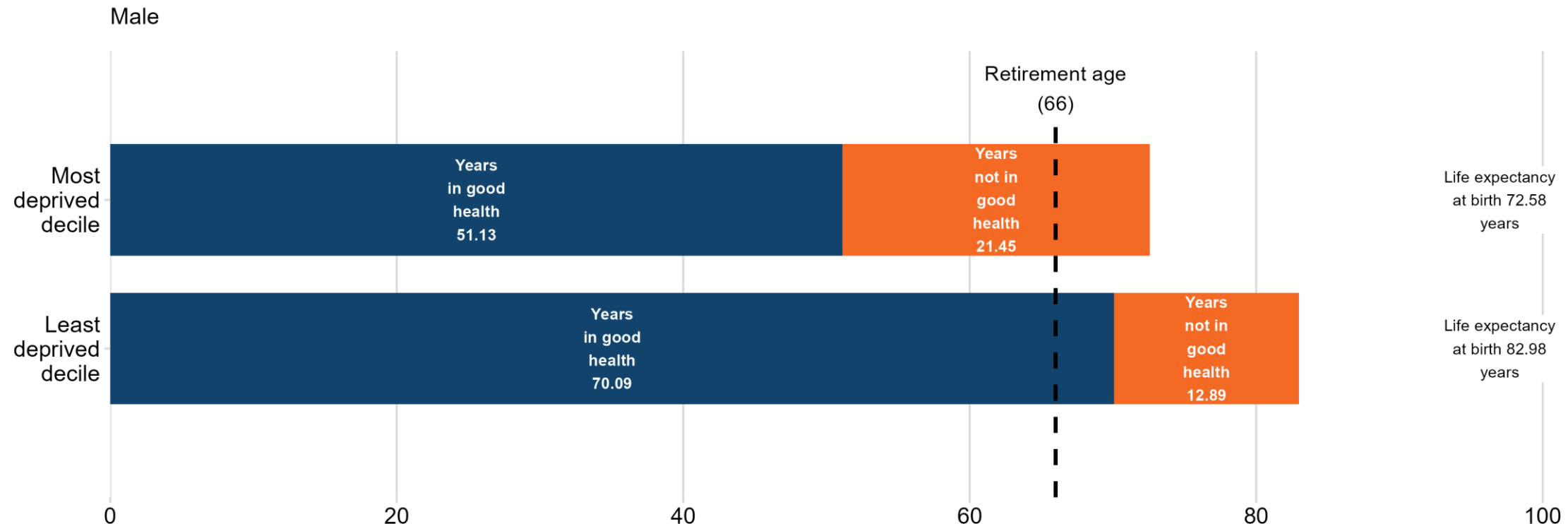


Female life expectancy at birth showing years lived in good health and not good health for the most and least deprived deciles, England, 2020 to 2022. Based on the 2019 Index of Multiple Deprivation (IMD) for 2021 lower super output areas.



Those who live the longest often have the shortest period of ill health. Those living in the most deprived areas have shorter lives and longer periods of preventable ill health (male).

Figure 1.2 Years lived in good and not good health - male (summary)

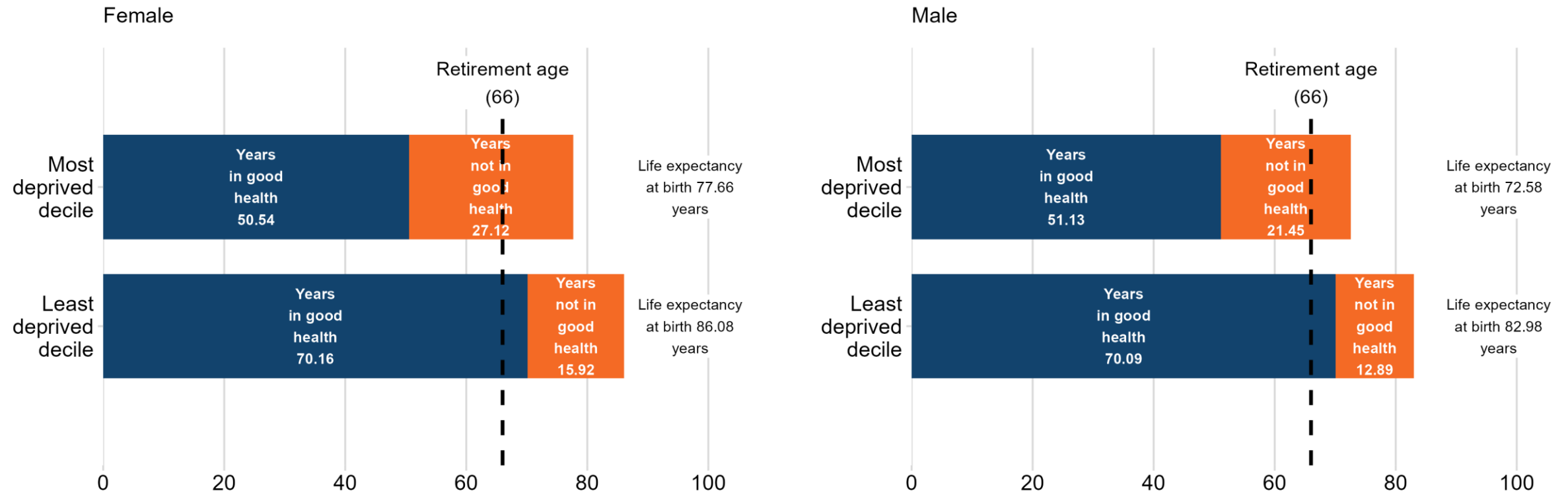


Male life expectancy at birth showing years lived in good health and not good health for the most and least deprived deciles, England, 2020 to 2022. Based on the 2019 Index of Multiple Deprivation (IMD) for 2021 lower super output areas.



There are inequalities in the number of years lived in good health versus poorer health.

Figure 1.3 Years lived in good and not good health (summary)

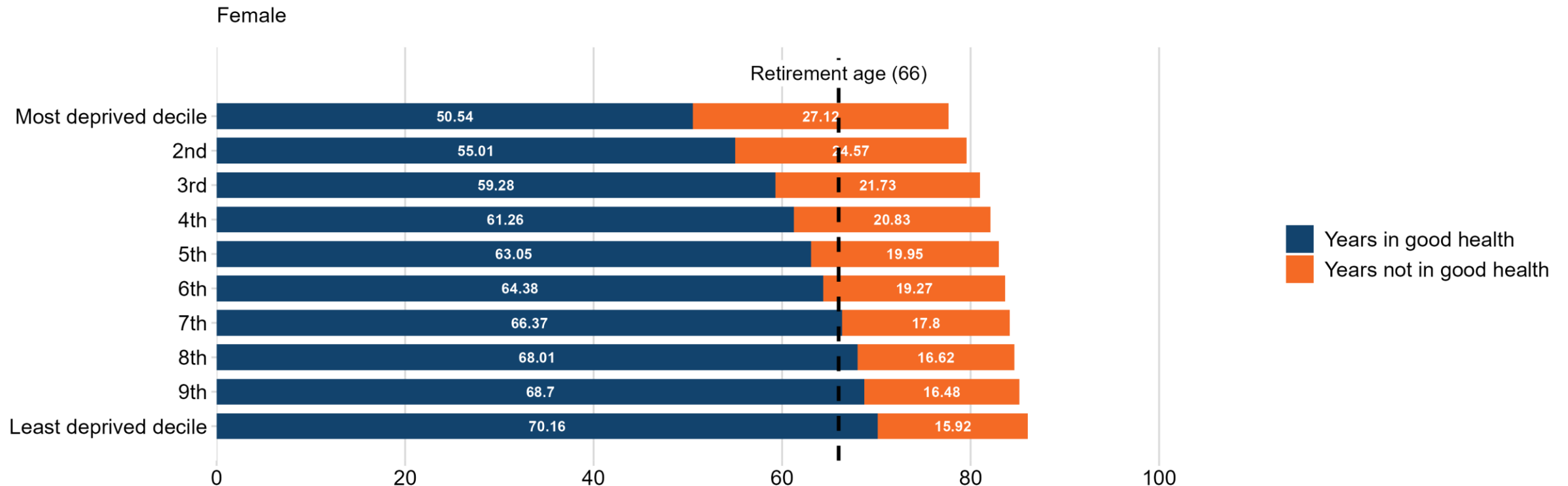


Life expectancy at birth showing years lived in good health and not good health for the most and least deprived deciles, England, 2020 to 2022. Based on the 2019 Index of Multiple Deprivation (IMD) for 2021 lower super output areas.



The trends in inequalities in the number of years lived in good health versus poorer health extend over the entire spectrum of poverty and affluence (female).

Figure 1.4 Years lived in good and not good health - female

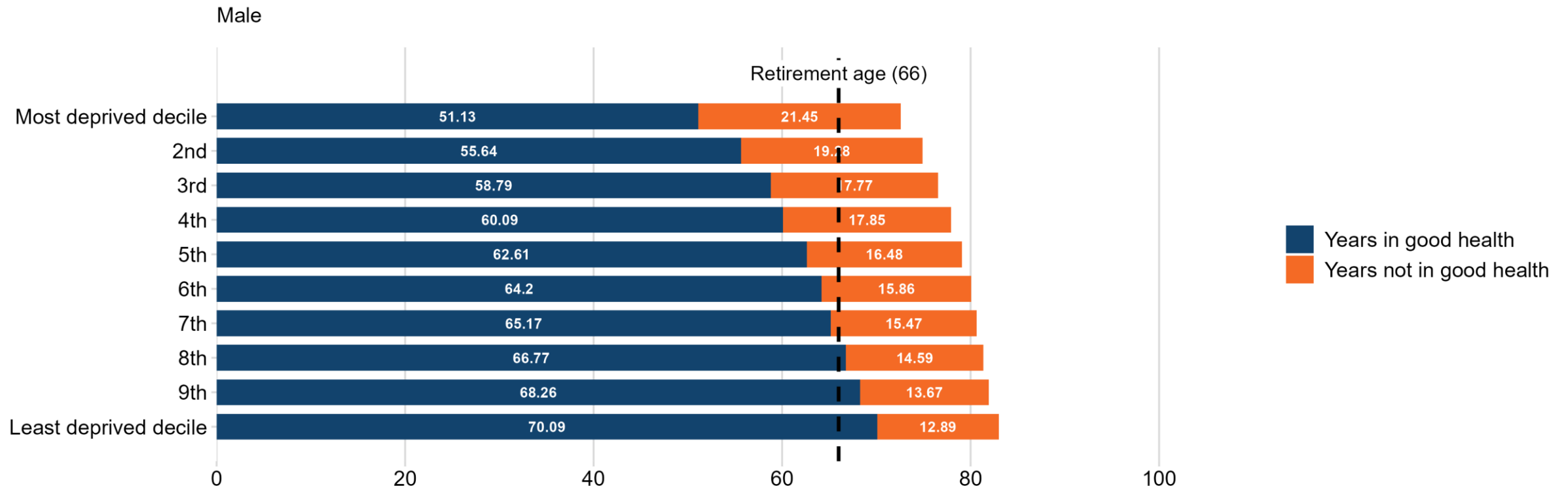


Female life expectancy at birth showing years lived in good health and not good health by deprivation decile, England, 2020 to 2022. Based on the 2019 Index of Multiple Deprivation (IMD) for 2021 lower super output areas.



The trends in inequalities in the number of years lived in good health versus poorer health extend over the entire spectrum of poverty and affluence (male).

Figure 1.5 Years lived in good and not good health - male

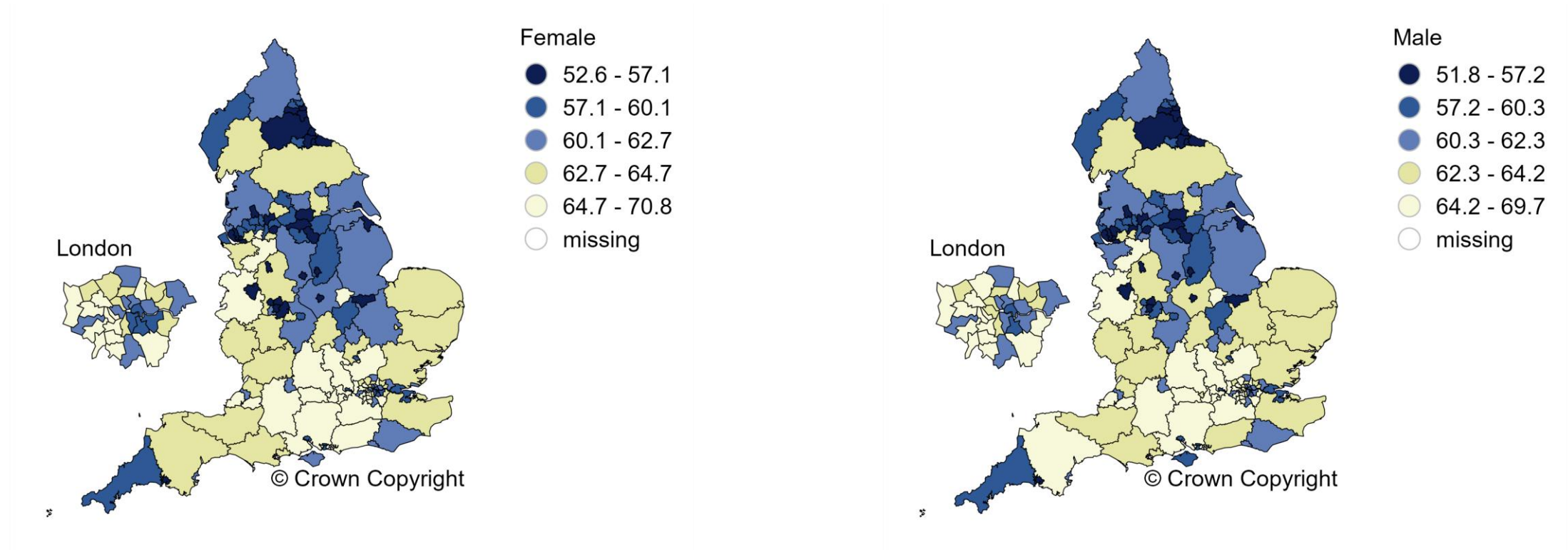


Male life expectancy at birth showing years lived in good health and not good health by deprivation decile, England, 2020 to 2022. Based on the 2019 Index of Multiple Deprivation (IMD) for 2021 lower super output areas.



Healthy life expectancy (expected number of years spent in good health) is lower in more deprived areas.

Figure 1.6 Geographic variation in healthy life expectancy

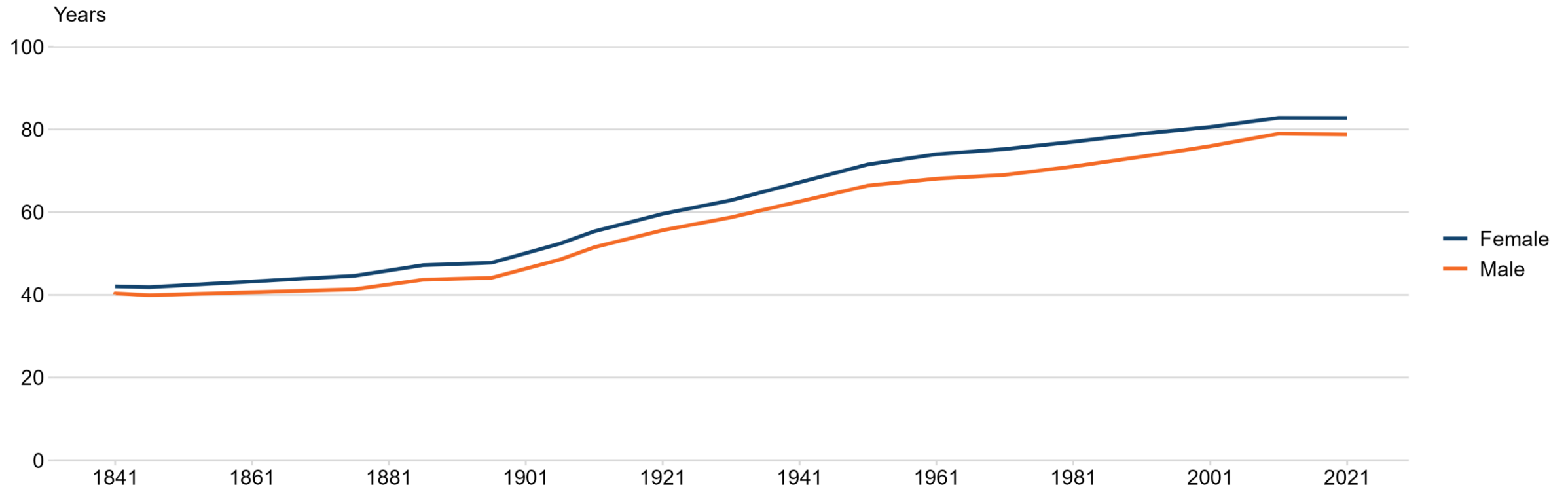


Healthy life expectancy at birth (years) for upper tier local authorities in England, female (left) and male (right), 2021 to 2023. Healthy life expectancy is the number of years people are expected to spend in “good” general health, based on how people perceive their own health.



Life expectancy has increased over the last 2 centuries.

Figure 1.7 Trend in life expectancy - 1838 to 2022

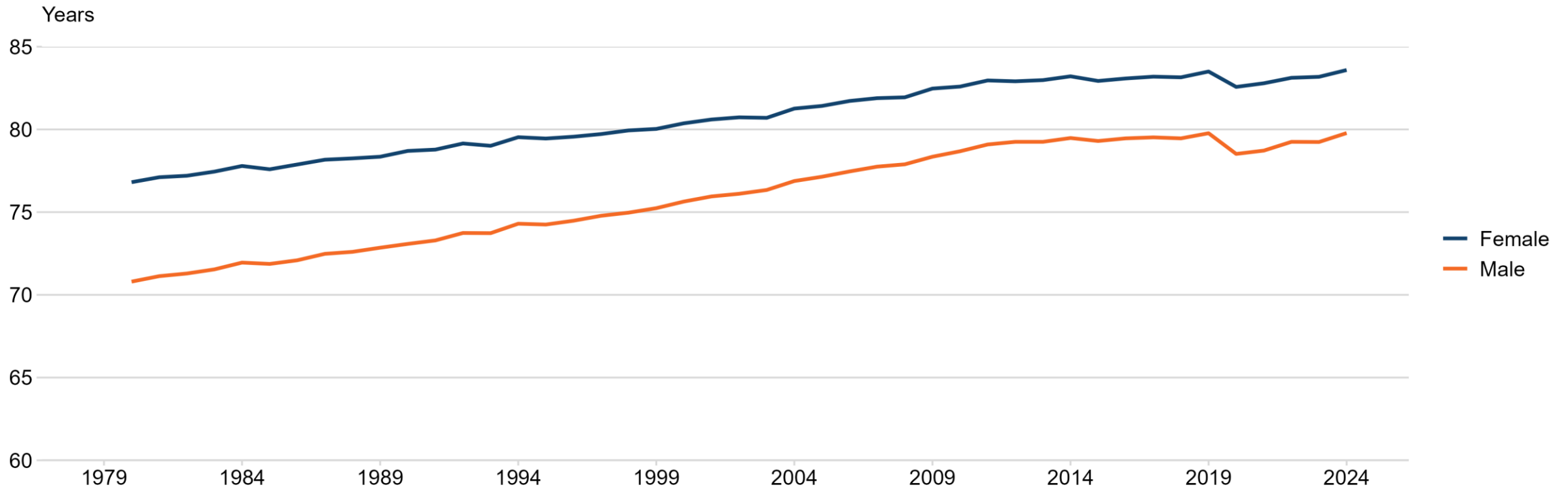


Life expectancy at birth (years), by sex, England and Wales, between 1838 and 2020 to 2022. From 1910 onwards 3 year aggregate data is plotted against the mid-point in the range. For earlier time periods ranges are inconsistent but are plotted against the mid-point in the range.



Increases in life expectancy slowed down between 2010 and 2019. Life expectancy fell during the early COVID-19 pandemic but is now similar to 2019.

Figure 1.8 Trend in life expectancy - 1980 to 2024

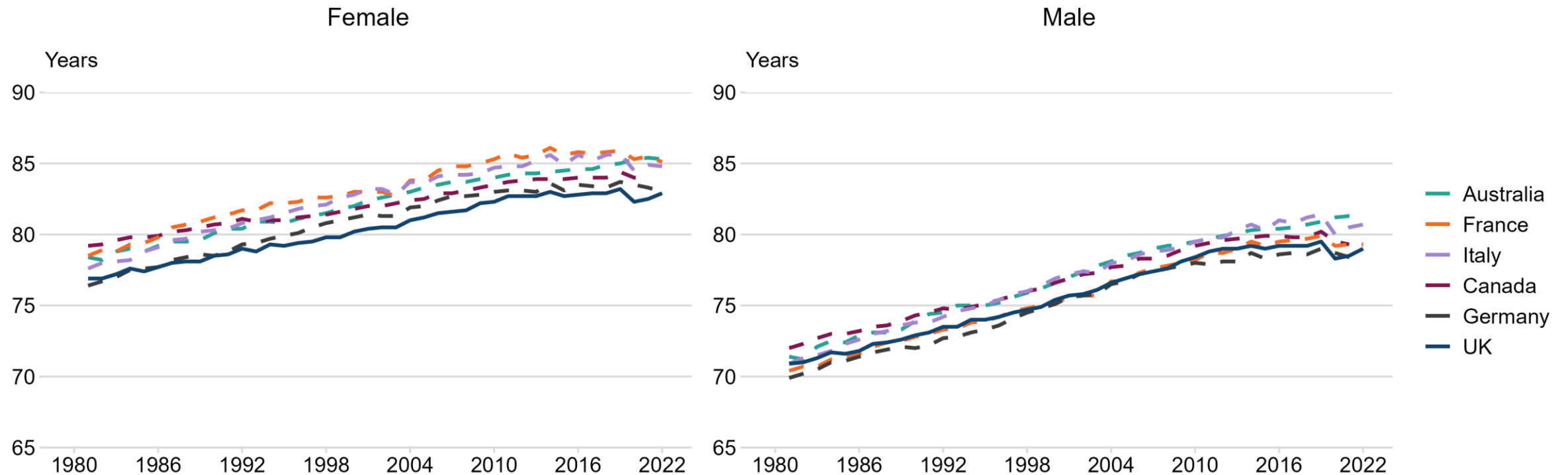


Life expectancy at birth (years), by sex, England, 1980 to 2024.



UK life expectancy is lower than many comparable countries, but most countries also had a decrease in the COVID-19 pandemic and a slowdown in improvement prior to it.

Figure 1.9 Life expectancy - international comparison

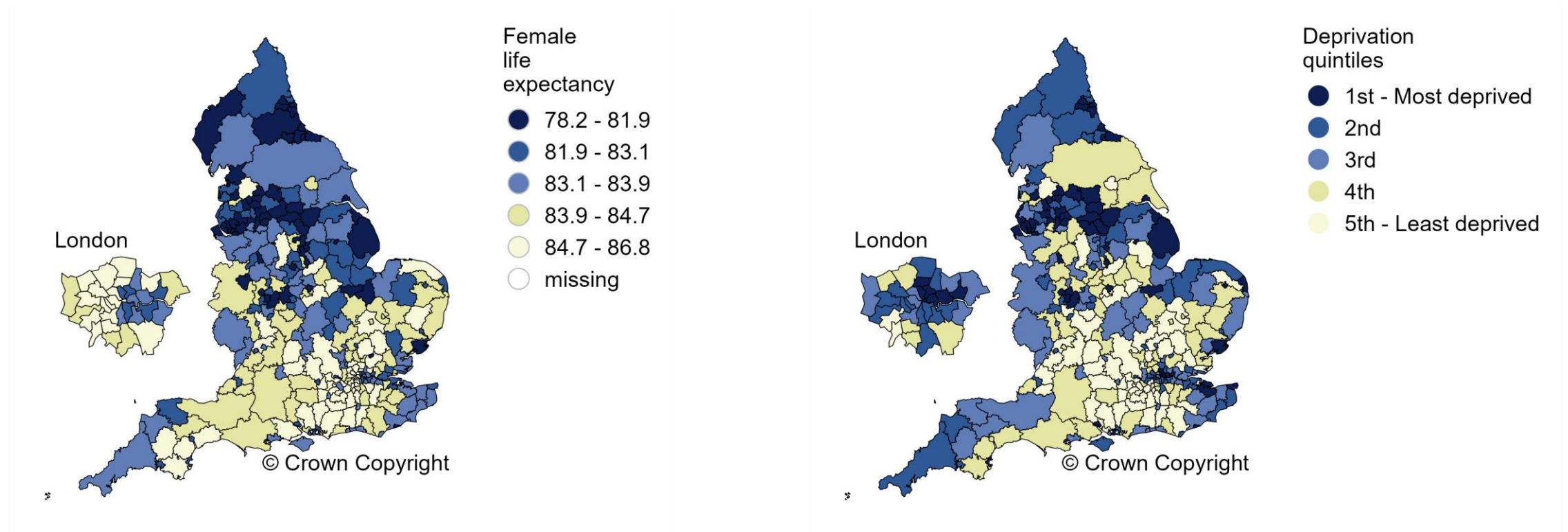


Life expectancy at birth (years), by sex, UK and selected countries, 1981 to 2022.



Life expectancy is lower in more deprived areas (females).

Figure 1.10 Geographic variation in female life expectancy - shown with map of deprivation

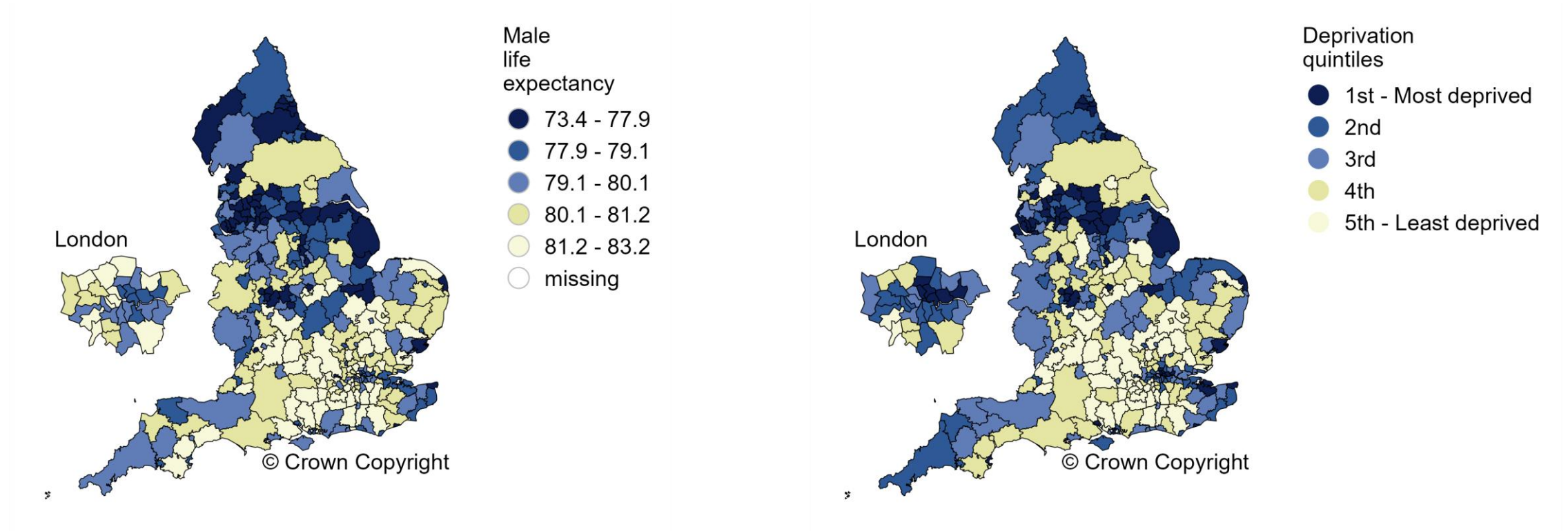


Left: Female life expectancy at birth (years) for lower tier local authorities in England, 2023. Right: Index of Multiple Deprivation (IMD) quintiles for lower tier local authorities in England, 2019.



Life expectancy is lower in more deprived areas (males).

Figure 1.11 Geographic variation in male life expectancy - shown with map of deprivation

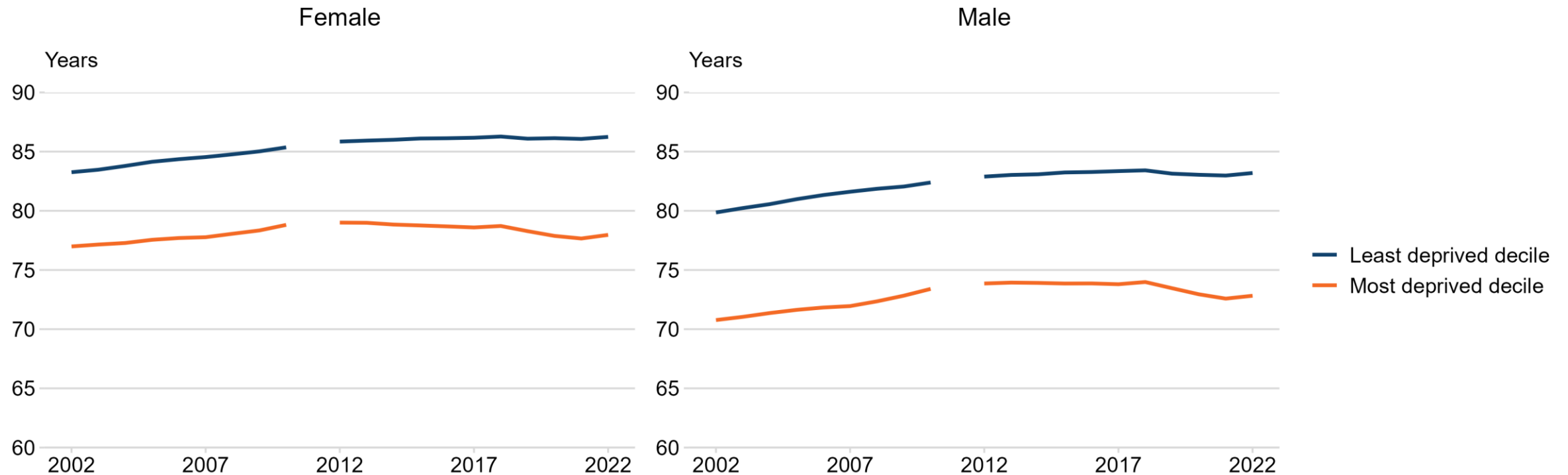


Left: Male life expectancy at birth (years) for lower tier local authorities in England, 2023. Right: Index of Multiple Deprivation (IMD) quintiles for lower tier local authorities in England, 2019.



The gap in life expectancy between the most and least deprived areas is greater for males than females and has persisted and widened over time.

Figure 1.12 Life expectancy trend by deprivation

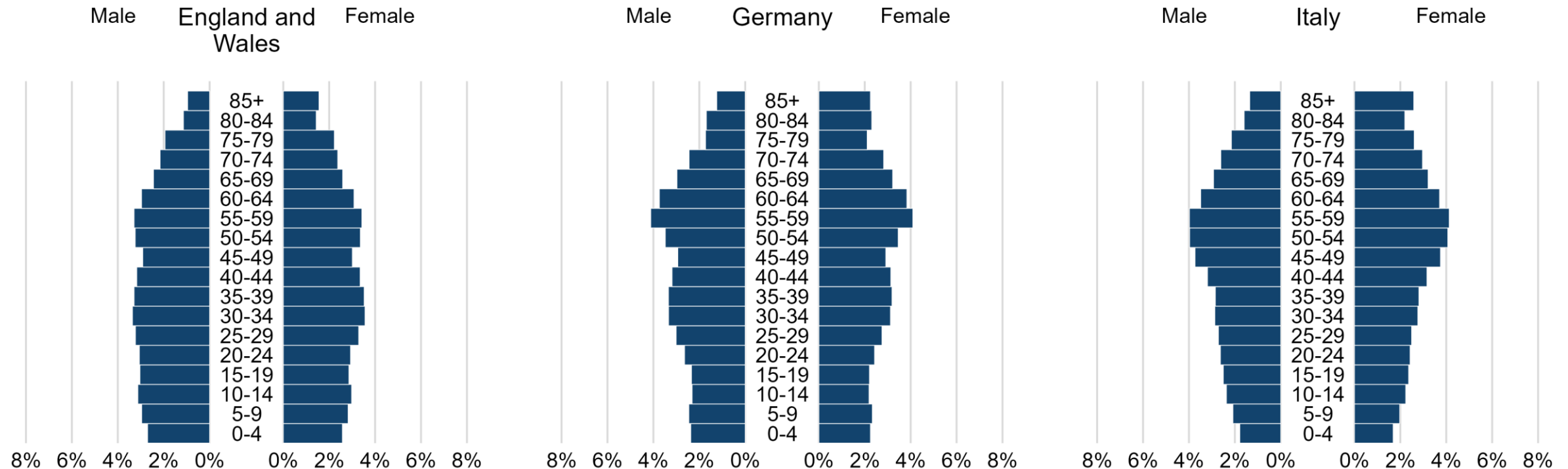


Trend in life expectancy at birth in the most and least deprived deciles based on the Index of Multiple Deprivation (IMD) for lower super output areas (LSOAs), by sex, England, between 2001 to 2003 and 2021 to 2023. Data for 2021 to 2023 is provisional. Data is not available for 2010 to 2012 due to lack of consistent population estimates. Years indicate the mid-point in a 3-year range.



In England and Wales, the proportion of the population close to retirement age is less pronounced than in other similar European countries.

Figure 1.13 Population pyramids - international comparison

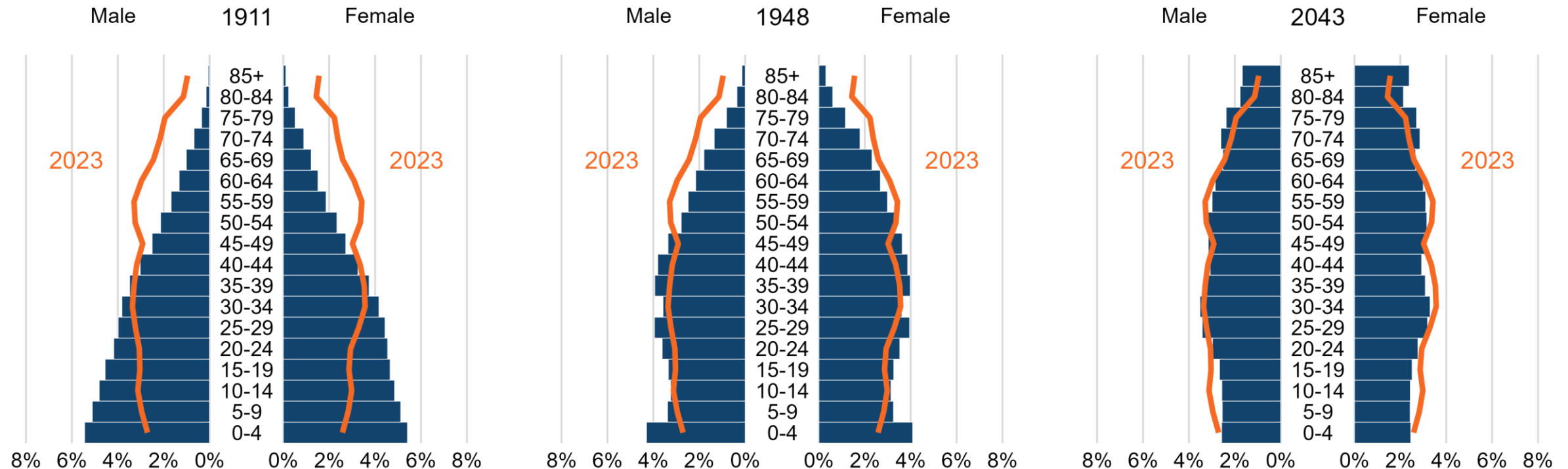


Structure of the population showing the percentage of the total population in each sex and age group for England and Wales compared with Germany and Italy, 2023. Uses mid-year populations (England and Wales) and United Nations Population Division model-based estimates (Germany and Italy).



The population has gone through a major demographic change over a century and the proportion of older adults is projected to increase.

Figure 1.14 Population pyramids - change over time by age and sex

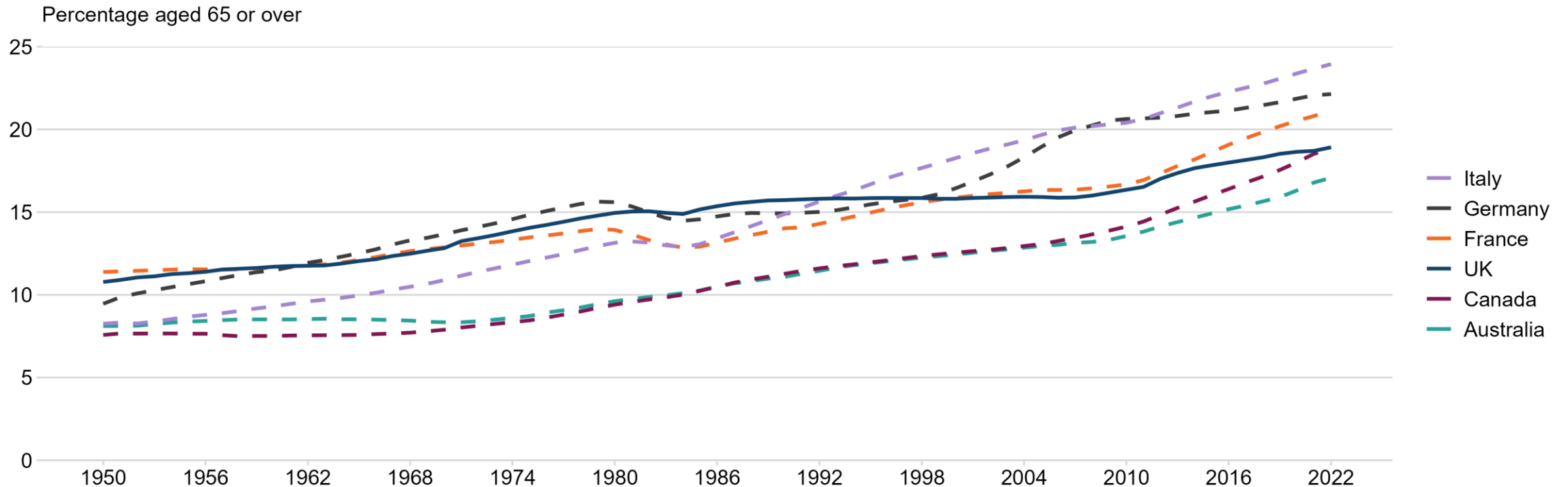


Change in the structure of the population of England and Wales over time showing the percentage of the total population in each sex and age group in 2023 compared with 1911, 1948 and projection for 2043. Uses mid-year populations.



Populations are ageing in many comparable countries, some faster than the UK.

Figure 1.15 Population ageing - international comparison

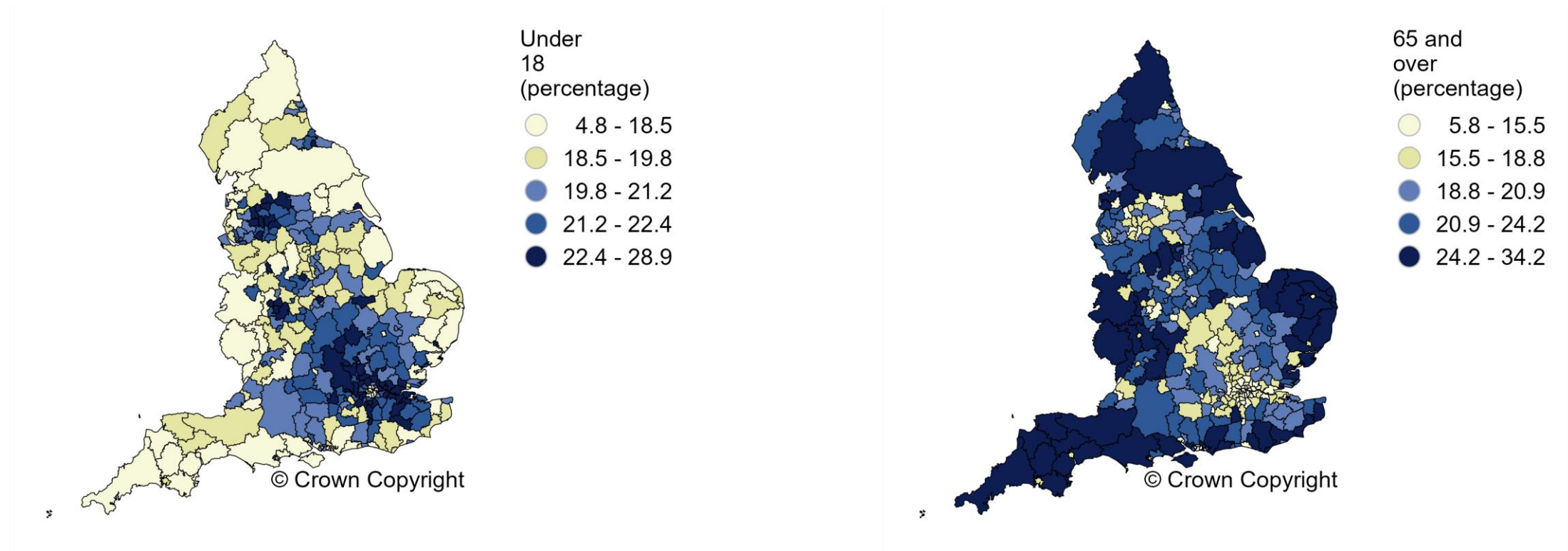


Percentage of the population aged 65 years or over, UK and selected countries, 1950 to 2022.



Rural and coastal areas have a higher proportion of older people than urban areas.

Figure 1.16 Age structure by geography

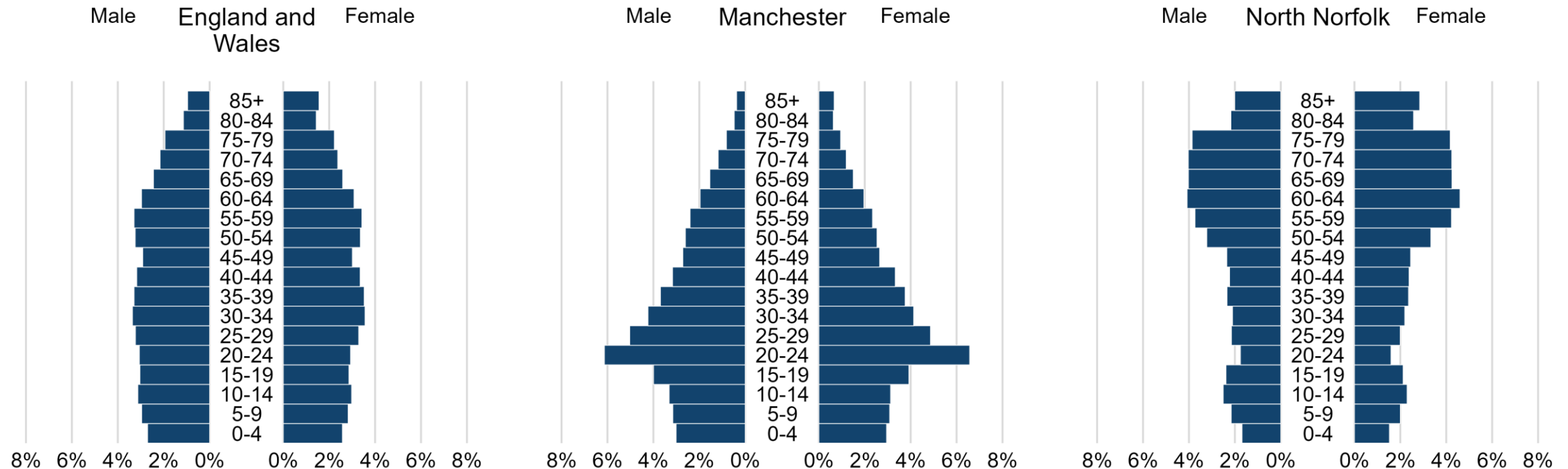


Percentage of the population aged under 18 years (left) and aged 65 and over (right) for lower tier local authorities in England, 2023.



Rural and coastal areas have a higher proportion of older people in their population than urban areas.

Figure 1.17 Population pyramids for city and rural areas

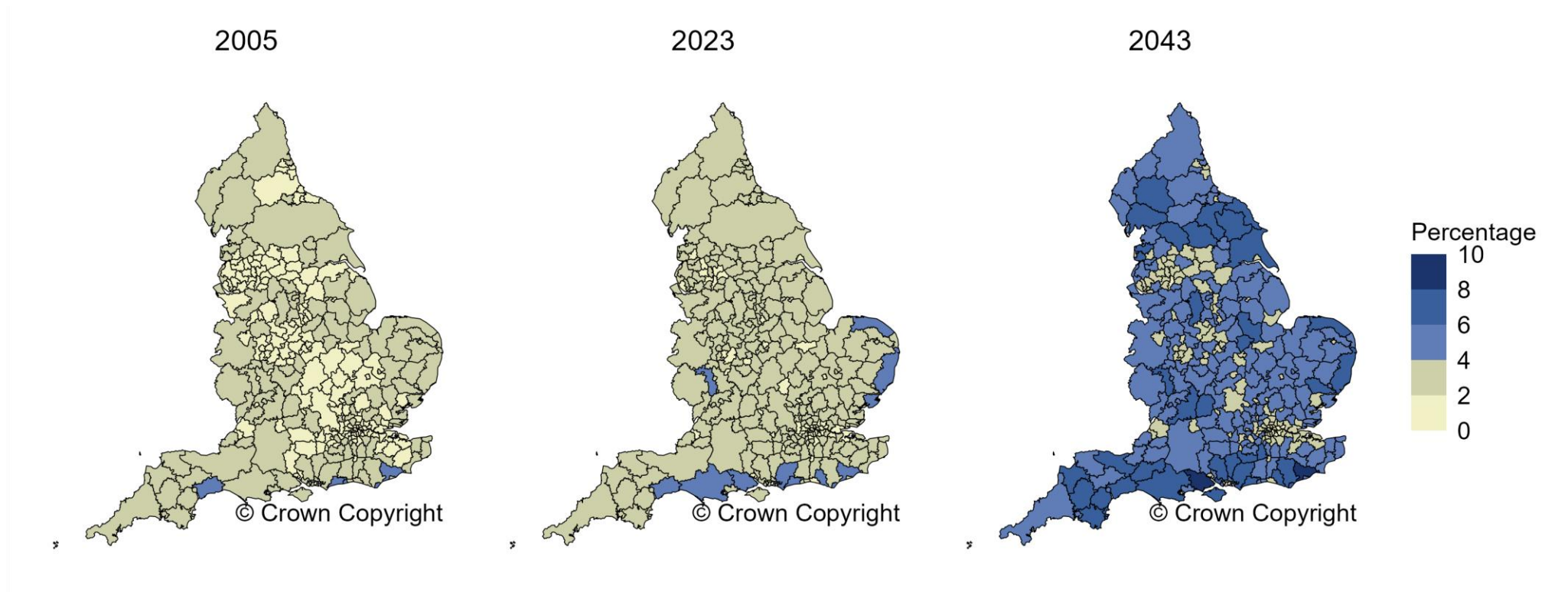


Structure of the population showing the percentage of the total population in each sex and age group for England and Wales compared with Manchester and North Norfolk as examples of city and rural locations, 2023. Uses mid-year populations.



Most areas are ageing, but by 2043 the largest proportions of the population aged 85 and over will remain predominantly in rural and coastal areas.

Figure 1.18 Population ageing by geography

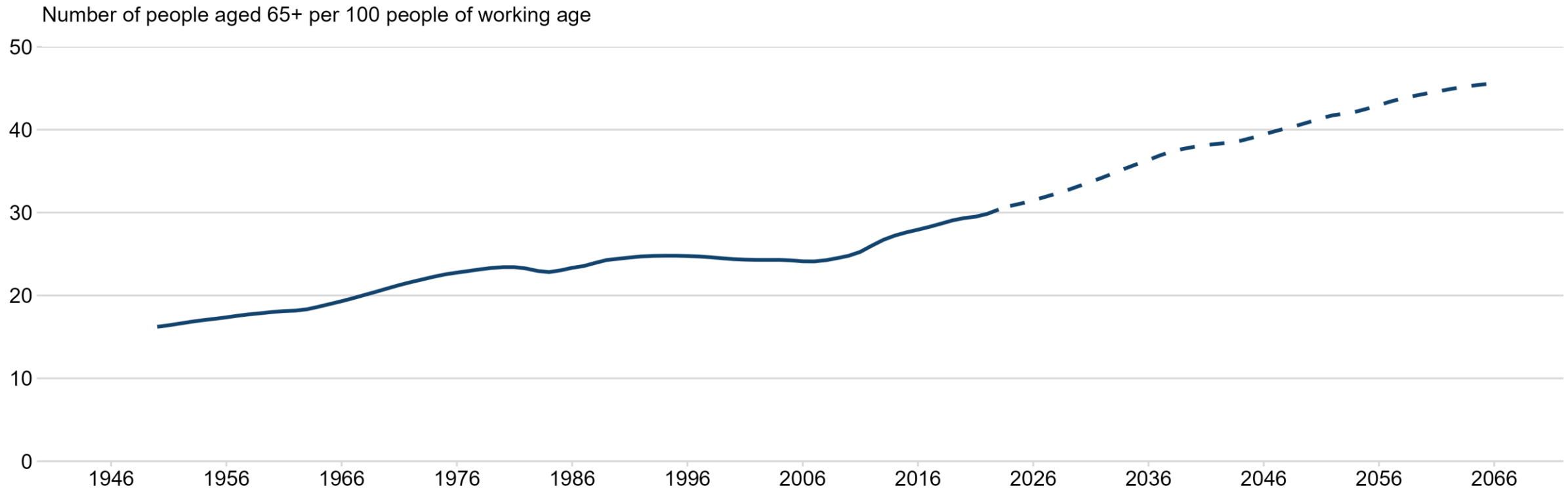


Percentage of the population aged over 85 years in 2005 (left), 2023 (centre) and projected in 2043 (right).



The number of older adults will increase more rapidly than the number of people of working age, with changes to the old age dependency ratio.

Figure 1.19 Old age dependency ratio

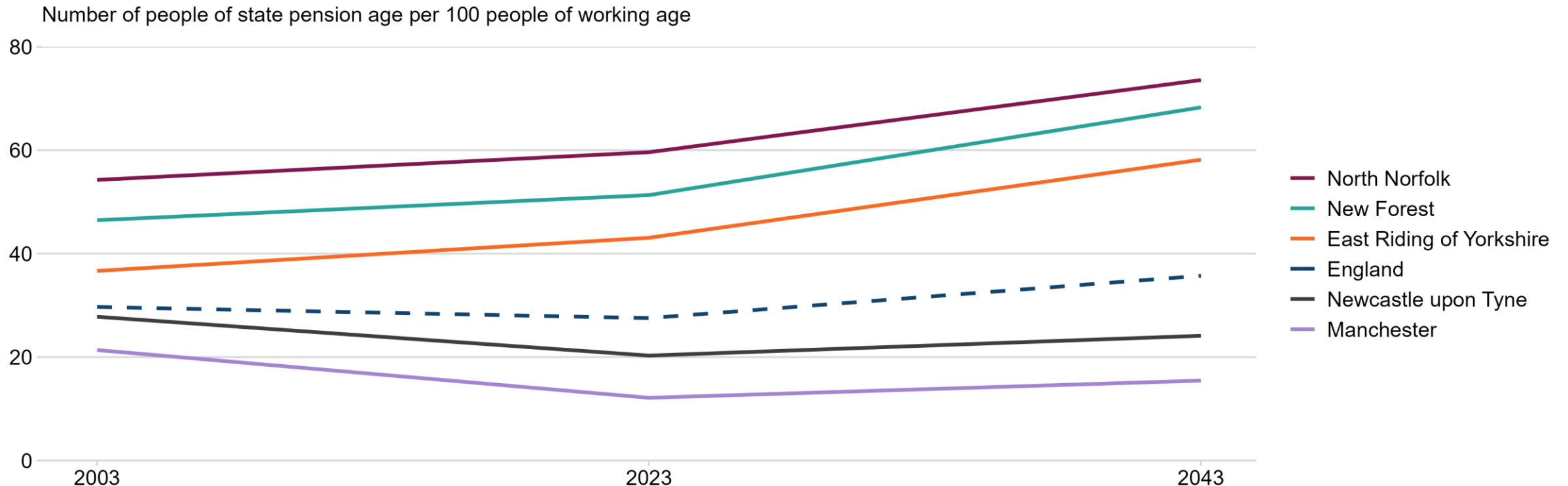


Historic and projected number of people aged 65 and over per 100 people of working age (15 to 64), United Kingdom, 1950 to 2066. Based on population estimates (solid line) and population projections (dotted line).



The increase in older adults compared with working age adults will affect most areas. The old age dependency ratio will remain highest in rural and coastal areas.

Figure 1.20 Old age dependency ratio - city and rural areas

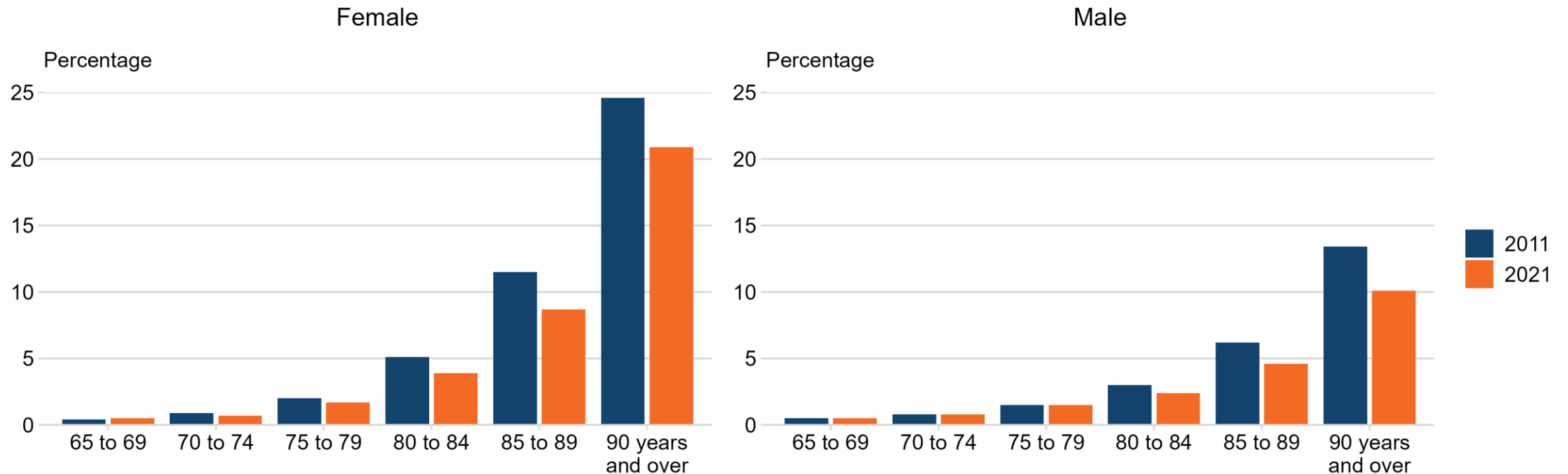


Historic and projected old age dependency ratios for 5 local authority districts, compared with the England average, 2003, 2023 and 2043. Figures are adjusted to account for changes in the State Pension age: 60 for women and 65 for men in 2003, 66 for both sexes in 2023, 67 for both sexes in 2043.



The majority of older people do not live in care homes.

Figure 1.21 Population living in care homes

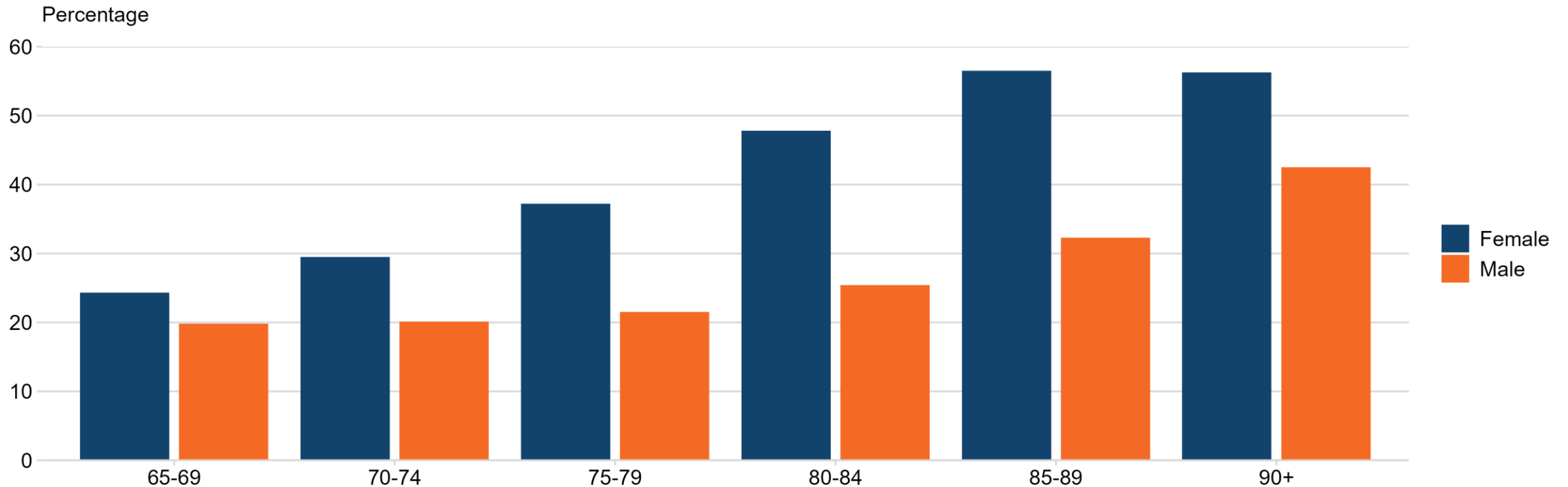


Percentage of usual resident population in each 5-year age group from age 65 years living in care homes by sex, England and Wales, 2011 and 2021.



There are differences between the sexes in the proportion of older adults living alone.

Figure 1.22 Population aged 65 years and over living alone

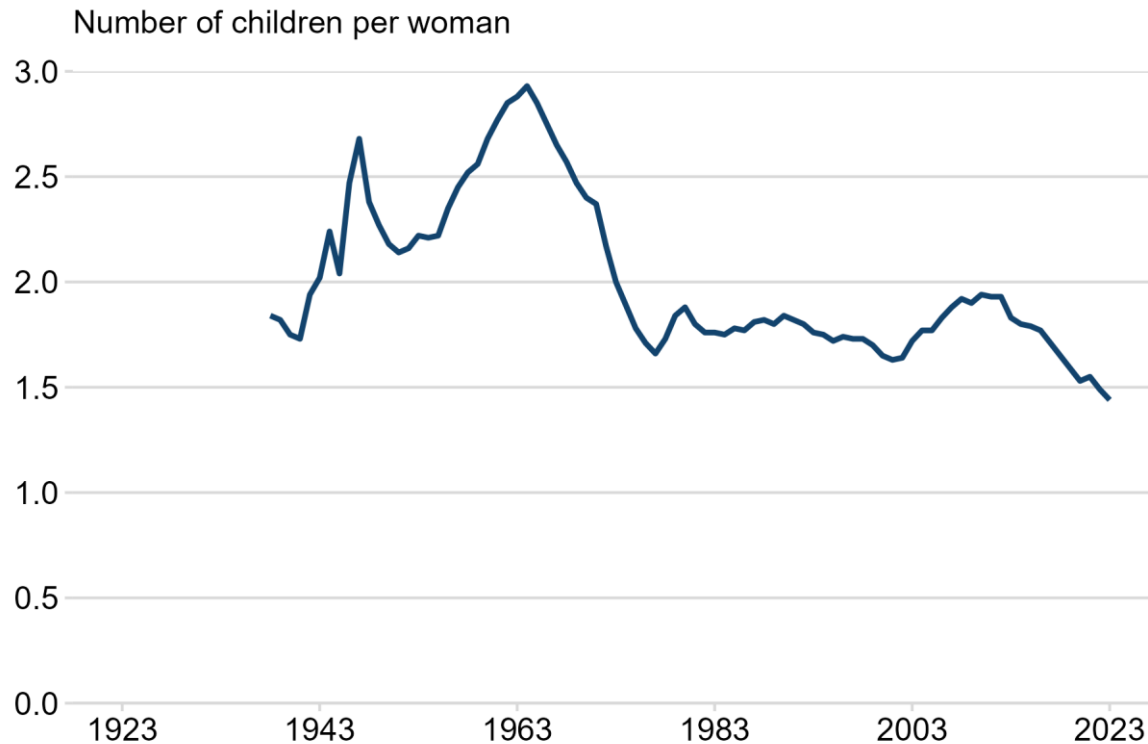


Percentage of the population aged 65 years and over living alone, by 5-year age groups and sex, England and Wales, 2021.



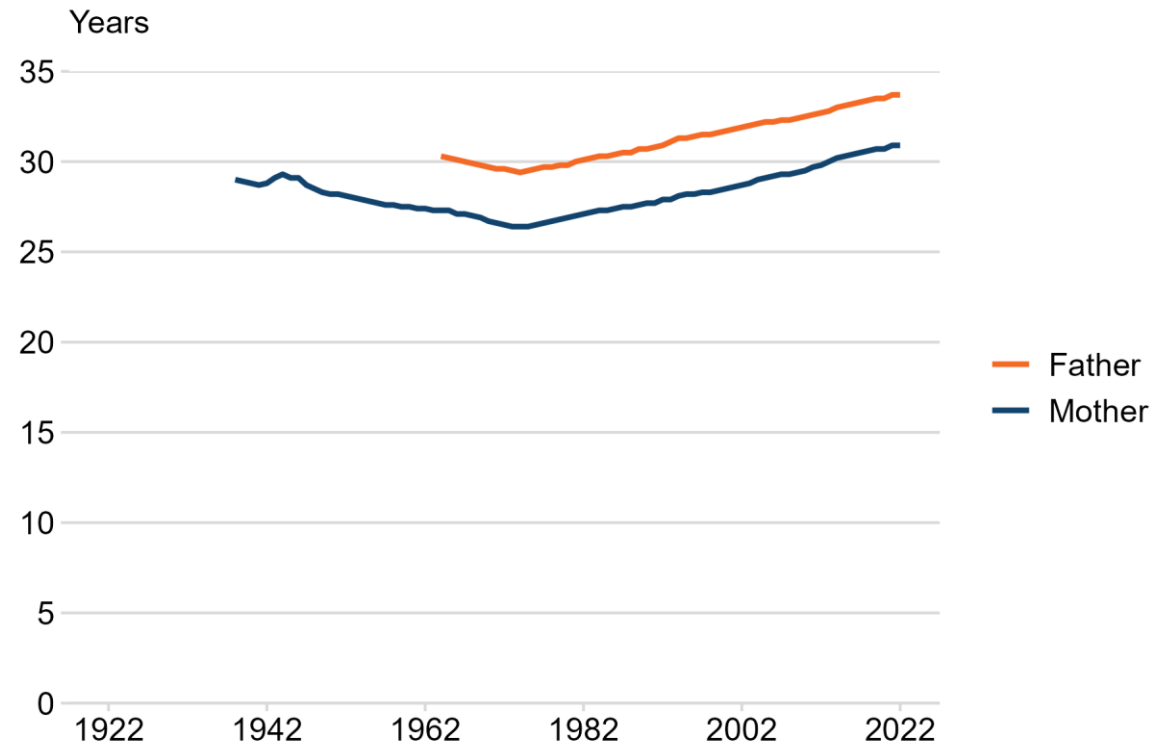
There has been a reduction in the number of children born per woman of childbearing age and the age of parenthood is increasing.

Figure 1.23 Total fertility rate



Total fertility rate (average number of children per woman), England and Wales, 1938 to 2023.

Figure 1.24 Age of parenthood



Standardised mean age of parenthood, mothers and fathers, England and Wales, 1938 to 2022.



2.1 Trend in mortality	31	2.15 Trend in cardiovascular disease mortality	45
2.2 Monthly trend in mortality	32	2.16 Cardiovascular mortality - international comparison	46
2.3 Excess winter deaths	33	2.17 Most common cancers by site	47
2.4 Leading causes of death over the last 100 years	34	2.18 Trend in cancer incidence by site	48
2.5 Leading causes of death	35	2.19 Trend in cervical cancer incidence by age group	49
2.6 Trend in mortality rates by cause of death	36	2.20 Cancer deaths by site	50
2.7 Trend in the distribution of deaths by age	37	2.21 Trend in cancer mortality by site	51
2.8 Change in mortality over time in older people	38	2.22 Change in cancer mortality by site	52
2.9 Premature mortality	39	2.23 5 year survival by site in diagnosed cancer	53
2.10 Mortality rate differences for the most and least deprived deciles - non cancer	40	2.24 Mortality rate differences for the most and least deprived deciles - cancer	54
2.11 Disease burden by cause and age - disability adjusted life years (DALYs)	41	2.25 Diabetes prevalence (all types)	55
2.12 Multimorbidity by age and deprivation	42	2.26 Diabetes prevalence by area	56
2.13 Average Cambridge Multimorbidity Score by ethnic group	43	2.27 Adults living with obesity	56
2.14 Coronary heart disease (CHD) prevalence	44	2.28 Prevalence of hypertension	57

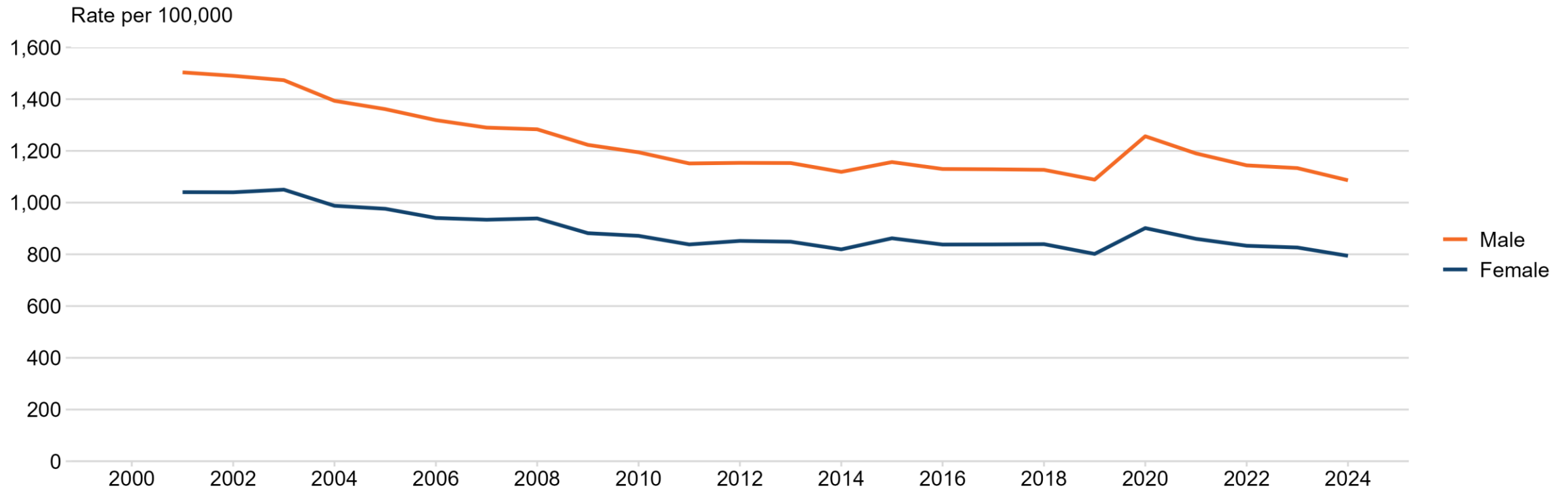


2.29 Prevalence of high cholesterol (with or without treatment)	58	2.43 Chlamydia diagnoses	72
2.30 COPD prevalence	59	2.44 Sexually transmitted infections by sexual orientation	73
2.31 Respiratory disease - premature mortality	60	2.45 Tuberculosis notifications	74
2.32 Liver disease - premature mortality	61	2.46 Healthcare-associated infections	75
2.33 Dementia prevalence	62	2.47 Antibiotic prescribing	76
2.34 Dementia prevalence - study	63		
2.35 Depression prevalence	64		
2.36 Prevalence of severe mental illness	65		
2.37 Suicide rate	66		
2.38 Suicide rate by age and sex	67		
2.39 Number of people with a new HIV diagnosis	68		
2.40 Late HIV diagnoses	69		
2.41 Sexually transmitted infections	70		
2.42 Sexually transmitted infections by organism (excluding chlamydia)	71		



Mortality rates have improved over the last 20 years with current rates returning to 2019 levels after an increase during the COVID-19 pandemic.

Figure 2.1 Trend in mortality

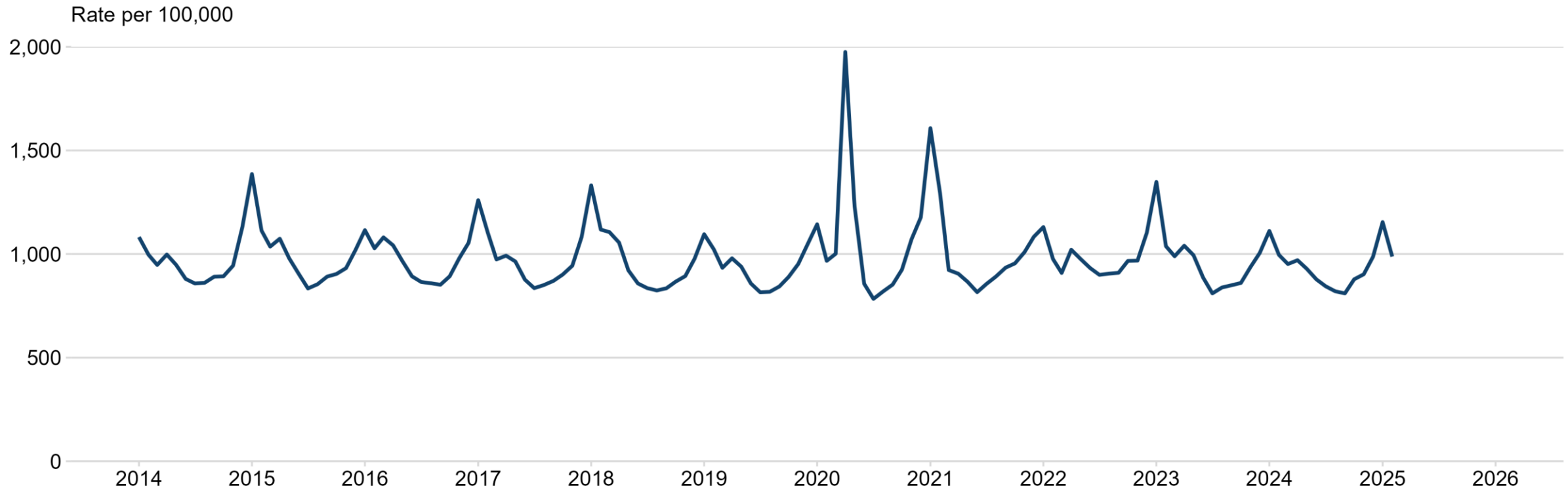


Mortality from all causes, all ages (directly age-standardised rates), England, 2001 to 2024.



Mortality rates fluctuate throughout the year, reflecting seasonal trends. There was a particularly pronounced fluctuation during the COVID-19 pandemic.

Figure 2.2 Monthly trend in mortality

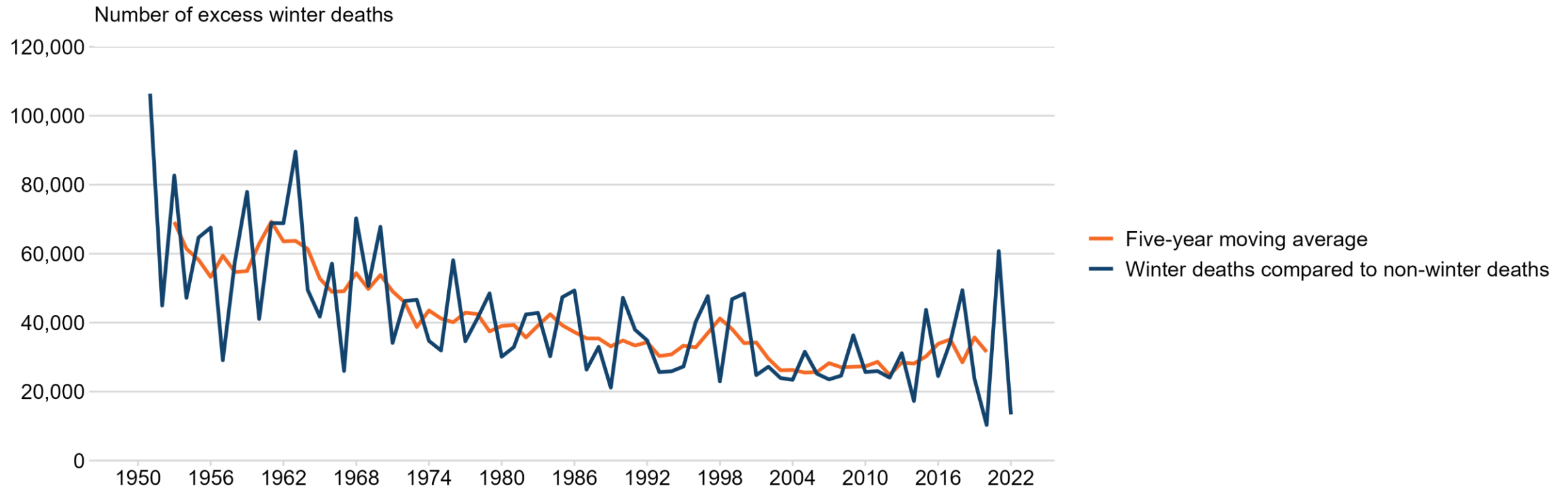


Monthly trend in directly age-standardised mortality rates, England, January 2014 to February 2025.



Excess winter deaths have reduced since the 1950s, however, improvements have stalled since the early 2000s.

Figure 2.3 Excess winter deaths

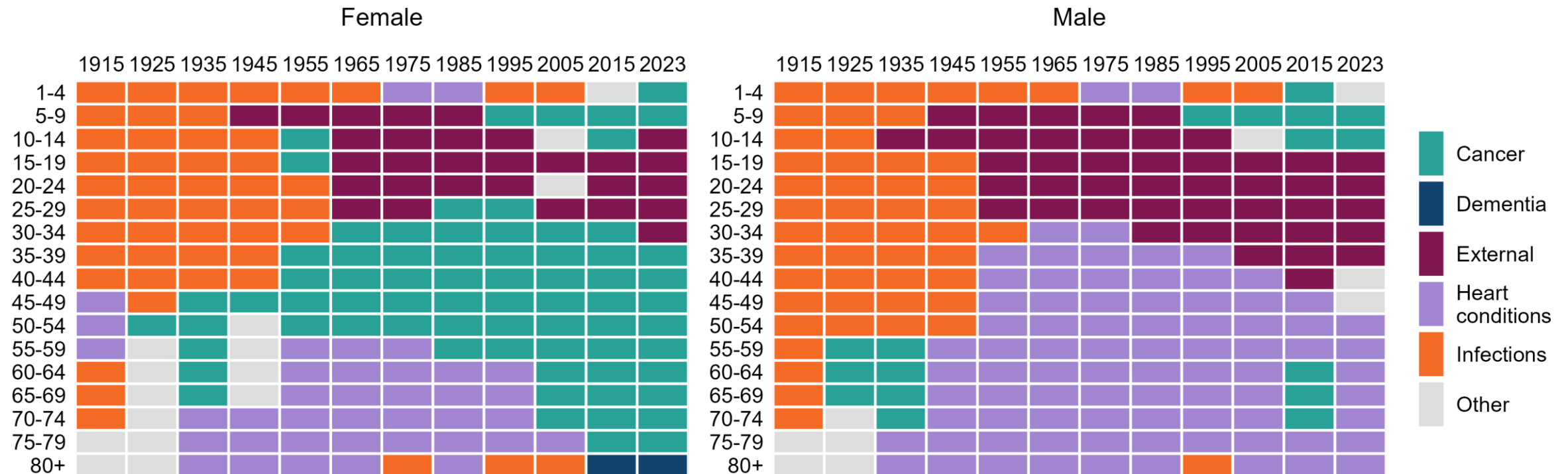


Excess winter deaths and 5-year central moving average (based on death occurrences), England and Wales, 1950 to 1951 to 2021 to 2022. Excess winter deaths are defined as the additional number of deaths that occurred in the winter period (December to March) compared with the average number of deaths that occurred in the preceding August to November and the following April to July. Data is recorded against the year in which each winter period ended.



The leading cause of death varies by age group and by sex. Infections are no longer the leading cause for any age group.

Figure 2.4 Leading causes of death over the last 100 years

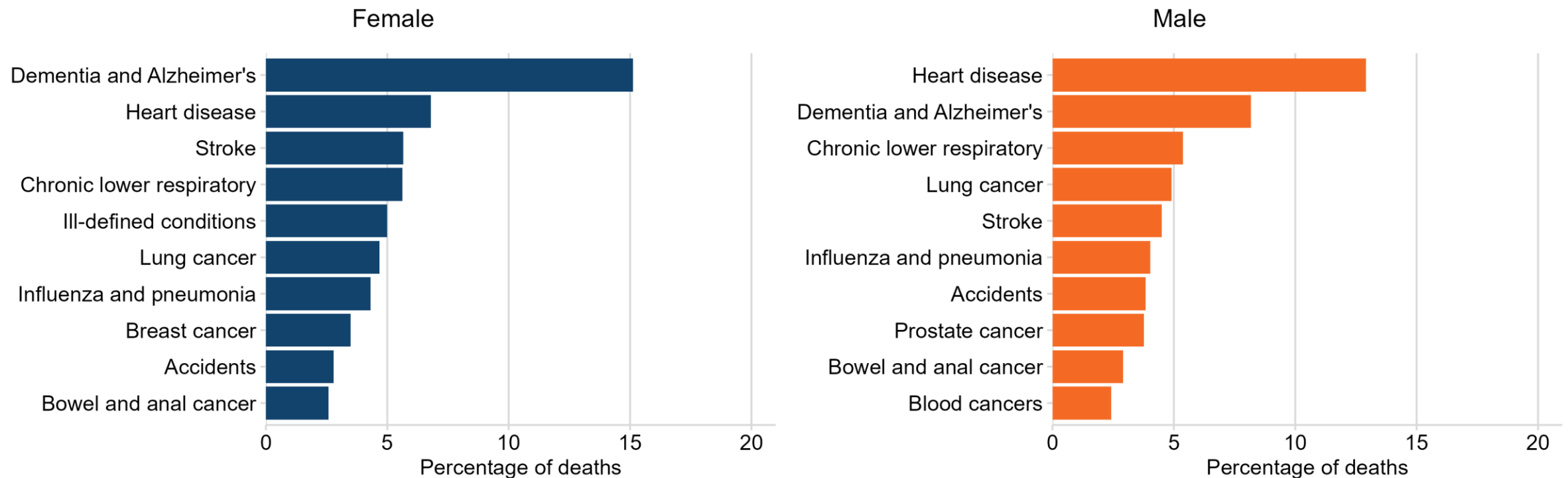


Leading cause of death by age over time, female (left) and male (right), England and Wales, 1915 to 2023. Excludes deaths in infants under one year of age. External is defined as events, circumstances, or conditions that are the source of an injury or other health condition, rather than being caused by a pre-existing medical condition; and may be intentional (such as violence) or unintentional (such as accidents).



In 2023, dementia and Alzheimer's was the leading cause of death for females; heart disease was the leading cause for males.

Figure 2.5 Leading causes of death

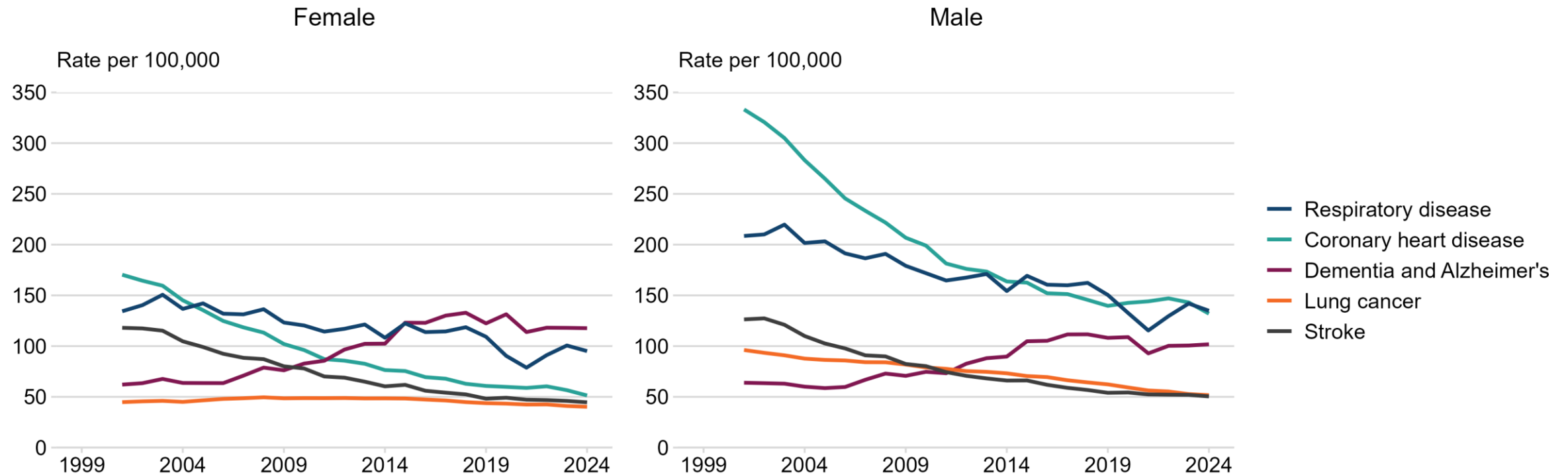


Leading causes of death, female (left) and male (right), percentage, England, 2023.



Over the last 2 decades, mortality rates from dementia and Alzheimer's have increased, mainly because rates from other leading causes of death have decreased.

Figure 2.6 Trend in mortality rates by cause of death

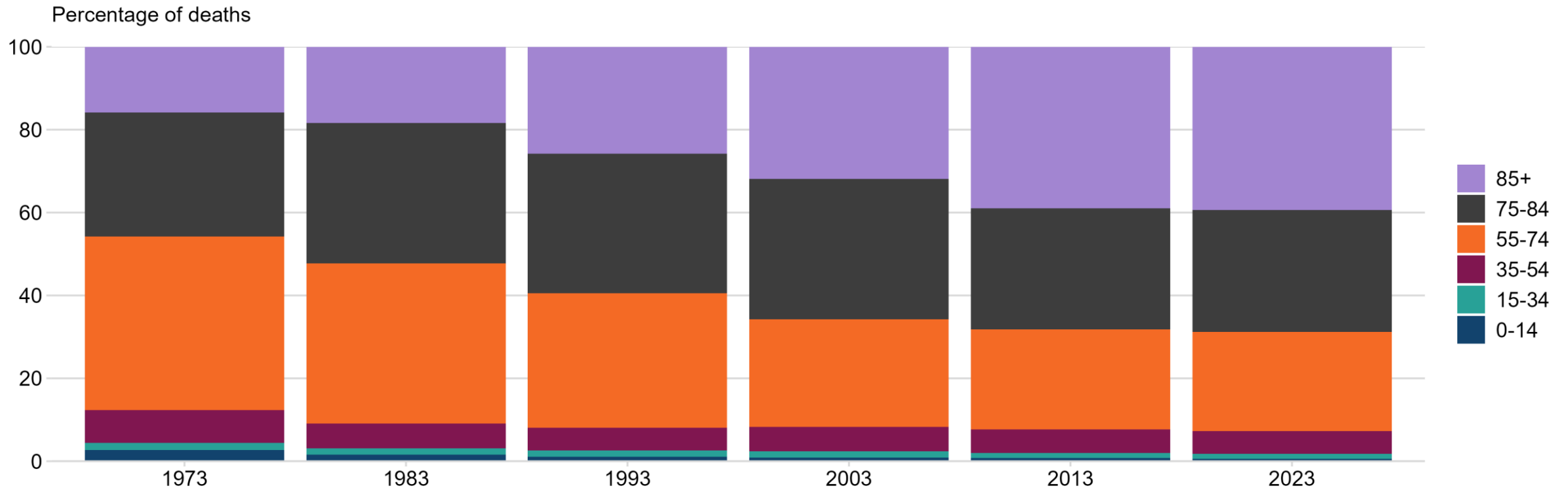


Trend in mortality from leading causes of death (directly age-standardised rates per 100,000 population), all ages, female (left) and male (right), England, 2001 to 2024.



A smaller proportion of people die prematurely (under 75 years). In 1973, 54% of deaths were in people aged under 75 compared with 31% in 2023.

Figure 2.7 Trend in the distribution of deaths by age

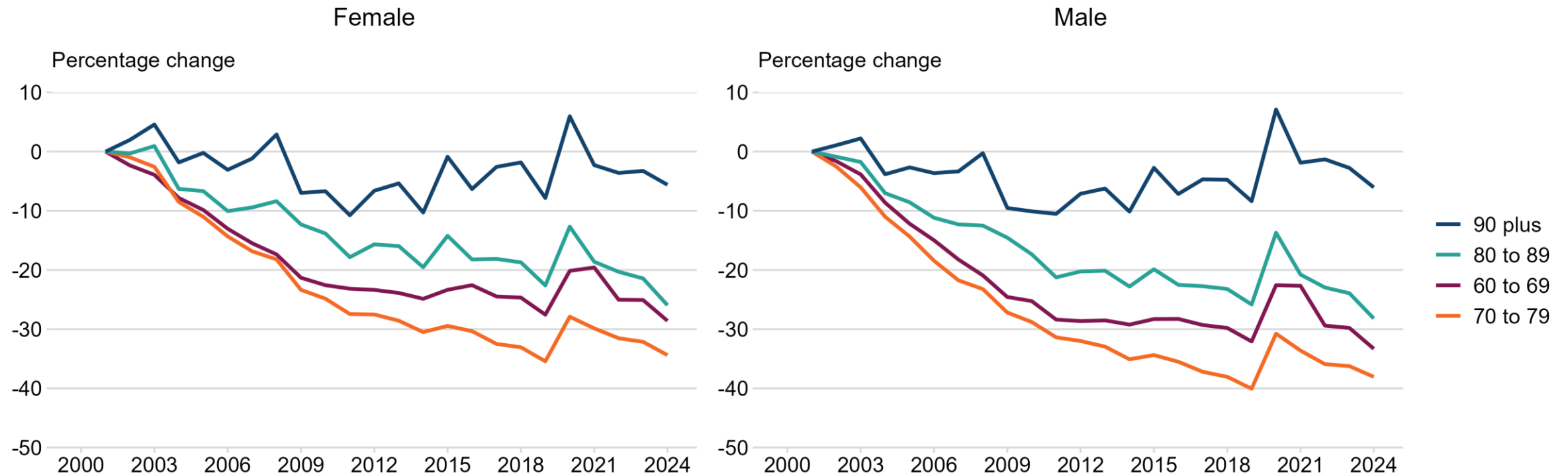


Percentage of total deaths by age group, England and Wales, 1973 to 2023.



There have been improvements in mortality rates in older adults, but not extending to people aged 90 years or over.

Figure 2.8 Change in mortality over time in older people

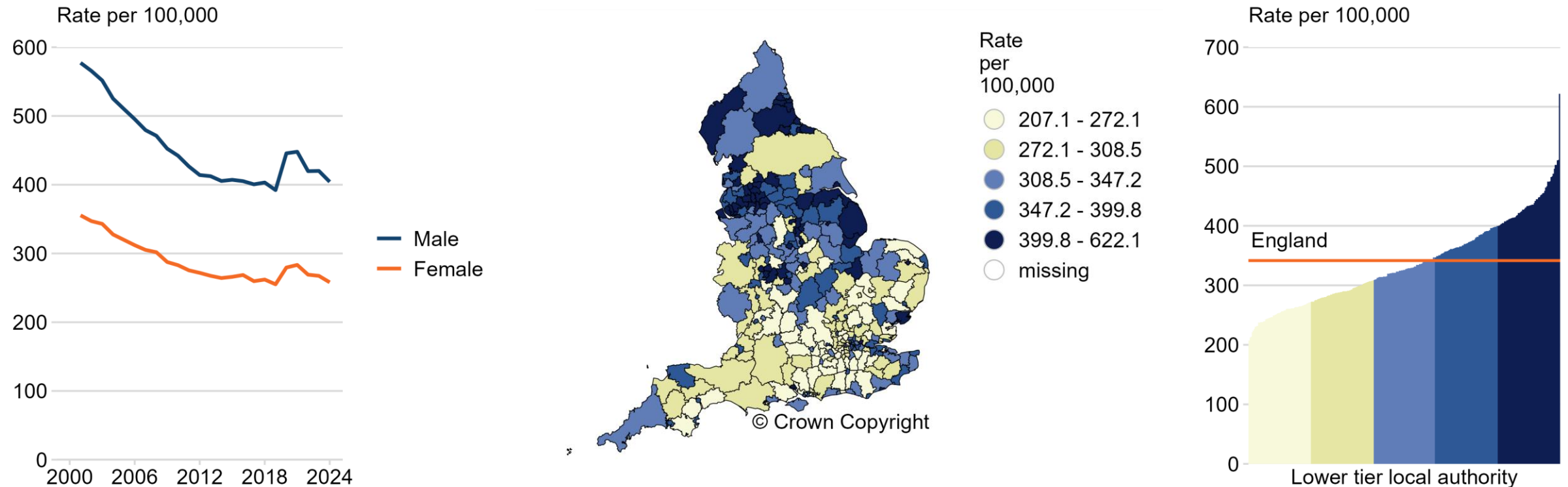


Percentage change in age-specific mortality rates in persons aged 60 and over by 10 year age bands for women (left) and men (right), England, 2001 to 2024.



Premature mortality rates have almost returned to pre-pandemic levels. Rates are highest in areas of deprivation.

Figure 2.9 Premature mortality

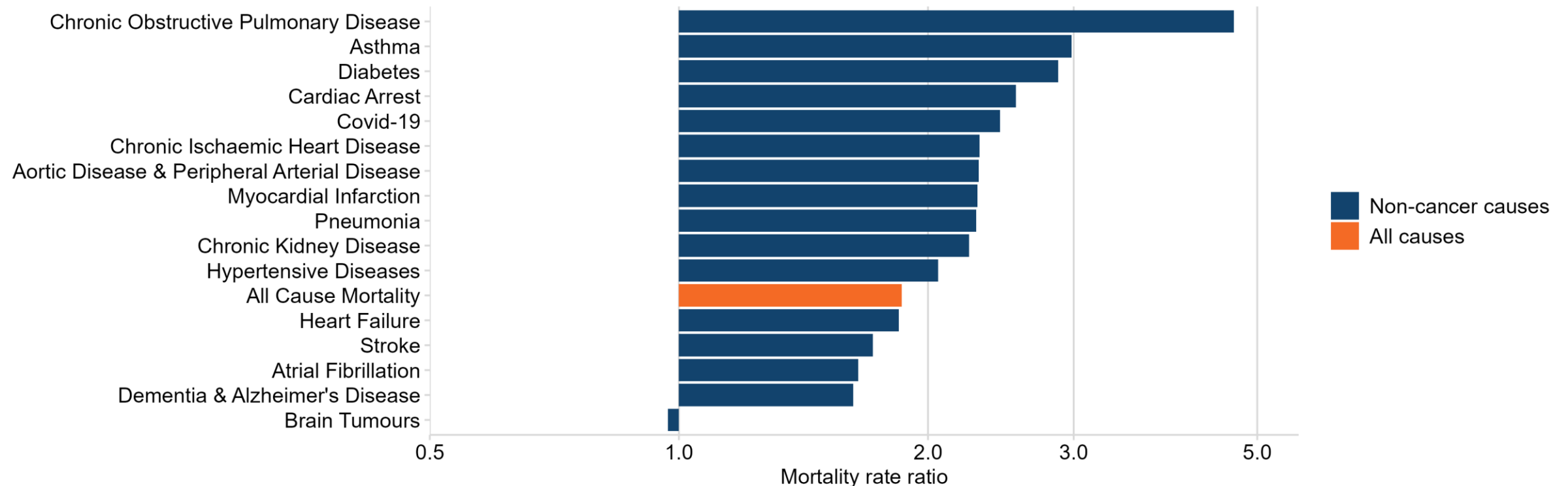


Under 75 mortality rate from all causes by sex. Directly age-standardised rates per 100,000 population, for England, 2001 to 2024 (left) and for lower tier local authorities, 2023 (centre and right). The data for 2024 has been generated using provisional mortality data and 2022-based population projections from the Office for National Statistics.



Mortality rates were higher in the most deprived areas compared with the least deprived areas for most causes of death between 2021 and 2023.

Figure 2.10 Mortality rate differences for the most and least deprived deciles - non cancer

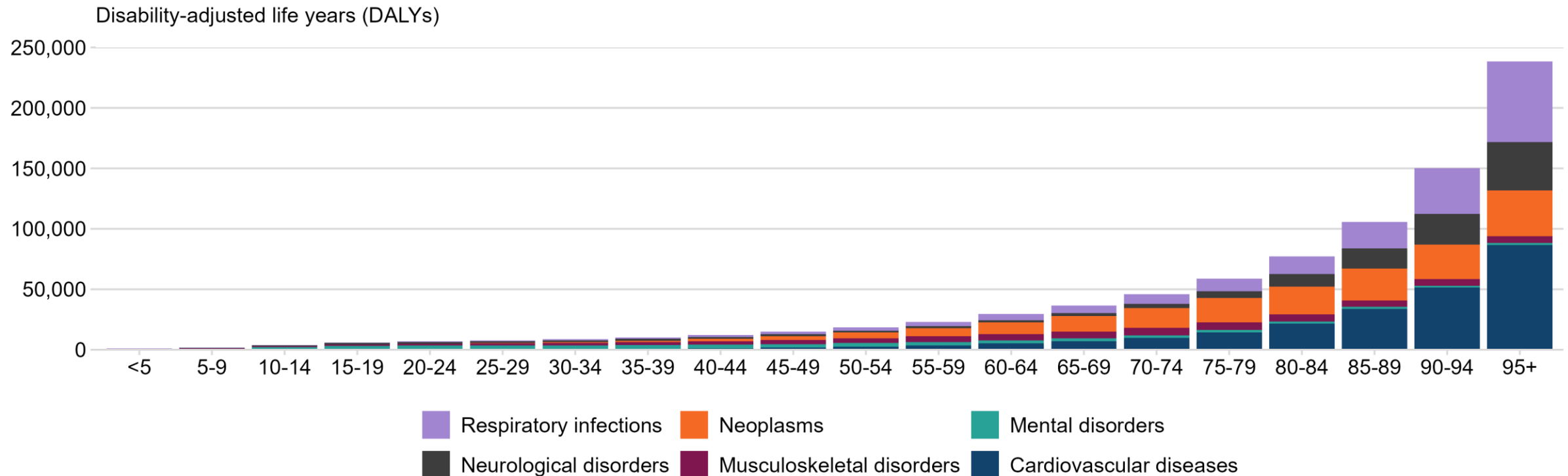


Differences in non-cancer mortality rates between the most and least deprived deciles (Index of Multiple Deprivation (IMD)) by health condition (based on mentions on the death certificate) among people aged 16 and over, England, March 2021 to January 2023. Differences are expressed as the ratio of the mortality rate in the most deprived decile to the mortality rate in the least deprived decile, so a value greater than one indicates a higher mortality rate in the most deprived decile.



Disease burden increases with age. Neoplasms, cardiovascular disease and respiratory infections account for increasing proportions of the disease burden as people age.

Figure 2.11 Disease burden by cause and age - disability adjusted life years (DALYs)

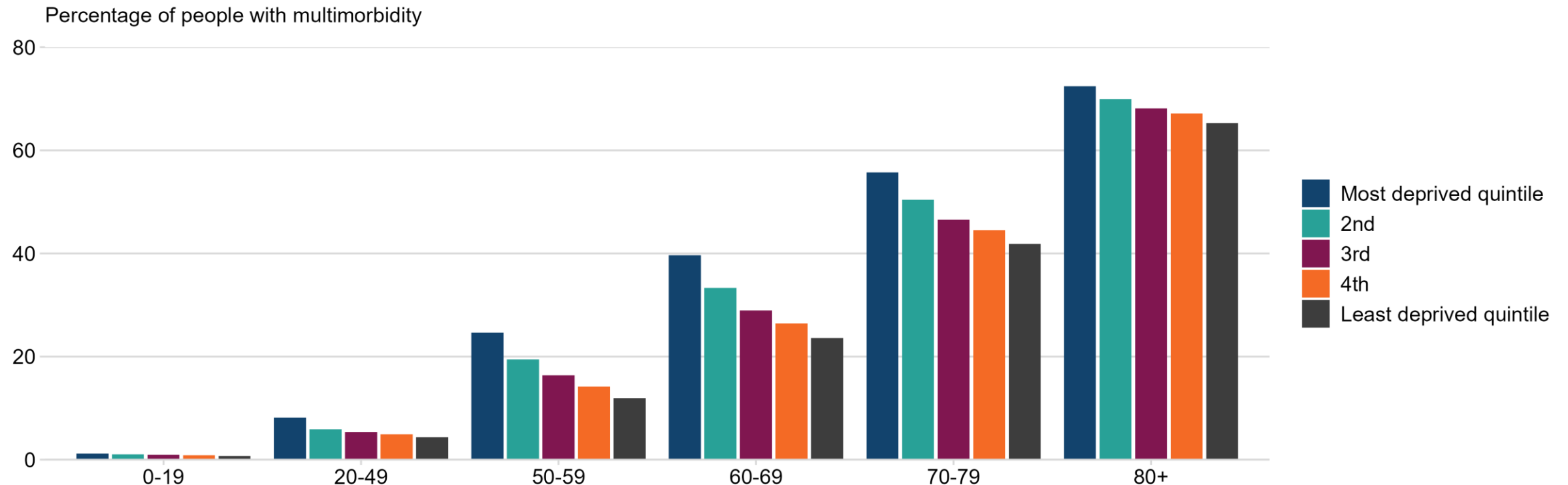


Disease burden by age group for the top 6 broad causes, disability-adjusted life years (DALYs), England, 2021. Disability Adjusted Life Years take into account both years of life lost prematurely, and years lived with a disability. Note that COVID-19 accounted for 81% of DALYs in the respiratory infections group in 2021.



Data from 2020 shows multimorbidity (multiple conditions at once) increases with age but is more prevalent in more deprived areas, especially in younger age groups.

Figure 2.12 Multimorbidity by age and deprivation

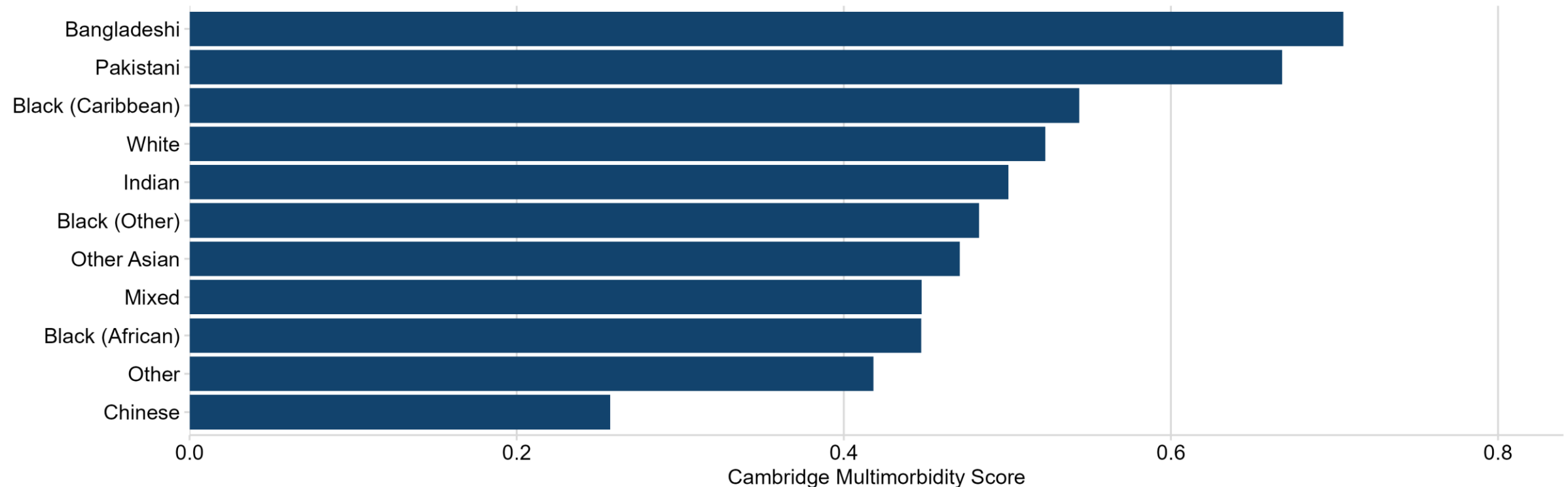


Prevalence of multimorbidity (2 or more conditions) by age and deprivation (Index of Multiple Deprivation (IMD) quintiles), England, 2020.



Data from 2019 to 2020 shows the burden of multimorbidity (multiple conditions at once) varies by ethnic group.

Figure 2.13 Average Cambridge Multimorbidity Score by ethnic group

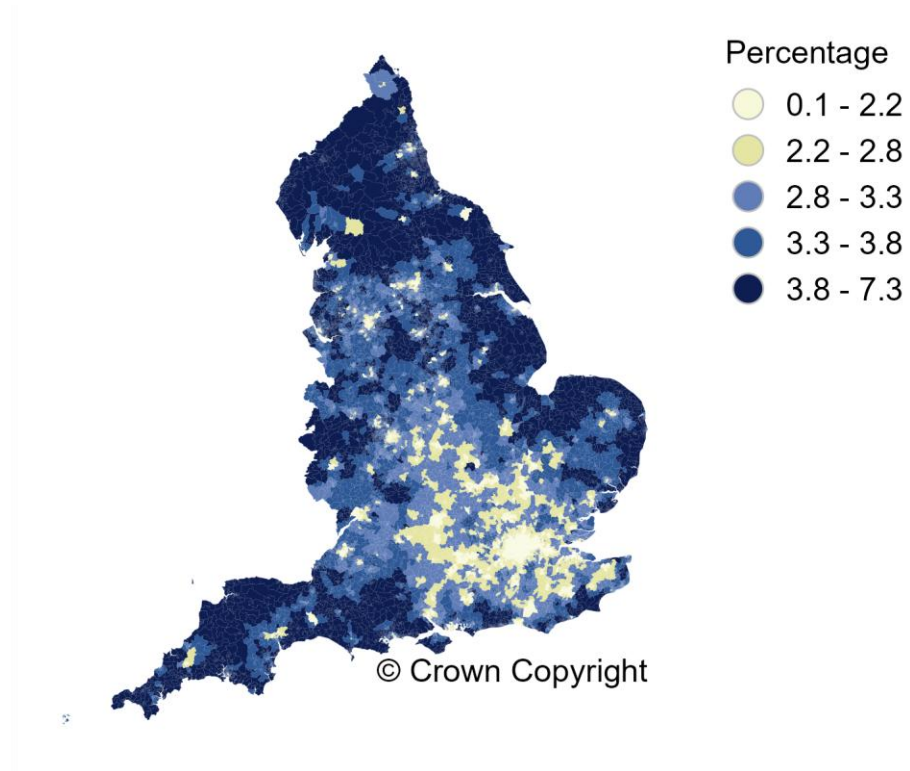


Diagnosed illness (average Cambridge Multimorbidity Score) by ethnicity, age-standardised, England, 2019 to 2020. The Cambridge Multimorbidity Score is used to assess the impact of having 2 or more health conditions on an individual's health and healthcare utilisation and is calculated at a patient level, based on 20 different conditions.



Coronary heart disease was most prevalent in coastal and rural areas over 2022 to 2023 and 2023 to 2024, partly related to age structure and deprivation.

Figure 2.14 Coronary heart disease (CHD) prevalence

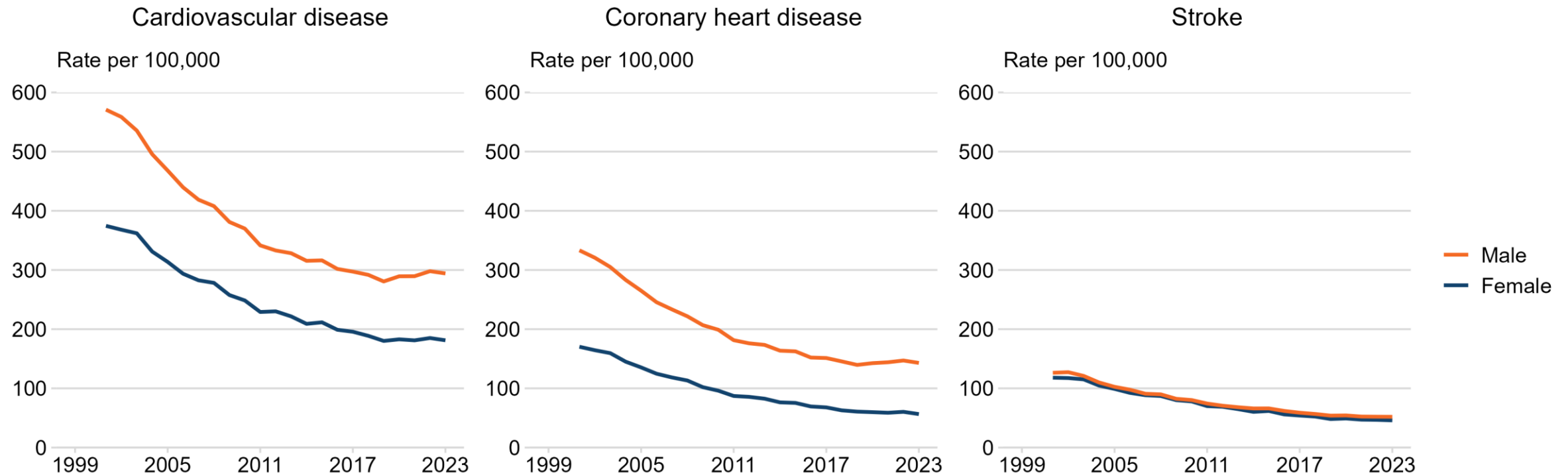


Prevalence of diagnosed coronary heart disease (CHD). The percentage of people of all ages with a diagnosis of CHD, as recorded on GP practice registers (QOF), attributed to Lower Super Output Areas in England, financial year end data (31 March) 2023 and 2024 combined.



Mortality rates from cardiovascular disease, including coronary heart disease and stroke, have decreased.

Figure 2.15 Trend in cardiovascular disease mortality

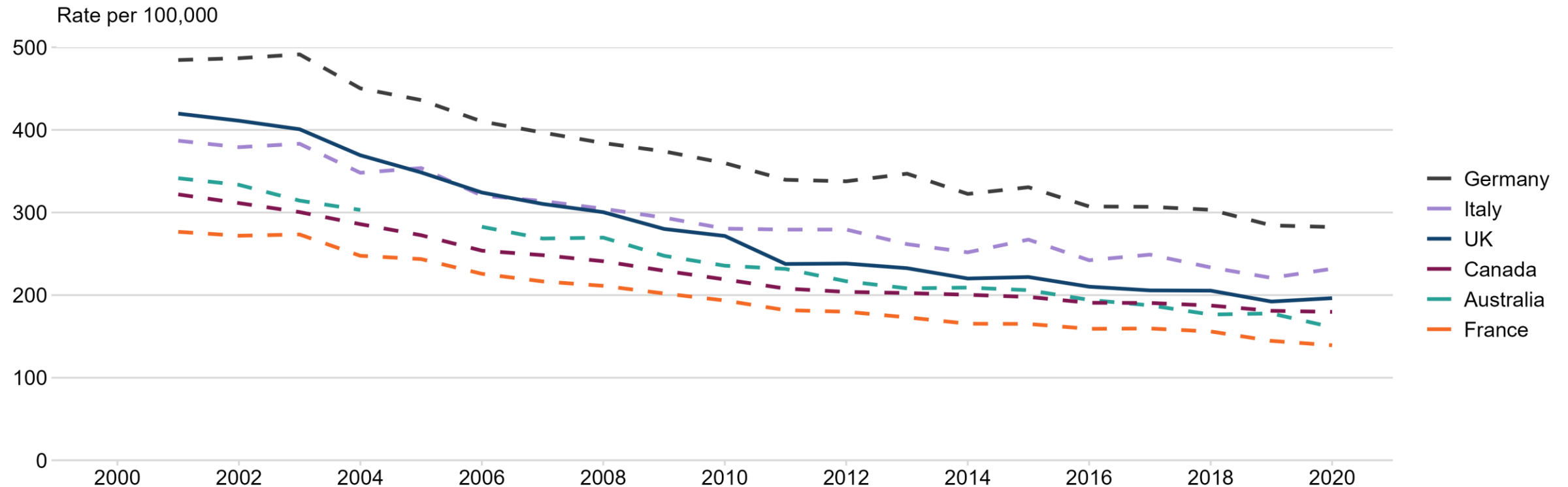


Mortality from cardiovascular diseases (directly age-standardised rates per 100,000 population), all ages, England, 2001 to 2023.



Reductions in mortality rates from cardiovascular disease have been seen in the UK and other high-income countries.

Figure 2.16 Cardiovascular mortality - international comparison

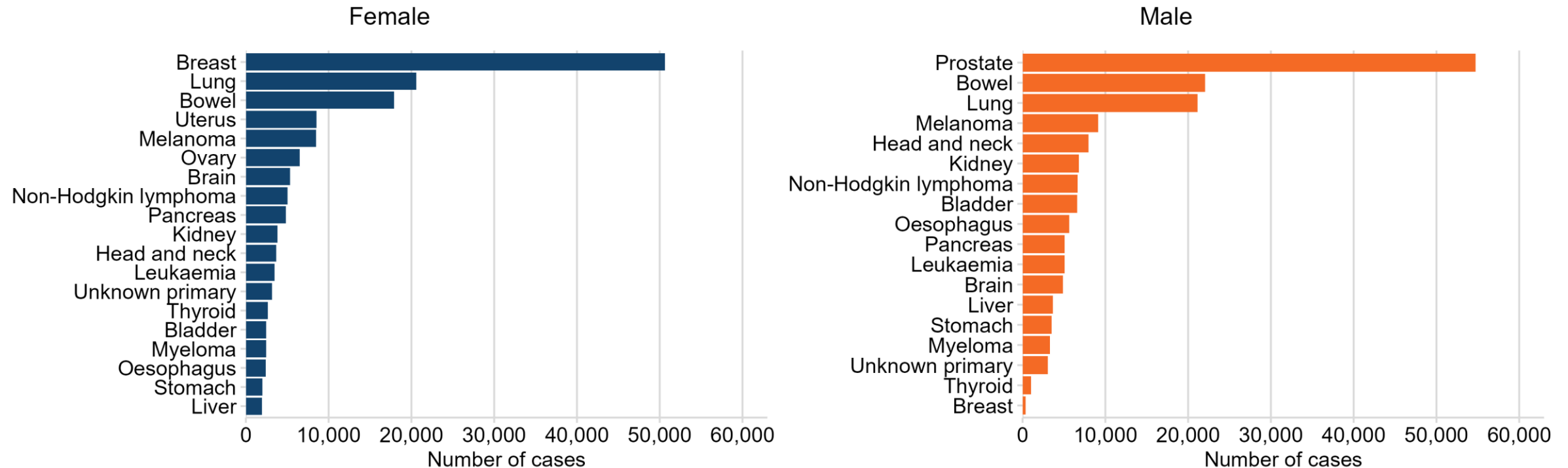


Deaths caused by cardiovascular disease, age-standardised rates per 100,000 population, UK and selected countries, 2001 to 2020.



Breast, prostate, bowel and lung cancer were the most common major cancers in 2022.

Figure 2.17 Most common cancers by site

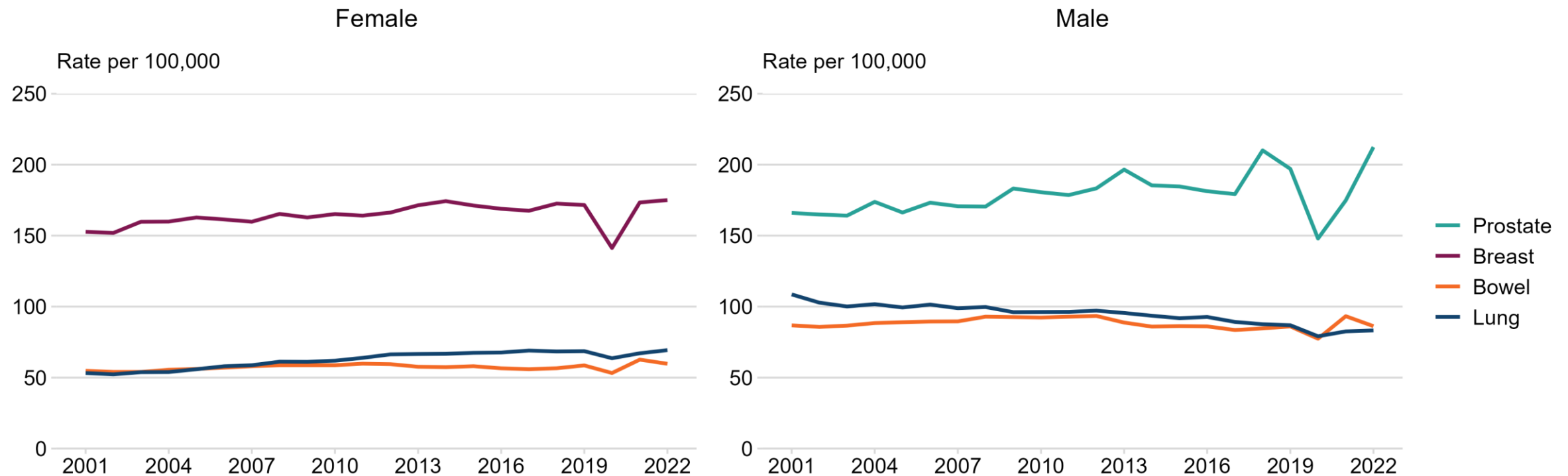


New cancer diagnoses by site, for the most common sites, by sex, England, 2022.



Incidence of diagnosed prostate and breast cancer has increased. Lung cancer incidence decreased for males and increased for females, reflecting historical smoking trends.

Figure 2.18 Trend in cancer incidence by site

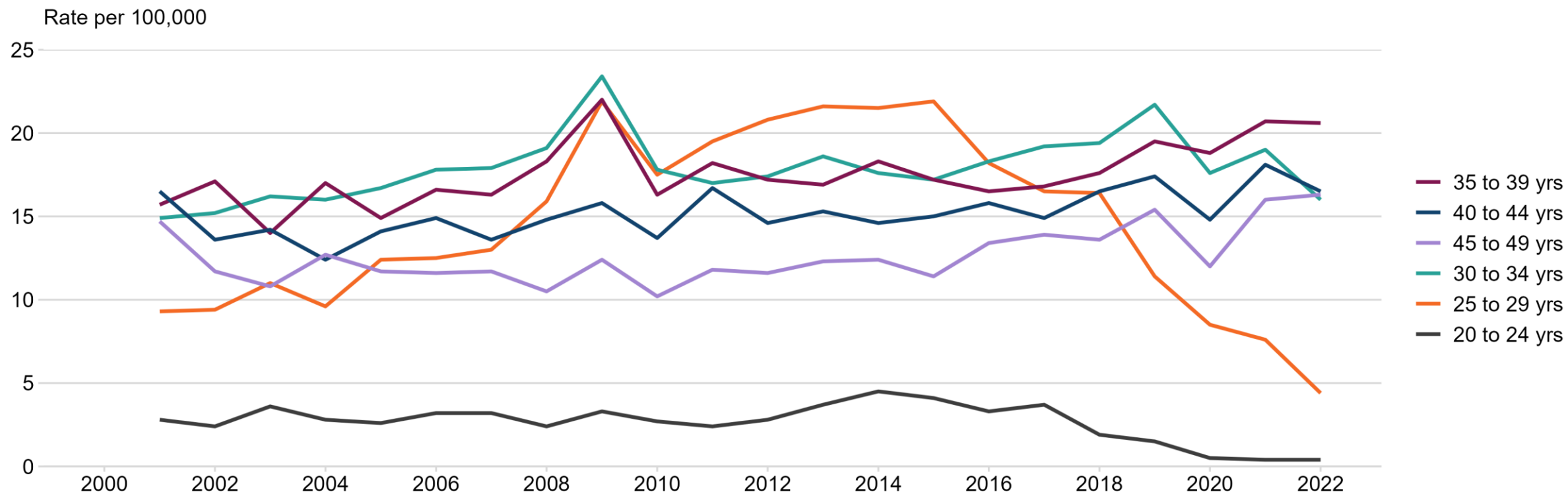


Trend in cancer incidence by site (age standardised rates per 100,000 population), by sex, England, 2001 to 2022.



Women under 30 have rapidly falling cervical cancer rates due to HPV vaccination which was introduced in 2008.

Figure 2.19 Trend in cervical cancer incidence by age group

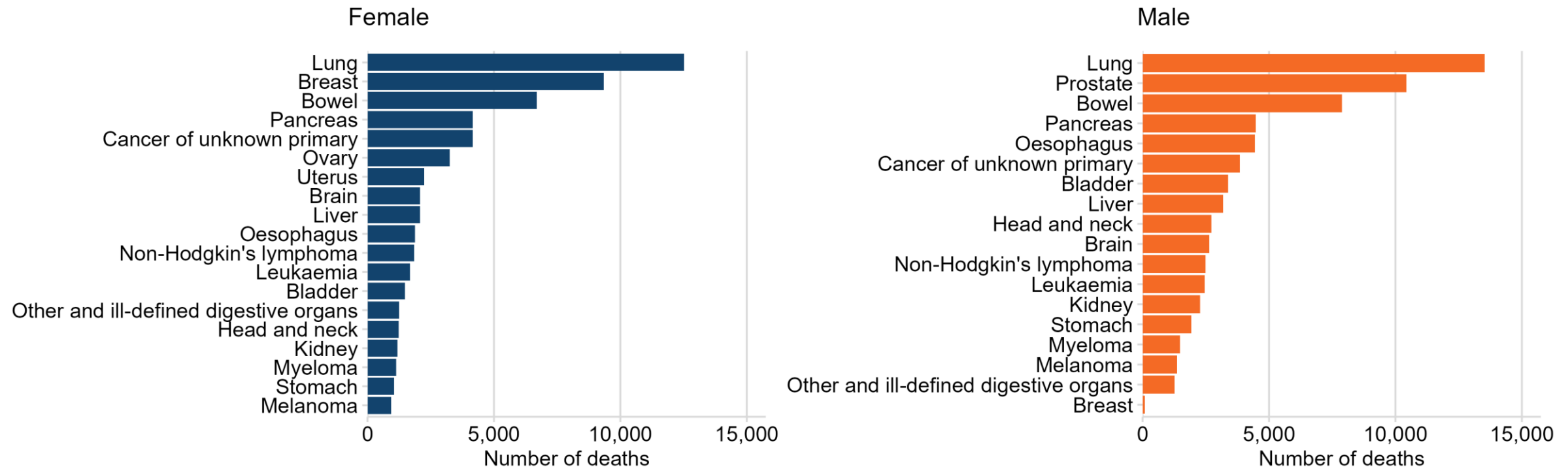


Trend in cervical cancer incidence by age group (age standardised rates per 100,000 population), England, 2001 to 2022. In England, the human papillomavirus (HPV) vaccine has been offered to girls in school year 8 since September 2008.



Lung cancer was the leading cause of cancer deaths in males and females in 2023, over 70% of this is caused by smoking.

Figure 2.20 Cancer deaths by site

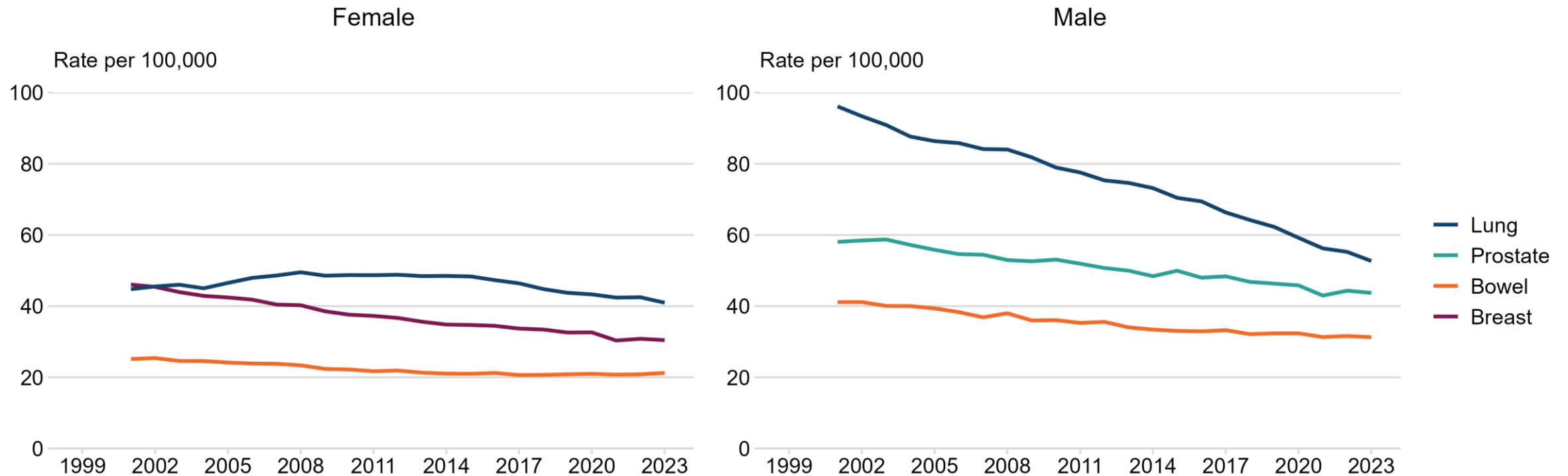


Number of cancer deaths by site, for the most common site causes, by sex, England, 2023.



At a population level, cancer mortality rates have improved for both females and males.

Figure 2.21 Trend in cancer mortality by site

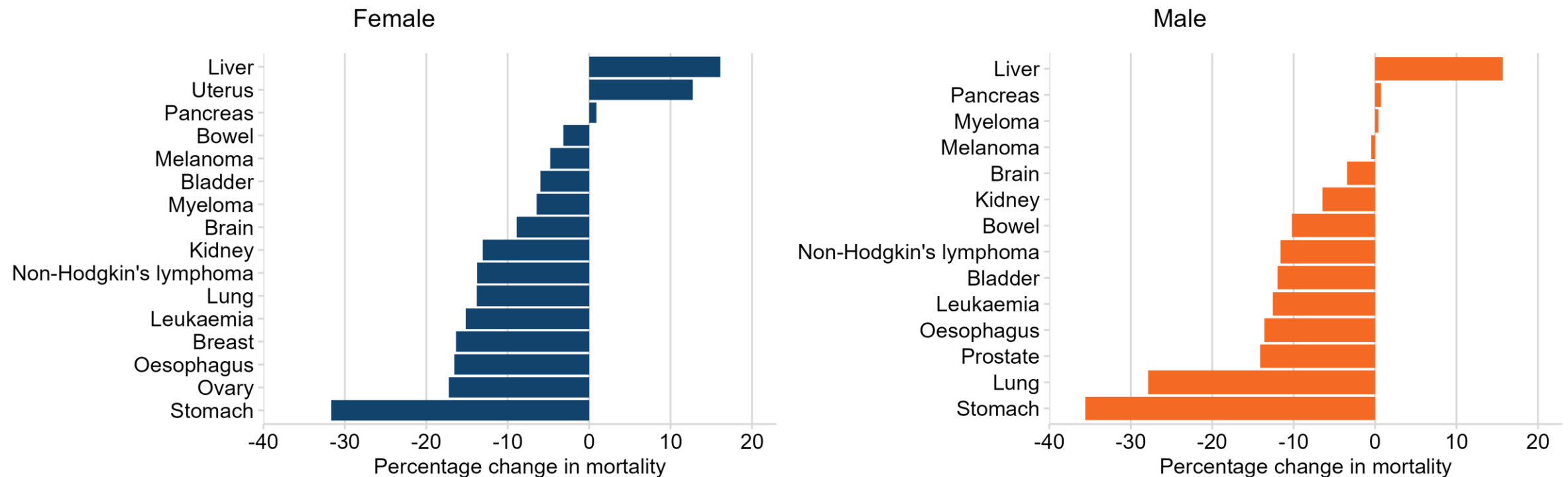


Trend in mortality from selected cancers (directly age-standardised rates per 100,000 population), all ages, by sex, England, 2001 to 2023. Note this shows population based mortality rates.



At a population level, there has been a decrease in mortality from most major cancers in both females and males. Liver cancer and uterine cancer are exceptions.

Figure 2.22 Change in cancer mortality by site

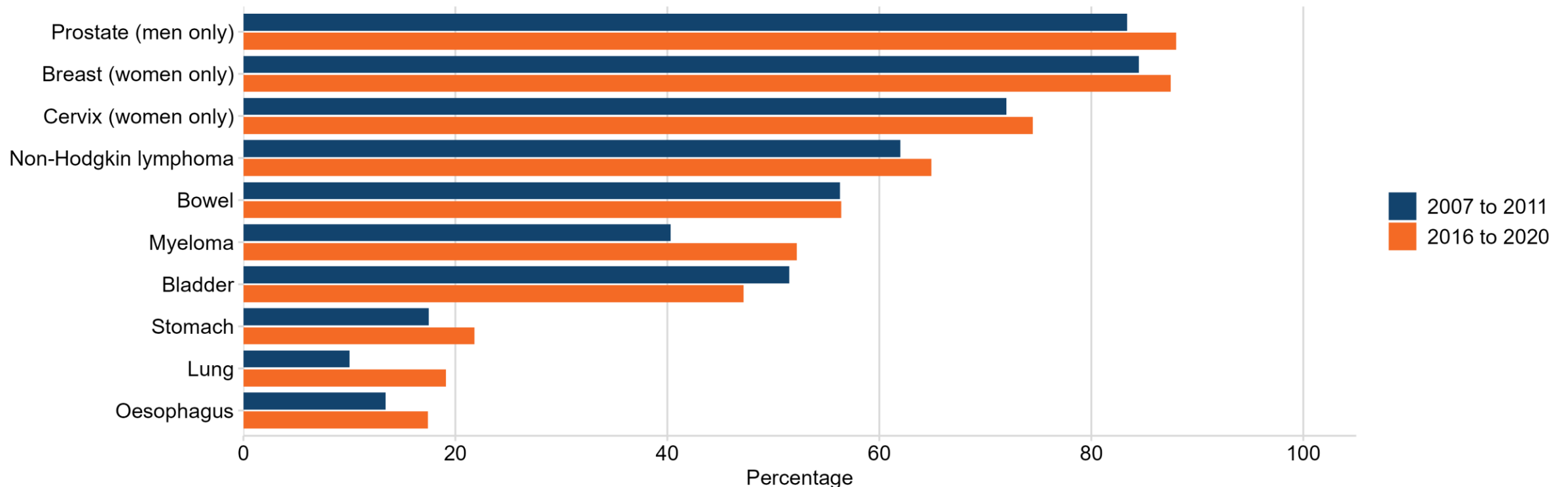


Percentage change in directly age-standardised 3 year average mortality rates for selected cancers, England, between 2011 to 2013 and 2021 to 2023. Note this shows change in population based mortality rates.



In people diagnosed with cancer, survival has improved for many cancer types.

Figure 2.23 5 year survival by site in diagnosed cancer

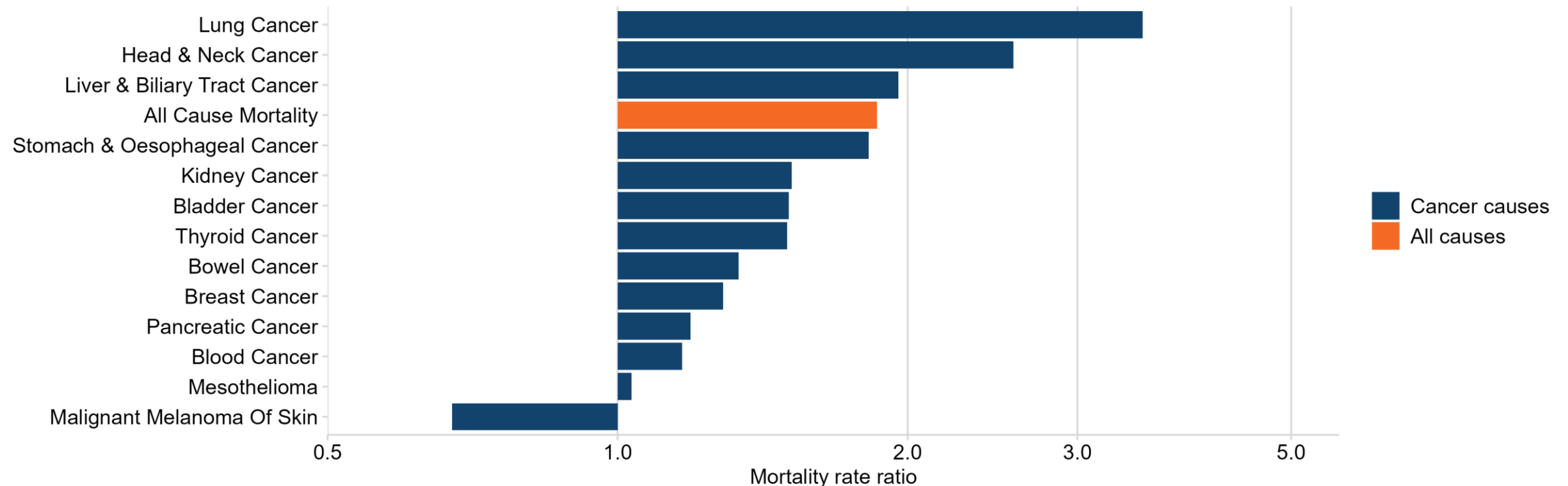


Change in 5-year age-standardised net cancer survival (percentage) by site, for adults aged 15 to 99 years, England, for those first diagnosed between 2007 and 2011 and followed up to 2012 compared with those first diagnosed between 2016 and 2020 and followed up to 2021. Net survival is the survival of cancer patients compared with the expected survival of the general population. Denominators are persons unless specified as men or women only.



Mortality rates were higher in the most deprived areas compared with the least deprived areas for most cancers between 2021 and 2023.

Figure 2.24 Mortality rate differences for the most and least deprived deciles - cancer

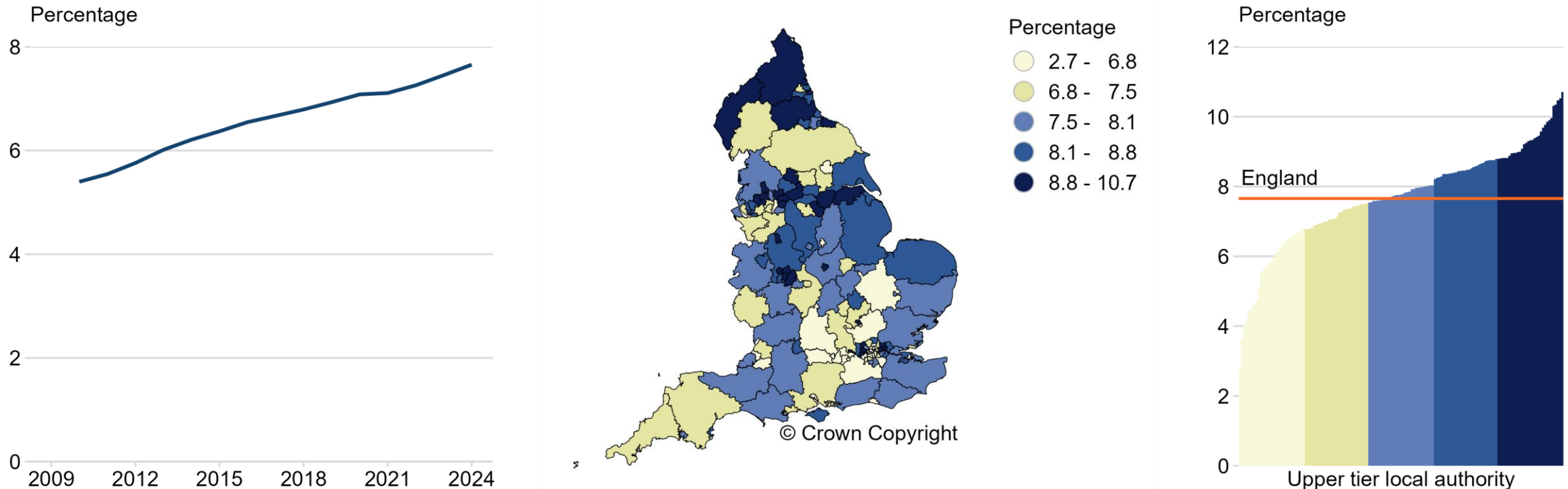


Differences in cancer mortality rates between the most and least deprived deciles (Index of Multiple Deprivation (IMD)) by health condition (based on mentions on the death certificate) among people aged 16 and over, England, March 2021 to January 2023. Differences are expressed as the ratio of the mortality rate in the most deprived decile to the mortality rate in the least deprived decile, so a value greater than one indicates a higher mortality rate in the most deprived decile. The all cause mortality rate difference is provided for comparison and includes non-cancer causes.



The proportion of people with diabetes has increased as obesity has increased.

Figure 2.25 Diabetes prevalence (all types)

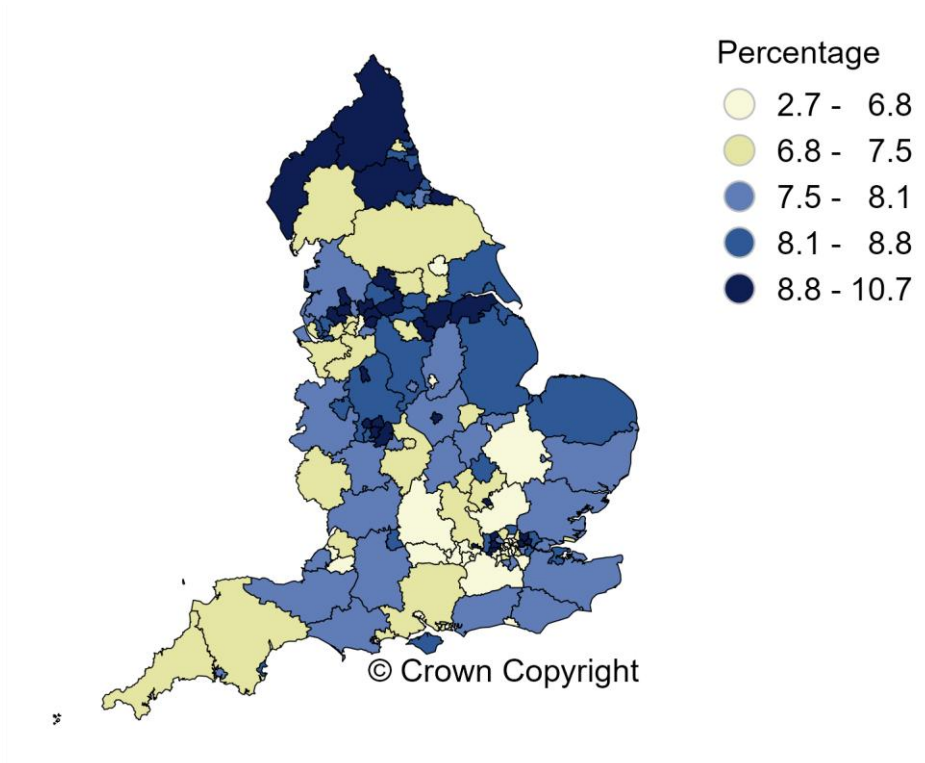


Prevalence of diagnosed diabetes. The percentage of people aged 17 years and over with a diagnosis of diabetes mellitus (all types including type 1, type 2, neonatal and gestational), as recorded on GP practice registers (QOF), for England, 2010 to 2024 (left) and for upper tier local authorities, 2024 (centre and right). Financial year end data (31 March in the year shown). Local authority data is based on the location of the GP practice where a person is registered.



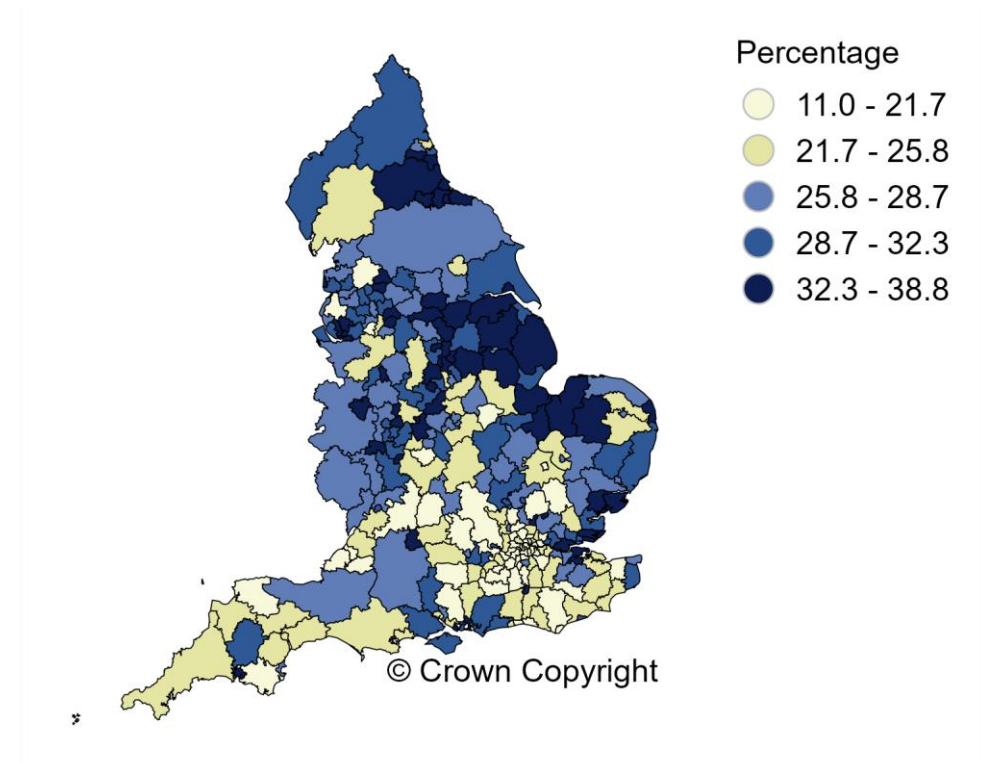
Diabetes (principally type 2) is more common in geographical areas with a greater proportion of adults living with obesity.

Figure 2.26 Diabetes prevalence by area



Prevalence of diagnosed diabetes. The percentage of people aged 17 years and over with a diagnosis of diabetes mellitus (all types including type 1, type 2, neonatal and gestational), as recorded on GP practice registers (QOF), for upper tier local authorities, 2024. See references for further notes.

Figure 2.27 Adults living with obesity

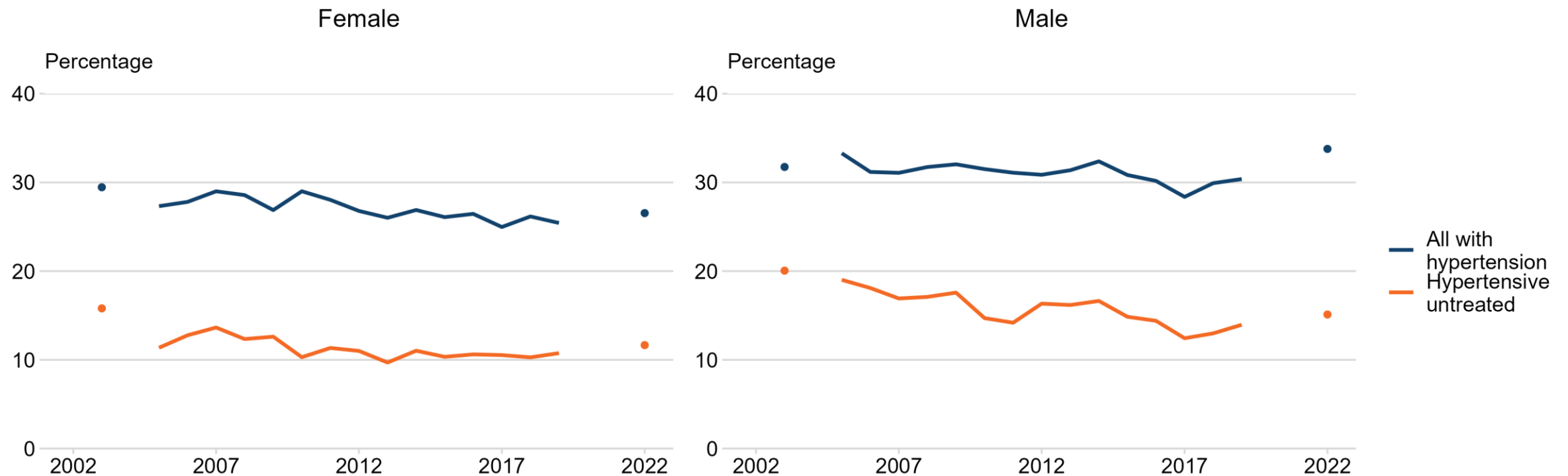


Prevalence of adults aged 18 or over living with obesity (body mass index (BMI) greater than 30 kilograms per metre squared) by lower tier local authorities in England, Active Lives Survey year 2023 to 2024. See references for further notes.



Hypertension prevalence (untreated and treated) was higher in 2022 than 2019. It remains higher in males than females.

Figure 2.28 Prevalence of hypertension

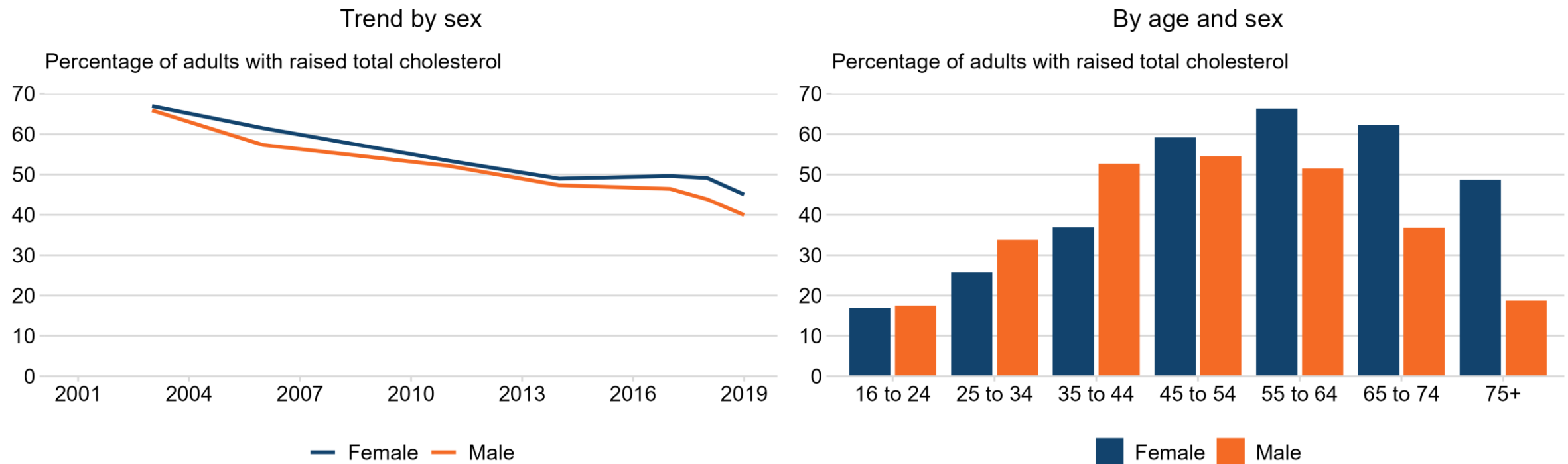


Prevalence of total and untreated hypertension, in adults aged 16 years and over, England, Health Survey for England years 2003 to 2022. Hypertension is defined as systolic blood pressure of 140mmHg or higher or diastolic blood pressure of 90mmHg or higher or taking medication to reduce blood pressure. Those with hypertension who are not taking medication to reduce blood pressure are defined as untreated. In 2022, the number of participants receiving a blood pressure check was lower than previous surveys, leading to greater uncertainty in this estimate. See references for further notes.



In 2019, females had higher raised cholesterol prevalence than males from 45 to 54 years onwards. This may reflect inequalities in diagnosis or treatment.

Figure 2.29 Prevalence of high cholesterol (with or without treatment)

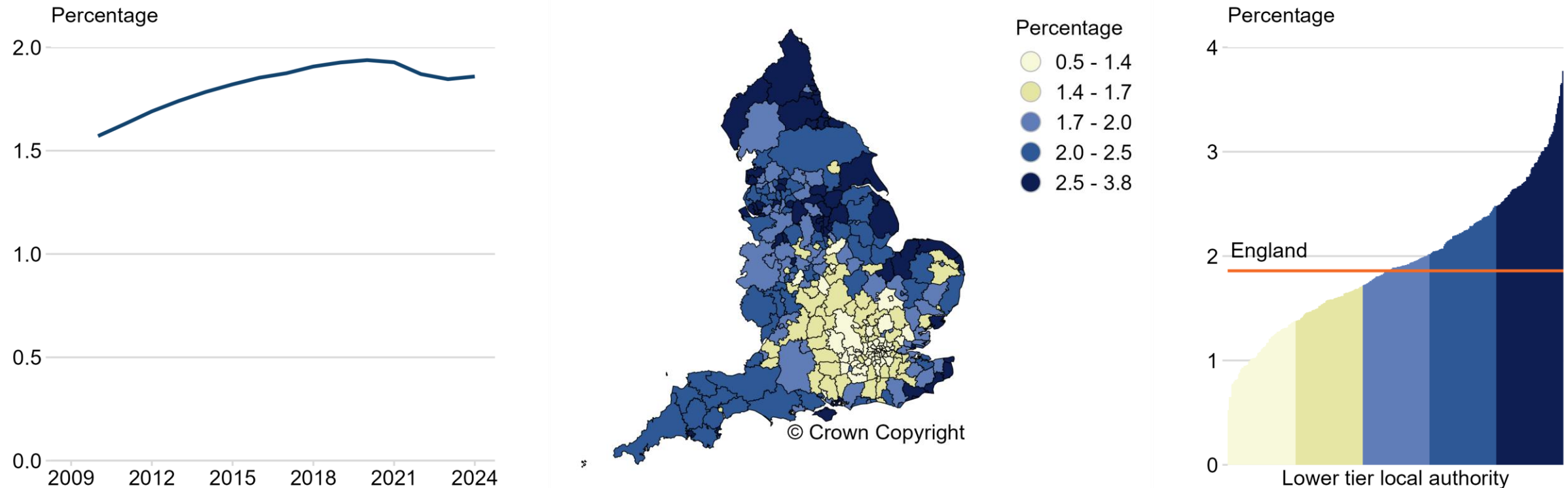


Prevalence of raised total cholesterol (greater than or equal to 5mmol/L) in adults aged 16 and over by sex, England, for Health Survey for England survey years 2003 to 2019 (left) and by age for Health Survey for England survey year 2019 (right). Includes participants taking lipid lowering medication. The survey was not completed in 2020 and survey results from 2021 and 2022 are excluded due to small sample sizes.



COPD prevalence remains higher in areas with older and more deprived populations, reflecting historical smoking trends, occupational risks and air pollution.

Figure 2.30 COPD prevalence

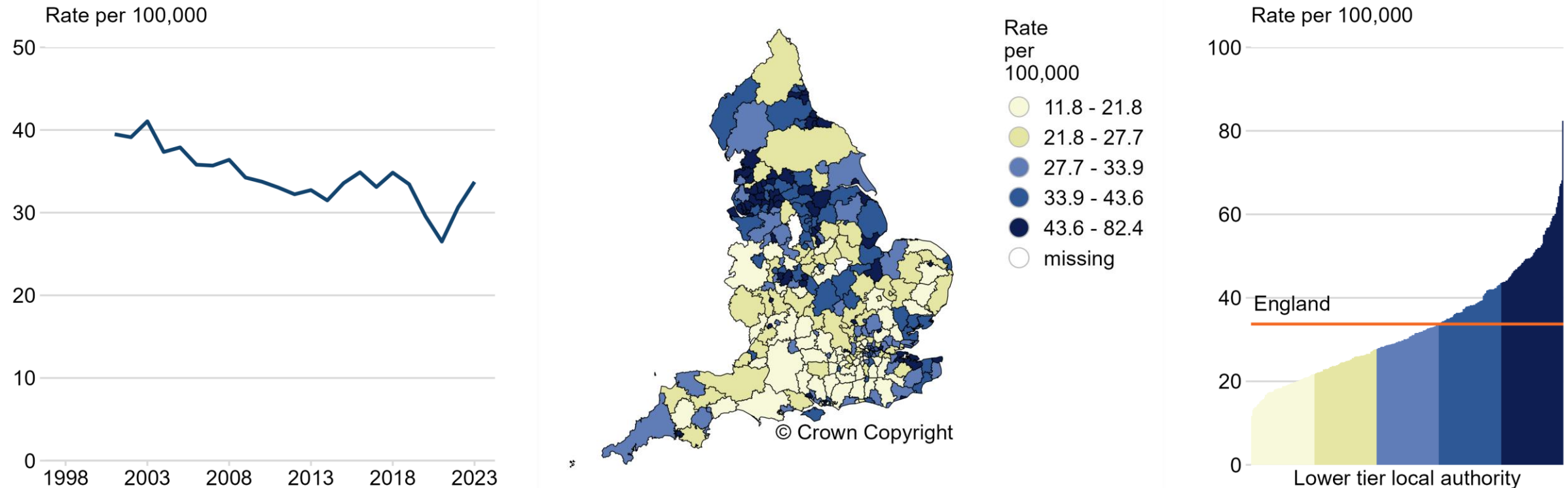


Prevalence of diagnosed chronic obstructive pulmonary disease (COPD). The percentage of people of all ages with a diagnosis of COPD, as recorded on GP practice registers (QOF), for England, 2010 to 2024 (left) and for lower tier local authorities, 2024 (centre and right). Financial year end data (31 March in the year shown). Local authority data is based on the location of the GP practice where a person is registered.



Premature mortality from respiratory disease is concentrated in areas of deprivation.

Figure 2.31 Respiratory disease - premature mortality

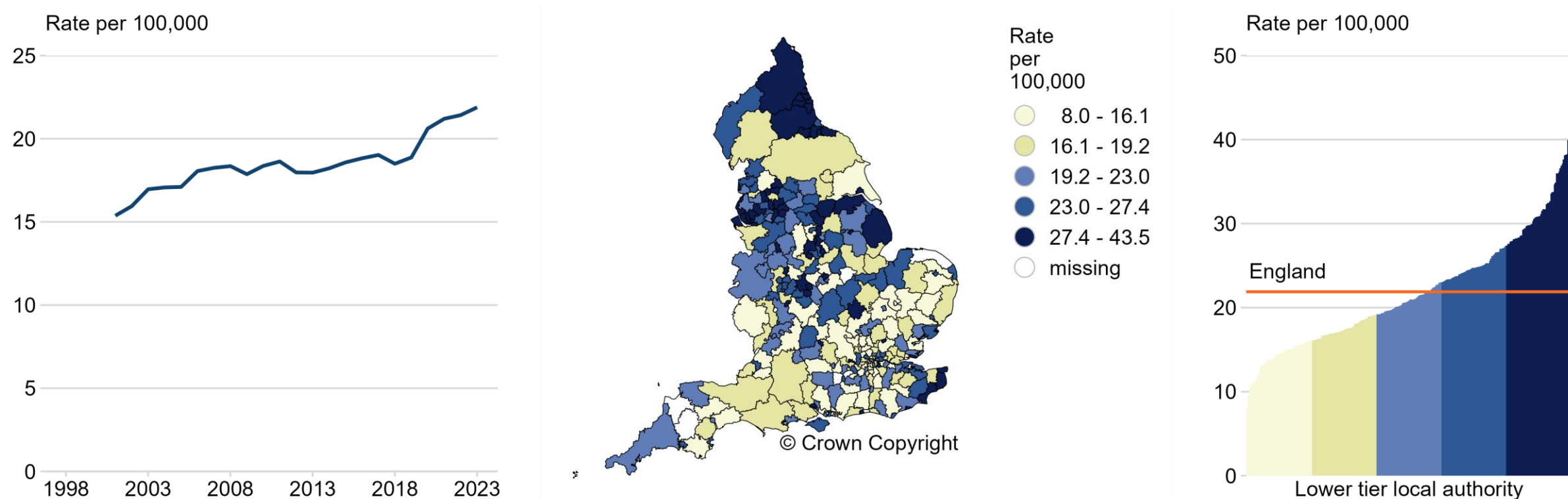


Under 75 mortality rate from respiratory disease. Directly age-standardised rate per 100,000 population, for England 2001 to 2023 (left) and for lower tier local authorities in 2023 (centre and right).



Premature mortality from liver disease has steadily risen, reflecting trends in alcohol consumption and obesity.

Figure 2.32 Liver disease - premature mortality

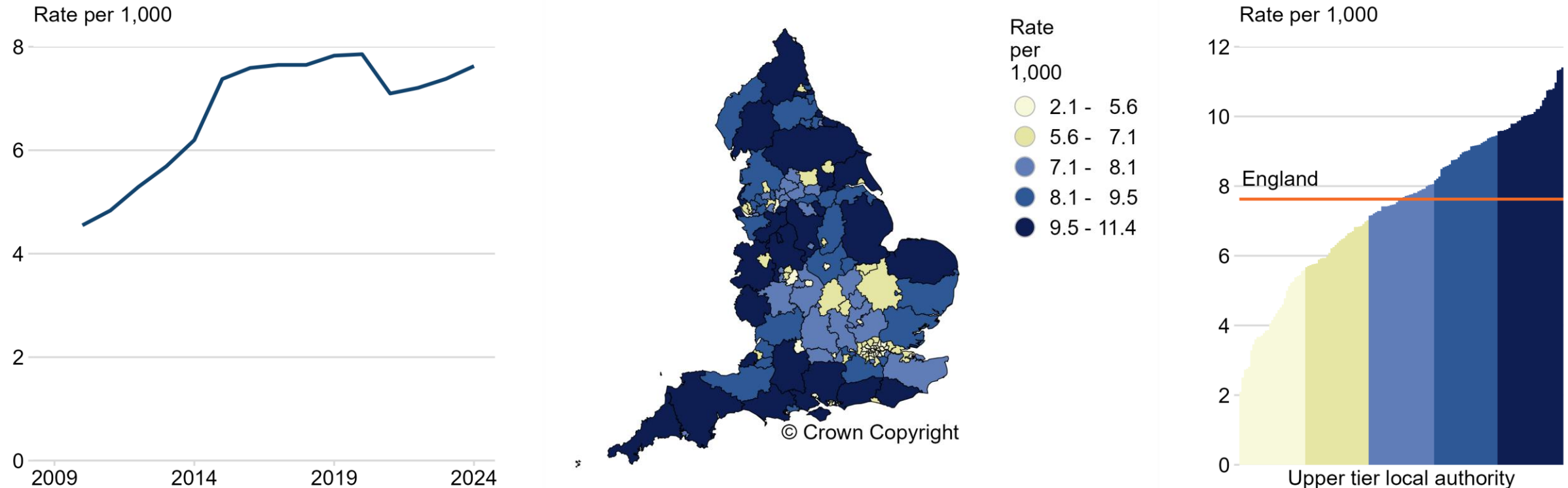


Under 75 mortality rate from liver disease. Directly age-standardised rate per 100,000 population, for England 2001 to 2023 (left) and for lower tier local authorities in 2023 (centre and right).



Dementia has become more prevalent over time, reflecting the ageing population.

Figure 2.33 Dementia prevalence

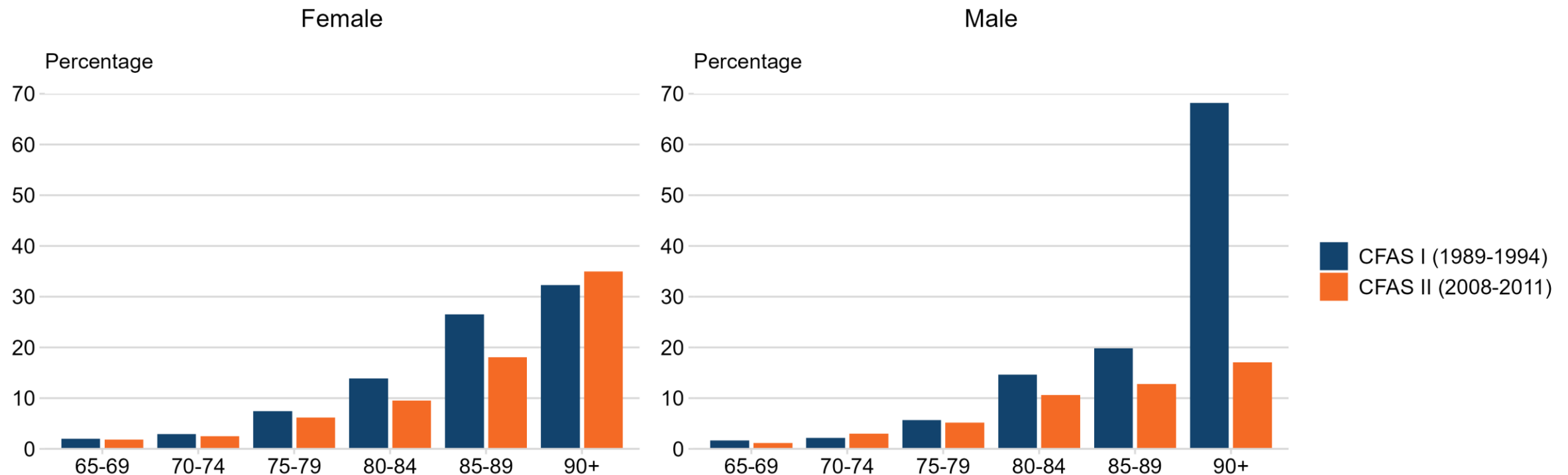


Prevalence of diagnosed dementia. The proportion of people of all ages with a diagnosis of dementia (rate per 1,000 as recorded on GP practice registers (QOF)), for England, 2010 to 2024 (left) and for upper tier local authorities in 2024 (centre and right). Financial year end data (31 March in the year shown). Local authority data is based on the location of the GP practice where a person is registered.



Within age groups, dementia prevalence was probably lower in 2008 to 2011 than 1989 to 1994. Increases in overall dementia prevalence may be due to an increase in older adults.

Figure 2.34 Dementia prevalence - study

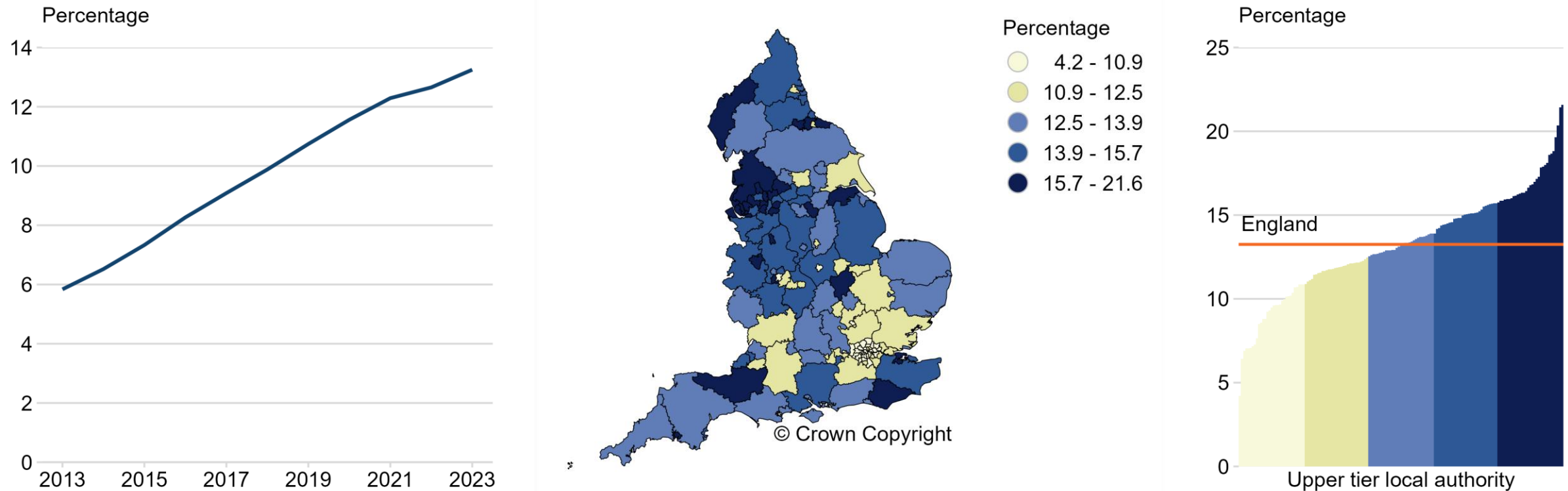


Estimated prevalence of dementia from a study in England. Cognitive Function and Ageing Study I (CFAS I) was conducted between 1989 and 1994 in 3 areas of England (Cambridgeshire, Newcastle, Nottingham). CFAS II was conducted between 2008 and 2011 in the same areas, using similar diagnostic methods. CFAS I age and sex specific estimates of prevalence were standardised to the 2011 population for comparison to CFAS II in this study.



The proportion of people with a diagnosis of depression has increased.

Figure 2.35 Depression prevalence

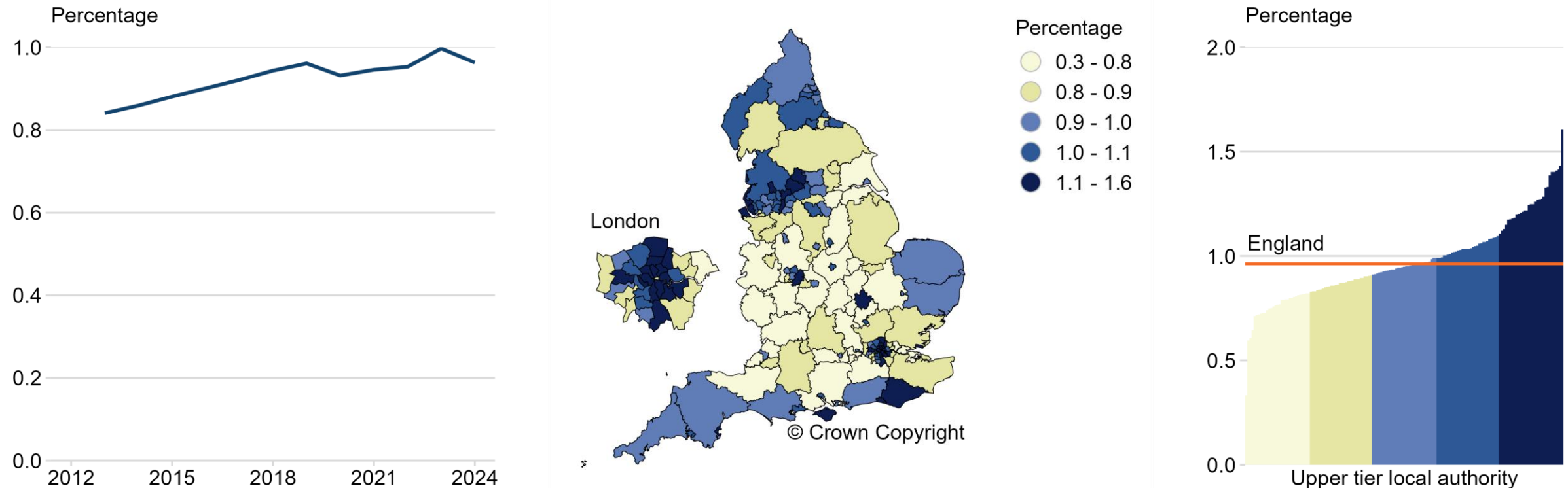


Prevalence of diagnosed depression. The percentage of people aged 18 and over with a diagnosis of depression, as recorded on GP practice registers (QOF) for England, 2013 to 2023 (left) and for upper tier local authorities in 2023 (centre and right). Financial year end data (31 March in the year shown). Local authority data is based on the location of the GP practice where a person is registered.



There is wide geographical variation in the prevalence of diagnosed severe mental illness.

Figure 2.36 Prevalence of severe mental illness

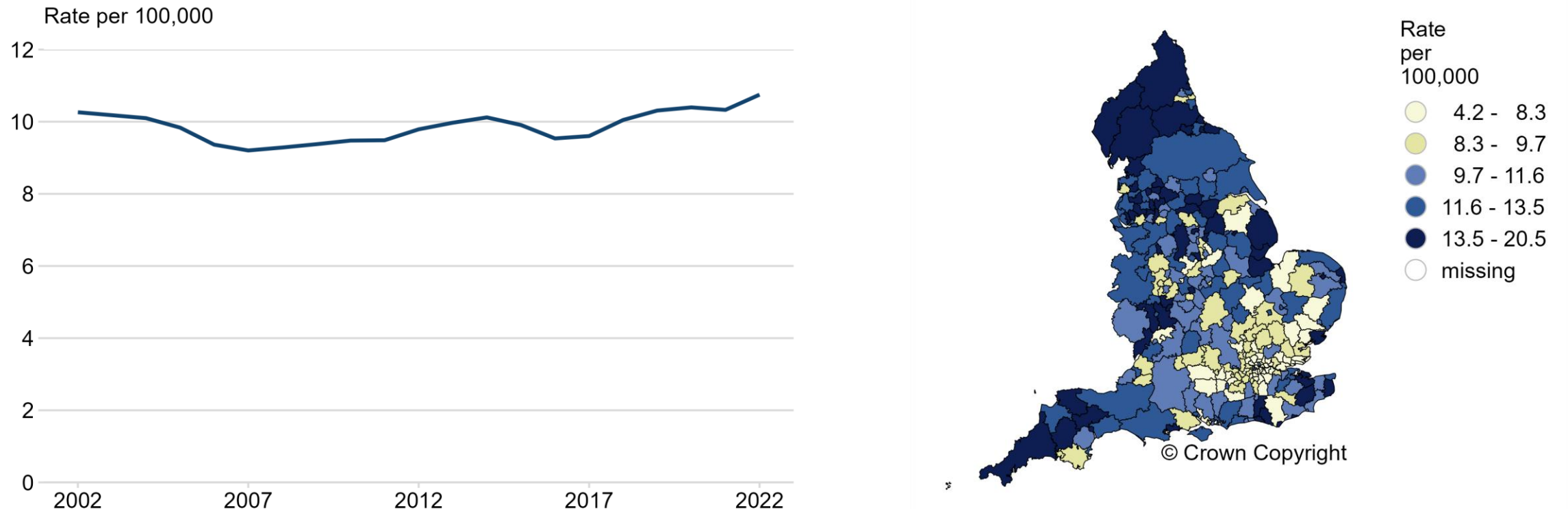


Prevalence of diagnosed severe mental illness: The percentage of people of all ages with a diagnosis of schizophrenia, bipolar affective disorder or other psychosis, as recorded on GP practice registers (QOF) for England, 2013 to 2024 (left) and for upper tier local authorities in 2024 (centre and right). Financial year end data (31 March in the year shown). Local authority data is based on the location of the GP practice where a person is registered.



Suicide rates in England have remained broadly stable over the last 2 decades.

Figure 2.37 Suicide rate

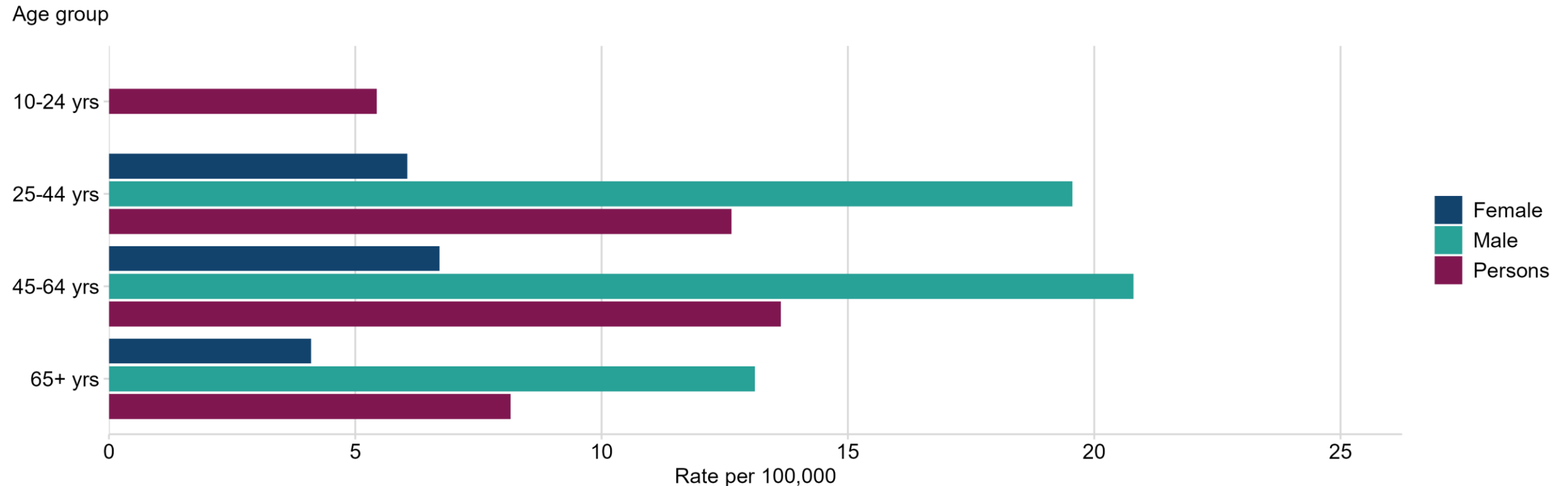


Mortality from suicide and injury of undetermined intent (directly age-standardised rates per 100,000 population), for England between 2001 to 2003 and 2021 to 2023 (years indicate the mid-point in the 3-year range) (left), and by lower tier local authority in England for 2021 to 2023 (right). This data is based on the year deaths were registered in. Suicides are only registered following a coroner's inquest, and the pandemic affected the function of coroners' courts, leading to longer delays in death registration.



In 2019 to 2023 the suicide rate was highest in males aged 25 to 64 years.

Figure 2.38 Suicide rate by age and sex

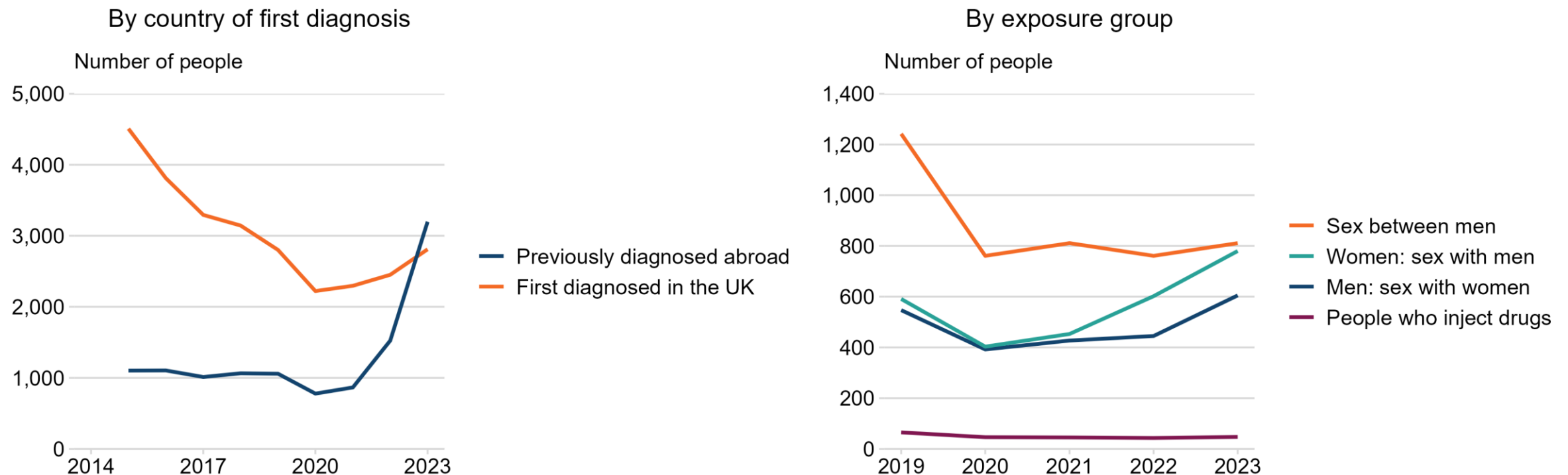


Mortality from suicide and injury of undetermined intent (directly age-standardised rates per 100,000 population) by age group and sex, England, 2019 to 2023. This data is based on the year deaths were registered in. Suicides are only registered following a coroner's inquest, and the pandemic affected the function of coroners' courts, leading to longer delays in death registration.



Since 2020, the number of people with a new diagnosis of HIV has increased in women who have sex with men and in men who have sex with women.

Figure 2.39 Number of people with a new HIV diagnosis

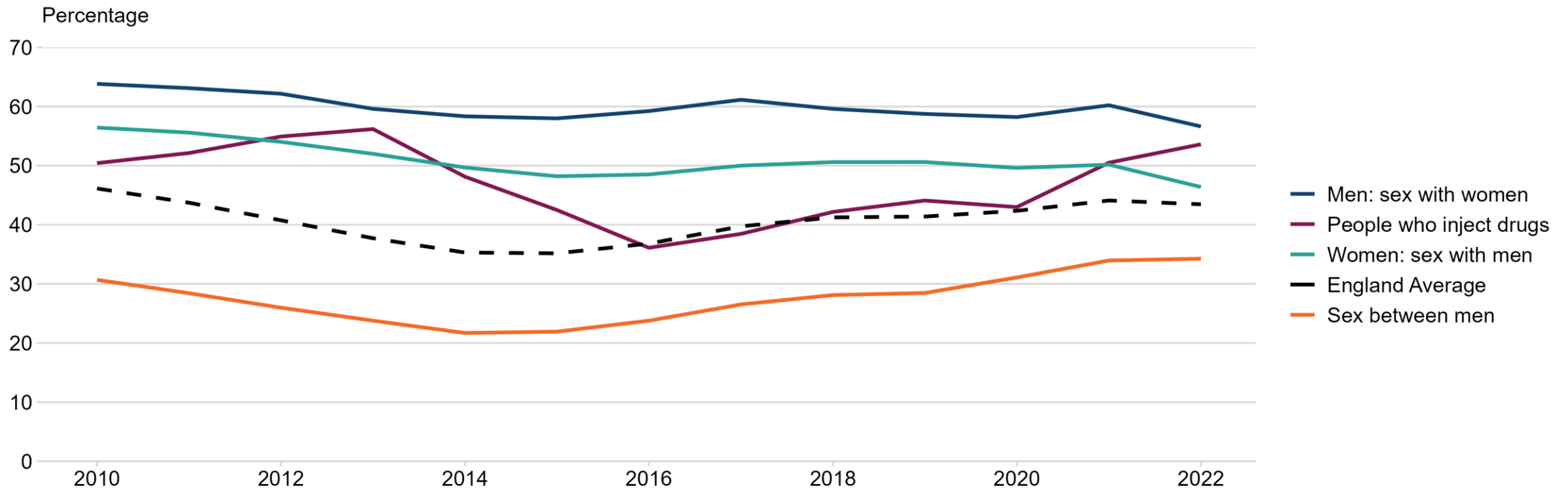


Number of people with a new HIV diagnosis, England, by location of first diagnosis, 2015 to 2023 (left) and for those first diagnosed in England by exposure group, 2019 to 2023 (right).



The proportion of late HIV diagnoses has increased since 2014, with trends varying by exposure type.

Figure 2.40 Late HIV diagnoses

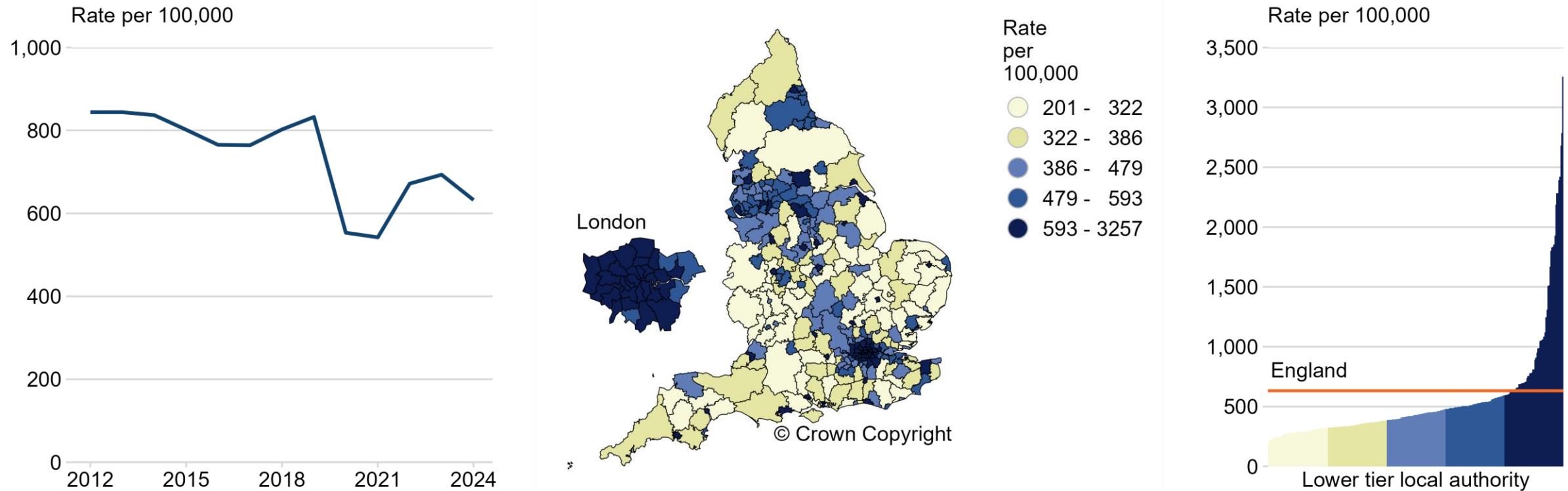


Percentage of adults (aged 15 years and above) with a CD4 cell count less than 350 within 91 days of a HIV diagnosis, excluding those with evidence of recent seroconversion, by exposure group, England, between 2009 to 2011 and 2021 to 2023. Years indicate the mid-point in a 3-year range.



Sexually transmitted infection rates are highest in cities.

Figure 2.41 Sexually transmitted infections

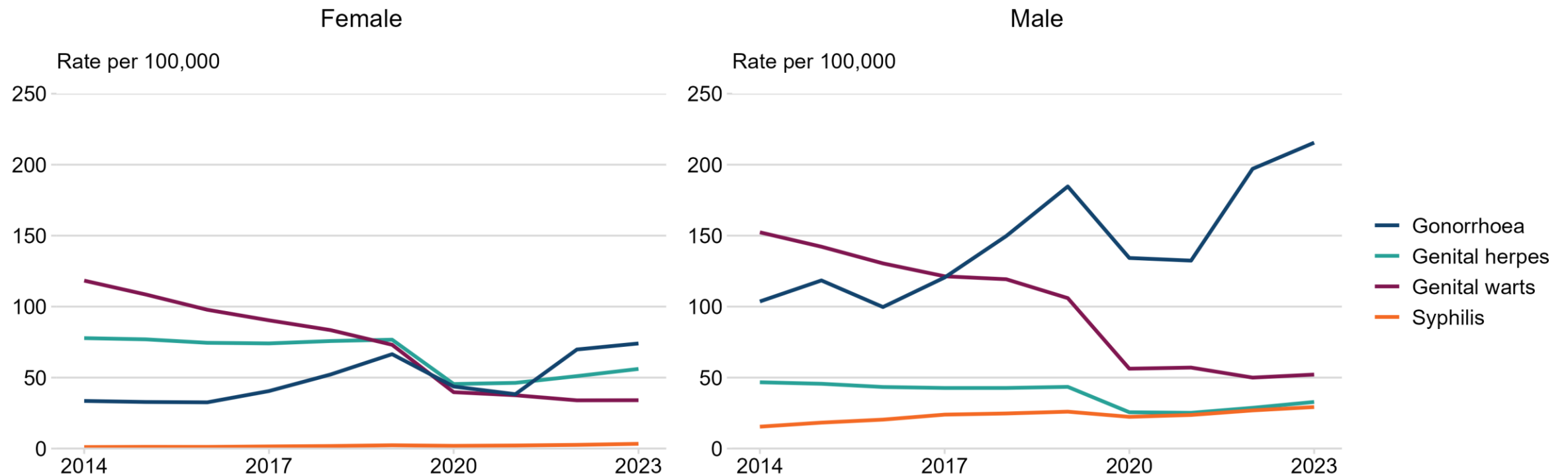


Sexually transmitted disease diagnoses (crude rate per 100,000 population) in people accessing sexual health services for England, 2012 to 2024 (left), and for lower tier local authorities, 2024 (centre and right). See references for the full list of diseases included in this sexually transmitted infection (STI) definition.



Gonorrhoea, genital warts and syphilis diagnosis rates were higher for males than females over the last decade, with gonorrhoea on a particularly upward trend for both sexes.

Figure 2.42 Sexually transmitted infections by organism (excluding chlamydia)

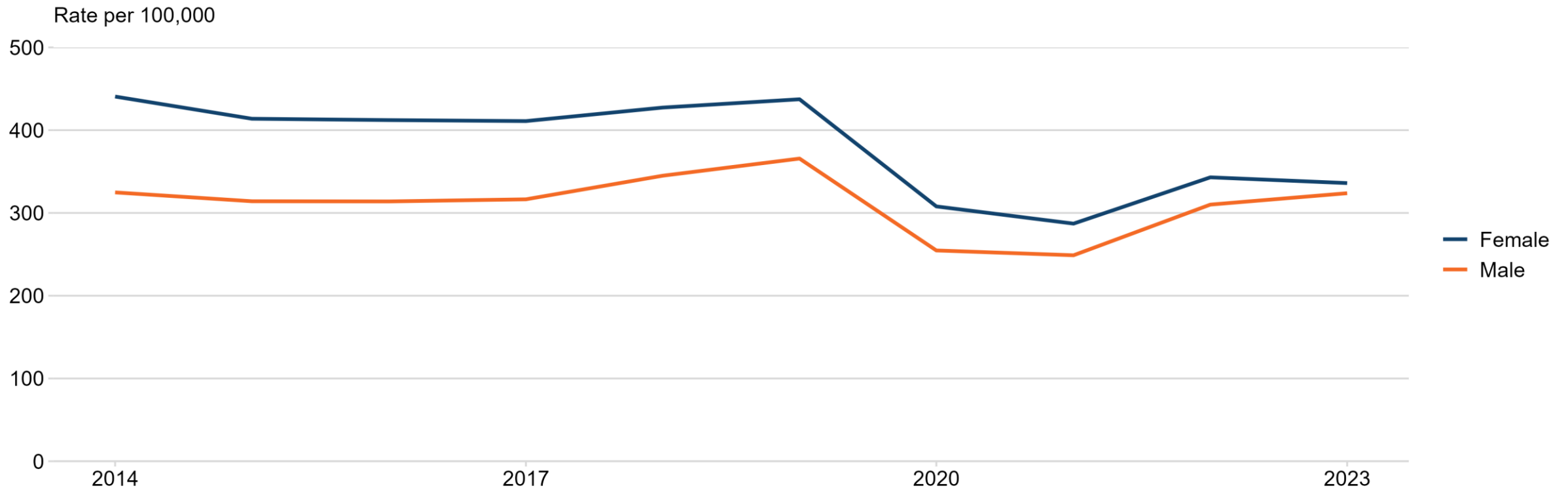


Sexually transmitted disease diagnoses (crude rate per 100,000 population) in people accessing sexual health services by sex and organism, England, 2014 to 2023. Chlamydia diagnoses are reported separately.



Chlamydia remains the most common sexually transmitted infection.

Figure 2.43 Chlamydia diagnoses

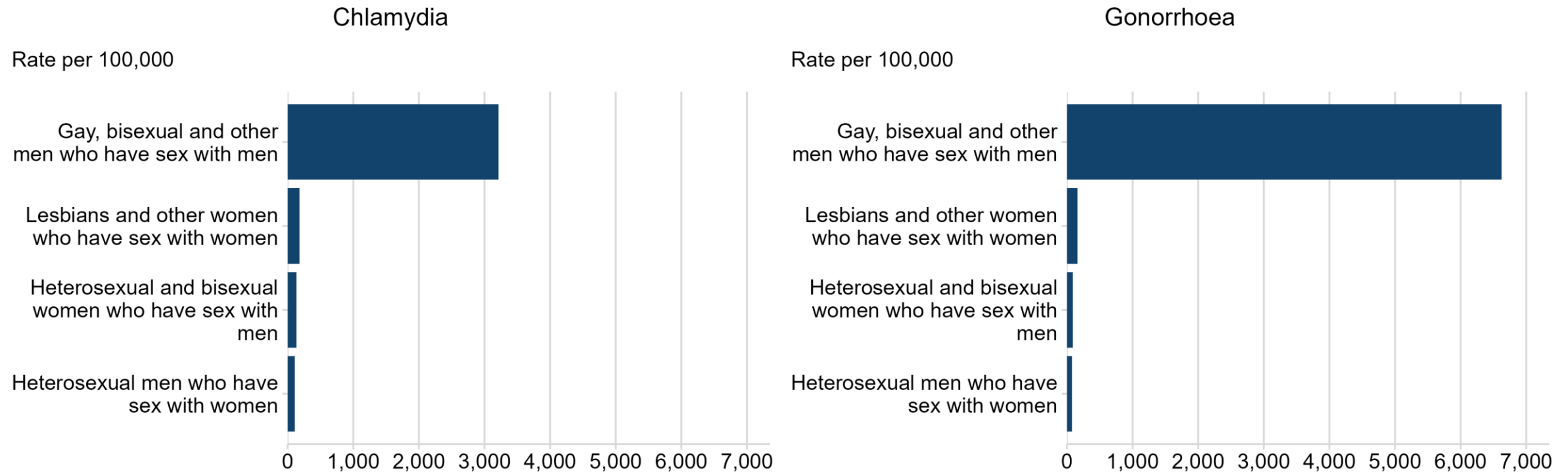


Chlamydia diagnoses (crude rate per 100,000 population) in people accessing sexual health services by sex, England, 2014 to 2023.



In 2023, chlamydia and gonorrhoea diagnosis rates differed by sexual orientation which should be accounted for in prevention and treatment.

Figure 2.44 Sexually transmitted infections by sexual orientation

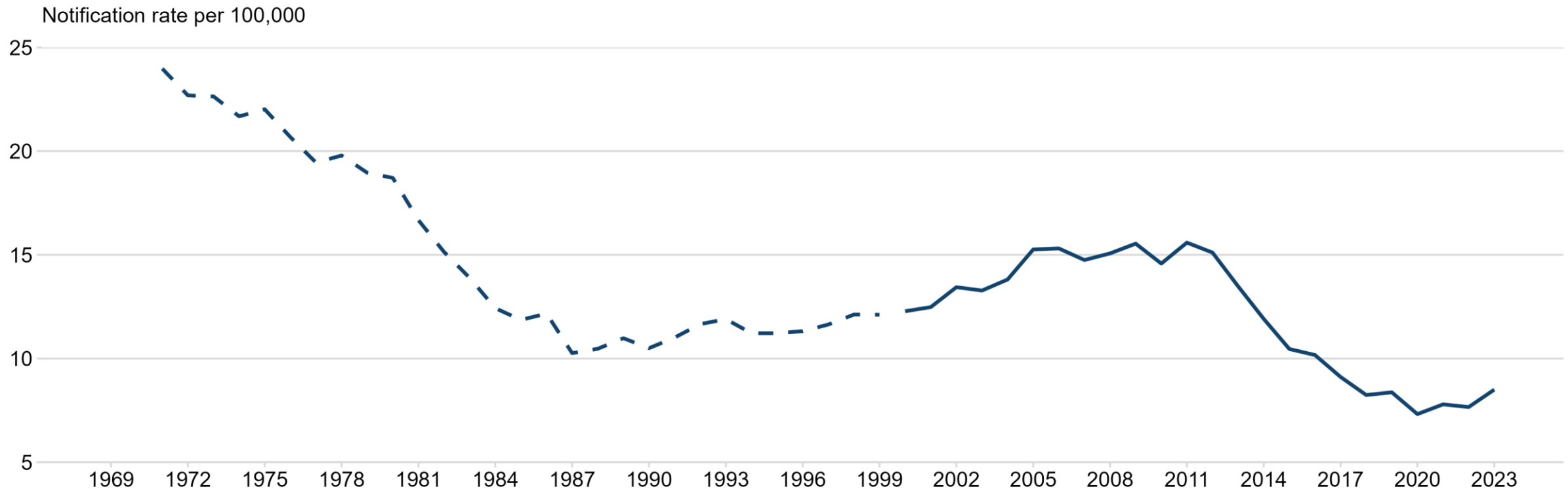


Sexually transmitted disease diagnoses (chlamydia and gonorrhoea, crude rates per 100,000 population) in people accessing sexual health services by sexual orientation, England, 2023.



In recent years, the significant reduction in rates of tuberculosis has slowed and may have reversed.

Figure 2.45 Tuberculosis notifications

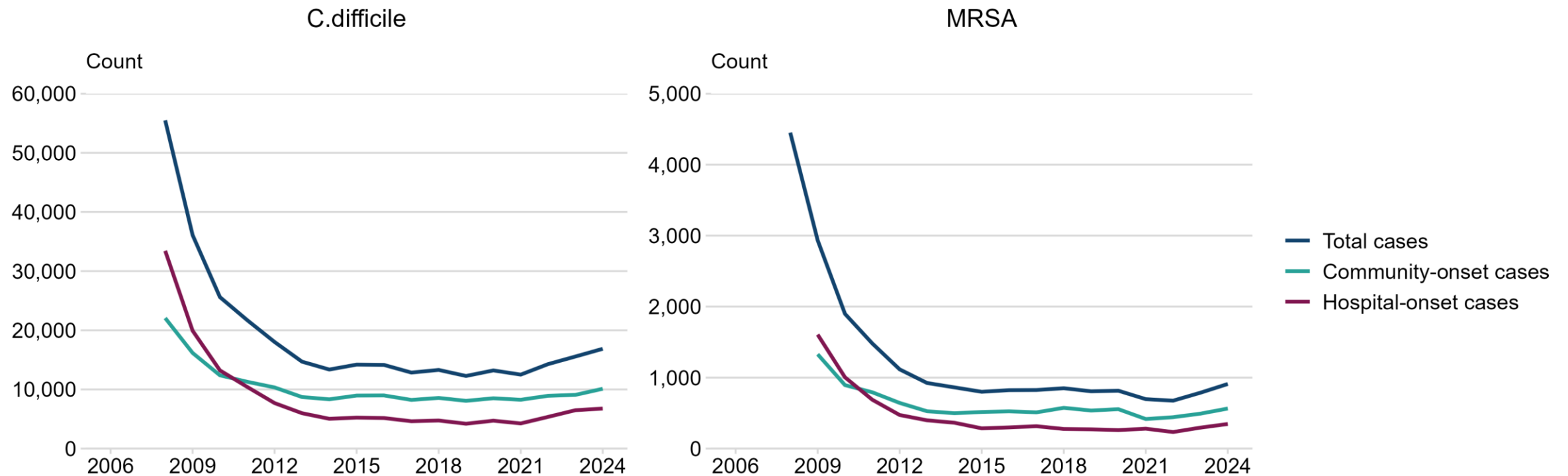


Rate of tuberculosis (TB) notifications per 100,000 population, England, 1971 to 2023. Dashed line represents the period before enhanced surveillance was introduced in 2000.



Improvements in C. difficile and MRSA infections were impressive but have stalled. There have been recent increases in both hospital and community settings.

Figure 2.46 Healthcare-associated infections

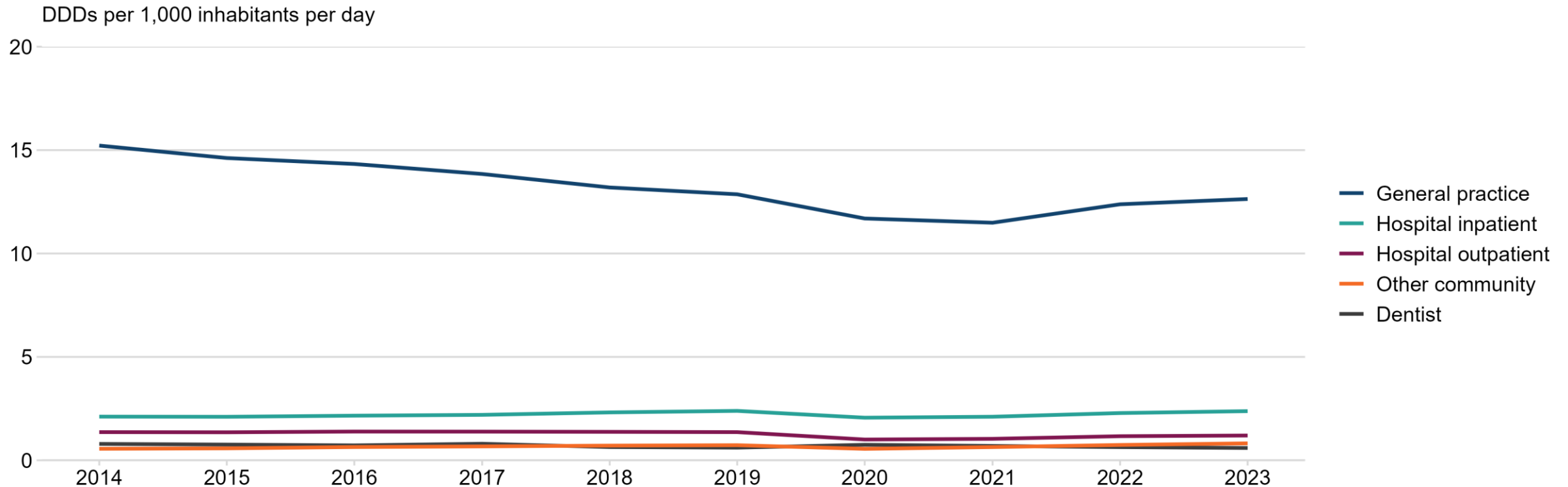


Annual counts of *Clostridioides difficile* (C. difficile) and methicillin-resistant *Staphylococcus aureus* (MRSA) infection, England, between 2007 to 2008 and 2023 to 2024. Financial year data ending in the year shown.



Reductions in the rate of people taking antibiotics prescribed in primary care have levelled off in recent years. This may reflect practice changes during the COVID-19 pandemic.

Figure 2.47 Antibiotic prescribing



Total antibiotic consumption by prescriber setting, expressed as defined daily doses (DDDs) per 1,000 inhabitants per day, England, between 2014 to 2015 and 2023 to 2024. Financial year data ending in the year shown.

Chapter 3

Maternal and child health

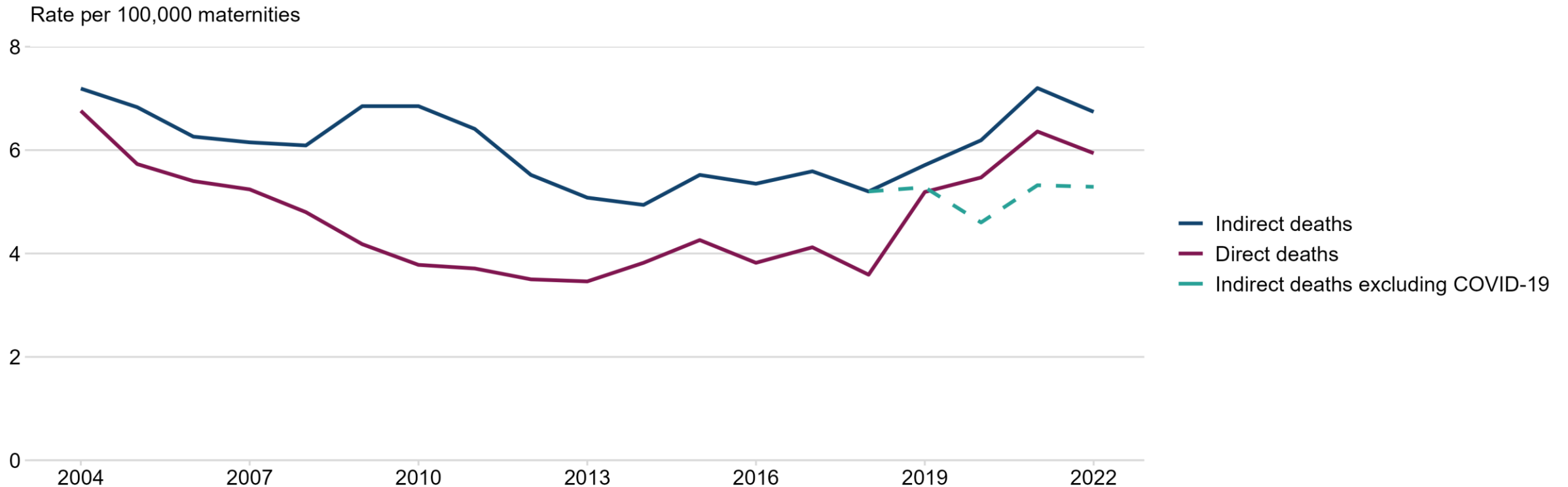


3.1 Trend in maternal mortality	78	3.15 Leading causes of death in children and young people aged 10 to 19	91
3.2 Trend in maternal mortality by deprivation and ethnic group	79	3.16 Trend in children living with obesity	92
3.3 Smoking status at time of delivery	80	3.17 Trend in children living with obesity by deprivation	93
3.4 Smoking status at time of delivery by deprivation	81	3.18 Children living with obesity by ethnic group	94
3.5 Teenage conception	82	3.19 Trend in children living with obesity by sex	95
3.6 Infant mortality	83	3.20 Child body mass index (BMI) distribution - 4 to 5 years (Reception)	96
3.7 Infant mortality - international comparison - 1960 to 2021	84	3.21 Child body mass index (BMI) distribution - 10 to 11 years (Year 6)	97
3.8 Infant mortality - international comparison - 2000 to 2021	85	3.22 Child body mass index distribution in the least deprived areas - 10 to 11 years (Year 6)	98
3.9 Infant mortality by deprivation	86	3.23 Child body mass index distribution in the most deprived areas - 10 to 11 years (Year 6)	99
3.10 Infant mortality by ethnicity	86	3.24 Smoking trend in young people	100
3.11 Infant and child deaths by age	87	3.25 Trend in e-cigarette use in young people	101
3.12 Trend in child and adolescent mortality	88	3.26 Alcohol drinking in children	102
3.13 Leading causes of death in children aged 1 to 4	89	3.27 Children with mental health conditions	103
3.14 Leading causes of death in children aged 5 to 9	90	3.28 Children with probable mental health conditions	104



Maternal mortality has increased in the last decade, with COVID-19 accounting for the recent rise in indirect deaths but not direct deaths.

Figure 3.1 Trend in maternal mortality

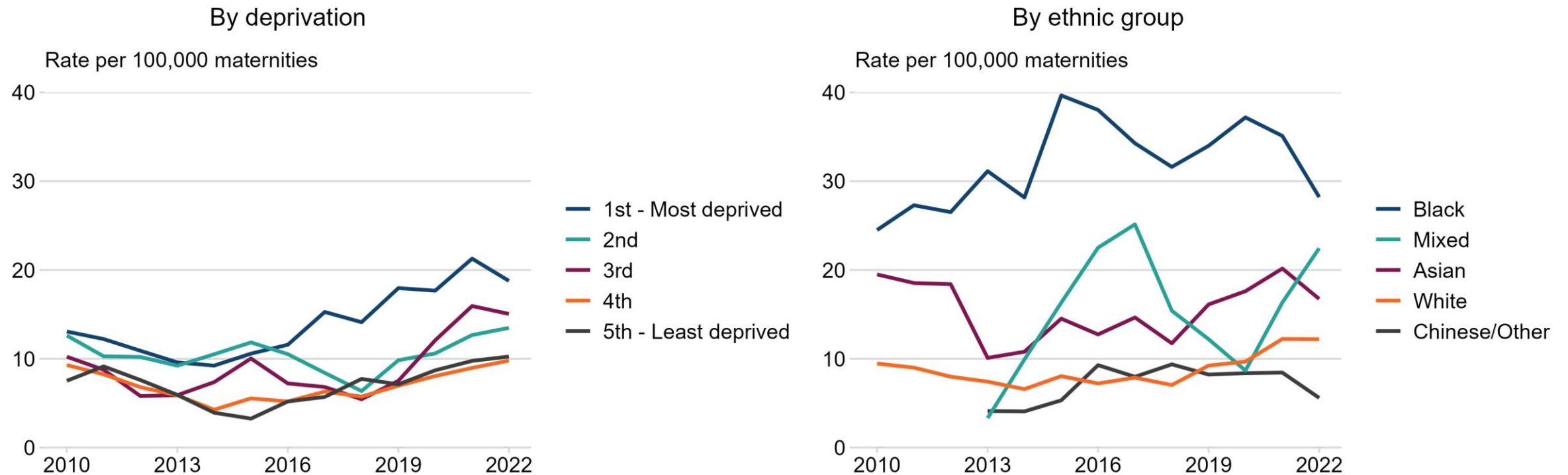


Direct and indirect maternal mortality rates per 100,000 maternities, United Kingdom, between 2003 to 2005 and 2021 to 2023. Years indicate the mid-point in a 3 year range. Direct maternal deaths are those resulting from obstetric complications of the pregnant state (pregnancy, labour and puerperium), and from interventions, omissions, incorrect treatment, or from a chain of events resulting from any of these. Indirect maternal deaths are those resulting from previous existing disease or disease that developed during pregnancy and not due to direct obstetric causes but were aggravated by the physiological effects of pregnancy.



Maternal mortality rates are highest in Black women and women living in the most deprived areas.

Figure 3.2 Trend in maternal mortality by deprivation and ethnic group

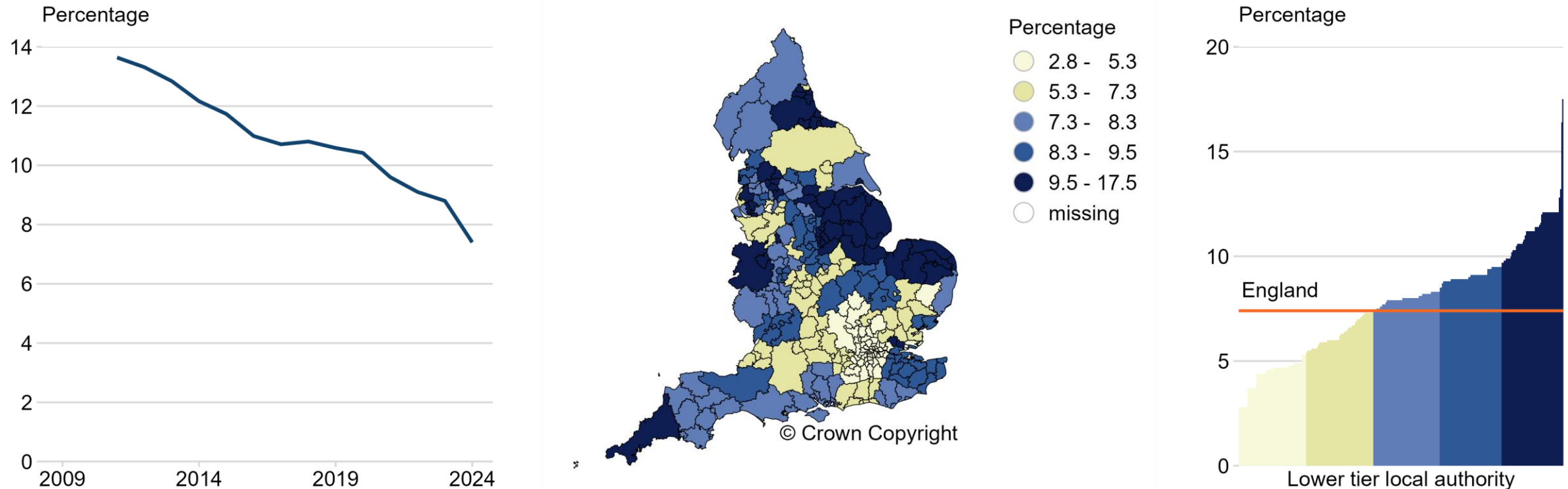


Total (direct and indirect) maternal mortality rates per 100,000 maternities by Index of Multiple Deprivation (IMD) quintile (left) and by ethnic group (right), England, between 2009 to 2011 and 2021 to 2023. Years indicate the mid-point in a 3 year range.



Maternal smoking has nearly halved since 2010 but, in 2023 to 2024, more than 1 in 14 women smoked at the time of delivery and many areas had even higher prevalence.

Figure 3.3 Smoking status at time of delivery

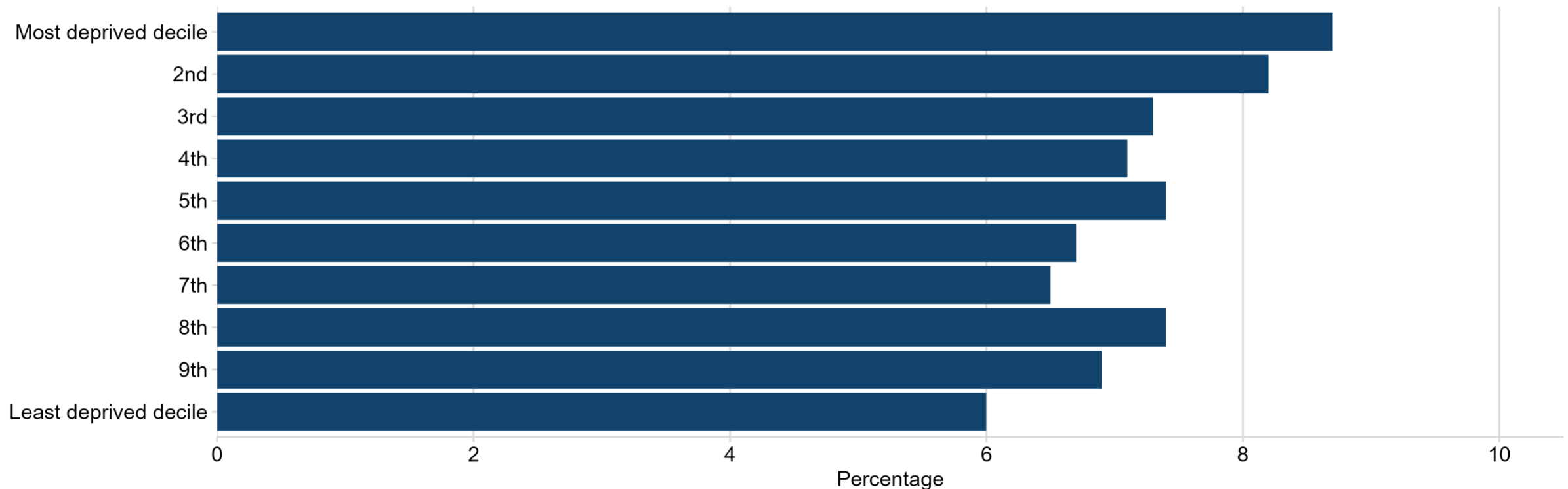


Smoking status at time of delivery. Mothers known to be smokers at the time of delivery as a percentage of all maternities with a known smoking status, England, between 2010 to 2011 and 2023 to 2024 (left) and for lower tier local authorities, 2023 to 2024 (centre and right). Financial year data ending in the year shown.



In 2023 to 2024, a higher percentage of women living in the most deprived areas smoked at the time of delivery compared with those living in the least deprived areas.

Figure 3.4 Smoking status at time of delivery by deprivation

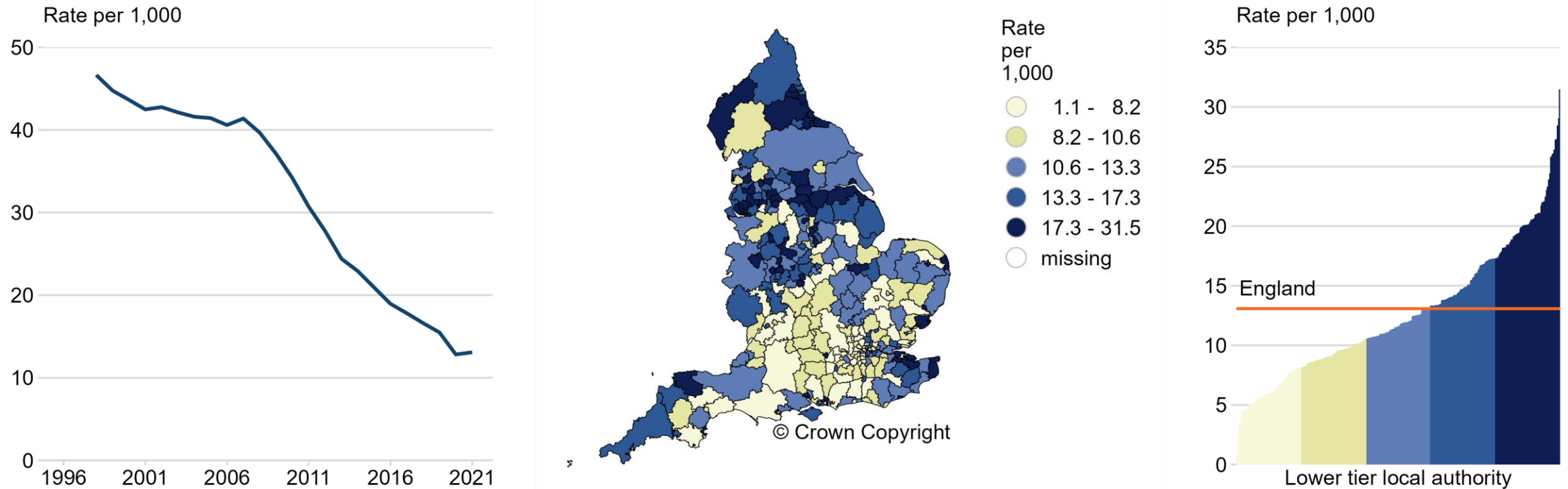


Smoking status at time of delivery for lower tier local authority based Index of Multiple Deprivation (IMD) deciles. Mothers known to be smokers at the time of delivery as a percentage of all maternities with a known smoking status, England, financial year 2023 to 2024.



Teenage conception rates have fallen since the late nineties. There was a small increase in 2021.

Figure 3.5 Teenage conception

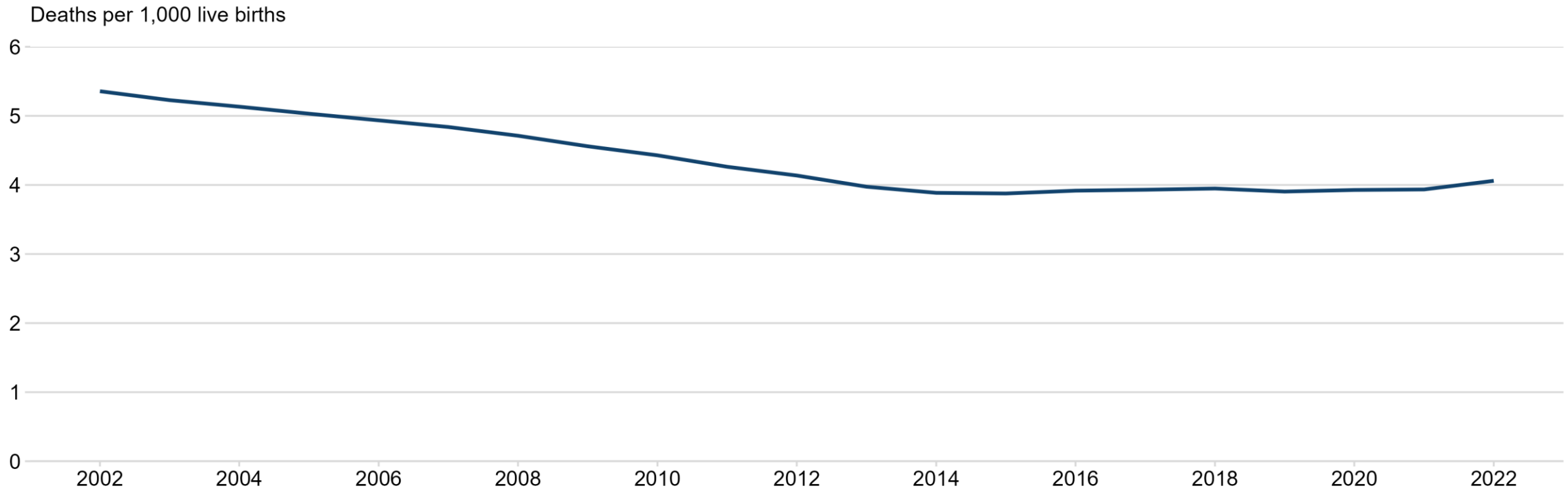


Conceptions in women aged under 18. Crude rate per 1,000 women aged 15 to 17 years, England, 1998 to 2021 (left) and for lower tier local authorities, 2021 (centre and right).



Improvements in infant mortality have stalled.

Figure 3.6 Infant mortality

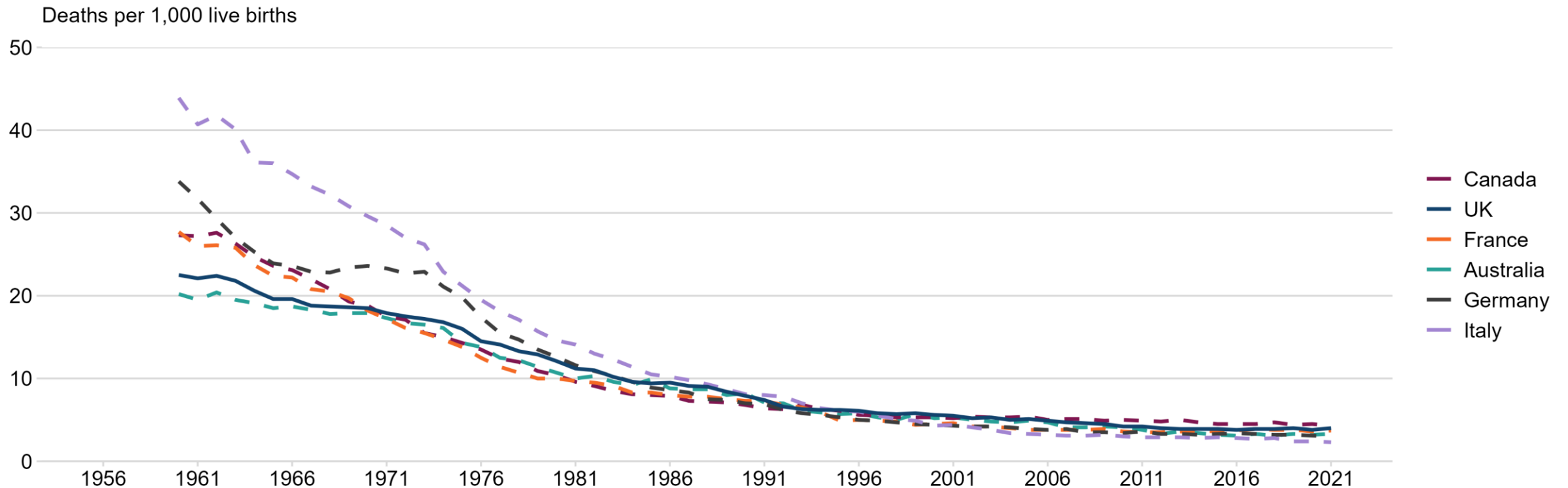


Infant deaths under one year of age (crude rate per 1,000 live births), England, between 2001 to 2003 and 2021 to 2023. Years indicate the mid-point in a 3-year range.



Improvements in infant mortality have stalled in recent years, consistent with some other comparable countries.

Figure 3.7 Infant mortality - international comparison - 1960 to 2021

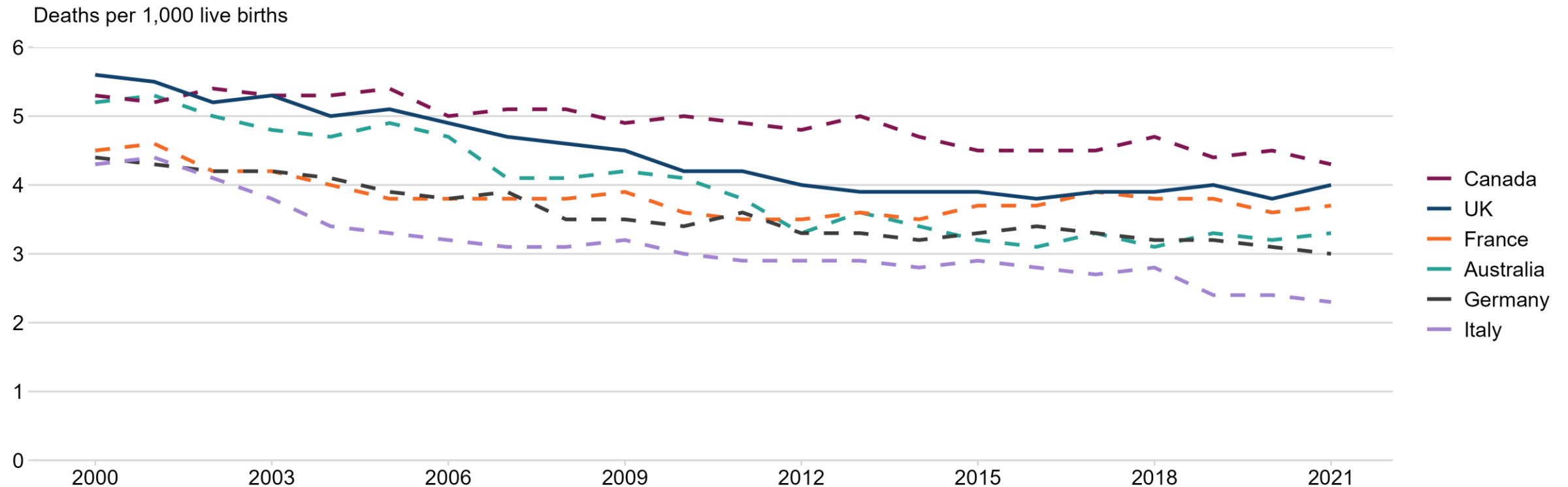


Infant deaths under one year of age (crude rate per 1,000 live births), UK and selected countries, 1960 to 2021. No minimum threshold of gestation period or birthweight is applied.



Over the last 2 decades, the UK has had a higher infant mortality rate than some other high-income countries.

Figure 3.8 Infant mortality - international comparison - 2000 to 2021

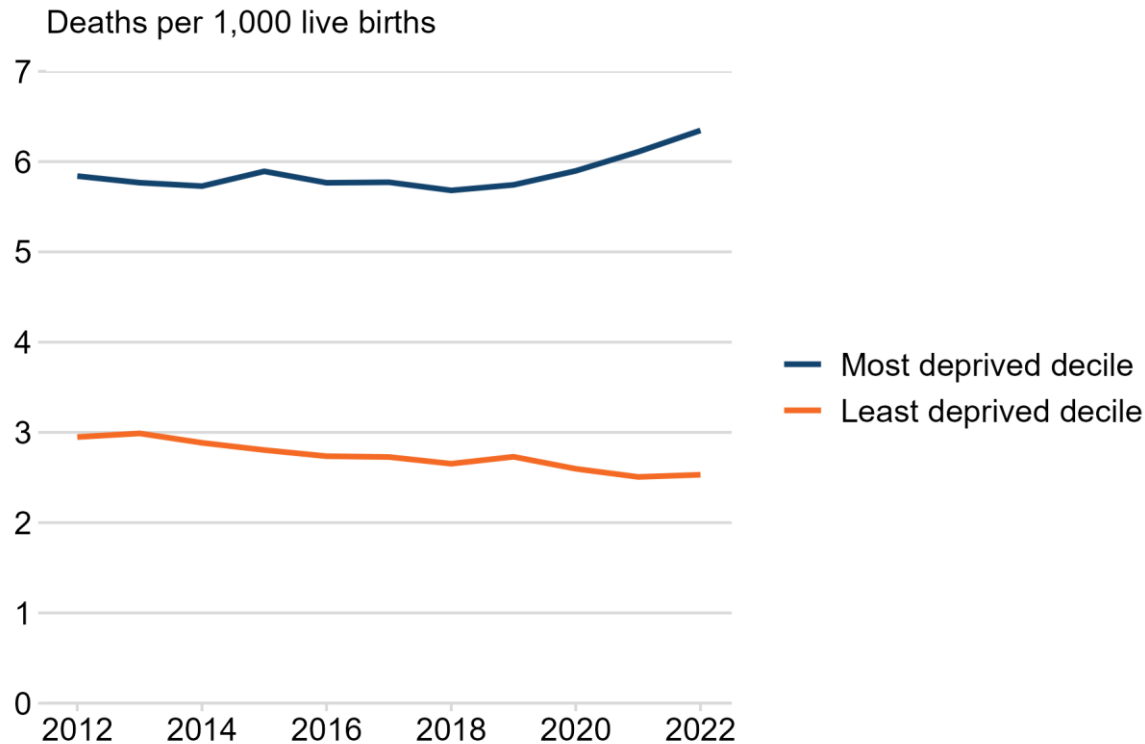


Infant deaths under one year of age (crude rate per 1,000 live births), UK and selected countries, 2000 to 2021. No minimum threshold of gestation period or birthweight is applied.



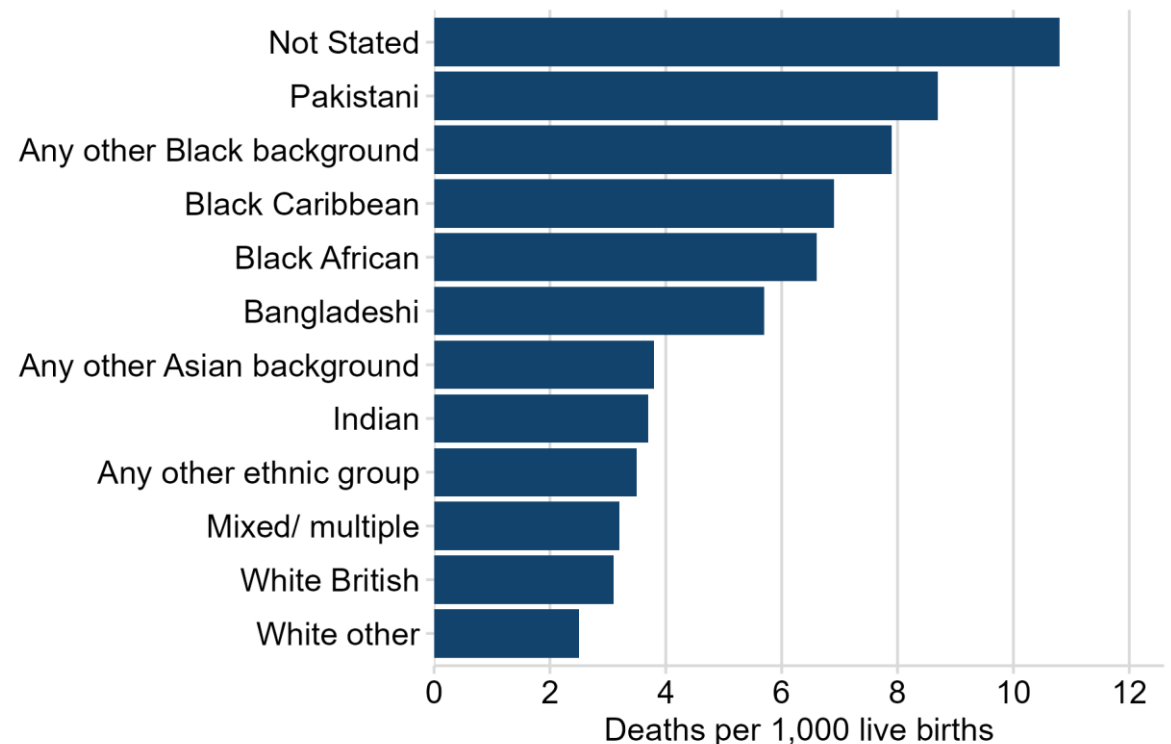
The gap in infant mortality between the most and least deprived areas of the country has widened since 2018 to 2020.

Figure 3.9 Infant mortality by deprivation



Infant deaths under one year of age (crude rate per 1,000 live births) for lower super output area based Index of Multiple Deprivation (IMD) deciles (most deprived and least deprived), England, between 2011 to 2013 and 2021 to 2023. Years indicate the mid-point in a 3-year range.

Figure 3.10 Infant mortality by ethnicity

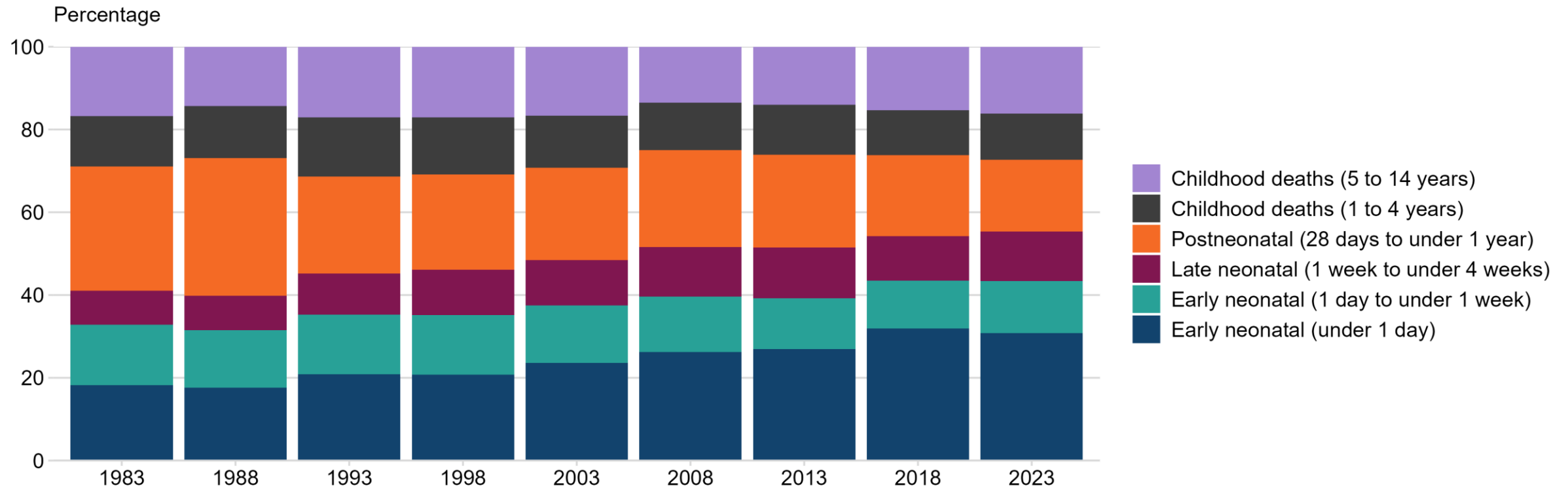


Infant deaths under one year of age (crude rate per 1,000 live births) by ethnic group, England, 2022.



Infant mortality (deaths up to one year of age) contributes the majority of deaths in children.

Figure 3.11 Infant and child deaths by age

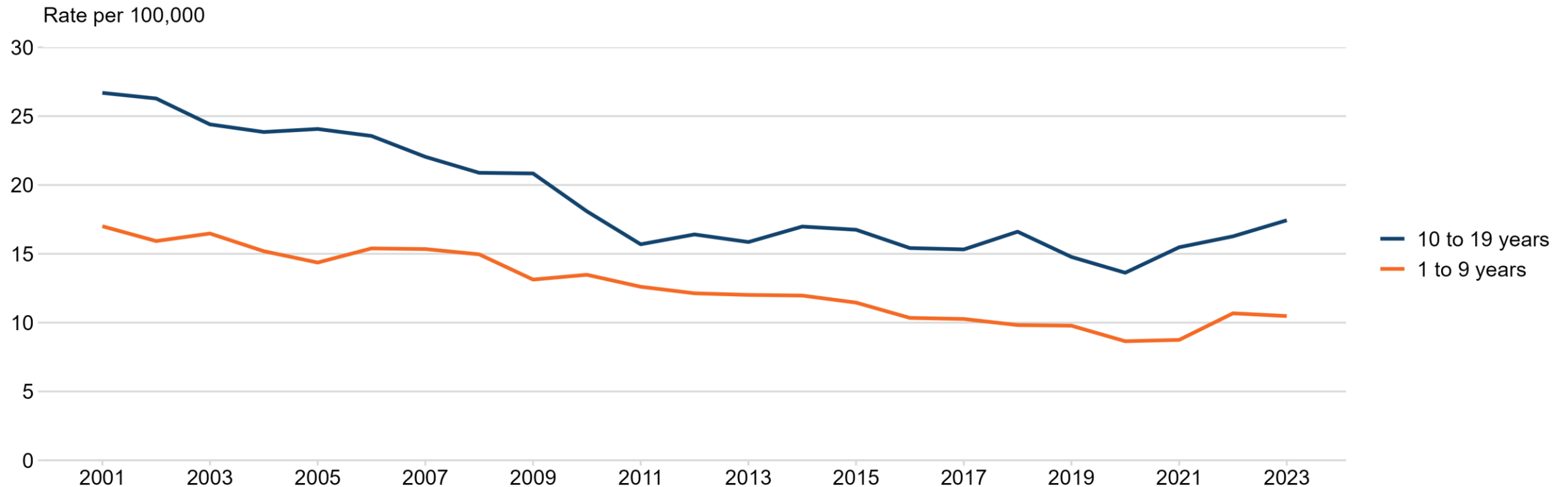


Percentage of total deaths by age group for children aged 0 to 14 years, England and Wales, 1983 to 2023. Infants are those under one year of age and infant deaths are shown separately for those aged under 1 day, 1 day to under 1 week, 1 week to under 4 weeks and 28 days to under 1 year. Children are those aged 1 to 14 years and child deaths are shown for those aged 1 to 4 and those aged 5 to 14.



Adolescent mortality rates increased between 2020 and 2023, following a stall in improvement during the previous decade.

Figure 3.12 Trend in child and adolescent mortality

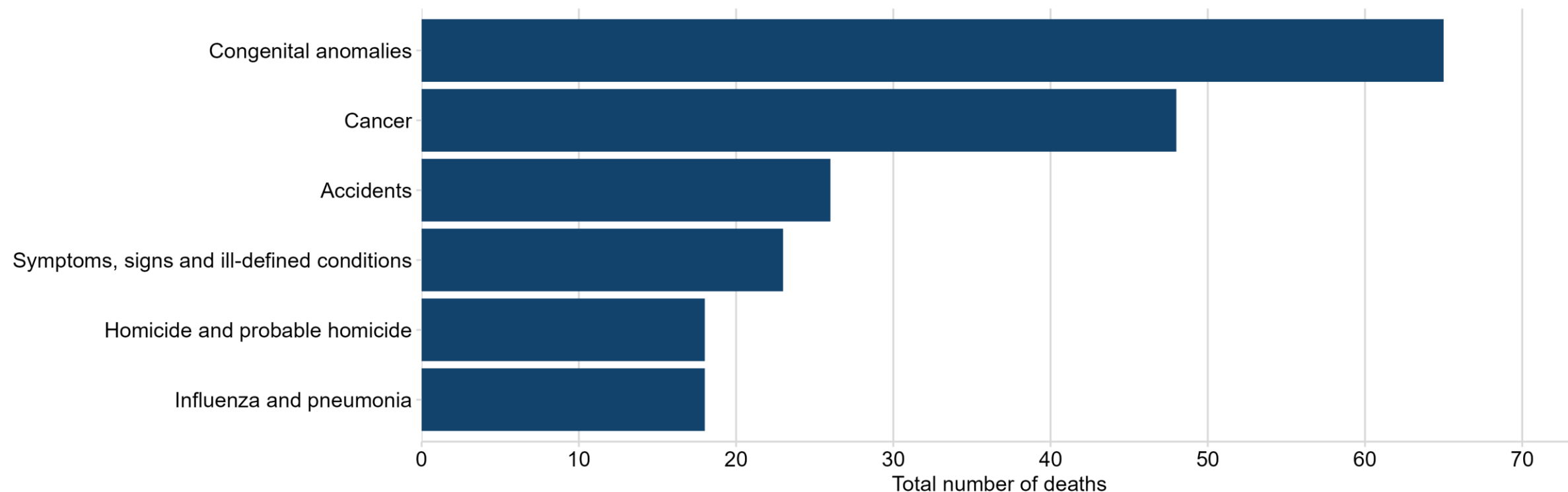


Child mortality rate (1-9 years) and adolescent mortality rate (10-19 years) per 100,000 population, England, 2001 to 2023.



Total number of deaths in children aged 1 to 4 is low. In 2023, congenital anomalies were the leading causes of death for children in this age group.

Figure 3.13 Leading causes of death in children aged 1 to 4

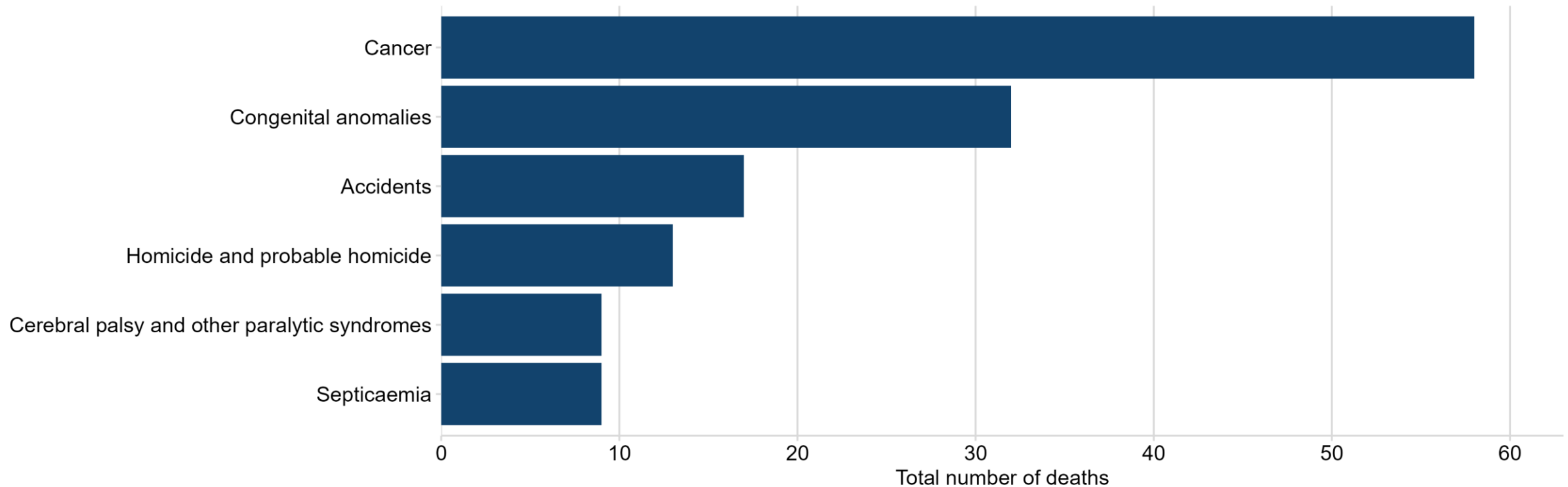


Total number of deaths in children aged 1 to 4 years, for the 6 leading causes, England, 2023.



In 2023, cancer was the leading cause of death for children aged 5 to 9 years.

Figure 3.14 Leading causes of death in children aged 5 to 9

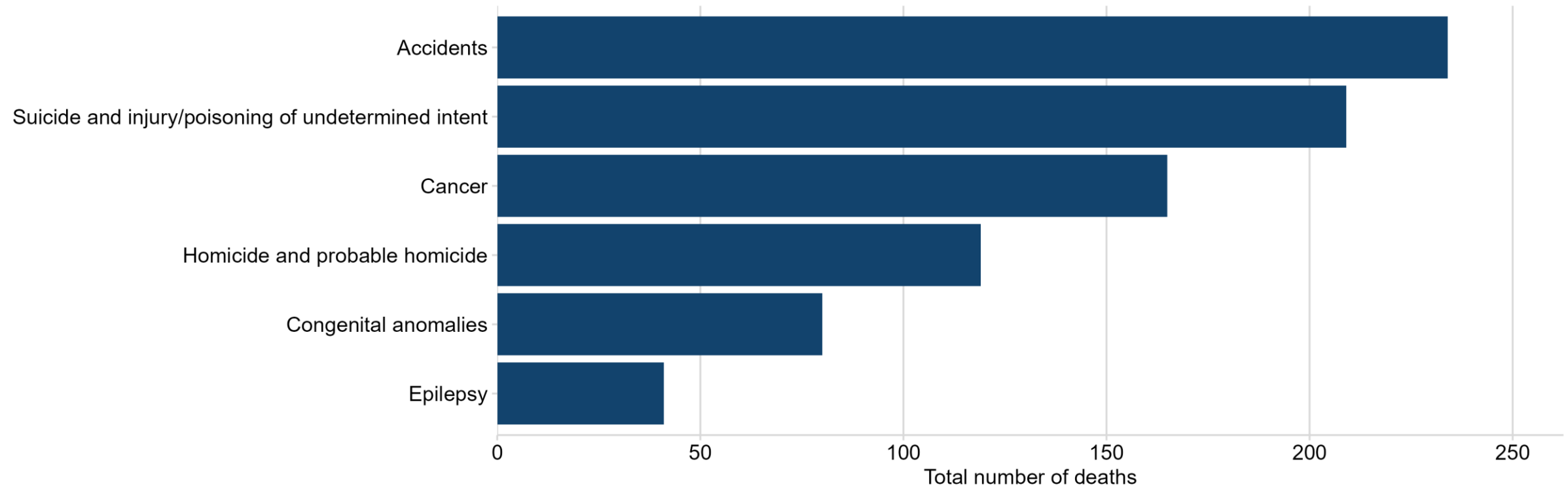


Total number of deaths in children aged 5 to 9 years, for the 6 leading causes, England, 2023.



In 2023, accidents were the leading cause of death for children and young people aged 10 to 19 years.

Figure 3.15 Leading causes of death in children and young people aged 10 to 19

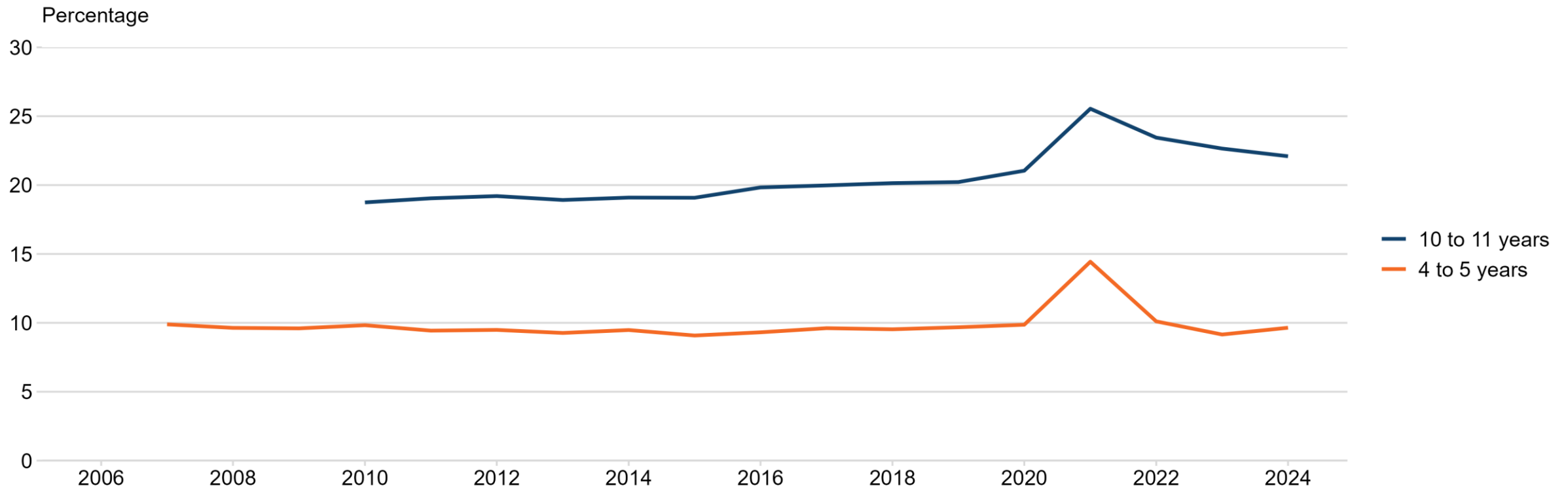


Total number of deaths in children and young people aged 10 to 19 years, for the 6 leading causes, England, 2023.



Nearly 1 in 10 reception aged children were living with obesity in 2023 to 2024. This proportion was more than twice as high among those in Year 6.

Figure 3.16 Trend in children living with obesity

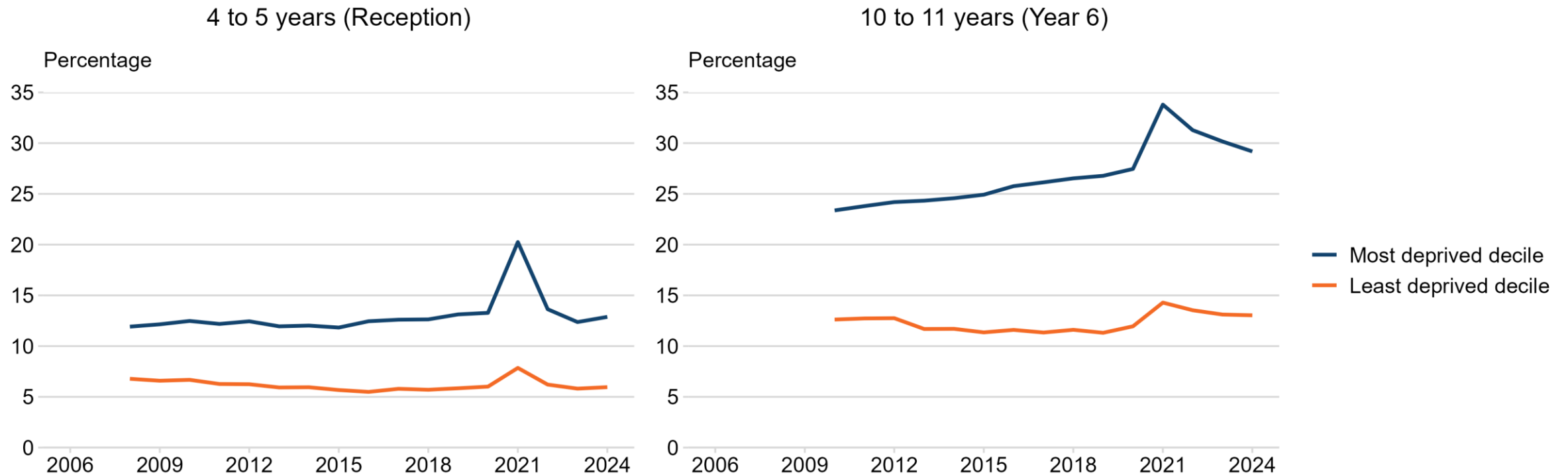


Trend in the percentage of children aged 4 to 5 (Reception year) and aged 10 to 11 (Year 6) living with obesity or severe obesity, England, between 2006 to 2007 and 2023 to 2024. National Child Measurement Programme (NCMP) data for academic years ending in the year shown. Trend for children aged 10 to 11 (Year 6) between 2006 to 2007 and 2008 to 2009 is not shown as low participation levels led to underestimation of obesity prevalence.



The proportion of children living with obesity is greater in the most deprived compared with least deprived areas. This difference increases from reception age to Year 6.

Figure 3.17 Trend in children living with obesity by deprivation

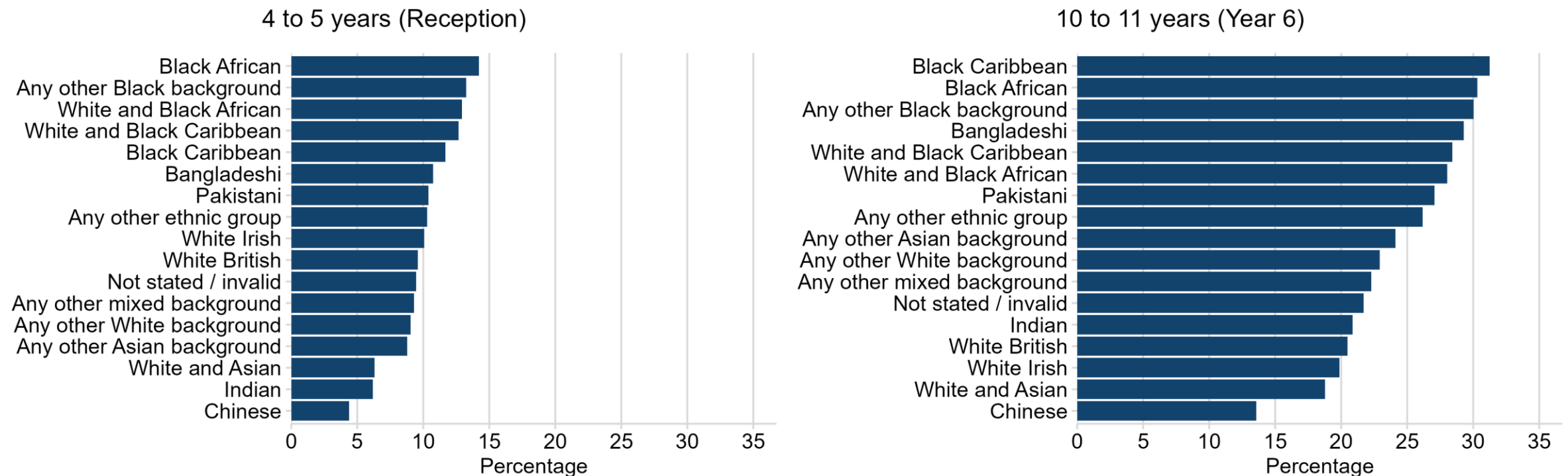


Trend in the percentage of children aged 4 to 5 (Reception year) and aged 10 to 11 (Year 6) living with obesity or severe obesity by Index of Multiple Deprivation (IMD) deciles of lower super output areas (most deprived and least deprived), England, between 2007 to 2008 and 2023 to 2024. National Child Measurement Programme (NCMP) data for academic years ending in the year shown. Trend for children aged 10 to 11 (Year 6) in 2007 to 2008 and 2008 to 2009 is not shown as low participation levels led to underestimation of obesity prevalence.



There are differences in childhood obesity between ethnic groups.

Figure 3.18 Children living with obesity by ethnic group

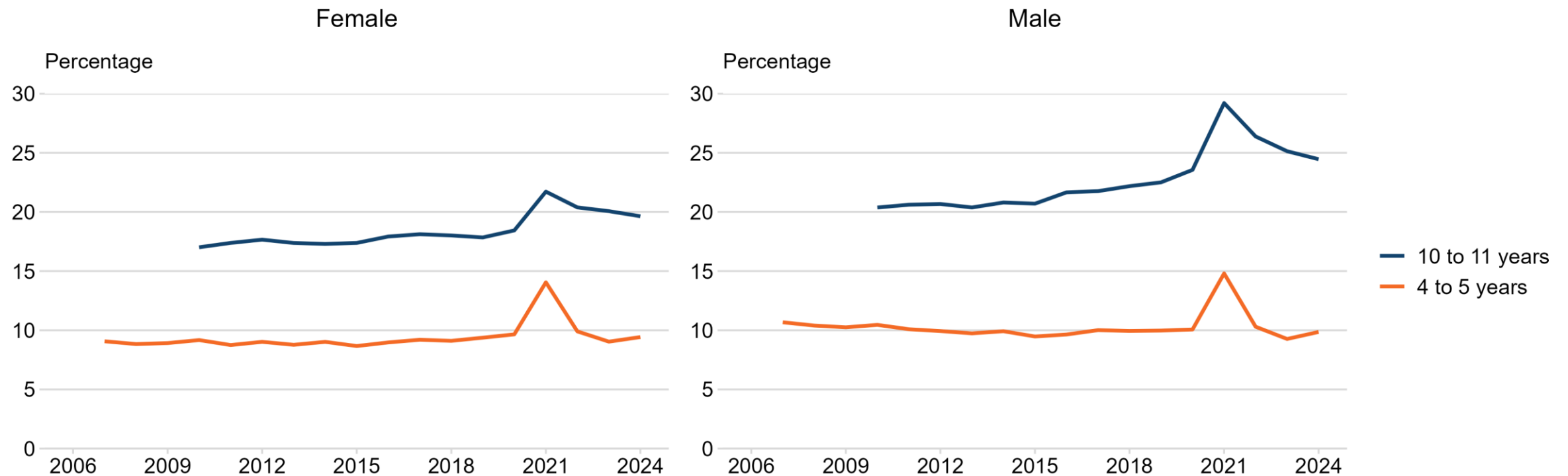


Percentage of children aged 4 to 5 (Reception year) and aged 10 to 11 (Year 6) living with obesity or severe obesity by ethnic group, England. National Child Measurement Programme (NCMP) data for academic year 2023 to 2024.



Child obesity prevalence is higher in boys aged 10 to 11 years than girls and has increased in this age group as a whole.

Figure 3.19 Trend in children living with obesity by sex



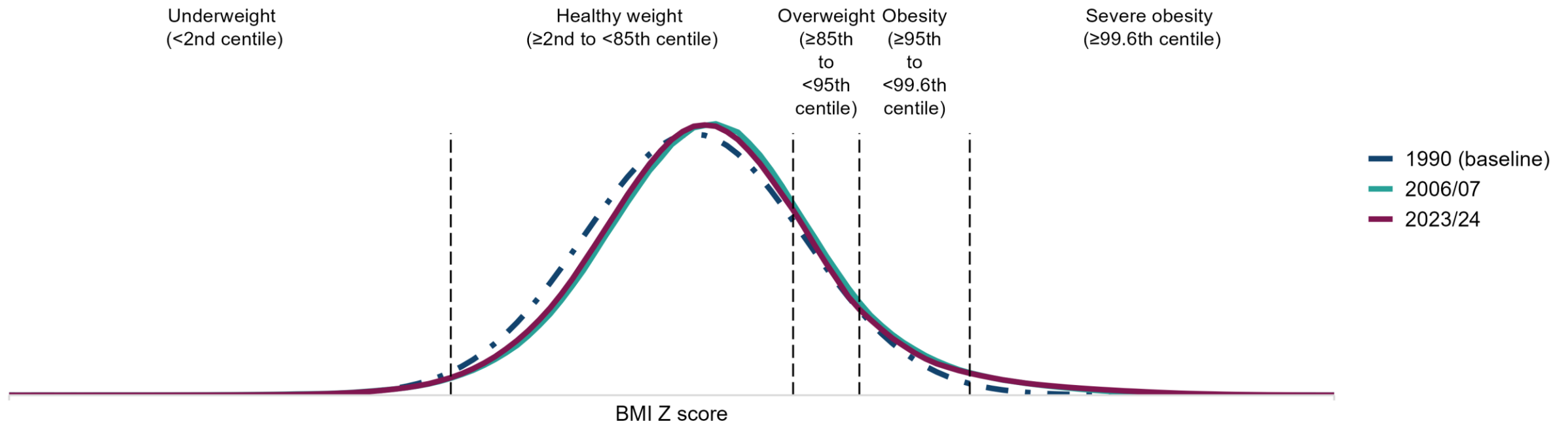
Trend in the percentage of children aged 4 to 5 (Reception year) and aged 10 to 11 (Year 6) living with obesity or severe obesity by sex, England, between 2006 to 2007 and 2023 to 2024. National Child Measurement Programme (NCMP) data for academic years ending in the year shown. Trend for children aged 10 to 11 (Year 6) between 2006 to 2007 and 2008 to 2009 is not shown as low participation levels led to underestimation of obesity prevalence.



The shape of BMI distribution in children aged 4 to 5 has remained similar over time. The proportion with high BMI measurements was slightly higher in 2023 to 2024 than in 1990.

Figure 3.20 Child body mass index (BMI) distribution - 4 to 5 years (Reception)

Frequency (%)



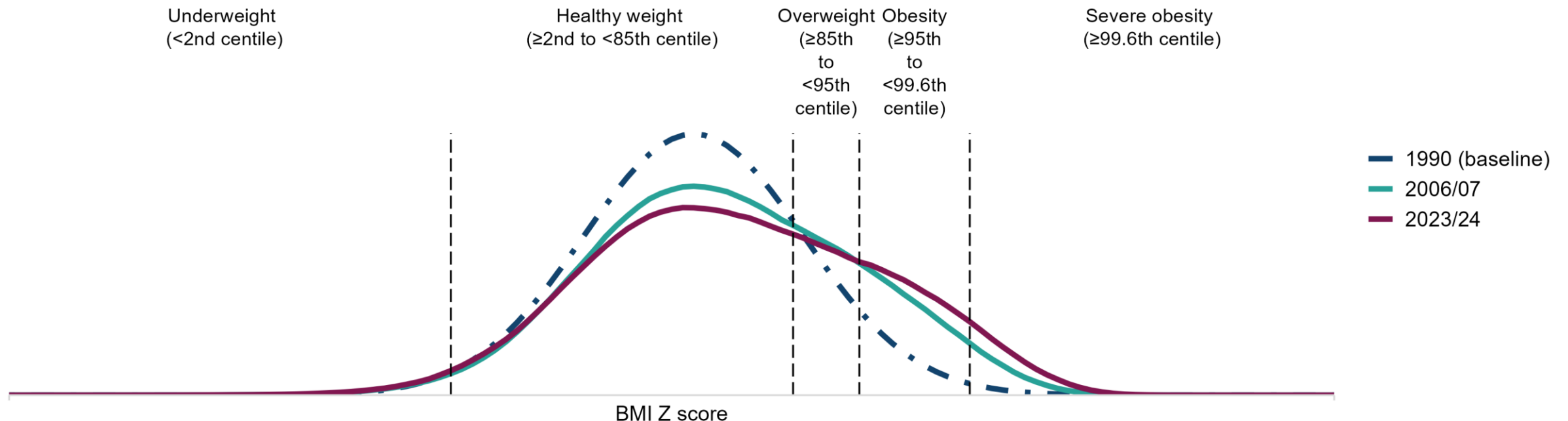
Change in the distribution of child body mass index (BMI) z score in children aged 4 to 5 years (Reception year) using National Child Measurement Programme (NCMP) data for academic years between 2006 to 2007 and 2023 to 2024 compared with the British 1990 (UK90) growth reference baseline. BMI z score is a standard deviation score which adjusts BMI for age and sex of children based on the UK90 growth reference.



The shape of BMI distribution in Year 6 children has changed and the proportion of this age group with high BMI measurements has become significantly higher since 1990.

Figure 3.21 Child body mass index (BMI) distribution - 10 to 11 years (Year 6)

Frequency (%)



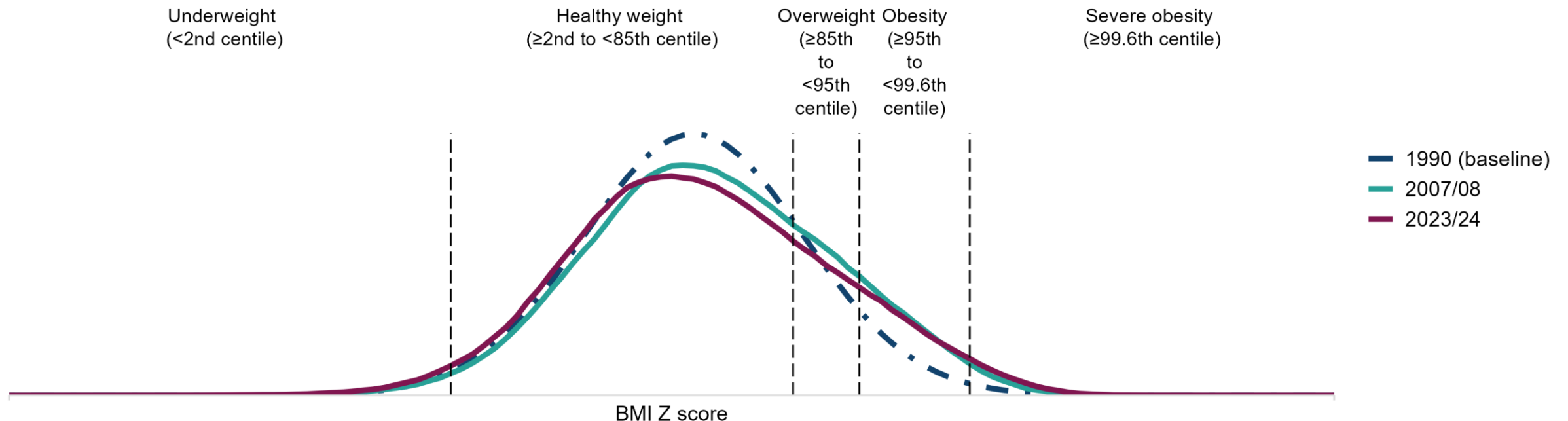
Change in the distribution of child body mass index (BMI) z score in children aged 10 to 11 years (Year 6) using National Child Measurement Programme (NCMP) data for academic years between 2006 to 2007 and 2023 to 2024 compared with the British 1990 (UK90) growth reference baseline. BMI z score is a standard deviation score which adjusts BMI for age and sex of children based on the UK90 growth reference.



The change in the BMI distribution in Year 6 children was less pronounced for those in the least deprived decile.

Figure 3.22 Child body mass index distribution in the least deprived areas - 10 to 11 years (Year 6)

Frequency (%)



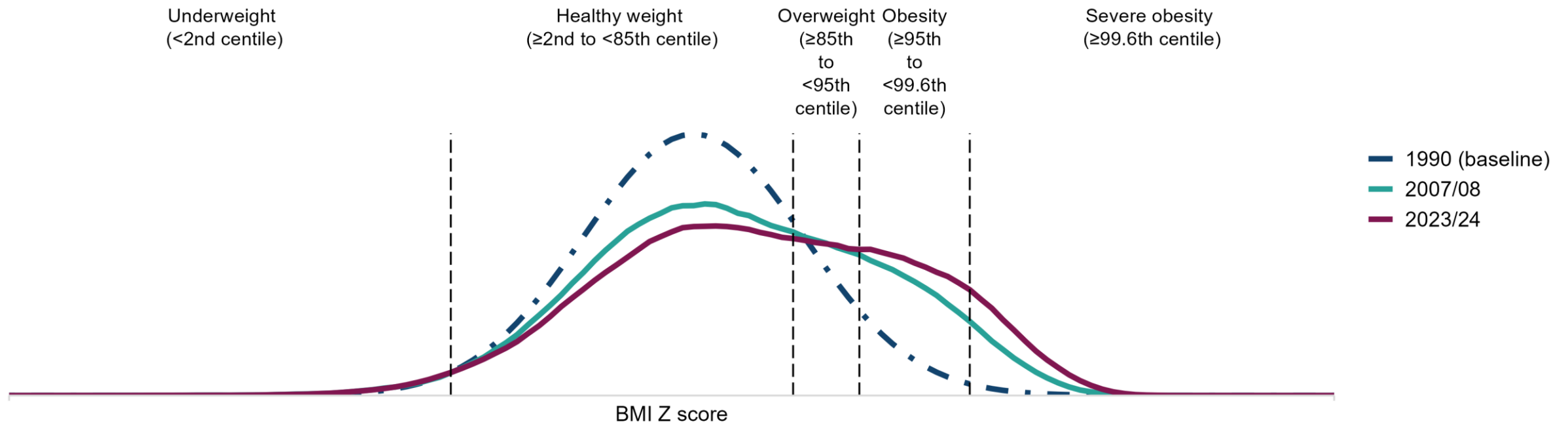
Change in the distribution of child body mass index (BMI) z score in children aged 10 to 11 years (Year 6) living in the least deprived decile (based on Index of Multiple Deprivation (IMD) of lower super output areas) using National Child Measurement Programme (NCMP) data for academic years between 2007 to 2008 and 2023 to 2024 compared with the British 1990 (UK90) growth reference baseline. BMI z score is a standard deviation score which adjusts BMI for age and sex of children based on the UK90 growth reference. See references for further notes.



The change in the BMI distribution in Year 6 children was more pronounced for those in the most deprived decile.

Figure 3.23 Child body mass index distribution in the most deprived areas - 10 to 11 years (Year 6)

Frequency (%)

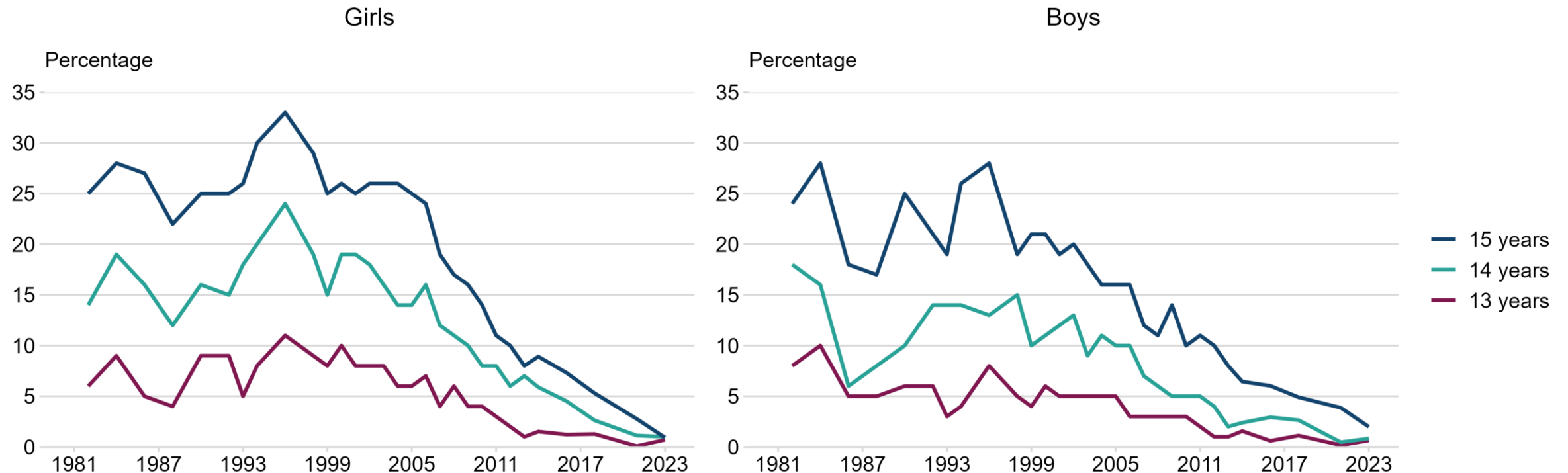


Change in the distribution of child body mass index (BMI) z score in children aged 10 to 11 years (Year 6) living in the most deprived decile (based on Index of Multiple Deprivation (IMD) of lower super output areas) using National Child Measurement Programme (NCMP) data for academic years between 2007 to 2008 and 2023 to 2024 compared with the British 1990 (UK90) growth reference baseline. BMI z score is a standard deviation score which adjusts BMI for age and sex of children based on the UK90 growth reference. See references for further notes.



There has been a substantial decline in the proportion of young people that regularly smoke since the early 2000s.

Figure 3.24 Smoking trend in young people

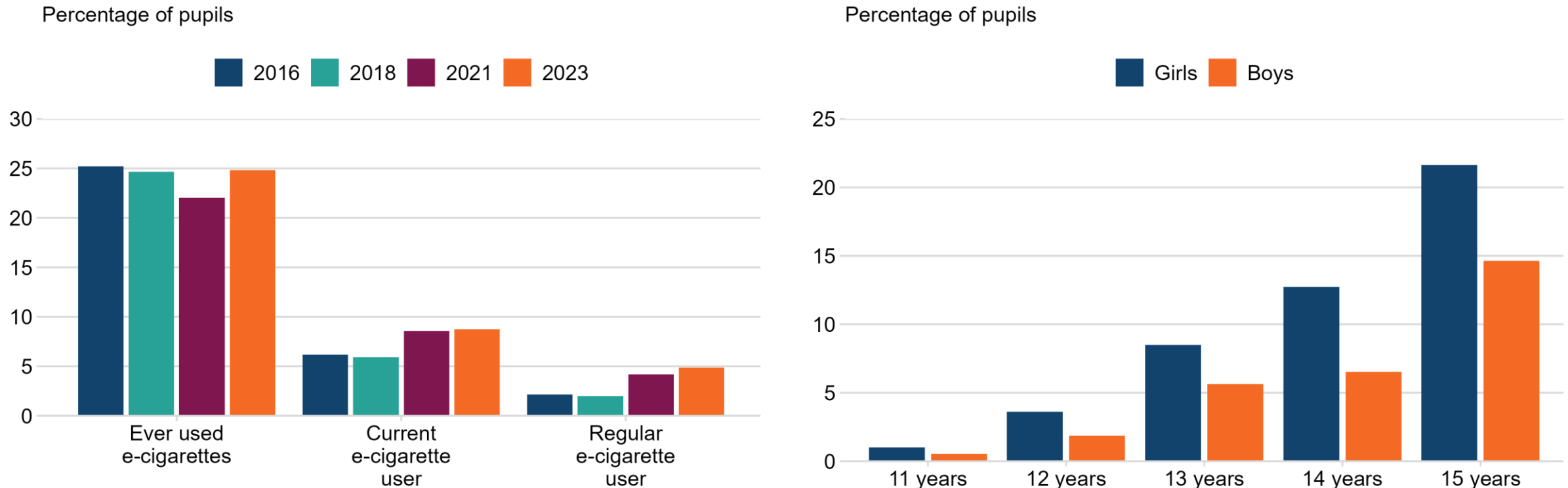


Percentage of children surveyed in the Smoking, Drinking and Drug Use Among Young People in England survey classified as regular smokers (smoking at least one cigarette per week) by age and sex, England, 1982 to 2023. The survey has been completed every 2 years, apart from a period between 1998 and 2014 when it was completed annually and in 2020 when it was postponed due to COVID-19.



1 in 4 young people have ever used e-cigarettes. More girls than boys currently use e-cigarettes.

Figure 3.25 Trend in e-cigarette use in young people

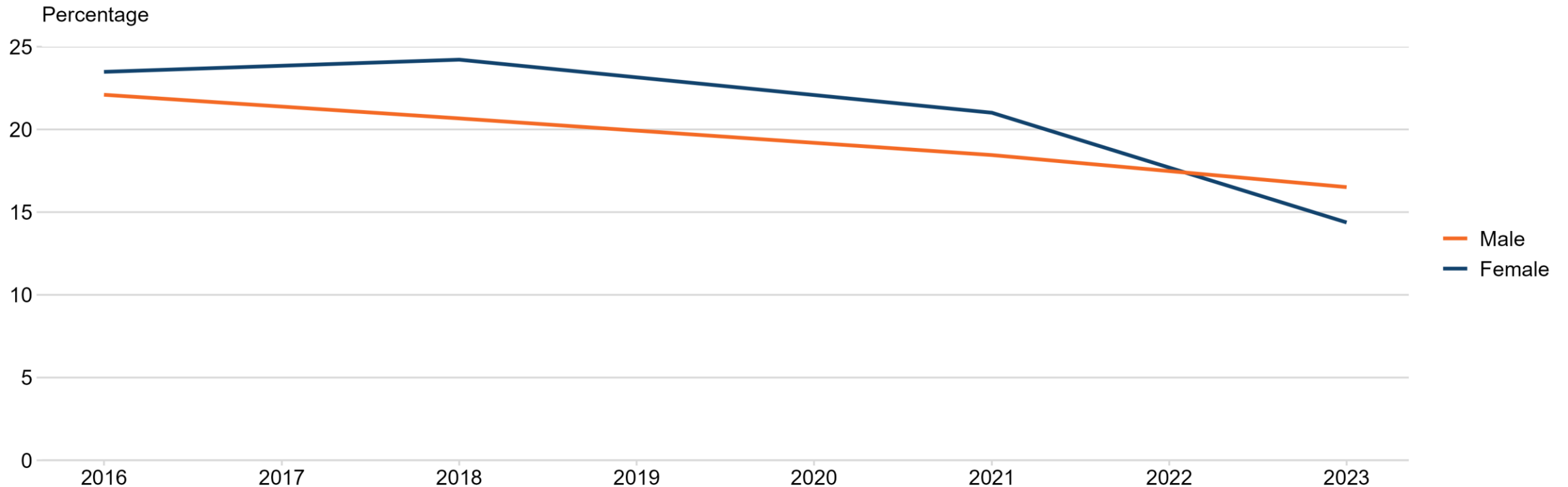


Percentage of 11 to 15 year olds surveyed in the Smoking, Drinking and Drug Use Among Young People in England survey using e-cigarettes, by e-cigarette user status, England, 2016 to 2023 (left) and for current e-cigarette users by sex, England, 2023 (right). Regular e-cigarette users, current e-cigarette users and ever-used e-cigarette user statuses are defined in the reference section.



The proportion of 15 year olds who report drinking alcohol in the last week has decreased.

Figure 3.26 Alcohol drinking in children

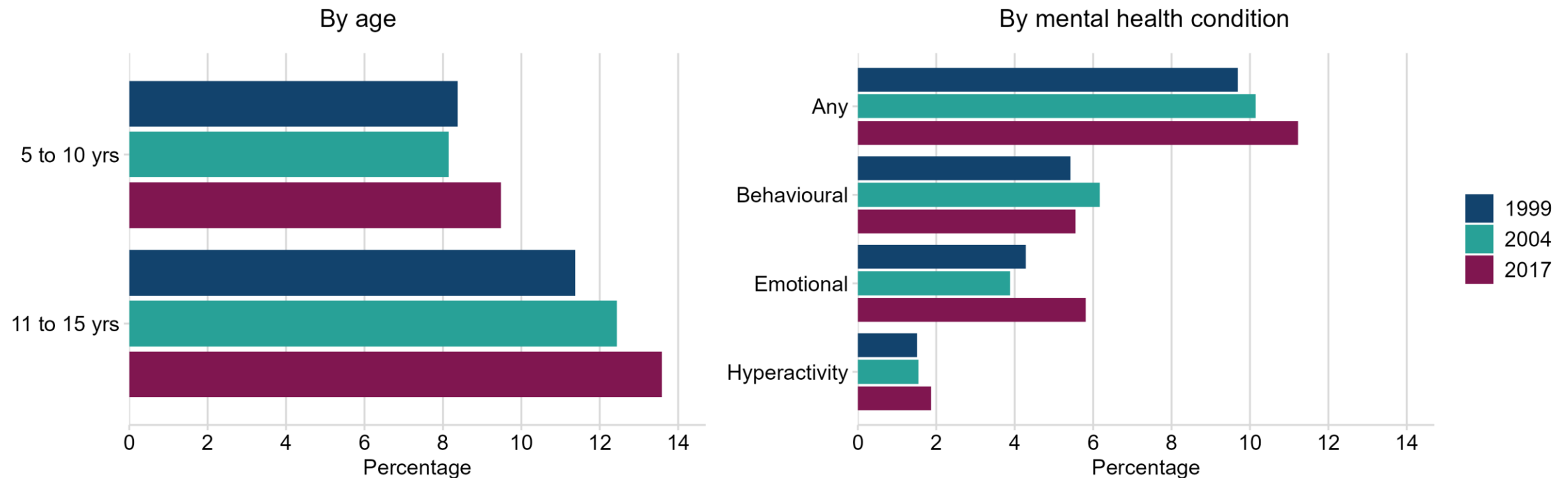


Percentage of 15 year olds surveyed in the Smoking, Drinking and Drug Use Among Young People in England survey who reported drinking alcohol in the last week, by sex, England, 2016, 2018, 2021 and 2023.



The proportion of children and young people diagnosed with a mental health condition has increased over time.

Figure 3.27 Children with mental health conditions

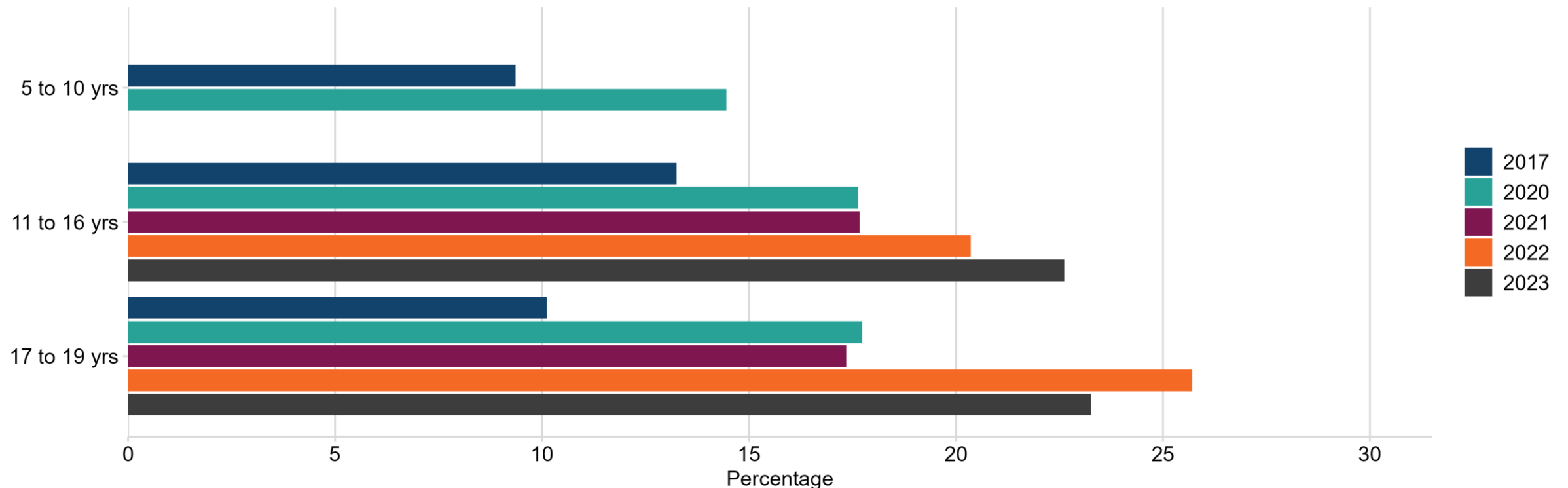


Trend in the percentage of children aged 5 to 15 years with mental health conditions, by age (left) and by condition (right), England, 1999 to 2017.



Since 2017, the prevalence of probable mental health conditions in children has increased across all age groups.

Figure 3.28 Children with probable mental health conditions



Trend in the percentage of children aged 5 to 19 years with probable mental health conditions, by age, England, 2017 to 2023. Data on children aged 5 to 10 years is from the 2020 (wave 1) follow-up survey, whereas data on children aged 10 years and over is from the 2023 (wave 4) follow-up survey.



4.1 Smoking prevalence in adults	107	4.15 Alcohol-related and alcohol-specific mortality	121
4.2 Smoking prevalence - international comparison	108	4.16 Alcohol-related mortality by deprivation and geographical variation	122
4.3 Smoking prevalence in adults by sex and ethnic group	109	4.17 Trend in alcohol affordability (higher index value = more affordable)	123
4.4 Smoking prevalence in adults by deprivation and age	110	4.18 Trend in the price of alcohol by premises type (not adjusted for inflation)	124
4.5 Smoking prevalence in adults by age	111	4.19 Trend in alcohol sales by premises type	125
4.6 Trend in adults living with obesity	112	4.20 Mortality from drug misuse	126
4.7 Adult body mass index (BMI) distribution - women	113	4.21 Mortality from drug misuse by deprivation	127
4.8 Adult body mass index (BMI) distribution - men	114	4.22 Mortality from drug misuse by sex	128
4.9 Mortality risk by body mass index (BMI)	115	4.23 Physically active adults by sex and ethnic group	129
4.10 Density of fast food outlets	116	4.24 Physically active adults by deprivation and age	130
4.11 Alcohol risk by age group	117	4.25 Cycling trend	131
4.12 Alcohol risk by deprivation	118	4.26 Air pollution trend by pollutant	132
4.13 Alcohol consumption by age and sex - abstainers	119	4.27 Air pollution - fine particulate matter (PM2.5)	133
4.14 Alcohol consumption by age and sex - high risk drinkers	120	4.28 Trend in road traffic accident fatalities	134

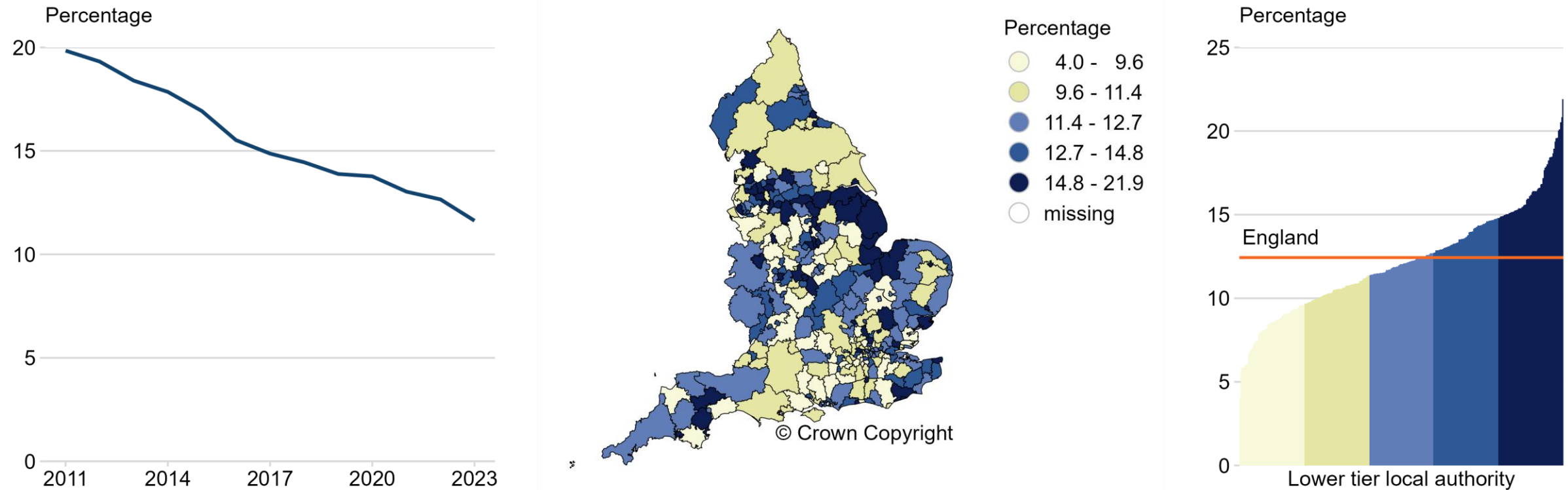


4.29 Trend in work related injuries	135
4.30 Economic inactivity and health	136
4.31 Income and health	137
4.32 Homelessness	138



The proportion of people who smoke in England is decreasing, but smoking prevalence varies across the country.

Figure 4.1 Smoking prevalence in adults

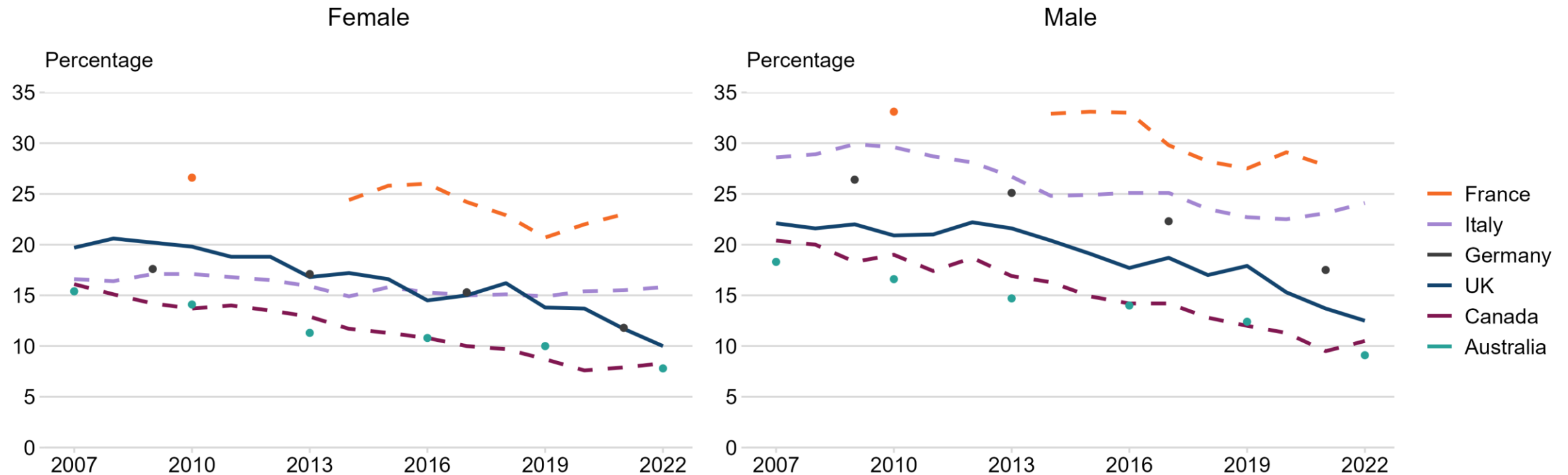


Smoking prevalence in adults: current smokers among persons 18 years and over from the Annual Population Survey, for England, 2011 to 2023 (left) and for lower tier local authorities, in 2021 to 2023 (centre and right).



Some comparable countries have also experienced reductions in smoking prevalence.

Figure 4.2 Smoking prevalence - international comparison

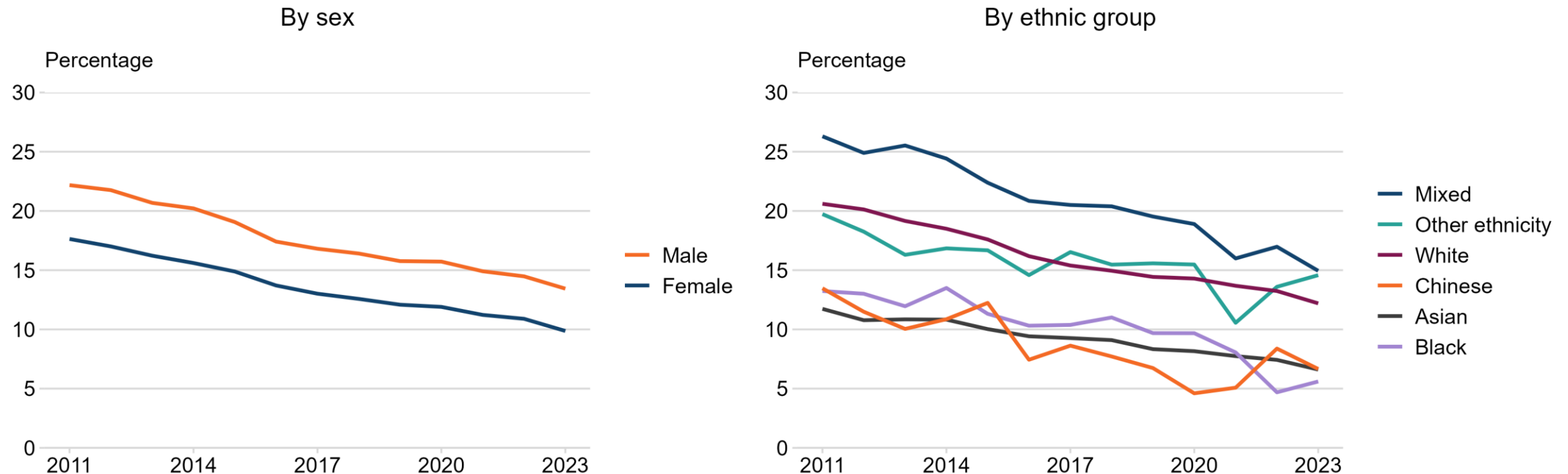


Percentage of the population aged 15 or over who are daily smokers, by age, UK and selected countries, 2007 to 2022.



Smoking rates have declined for males and females. Decreases are observed across all ethnic groups.

Figure 4.3 Smoking prevalence in adults by sex and ethnic group

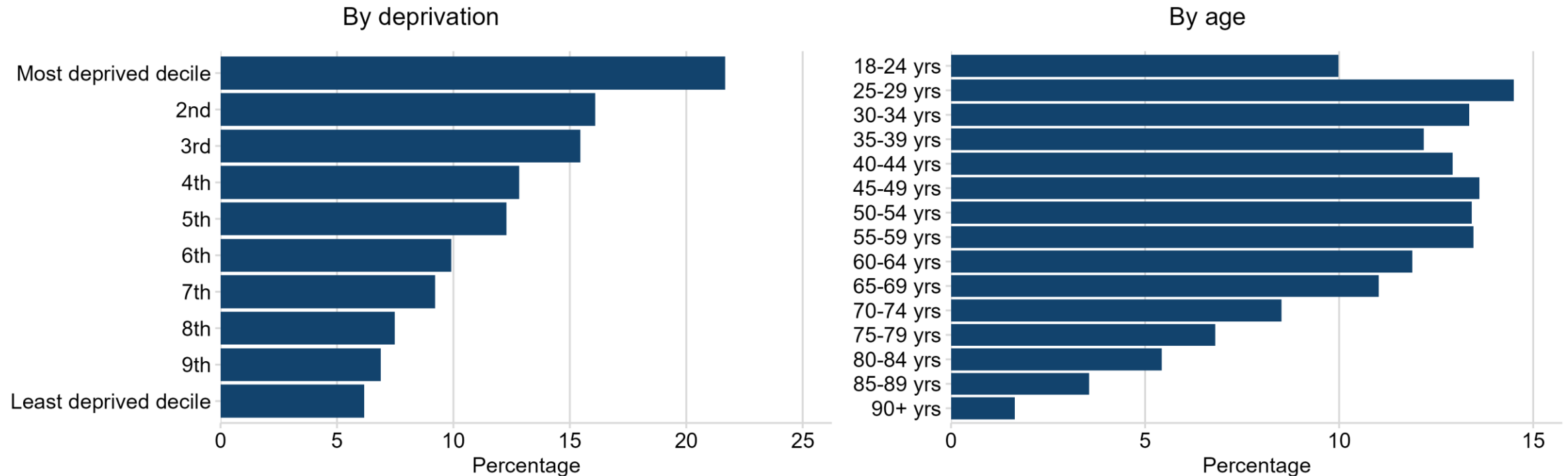


Smoking prevalence in adults: current smokers among persons 18 years and over from the Annual Population Survey by sex (left) and by ethnic group (right), England, 2011 to 2023. Ethnic group data should be interpreted with caution due to small sample sizes, especially for the Black and Chinese ethnic groups.



In 2023, smoking rates were highest in the most deprived areas and adults aged 25 to 59 years.

Figure 4.4 Smoking prevalence in adults by deprivation and age

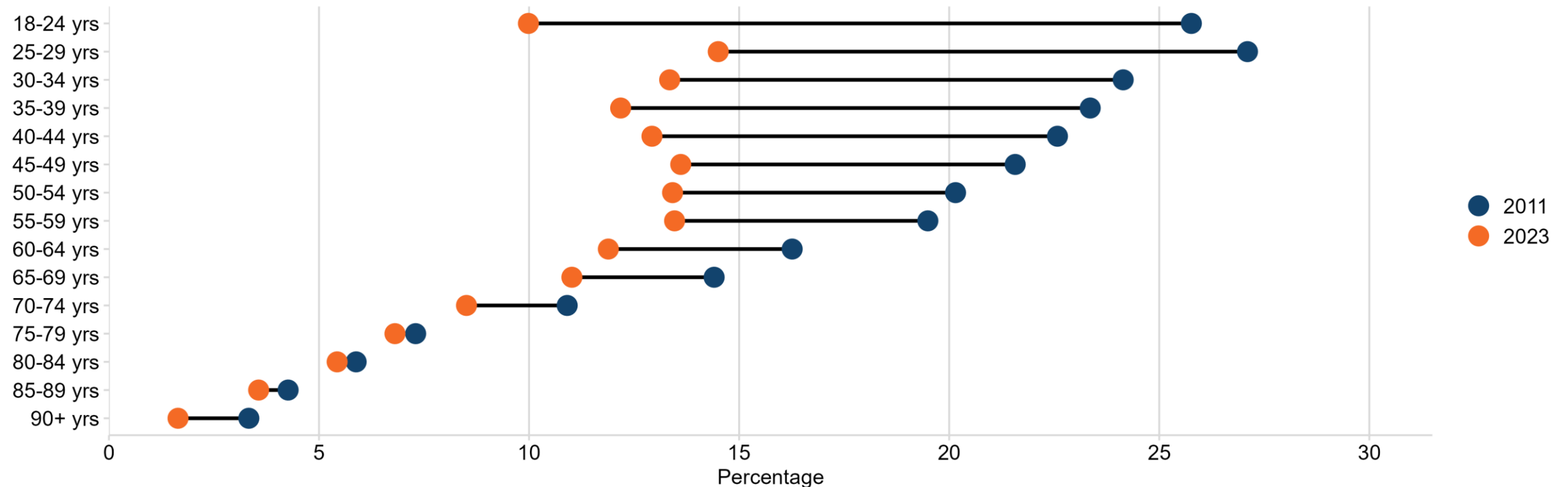


Smoking prevalence in adults: current smokers among persons 18 years and over from the Annual Population Survey by Index of Multiple Deprivation (IMD) deciles of lower super output areas (left) and by age group (right), England, 2023.



Reductions in smoking rates have been seen across all age groups. The most significant reductions have been in the younger age groups.

Figure 4.5 Smoking prevalence in adults by age

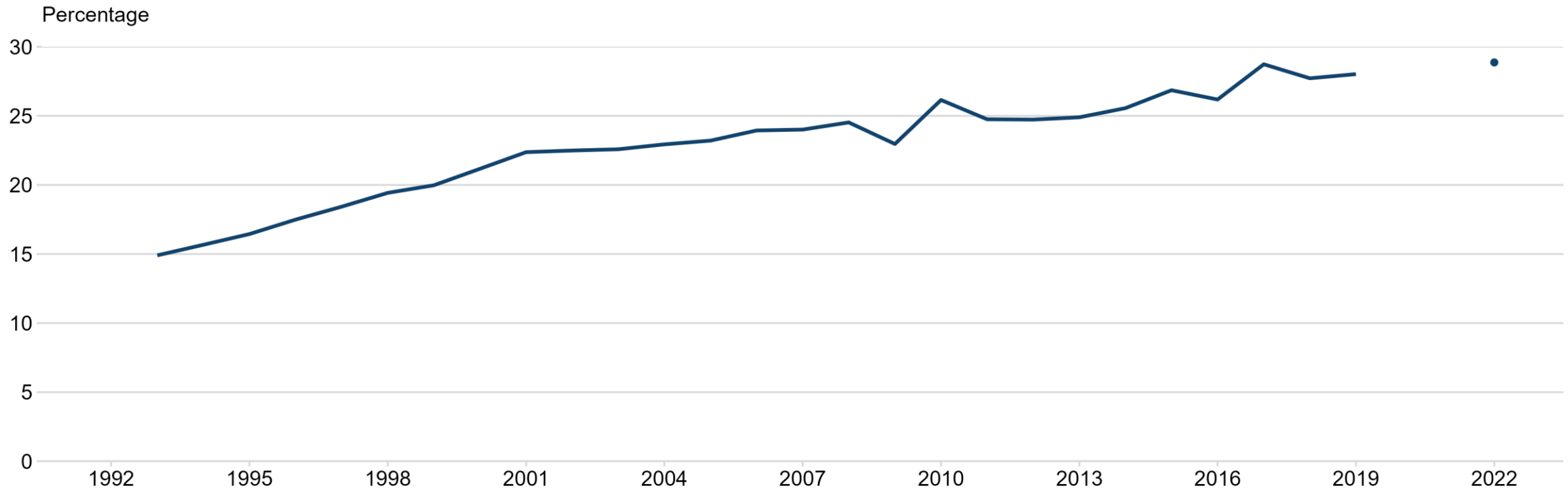


Smoking prevalence in adults: current smokers from the Annual Population Survey by age group, England, 2011 and 2023.



The proportion of adults living with obesity has risen since the early 1990s.

Figure 4.6 Trend in adults living with obesity



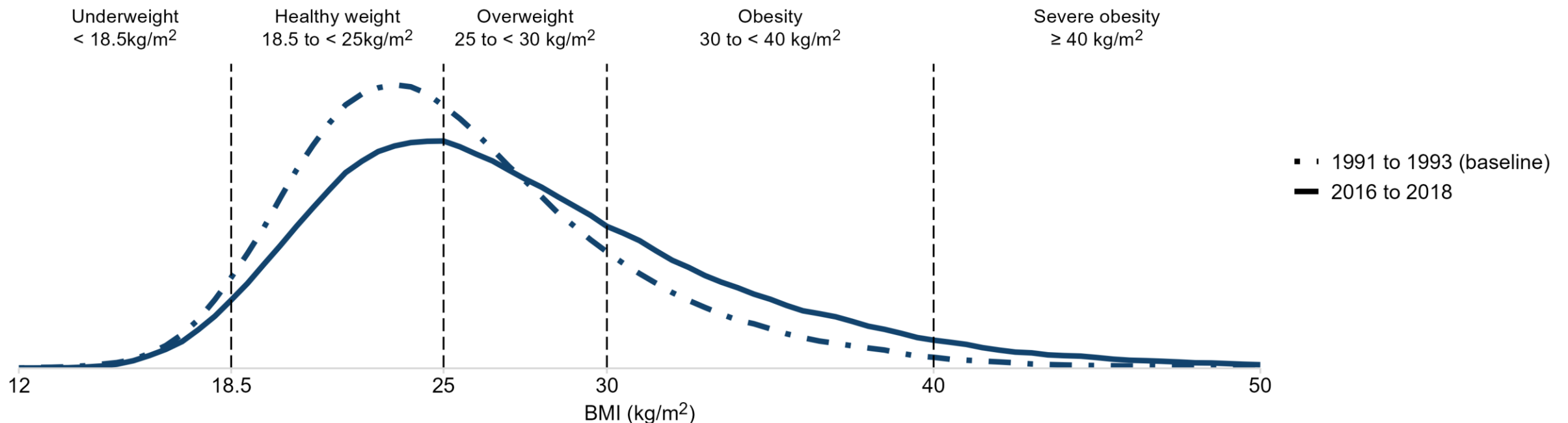
Trend in the percentage of adults aged 16 and over living with obesity, England, Health Survey for England survey years 1993 to 2022. Obesity is defined as having a body mass index (BMI) over 30 kilograms per metre squared. Data for 2003 onwards have been weighted for non-response. Data was not collected in 2020. The methodology used in 2021 was not comparable so results are not shown.



The shape of BMI distribution in adults has shifted over time. The proportion of women with high BMI measurements was higher in 2016 to 2018 than 1991 to 1993.

Figure 4.7 Adult body mass index (BMI) distribution - women

Frequency (%)



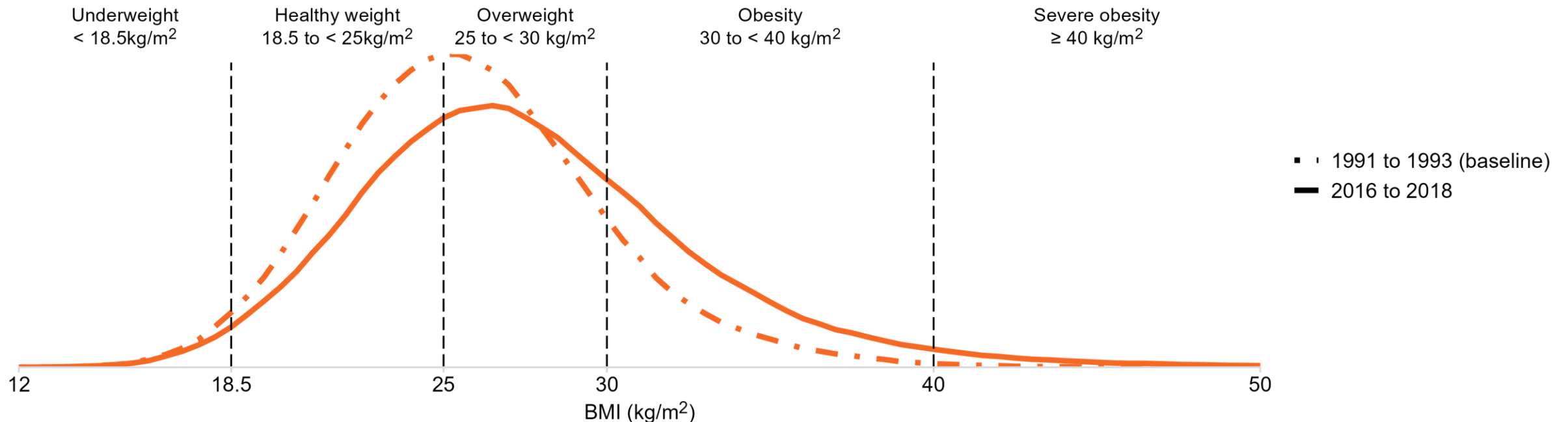
Change in the distribution of body mass index (BMI) for women aged 18 years and over, England, between 1991 to 1993 and 2016 to 2018. 3 years of data have been combined for each timepoint.



The shape of BMI distribution in adults has shifted over time. The proportion of men with high BMI measurements was higher in 2016 to 2018 than 1991 to 1993.

Figure 4.8 Adult body mass index (BMI) distribution - men

Frequency (%)

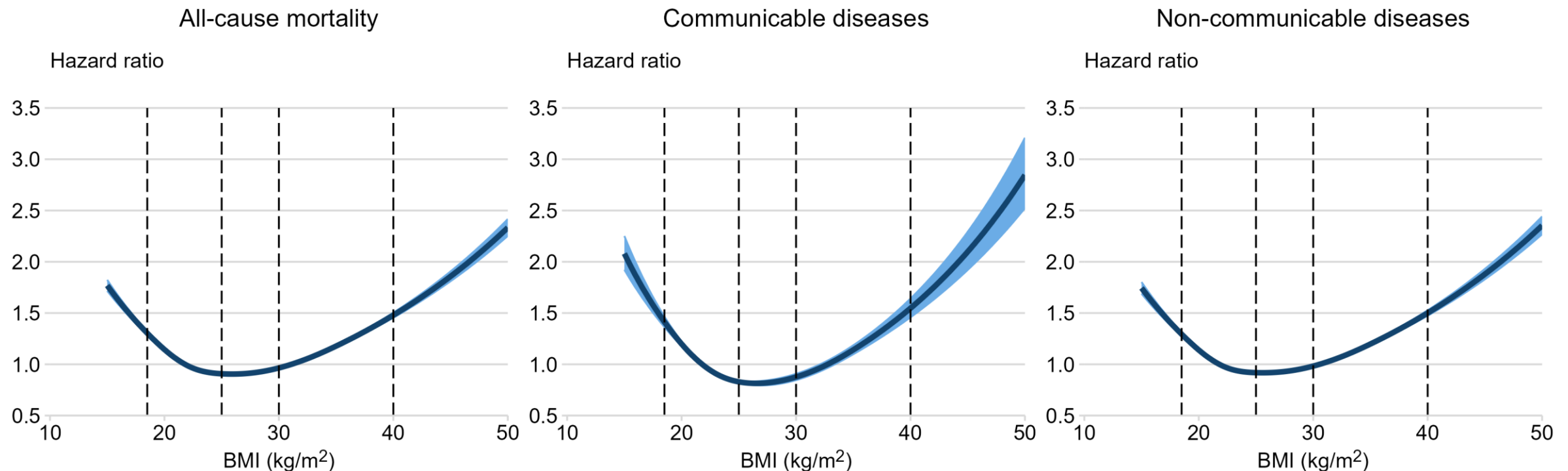


Change in the distribution of body mass index (BMI) for men aged 18 years and over, England, between 1991 to 1993 and 2016 to 2018. 3 years of data have been combined for each timepoint.



Unhealthy weight (low or high) is associated with a higher risk of death. Risk increases as weight moves further away from a healthy range.

Figure 4.9 Mortality risk by body mass index (BMI)

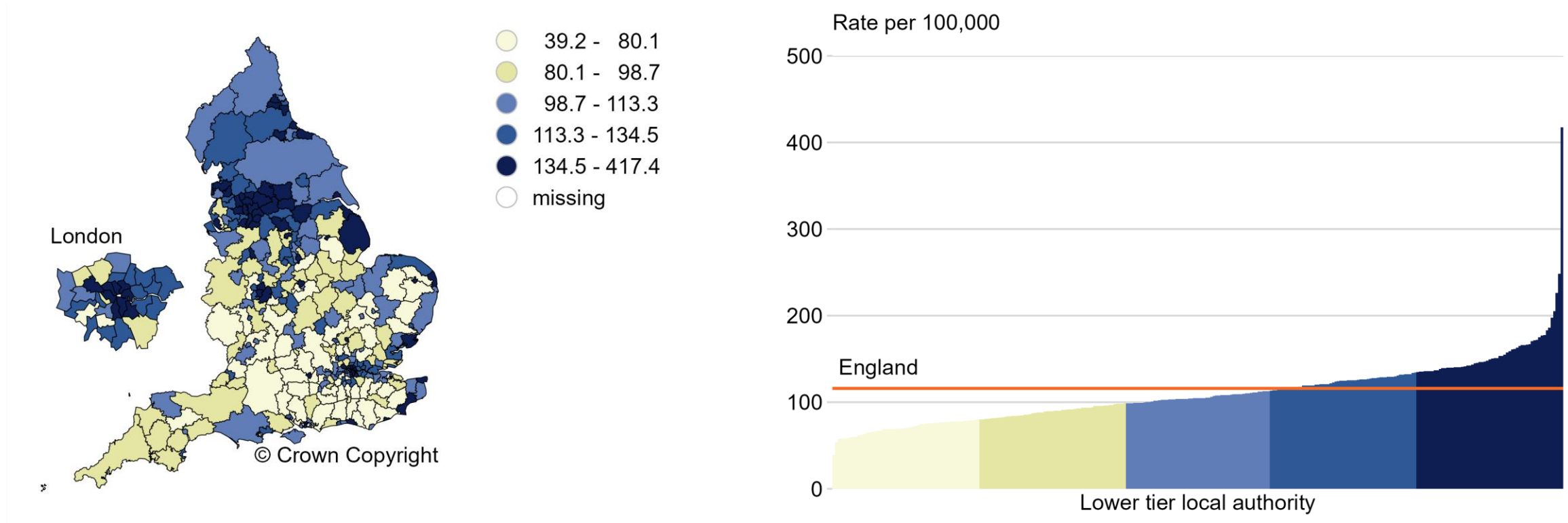


The association between body mass index (BMI) and mortality from a population-based cohort study, showing 95% confidence, United Kingdom, between 1998 and 2016. A hazard ratio greater than 1 represents an increased risk of mortality and a hazard ratio less than 1 represents a decreased risk. World Health Organization BMI category thresholds are displayed as a dashed line; underweight < 18.5kg/m², healthy weight 18.5 to < 25kg/m², overweight 25 to < 30 kg/m², obesity 30 to < 40 kg/m², severe obesity ≥ 40 kg/m².



The density of fast food outlets is greatest in the most deprived areas.

Figure 4.10 Density of fast food outlets

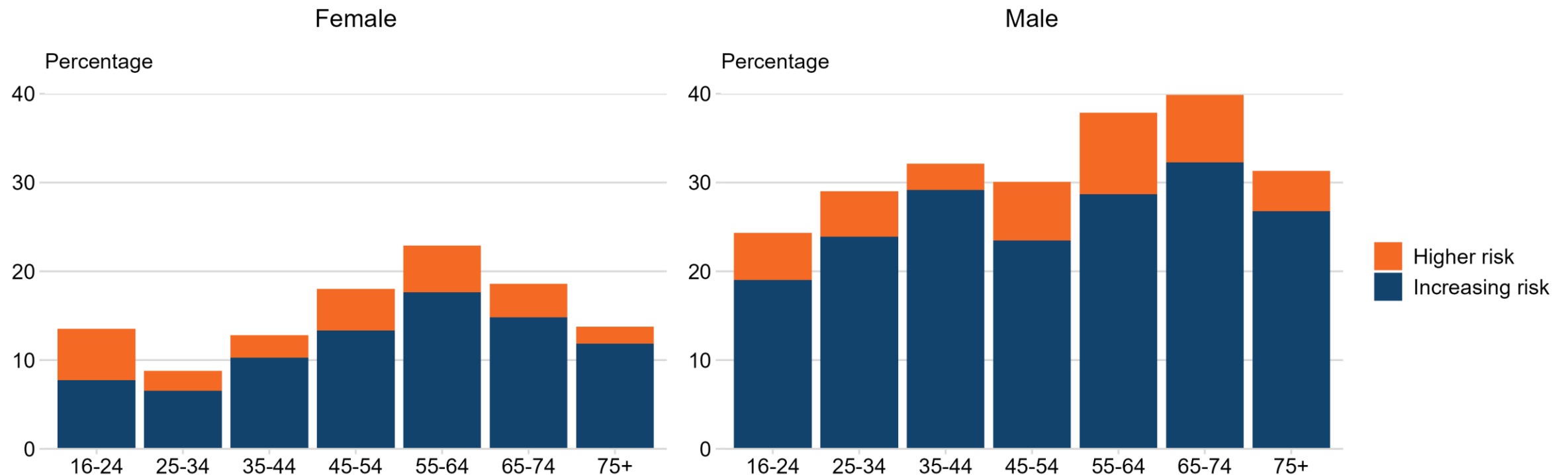


Fast food outlets (crude rate per 100,000 population), lower tier local authorities in England, 2024.



In 2022, a greater proportion of males reported drinking at levels that increase risk of harm compared with females.

Figure 4.11 Alcohol risk by age group

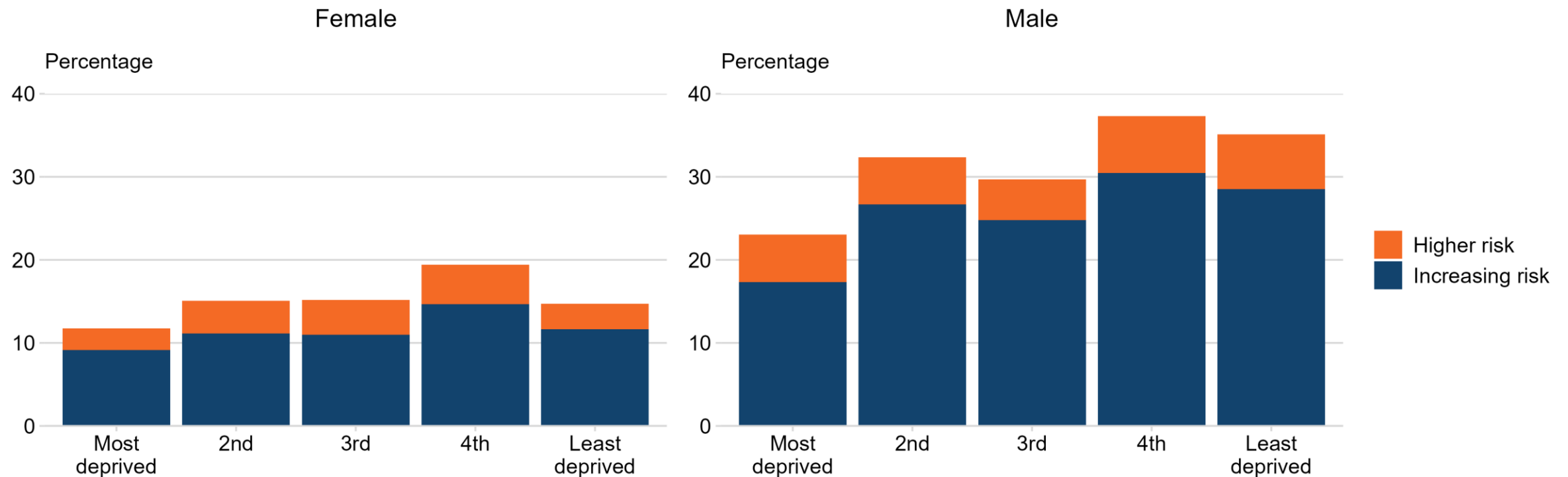


Percentage of adults drinking at increased or higher risk of harm, by age group, England, Health Survey for England survey year 2022. Increasing risk is 14 to 50 units per week in men and 14 to 35 units per week in women. Higher risk is greater than 50 units in men and greater than 35 units in women.



In 2022, the proportion of adults who reported drinking at levels that increase risk of harm was similar across deprivation levels.

Figure 4.12 Alcohol risk by deprivation

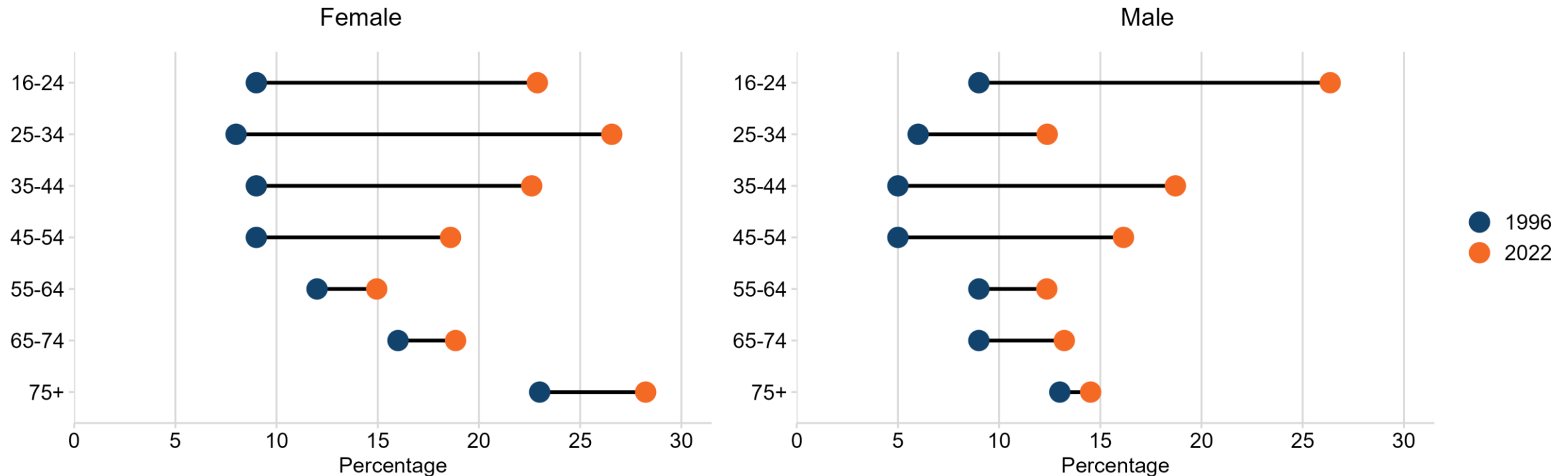


Percentage of adults drinking at increased or higher risk of harm, by Index of Multiple Deprivation (IMD) quintiles of lower super output areas, England, Health Survey for England survey year 2022. Increasing risk is 14 to 50 units per week in men and 14 to 35 units per week in women. Higher risk is greater than 50 units in men and greater than 35 units in women.



Abstaining from alcohol is more common today than in the mid-1990s. Larger changes are seen in younger age groups.

Figure 4.13 Alcohol consumption by age and sex - abstainers

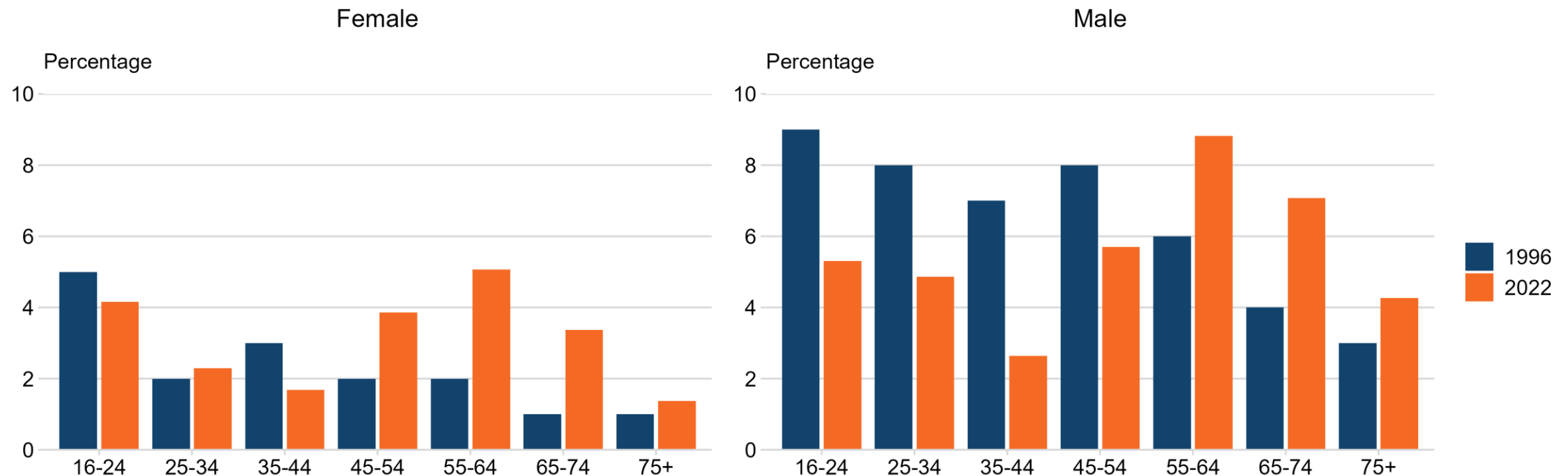


Percentage of adults who abstain from drinking alcohol, England, Health Survey for England survey years 1996 and 2022.



In 1996, high risk drinking was more prevalent among young adults, whereas in 2022, it was more common among older adults. It is likely this cohort effect will be sustained.

Figure 4.14 Alcohol consumption by age and sex - high risk drinkers

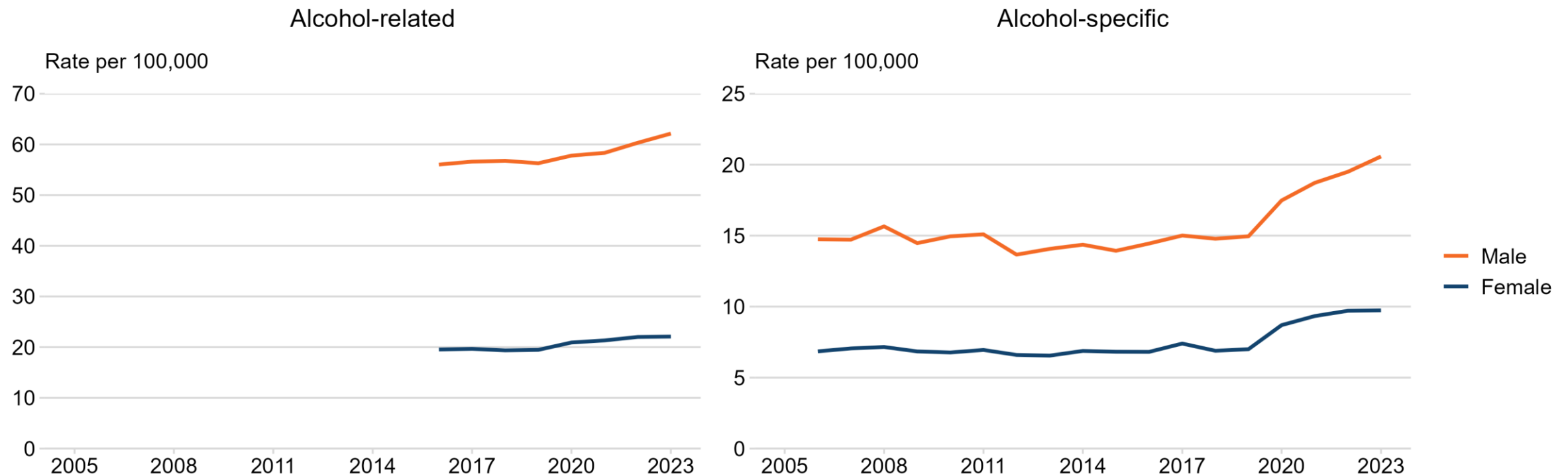


Percentage of adults who are higher risk drinkers, England, Health Survey for England (HSE) survey years 1996 and 2022. Higher risk is greater than 50 units in men and greater than 35 units in women. The method used by HSE to convert drinks to units changed in 2006 and 2022 meaning that 1996 higher risk drinkers may be underestimated.



Deaths rates from alcohol have increased, particularly among males.

Figure 4.15 Alcohol-related and alcohol-specific mortality

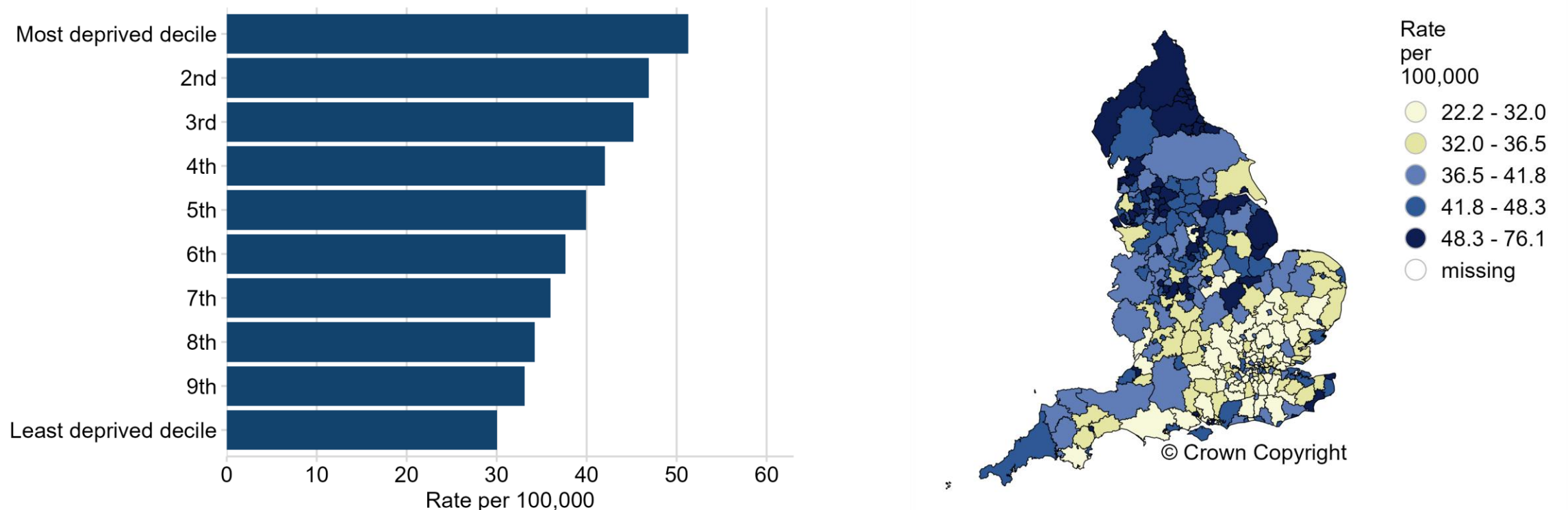


Mortality from alcohol-related conditions (left) and alcohol-specific conditions (right) by sex, England, 2006 to 2023. Directly age-standardised rates per 100,000 population. Alcohol-related mortality measures the mortality rate from causes that are wholly or partially caused by alcohol consumption by assigning an alcohol-attributable fraction to each death based on the age, sex and cause. Alcohol-specific mortality measures the mortality rate from causes that are wholly caused by alcohol consumption.



In 2023, the rate of deaths related to alcohol was greater in more deprived areas.

Figure 4.16 Alcohol-related mortality by deprivation and geographical variation

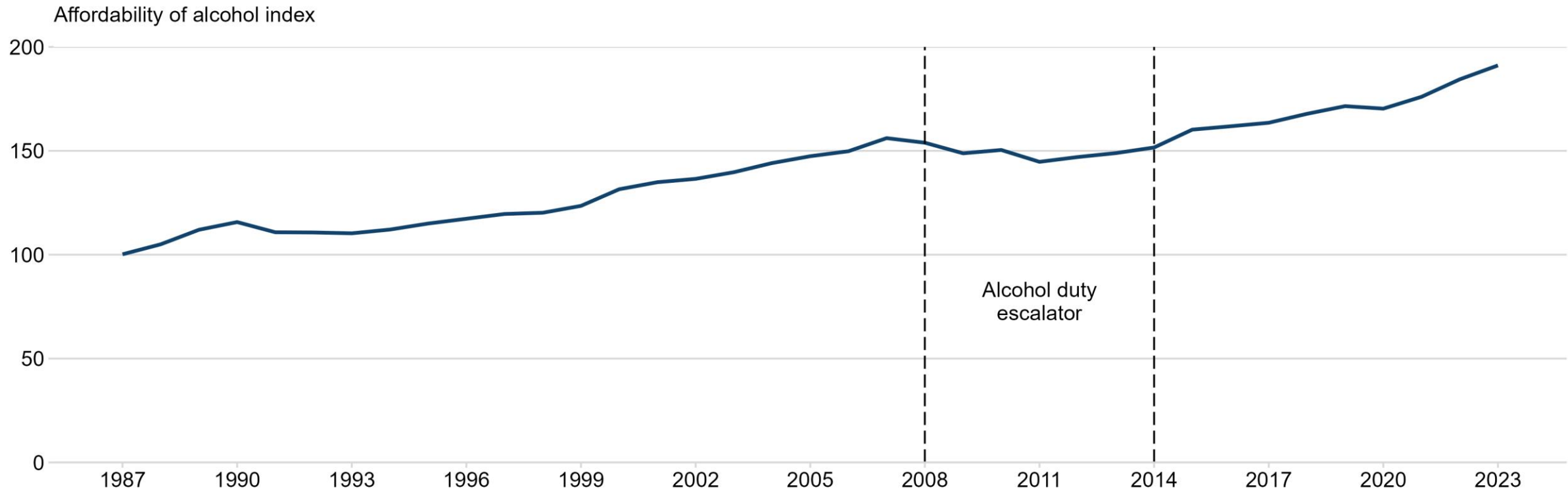


Mortality from alcohol-related conditions by lower tier local authority based Index of Multiple Deprivation (IMD) (left) and for lower tier local authorities (right), England, 2023. Directly age-standardised rates per 100,000 population. Alcohol-related mortality measures the mortality rate from causes that are wholly or partially caused by alcohol consumption by assigning an alcohol-attributable fraction to each death based on the age, sex and cause.



Alcohol has become increasingly more affordable.

Figure 4.17 Trend in alcohol affordability (higher index value = more affordable)

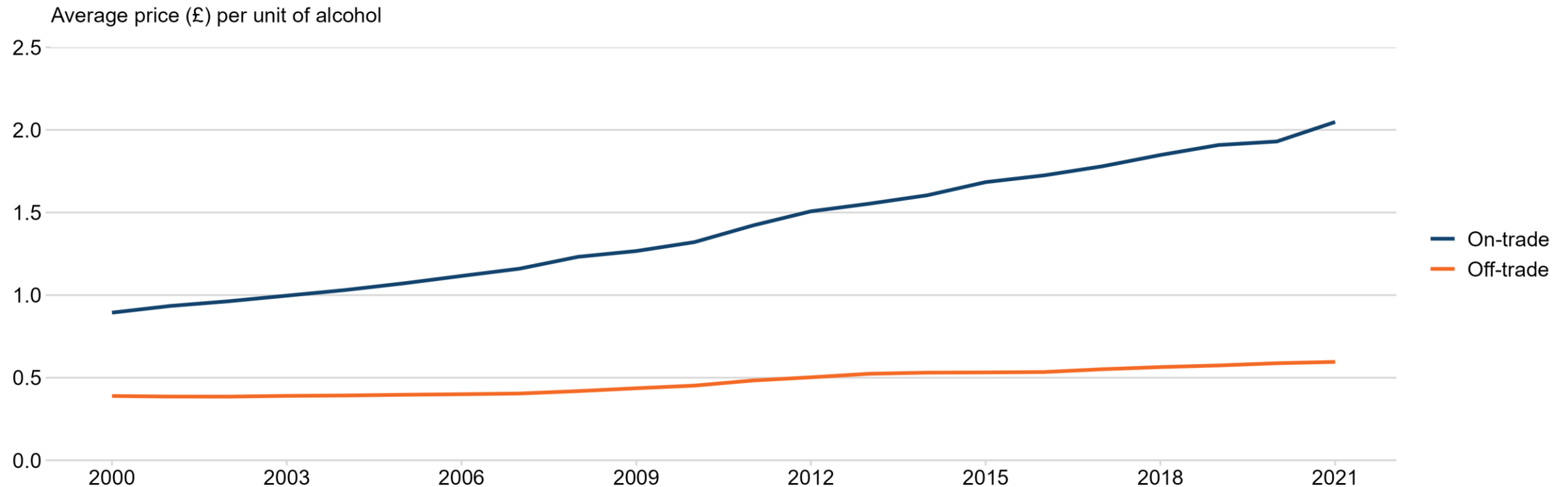


The affordability of alcohol index (RAAI) on a per capita (adult) basis showing the government alcohol duty escalator period, United Kingdom, 1987 to 2023. Indexed against January 1987. The affordability of alcohol index shows how the price of alcohol has changed compared with the price of all goods and services and households' disposable income. If the affordability index is above 100, then alcohol is relatively more affordable than in the base year, 1987. Note that the value for 1987 does not equal exactly 100 because the base index value is for January in that year whereas the 1987 value is the mean of the 12 months in that year.



Since 2000, the average price per unit of alcohol has increased in the on-trade (pubs, bars, clubs and restaurants) more than the off-trade (supermarkets and other off-licenses).

Figure 4.18 Trend in the price of alcohol by premises type (not adjusted for inflation)

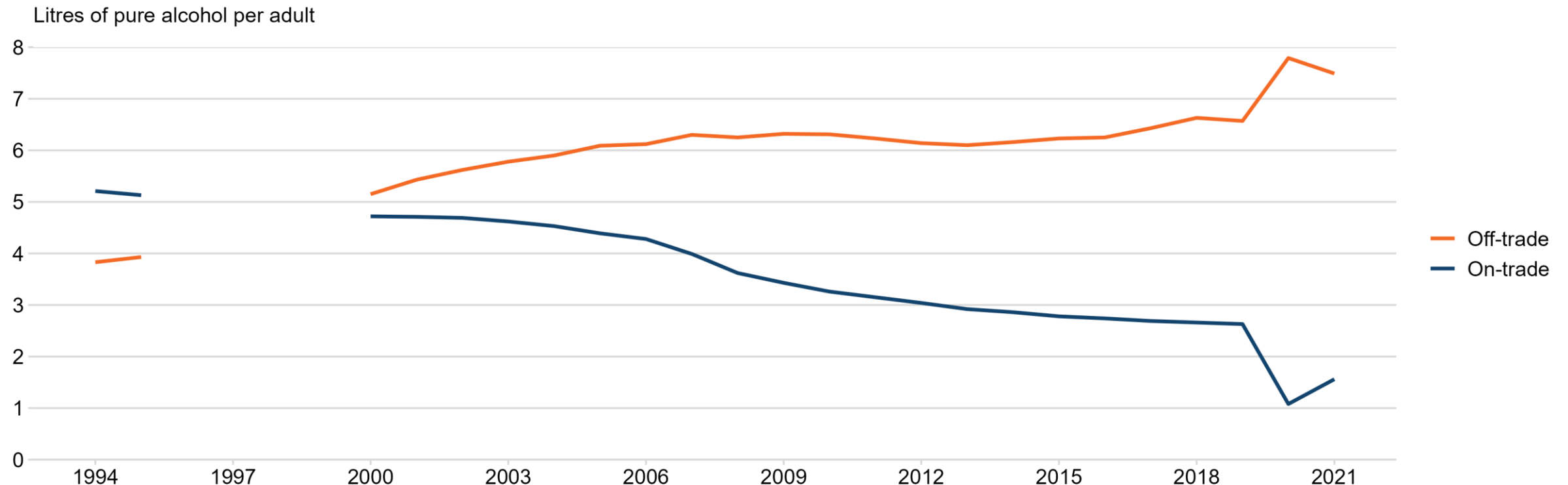


Average price (£) per unit of alcohol sold by premises type, England and Wales, 2000 to 2021. On-trade premises include pubs, bars, clubs and restaurants. Off-trade premises include supermarkets and other off-licences. Alcohol prices have not been adjusted for inflation.



Since 2000, the volume of alcohol sold per adult increased in the off-trade (supermarkets and other off-licenses) and decreased in the on-trade (pubs, bars, clubs and restaurants) sector.

Figure 4.19 Trend in alcohol sales by premises type

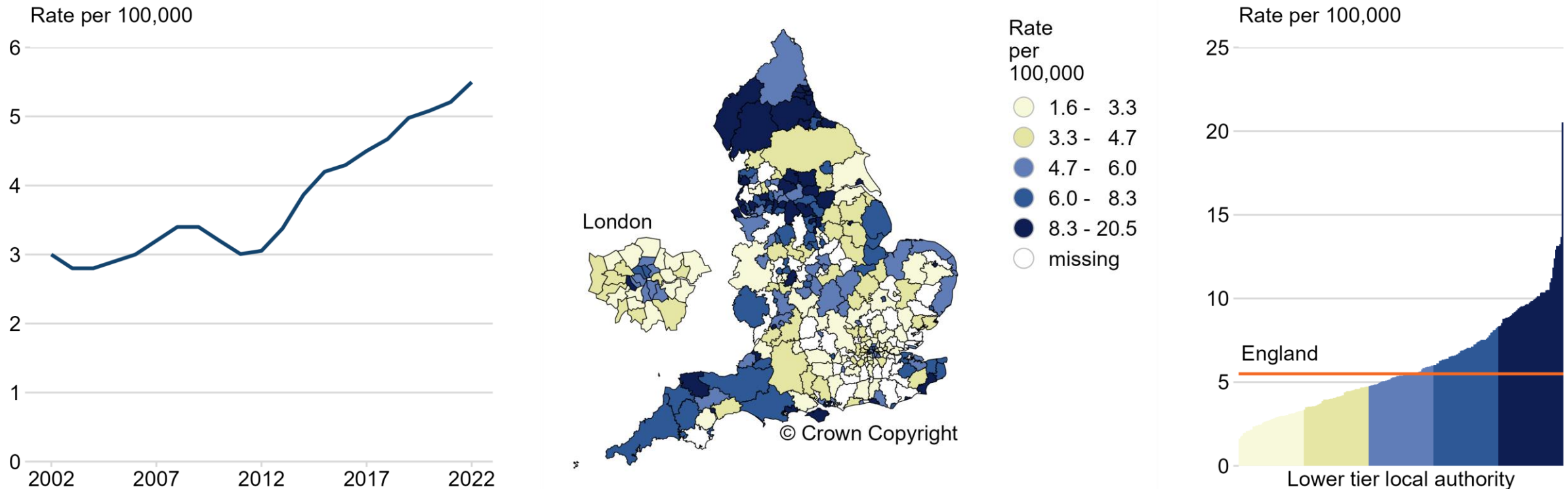


Volume in litres of pure alcohol sold per adult aged 16 or over by trade sector, England and Wales, 1994 to 2021. On-trade premises include pubs, bars, clubs and restaurants. Off-trade premises include supermarkets and other off-licences. Data is not available for 1996 to 1999.



The death rate attributed to drug misuse has nearly doubled over 20 years.

Figure 4.20 Mortality from drug misuse

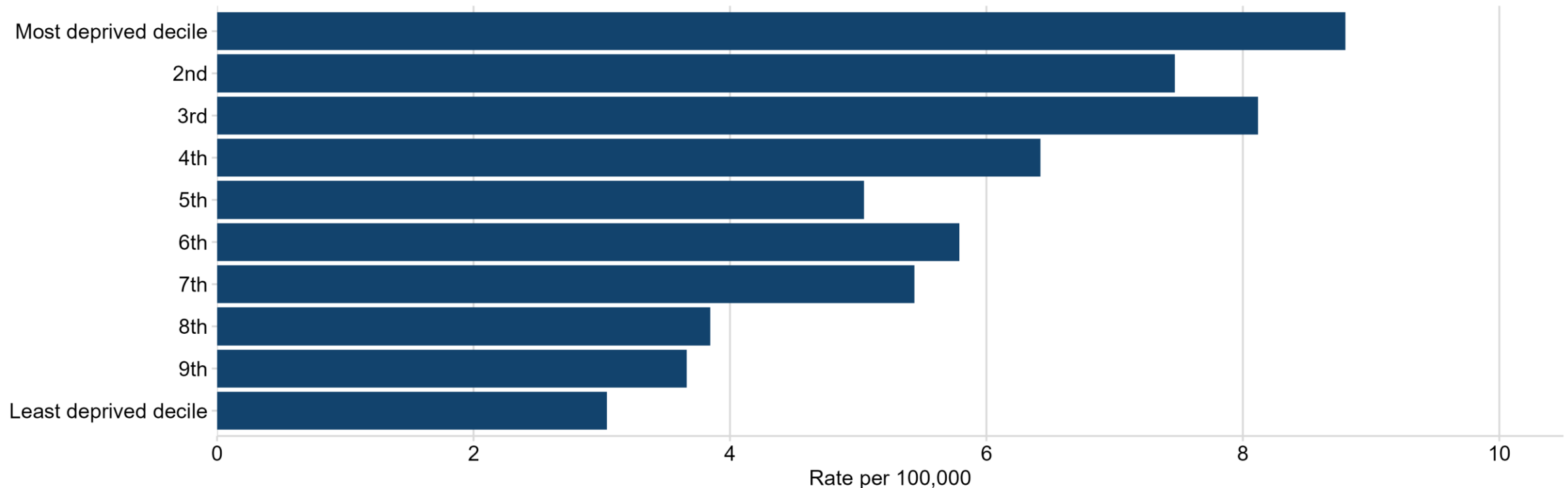


Mortality from drug misuse. Directly age-standardised rate per 100,000 population, for England, between 2001 to 2003 and 2021 to 2023 (left) and for lower tier local authorities, 2021 to 2023 (centre and right). Years indicate the mid-point in a 3-year range.



The death rate attributed to drug misuse was higher in more deprived areas between 2021 and 2023.

Figure 4.21 Mortality from drug misuse by deprivation

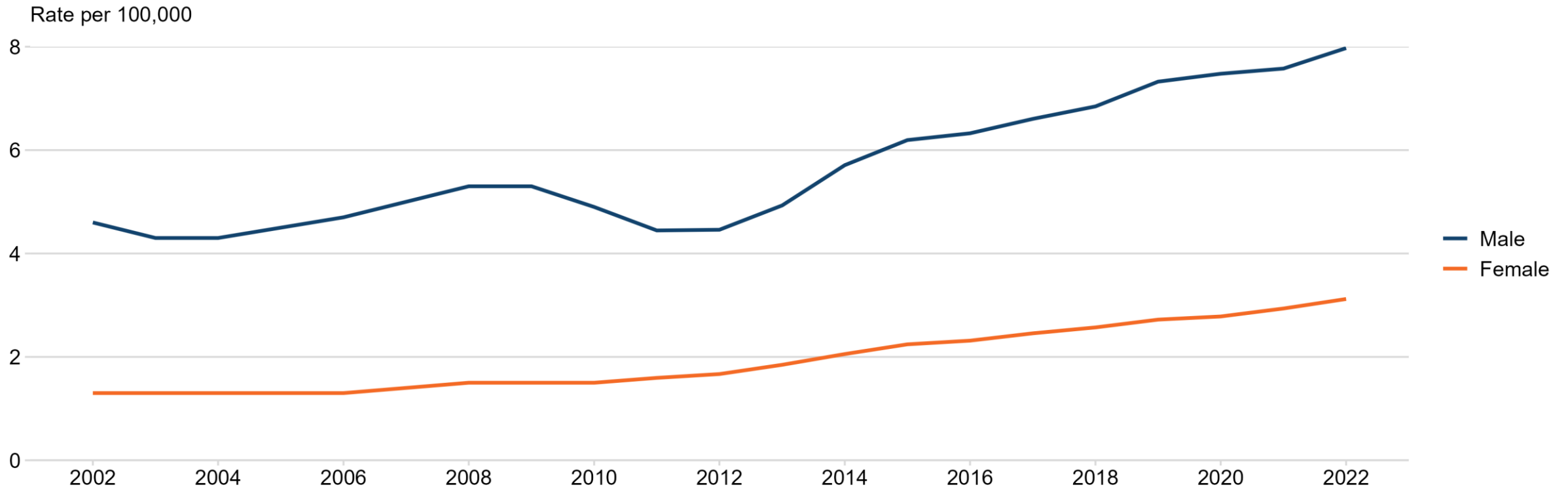


Mortality from drug misuse for upper tier local authority based Index of Multiple Deprivation (IMD) deciles. Directly age-standardised rate per 100,000 population, England, 2021 to 2023.



The death rate attributed to drug misuse has increased over time and is higher in males.

Figure 4.22 Mortality from drug misuse by sex

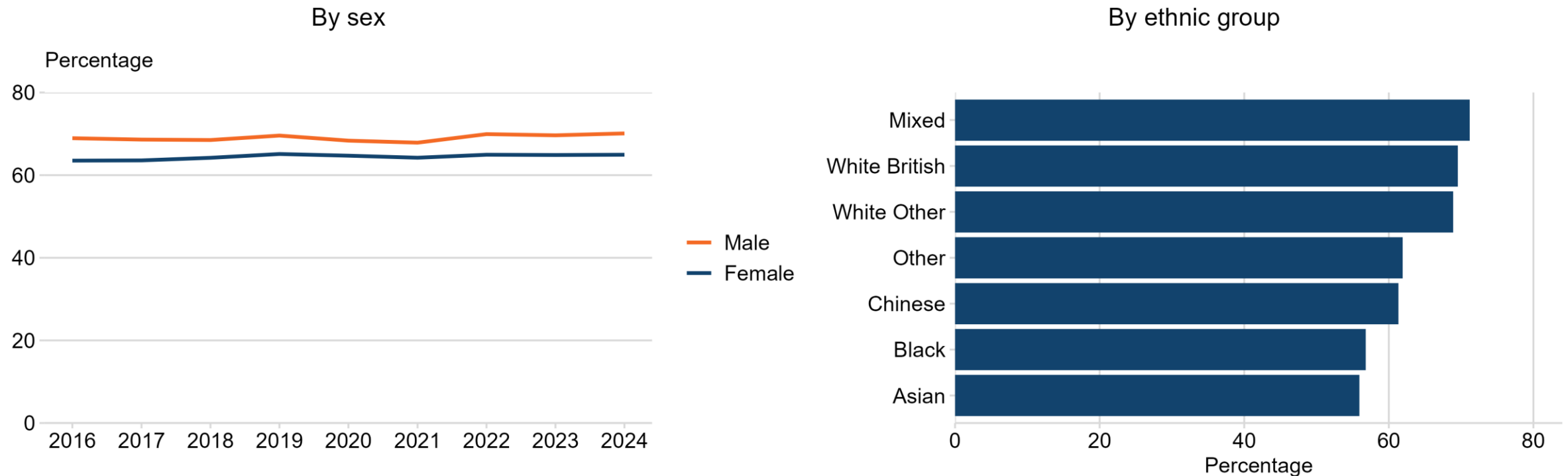


Mortality from drug misuse by sex. Directly age-standardised rate per 100,000 population, for England, between 2001 to 2003 and 2021 to 2023.



In 2023 to 2024, around two-thirds of adults were physically active. More males were physically active than females.

Figure 4.23 Physically active adults by sex and ethnic group

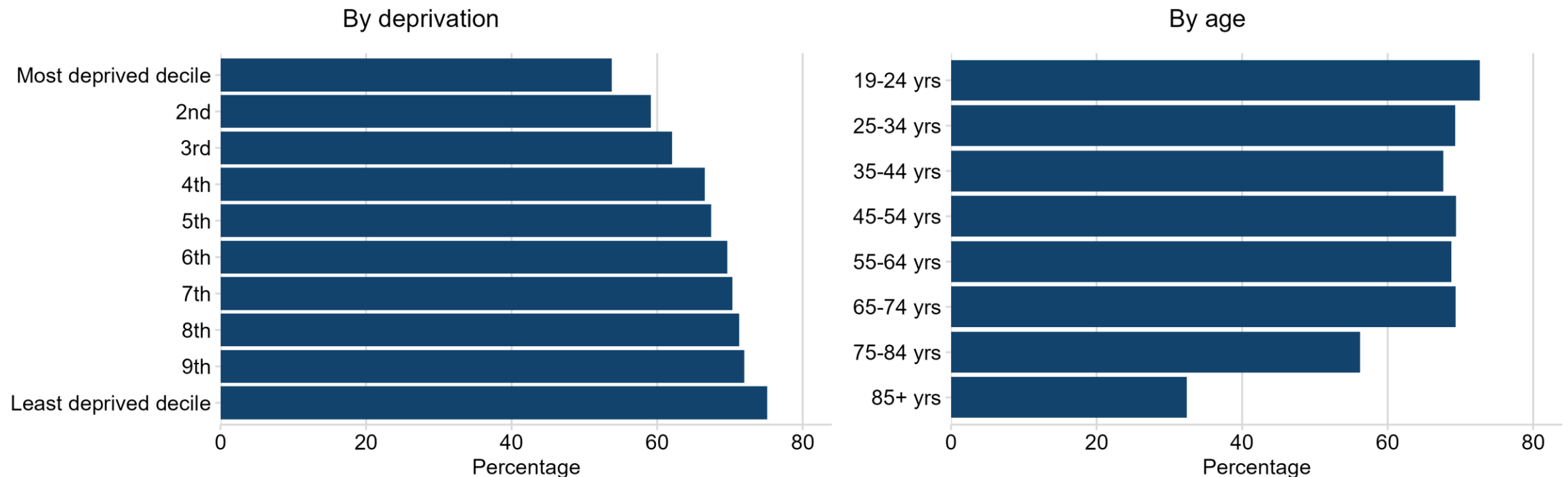


Percentage of adults who are physically active, England, by sex for survey years between 2015 to 2016 and 2023 to 2024 (left) and by ethnic group in survey year 2023 to 2024 (right). Physically active is defined as doing at least 150 minutes of moderate intensity activity per week in bouts of 10 minutes or more in the previous 28 days. Survey year data ending in the year shown.



In 2023 to 2024, the proportion of physically active adults was lower in more deprived areas and in older adults.

Figure 4.24 Physically active adults by deprivation and age

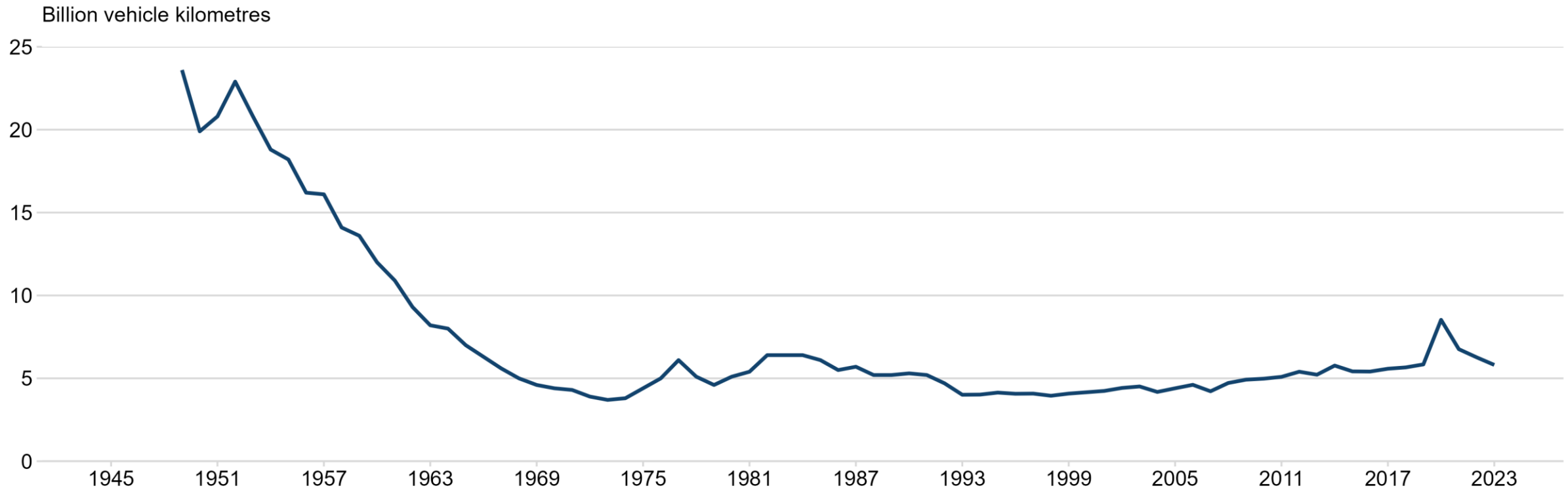


Percentage of adults who are physically active by Index of Multiple Deprivation (IMD) deciles of lower super output areas (left) and by age group (right), England, survey year 2023 to 2024. Physically active is defined as doing at least 150 minutes of moderate intensity activity per week in bouts of 10 minutes or more in the previous 28 days.



Cycling used to be a more common form of transport but declined after mass motor vehicle adoption.

Figure 4.25 Cycling trend

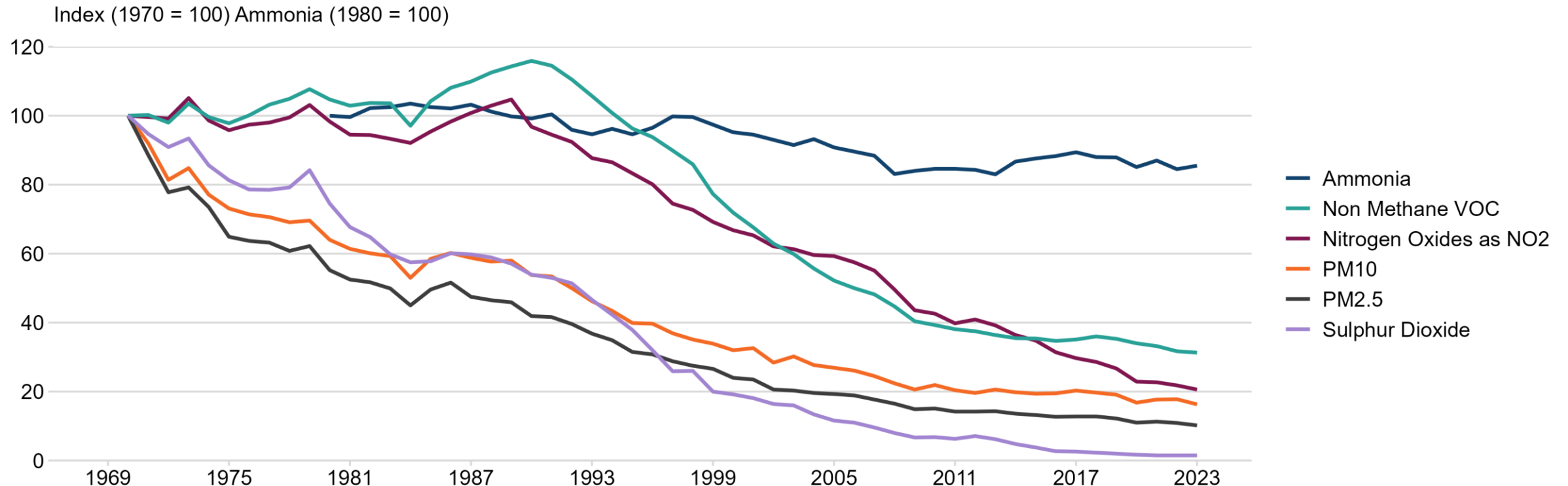


Pedal cycle traffic (vehicle kilometres) in Great Britain, annual, 1949 to 2023.



Most air pollutants have reduced since the 1970s. Ammonia levels (mainly agriculture) remain high and improvements in PM2.5 and PM10 have stalled.

Figure 4.26 Air pollution trend by pollutant

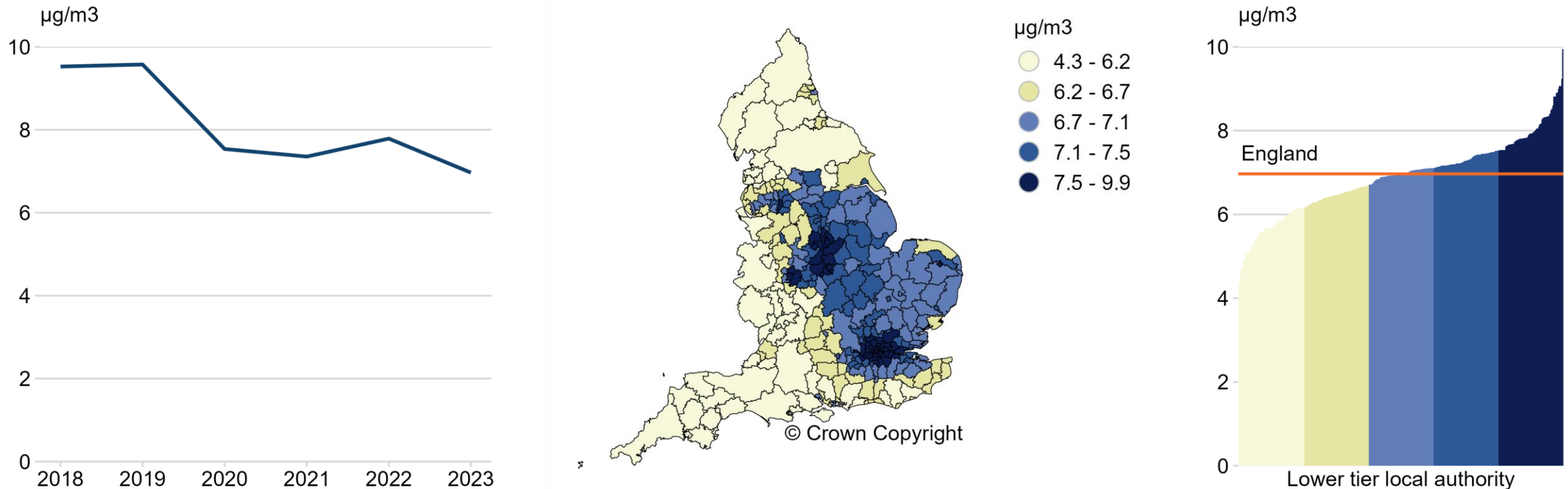


Trend in emissions of sulphur dioxide, nitrogen oxides, non-methane volatile organic compounds (VOC), ammonia and particulate matter (PM10 and PM2.5: individual particles with an aerodynamic diameter of generally less than 10 or 2.5 micrometers), UK, 1970 to 2023.



Air pollution from fine particulate matter is greatest in urban areas.

Figure 4.27 Air pollution - fine particulate matter (PM2.5)

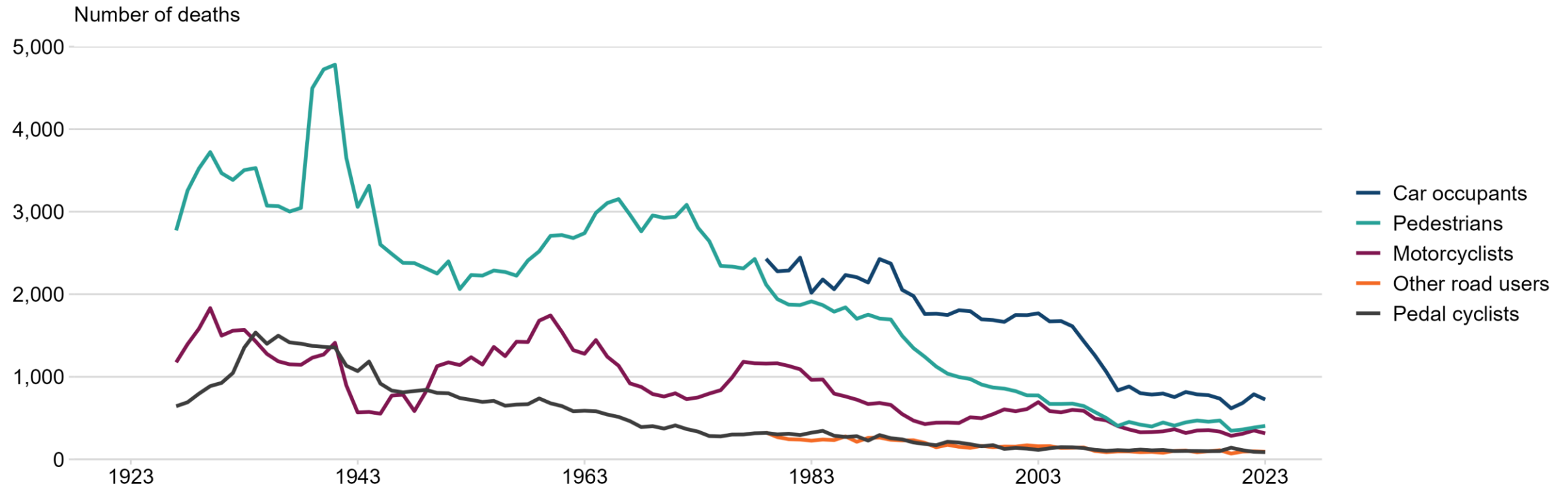


Air pollution: annual concentration of fine particulate matter (PM2.5) in micrograms per cubic metre ($\mu\text{g}/\text{m}^3$) adjusted to account for population exposure, for England, 2018 to 2023 (left) and for lower tier local authorities, 2023 (centre and right). PM2.5, also known as fine particulate matter, refers to individual particles with an aerodynamic diameter generally less than 2.5 micrometers.



Road traffic deaths have decreased substantially but have levelled off in the last decade.

Figure 4.28 Trend in road traffic accident fatalities

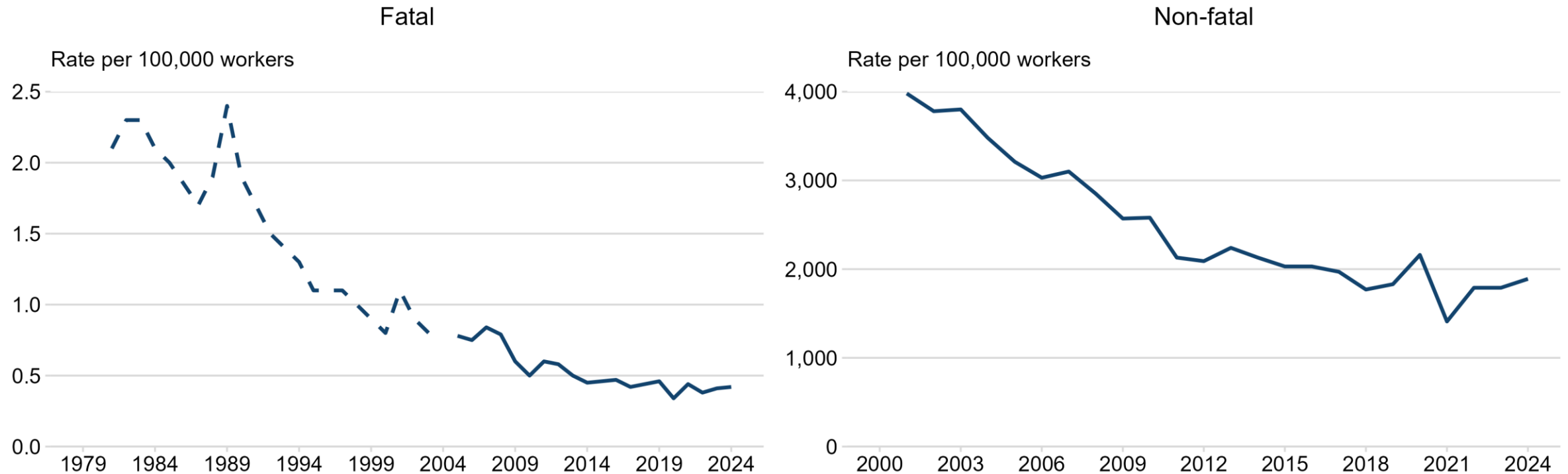


Number of people killed in road traffic accidents by road user type, Great Britain, 1926 to 2023.



The rate of work-related injuries has decreased over 40 years.

Figure 4.29 Trend in work related injuries

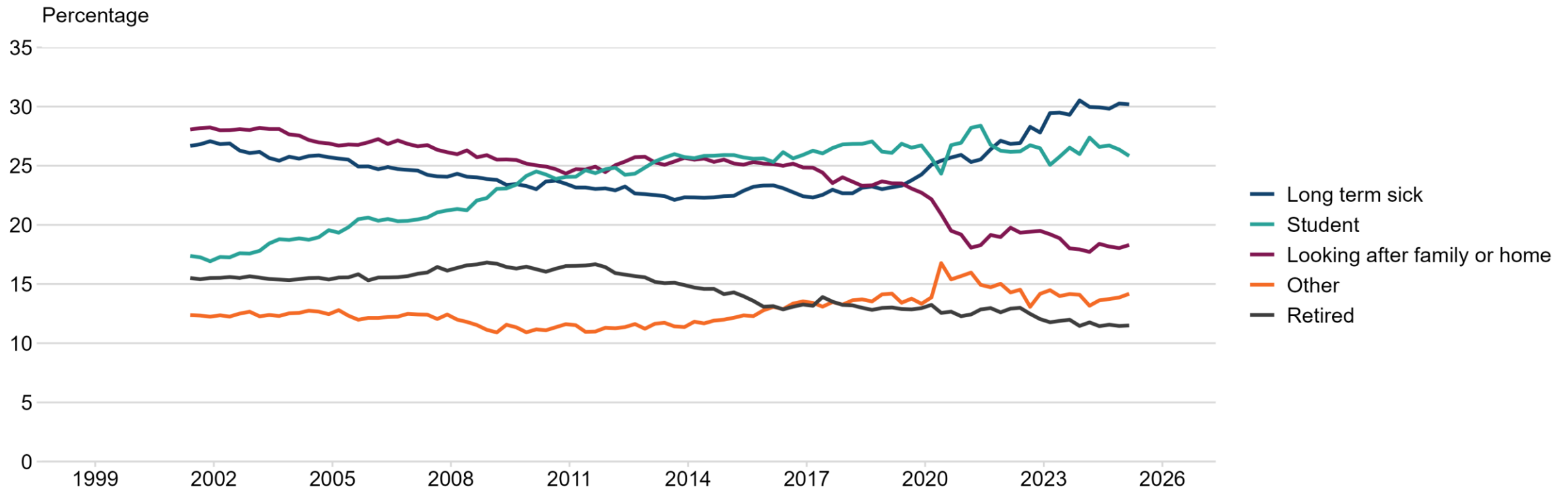


Rate of fatal and self-reported non-fatal injuries per 100,000 workers, Great Britain, between 1981 and 2023 to 2024 (fatal) and between 2000 to 2001 and 2023 to 2024 (non-fatal). Data for 2023 to 2024 is provisional. Includes employed and self-employed workers. Rates in 2020 to 2021, and to a lesser extent 2021 to 2022 and 2019 to 2020, are affected by the COVID-19 pandemic as denominators include those temporarily absent from work. Fatal rate estimates use a different source of employment data prior to 2004 to 2005 (dotted line). Financial year data ending in the year shown.



The percentage of people who are economically inactive due to long term sickness has risen in recent years.

Figure 4.30 Economic inactivity and health

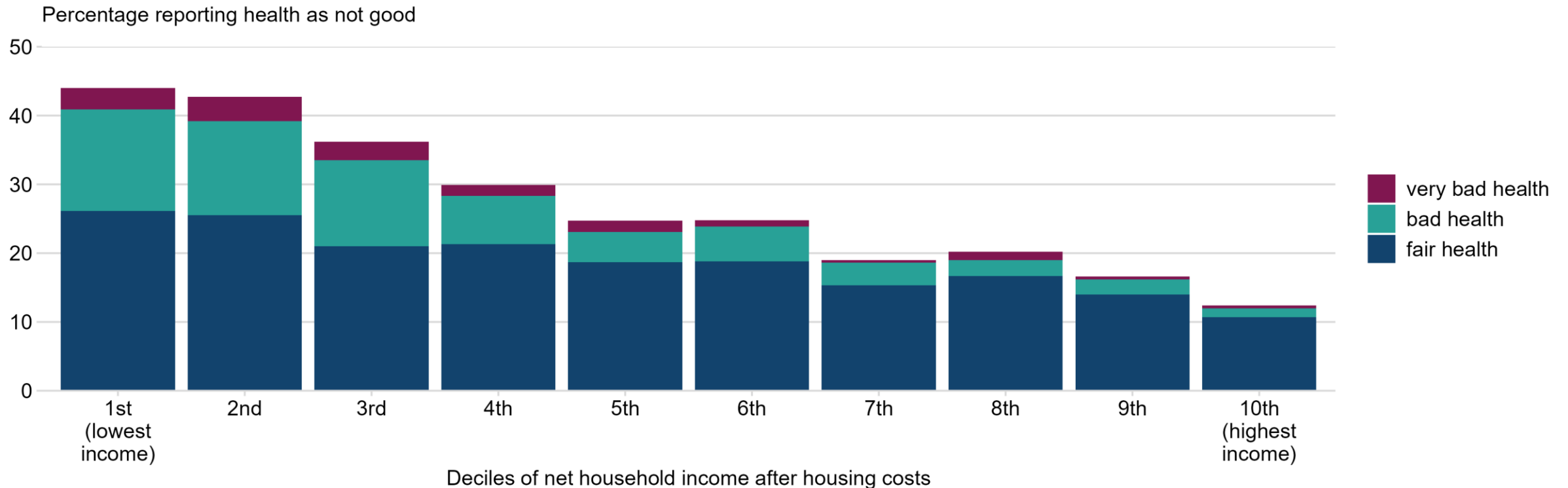


Percentage of economically inactive people aged 16 to 64 by reason, 2001 to 2025 (seasonally adjusted). Labour Force Survey data from 2019 onwards has been re-weighted, see references for links to further information.



In 2021 to 2022, a higher proportion of people with lower household income reported poorer health than those with higher income.

Figure 4.31 Income and health

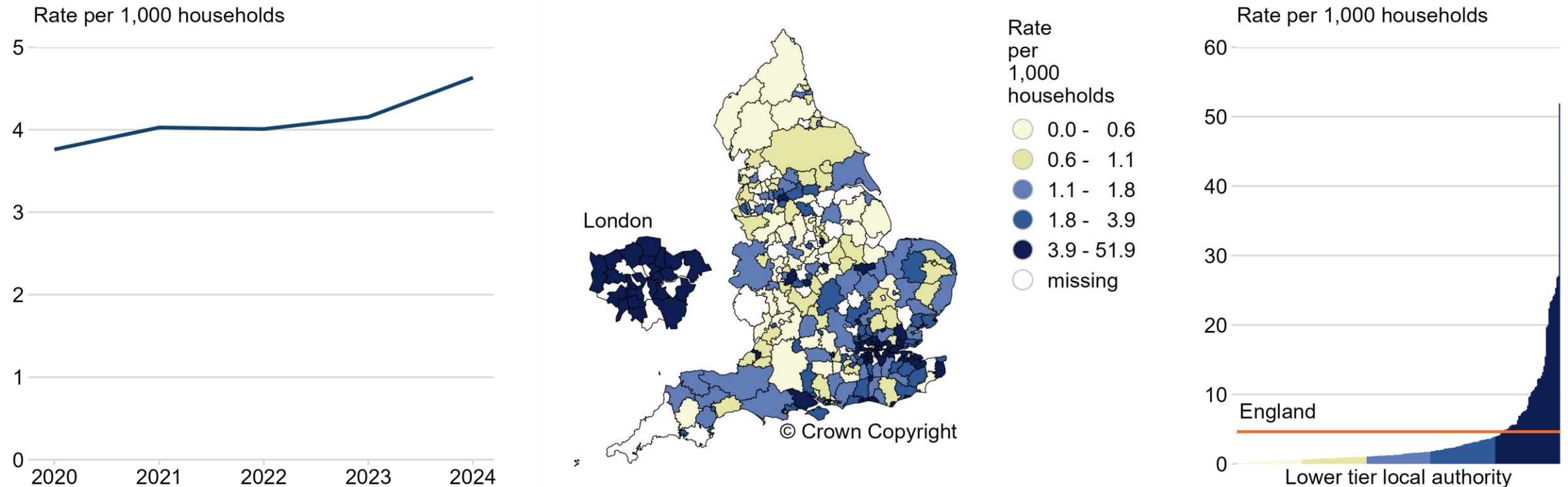


Self-rated health by household income in adults aged 16 to 64 years, United Kingdom, 2021 to 2022. Income is adjusted for household size to reflect economies of scale.



Statutory homelessness has risen and is particularly high in London and the South East.

Figure 4.32 Homelessness



Statutory homelessness: Households in temporary accommodation, crude rate per 1,000 estimated total households, for England, between 2019 to 2020 and 2023 to 2024 (left) and for lower tier local authorities, 2023 to 2024 (centre and right). Financial year data ending in the year shown.

Chapter 5

Screening and vaccination

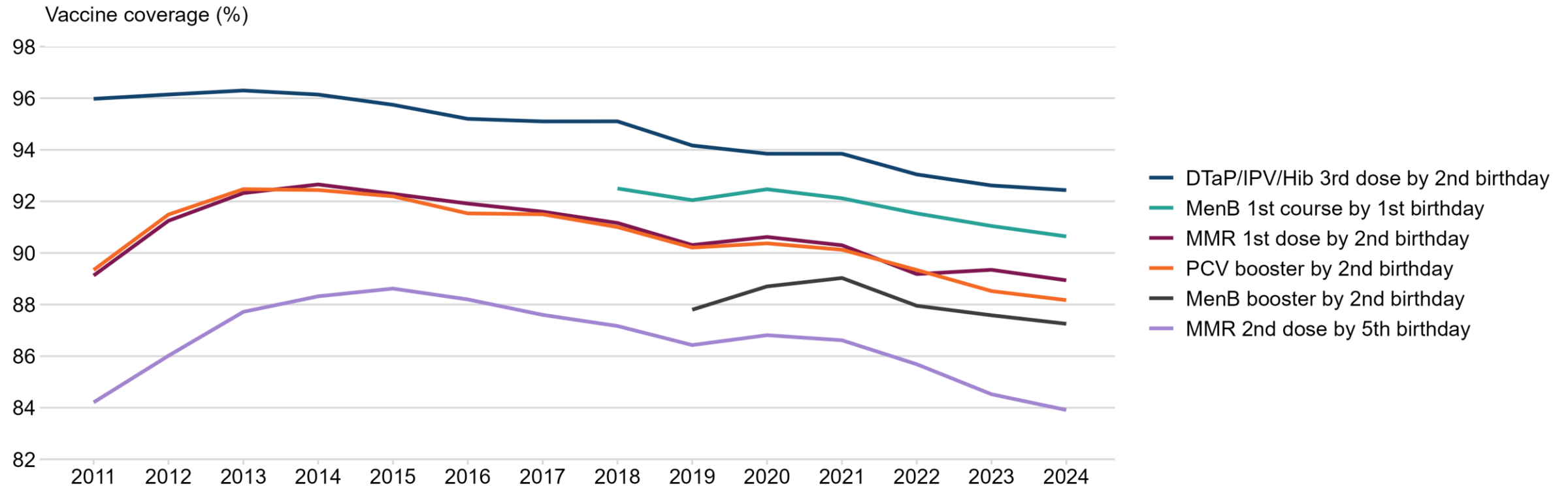


5.1 Childhood vaccination coverage	140	5.15 Early stage diagnosis of lung cancer	153
5.2 Measles, mumps, rubella (MMR) vaccination uptake	141	5.16 Abdominal aortic aneurysm screening	154
5.3 Measles, mumps, rubella (MMR) vaccination uptake by deprivation	142	5.17 Diabetic eye screening	155
5.4 Human papillomavirus (HPV) vaccination uptake	143		
5.5 Flu vaccination in at-risk groups	144		
5.6 Flu vaccination in healthcare workers	144		
5.7 Pneumococcal polysaccharide vaccination (PPV) uptake in adults aged 65 and over	145		
5.8 Pneumococcal polysaccharide vaccination (PPV) uptake in adults aged 65 and over by deprivation	146		
5.9 Cancer screening coverage	147		
5.10 Breast screening coverage	148		
5.11 Breast screening coverage by deprivation	149		
5.12 Cervical cancer screening coverage - 25 to 49 years	150		
5.13 Cervical cancer screening coverage - 50 to 64 years	151		
5.14 Bowel cancer screening coverage	152		



The proportion of children vaccinated has been gradually decreasing from a high initial level.

Figure 5.1 Childhood vaccination coverage

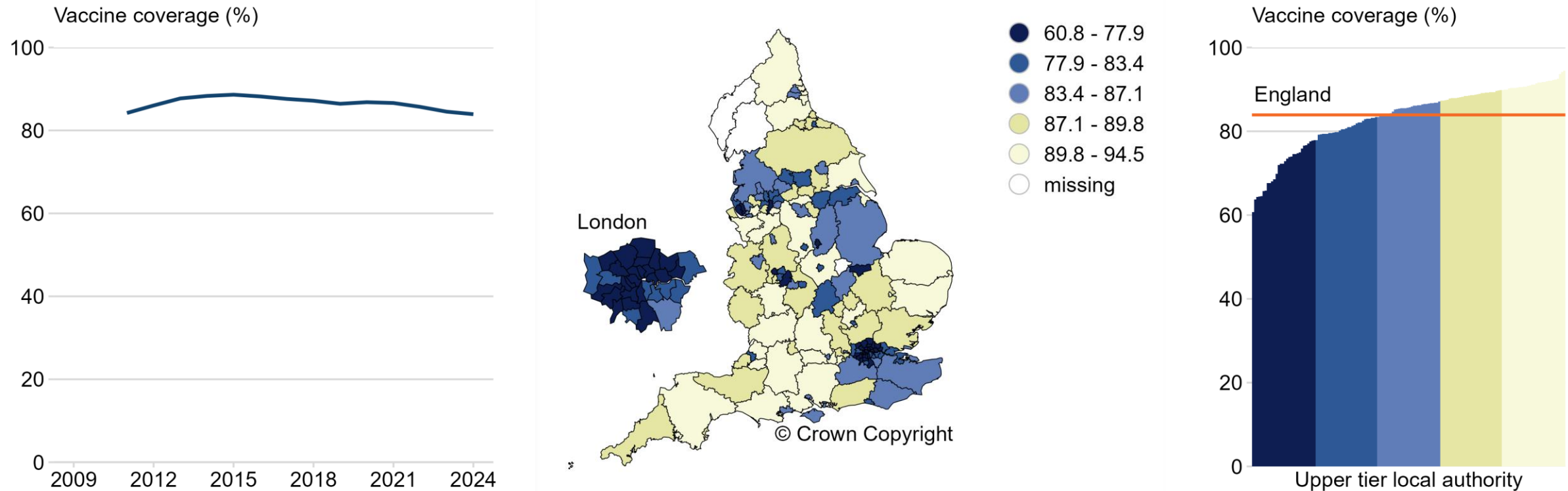


Percentage of children vaccinated by their first, second or fifth birthday, England, between 2010 to 2011 and 2023 to 2024. Financial year data ending in the year shown. Dtap/IPV/Hib: Diphtheria, tetanus, pertussis (whooping cough), polio, and Haemophilus influenzae type b (Hib). MenB: Meningitis B. MMR: Measles, mumps and rubella. PCV: Pneumococcal polysaccharide vaccine.



There is significant local variation in MMR uptake with overall rates slowly declining over the last decade.

Figure 5.2 Measles, mumps, rubella (MMR) vaccination uptake

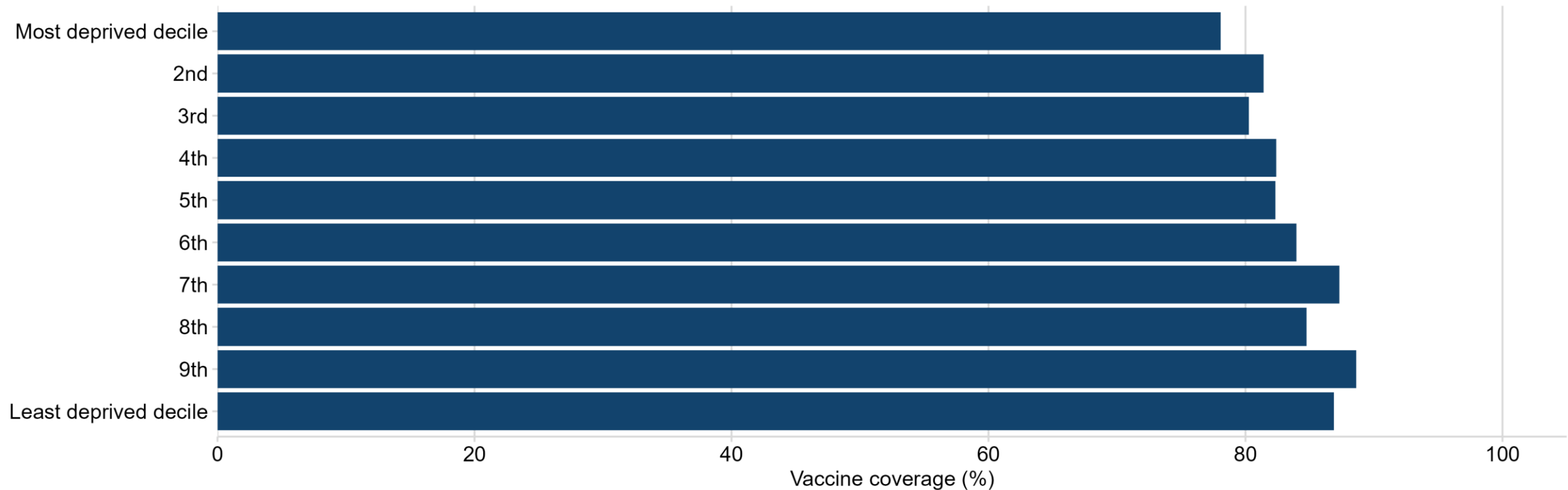


Percentage of children receiving 2 doses of measles, mumps and rubella (MMR) vaccine by their fifth birthday, for England, between 2010 to 2011 and 2023 to 2024 (left) and for upper tier local authorities, 2023 to 2024 (centre and right). Financial year data ending in the year shown.



In 2023 to 2024, there was lower uptake of the MMR vaccine in the most deprived areas.

Figure 5.3 Measles, mumps, rubella (MMR) vaccination uptake by deprivation

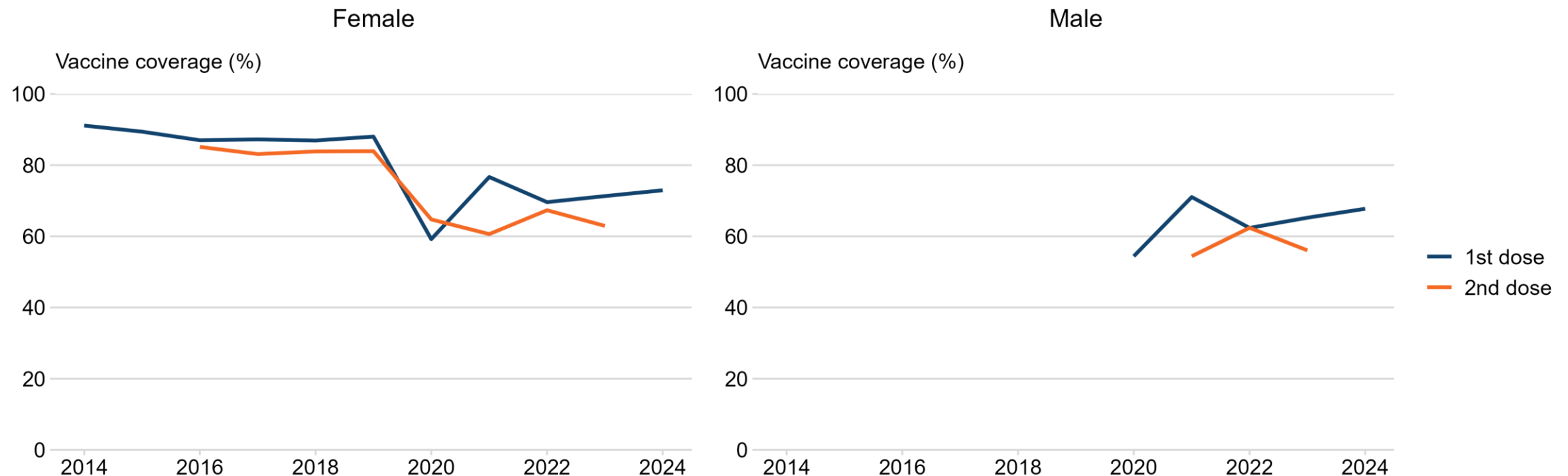


Percentage of children receiving 2 doses of measles, mumps and rubella (MMR) vaccine by their fifth birthday, for upper tier local authority based Index of Multiple Deprivation (IMD) deciles. England, financial year 2023 to 2024.



In recent years, uptake of the HPV vaccine among females has been lower than the years before the COVID-19 pandemic.

Figure 5.4 Human papillomavirus (HPV) vaccination uptake

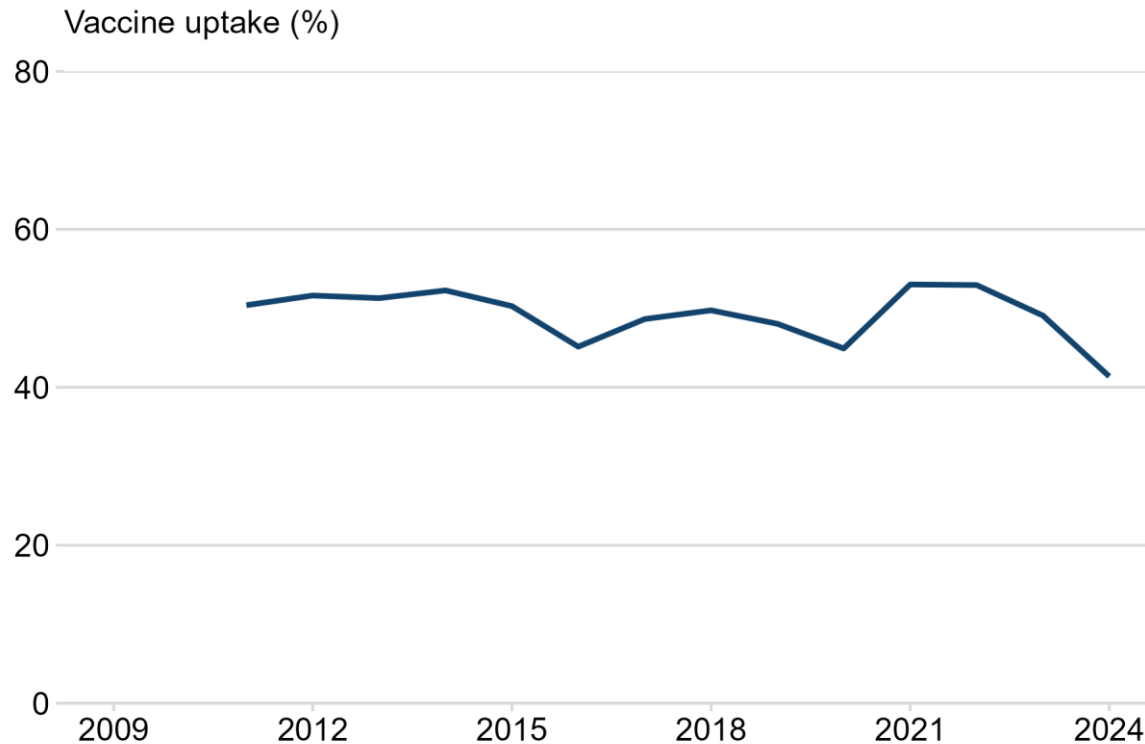


Percentage of children receiving first dose (by age 12 to 13) and second dose (by age 13 to 14) of human papillomavirus (HPV) vaccine, by sex, England, between 2013 to 2014 and 2023 to 2024. In England, the human papillomavirus (HPV) vaccine has been offered in school year 8 to girls since September 2008 and boys since September 2019. Financial year data ending in the year shown.



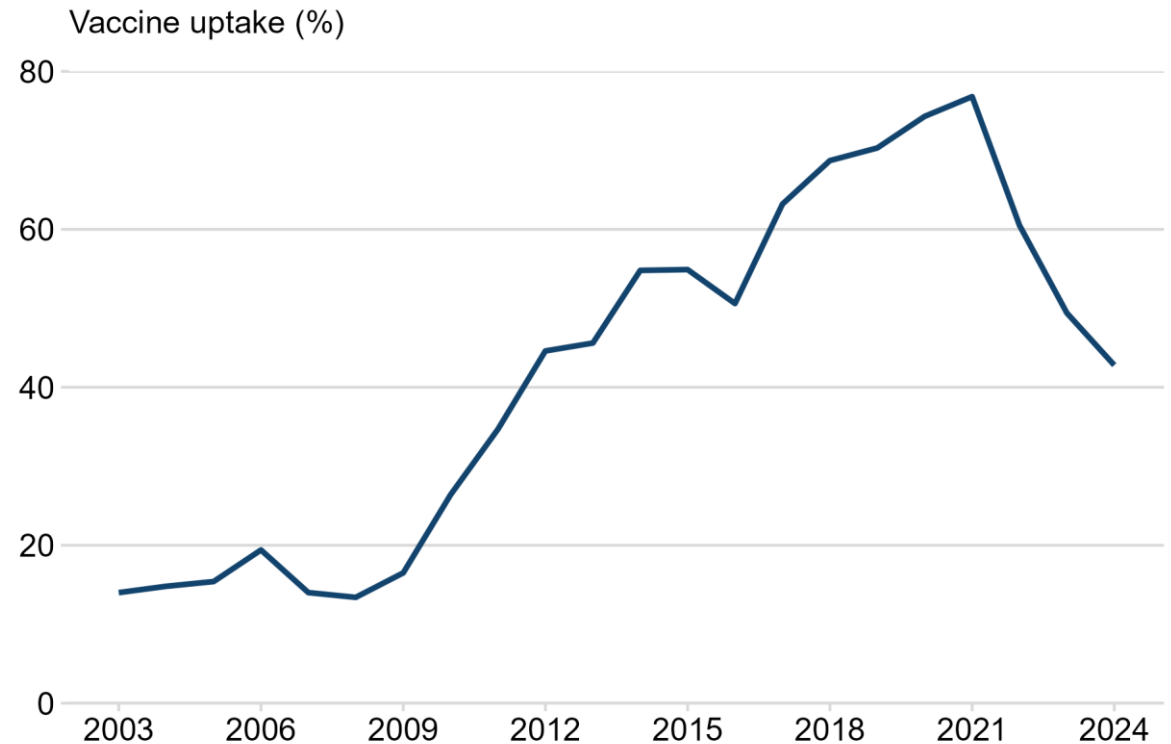
Flu vaccine uptake has decreased since 2020 to 2021.

Figure 5.5 Flu vaccination in at-risk groups



Percentage of at-risk individuals aged 6 months to 65 years (excluding pregnant women) receiving flu vaccine, England, between 2010 to 2011 and 2023 to 2024. Winter seasons ending in the year shown.

Figure 5.6 Flu vaccination in healthcare workers

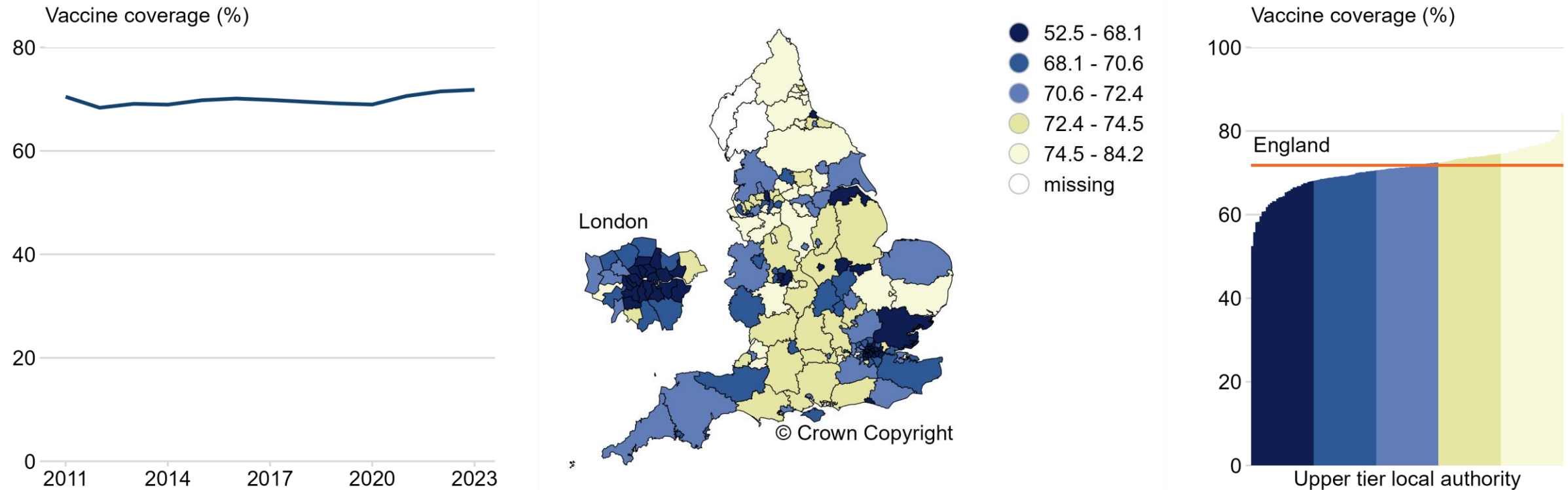


Percentage of frontline healthcare workers (HCW) in NHS trusts with direct patient care receiving seasonal flu vaccine, England, between 2002 to 2003 and 2023 to 2024. Winter seasons ending in the year shown. In 2009 to 2010 the Healthcare Workers vaccine uptake survey expanded from acute trust only to include other Trusts, such as ambulance, mental health, and primary care trusts.



Pneumococcal polysaccharide vaccination (PPV) uptake has remained consistent, with significant regional variation.

Figure 5.7 Pneumococcal polysaccharide vaccination (PPV) uptake in adults aged 65 and over

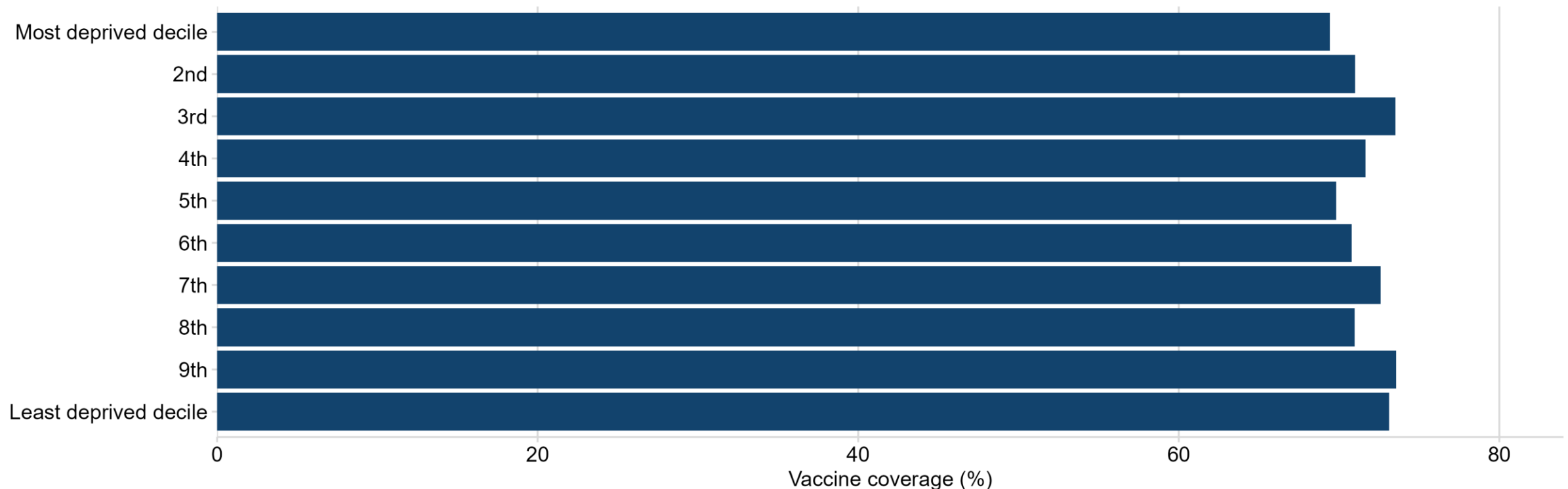


Percentage of adults aged 65 and over receiving pneumococcal polysaccharide vaccine (PPV), for England, between 2010 to 2011 and 2023 to 2024 (left) and for upper tier local authorities, 2023 to 2024 (centre and right). Financial year data ending in the year shown.



In 2023 to 2024, pneumococcal polysaccharide vaccination (PPV) uptake was broadly the same across different areas of deprivation.

Figure 5.8 Pneumococcal polysaccharide vaccination (PPV) uptake in adults aged 65 and over by deprivation

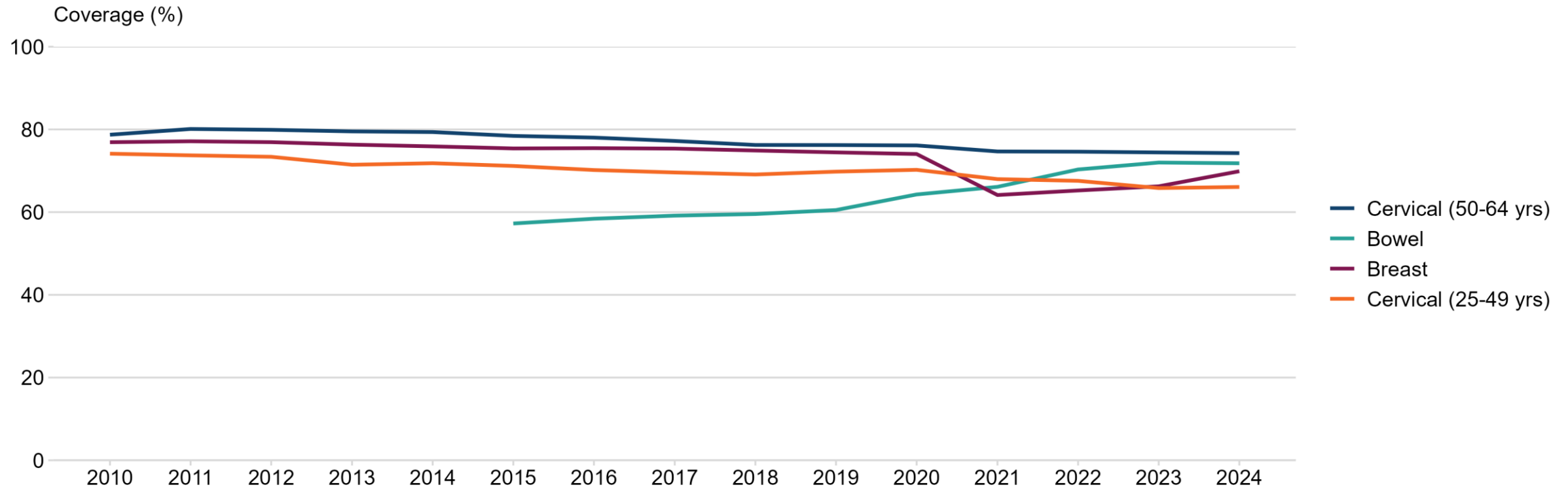


Percentage of adults aged 65 and over receiving pneumococcal polysaccharide vaccine (PPV), for upper tier local authority based Index of Multiple Deprivation (IMD) deciles, England, financial year 2022 to 2023.



Cervical and breast screening coverage has declined. There were improvements in bowel cancer screening coverage which have recently stalled.

Figure 5.9 Cancer screening coverage

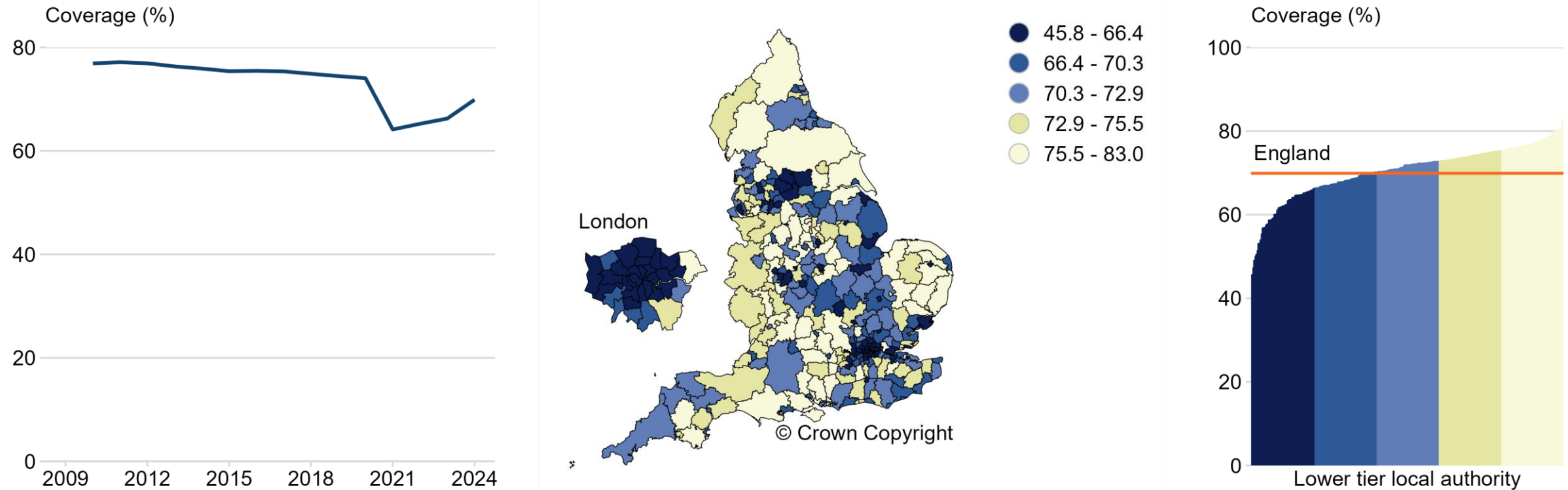


Cancer screening coverage, England, 2010 to 2024. Bowel: percentage of eligible men and women aged 60 to 74 invited for screening who had an adequate faecal occult blood test (FOBT) screening result in the previous 30 months. Breast: The percentage of women eligible for screening who have had a test with a recorded result at least once in the previous 36 months. Cervical: The percentage of women eligible for cervical screening aged 25 to 49 years who were screened adequately within the previous 3.5 years, or aged 50 to 64 years who were screened adequately within the previous 5.5 years.



Breast cancer screening coverage has gradually declined. There was a significant decrease during the COVID-19 pandemic which is now recovering.

Figure 5.10 Breast screening coverage

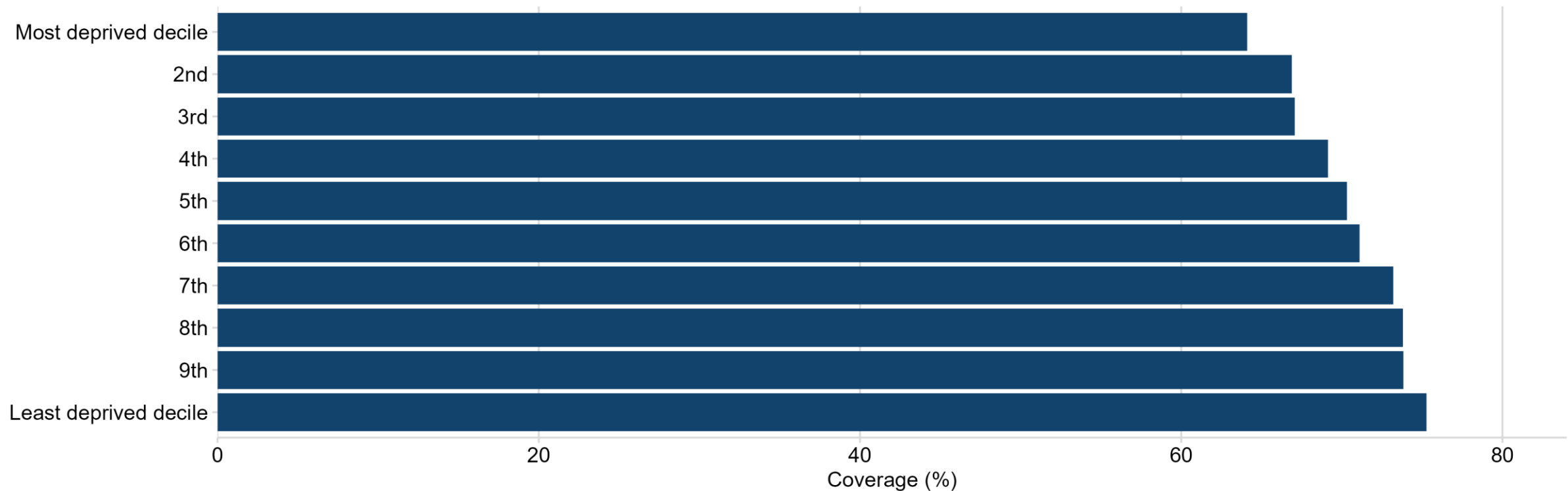


Percentage of women eligible for breast cancer screening who have had a test with a recorded result at least once in the previous 36 months, for England, 2010 to 2024 (left) and for lower tier local authorities, 2024 (centre and right).



In 2024, less deprived areas had higher rates of breast screening uptake.

Figure 5.11 Breast screening coverage by deprivation

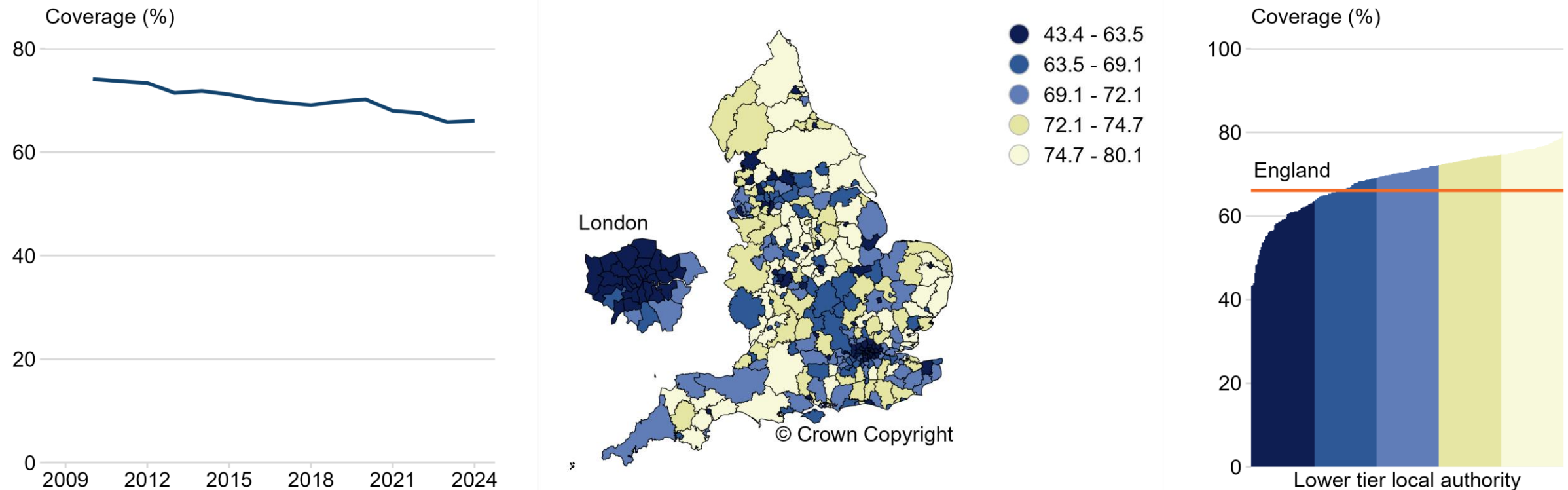


Percentage of women eligible for breast cancer screening who have had a test with a recorded result at least once in the previous 36 months for lower tier local authority based Index of Multiple Deprivation (IMD) deciles, England, 2024.



The proportion of eligible women aged 25 to 49 years screened for cervical cancer reduced between 2010 and 2024.

Figure 5.12 Cervical cancer screening coverage - 25 to 49 years

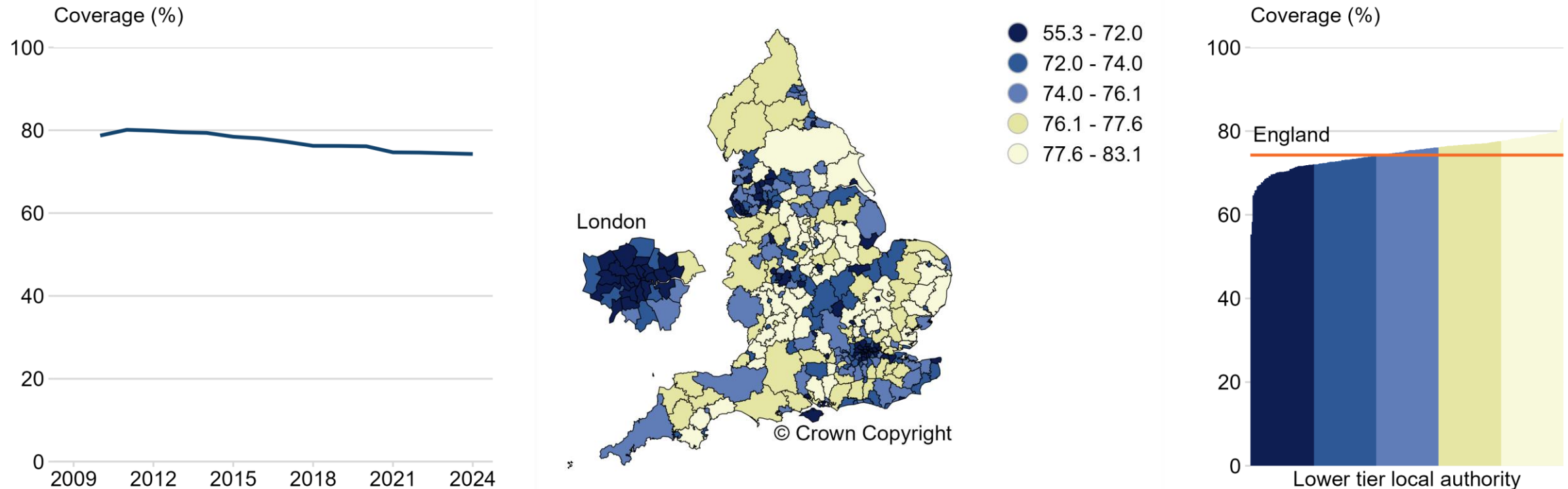


Percentage of women eligible for cervical screening and aged 25 to 49 years at the end of the period reported who were screened adequately within the previous 3.5 years, for England, 2010 to 2024 (left) and for lower tier local authorities, 2024 (centre and right).



The proportion of eligible women aged 50 to 64 years screened for cervical cancer has reduced in the last decade.

Figure 5.13 Cervical cancer screening coverage - 50 to 64 years

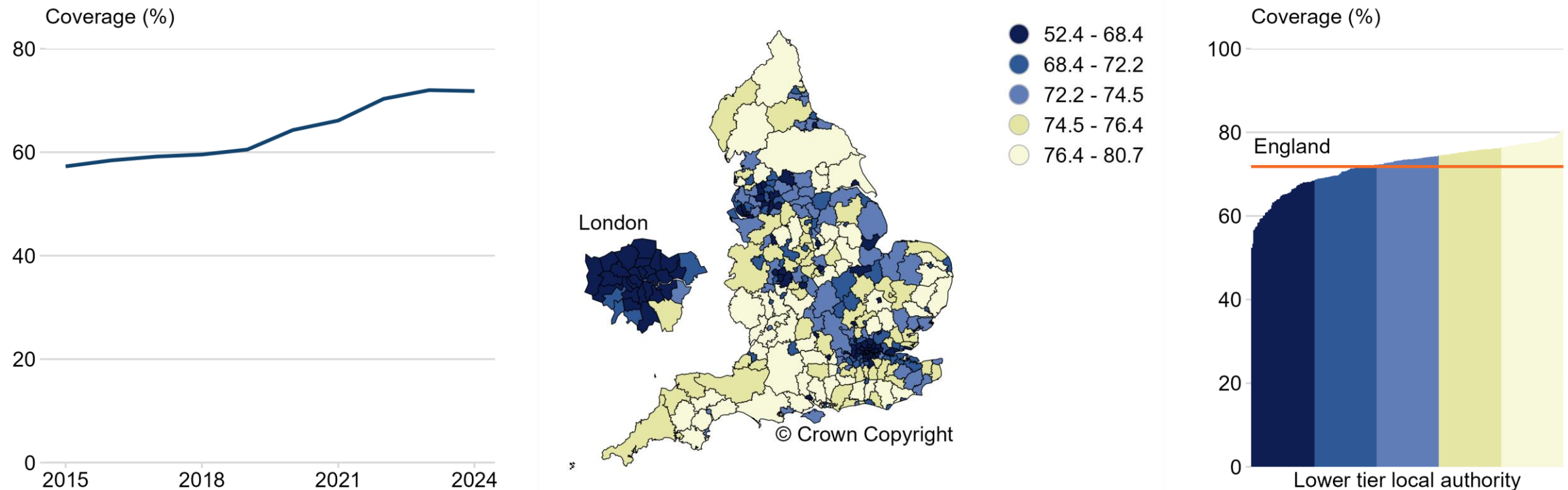


Percentage of women eligible for cervical screening and aged 50 to 64 years at the end of the period reported who were screened adequately within the previous 5.5 years, for England, 2010 to 2024 (left) and for lower tier local authorities, 2024 (centre and right).



Bowel cancer screening coverage has improved over the last decade although this has levelled off recently. There is significant geographical variation.

Figure 5.14 Bowel cancer screening coverage

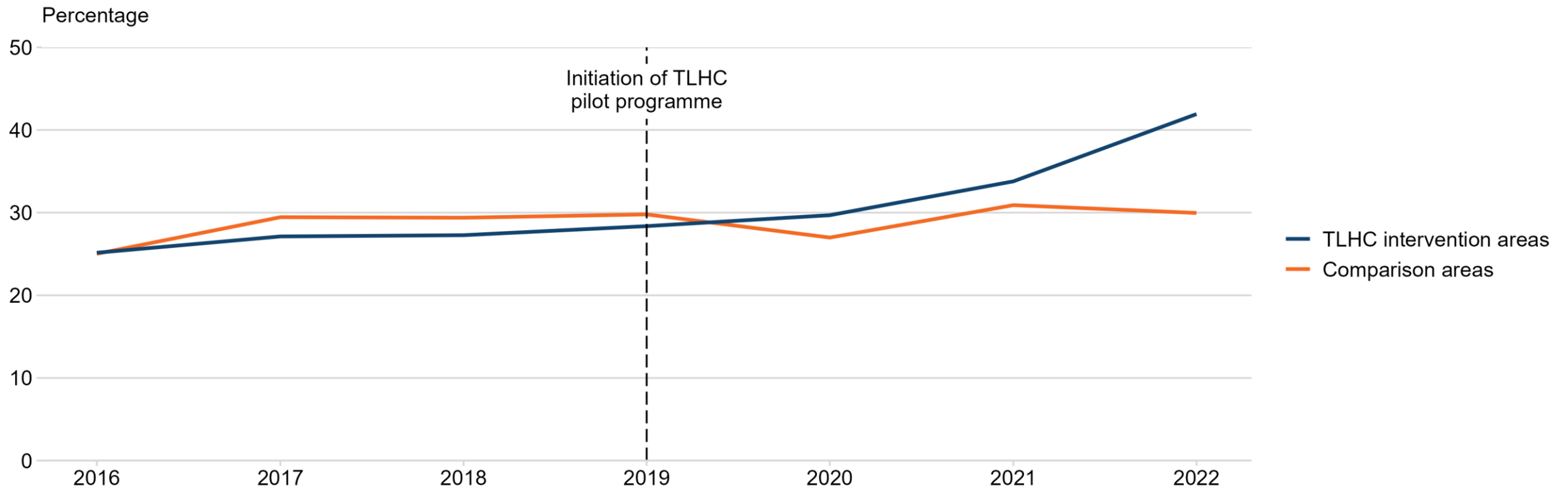


Percentage of eligible men and women aged 60 to 74 invited for bowel cancer screening who had an adequate faecal occult blood test (FOBT) screening result in the previous 30 months, for England, 2015 to 2024 (left) and for lower tier local authorities, 2024 (centre and right).



After 2019, the proportion of lung cancer diagnoses in people aged 55 to 76 that were made at an early stage was higher in pilot targeted screening areas than in comparison areas.

Figure 5.15 Early stage diagnosis of lung cancer

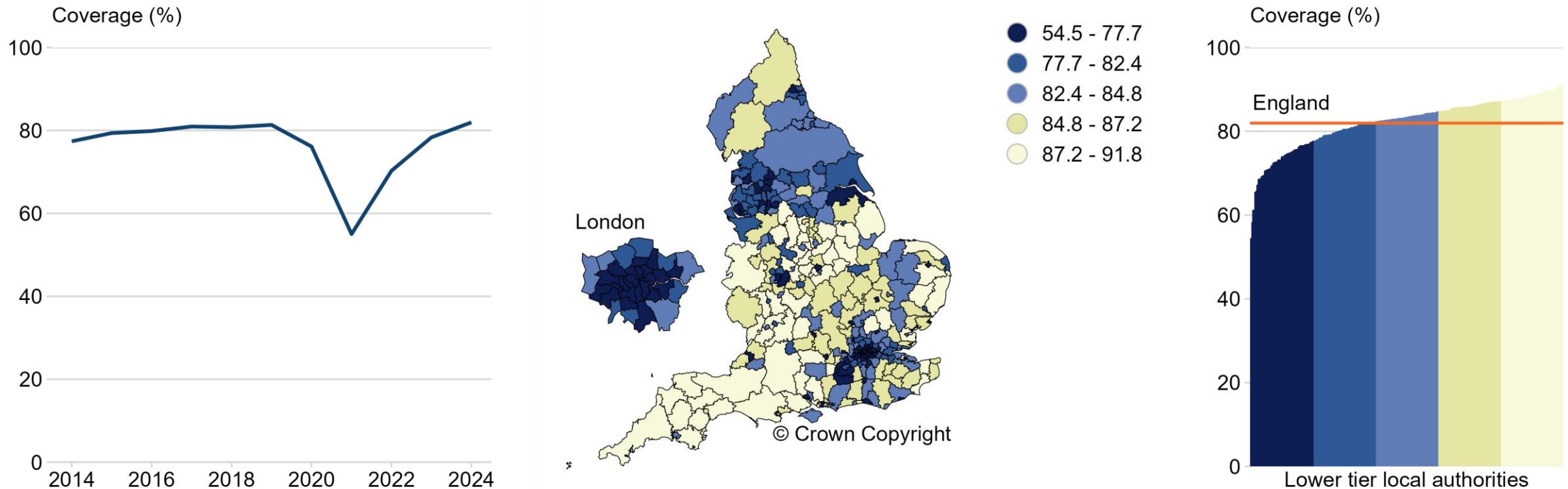


Percentage of new lung cancer diagnoses in persons aged 55 to 76 that were diagnosed at stages 1 or 2 in targeted lung health check (TLHC) pilot programme areas compared with matched comparison areas, 2016 to 2022.



Abdominal aortic aneurysm screening fell during the COVID-19 pandemic then recovered to a similar level.

Figure 5.16 Abdominal aortic aneurysm screening

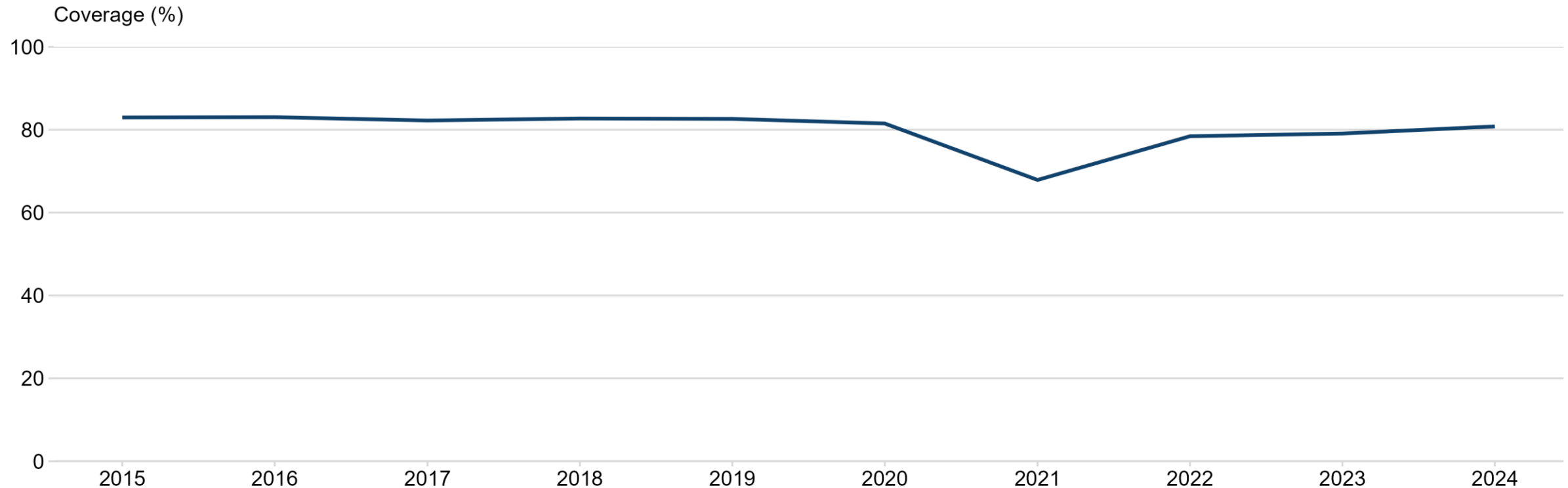


Percentage of men eligible for abdominal aortic aneurysm screening who were conclusively tested, for England, between 2013 to 2014 and 2023 to 2024 (left), and for lower tier local authorities, 2023 to 2024 (centre and right). Financial year data ending in the year shown.



Diabetic eye screening coverage reduced during the COVID-19 pandemic, but has recovered to a similar level.

Figure 5.17 Diabetic eye screening



Percentage of those offered a routine diabetic eye screening appointment who attended and completed a routine digital screening event where images were captured, England, between 2014 to 2015 and 2023 to 2024. Financial year data ending in the year shown.

Abbreviations (1 of 2)



BMI	Body Mass Index	HPV	Human Papillomavirus
C. difficile	Clostridioides difficile	HSE	Health Survey for England
CHD	Coronary Heart Disease	IHME	Institute for Health Metrics and Evaluation
CMO	Chief Medical Officer	IMD	Index of Multiple Deprivation
COPD	Chronic Obstructive Pulmonary Disease	LFS	Labour Force Survey
CVD	Cardiovascular Disease	LGV	Lymphogranuloma Venereum
DALY	Disability Adjusted Life Year	MBRRACE-UK	Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK
DDD	Defined Daily Doses	MenB	Meningitis B
DTaP/IPV/Hib	Diphtheria, Tetanus, Pertussis (whooping cough), Polio, and Haemophilus influenzae type b (Hib)	MMR	Measles, Mumps, Rubella
ESPAUR	English Surveillance Programme for Antimicrobial Utilisation and Resistance	MRSA	Methicillin-Resistant Staphylococcus Aureus
FOBT	Faecal Occult Blood test	NCMP	National Child Measurement Programme
GBD	Global Burden of Disease	NDA	National Diabetes Audit
HCW	Healthcare workers	NDRS	National Disease Registration Service
Hib	Haemophilus influenzae type b	NSGI	Non-specific Genital Infection
HIV	Human Immunodeficiency Virus	OECD	Organisation for Economic Co-operation and Development



Abbreviations (2 of 2)

OHID	Office for Health Improvement and Disparities	µg/m ³	Micrograms per cubic meter
ONS	Office for National Statistics		
PCV	Pneumococcal Conjugate Vaccine		
PID	Pelvic Inflammatory Disease		
PM	Particulate Matter		
PPV	Pneumococcal Polysaccharide Vaccine		
QOF	Quality and Outcomes Framework		
RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations		
STI	Sexually Transmitted Infection		
TB	Tuberculosis		
TIA	Transient Ischaemic Attack		
TLHC	Targeted Lung Health Check		
UKHSA	UK Health Security Agency,		
VOC	Volatile Organic Compounds		
YLDs	Years Lived with Disability		

Acknowledgements



I would like to say a special thank you to Nileema Patel*, Nicky Vousden*, Georgina Anderson, Clare Griffiths, Marc Masey and Justine Fitzpatrick, the authors of this report, and the team who produced it: Olivia Box Power, Mark Parker, James Westwood, David Brind, Lottie Oram and Alyson O'Neill.

I would also like to give my particular thanks to Thom Waite and Emily Whamond for their input and support to the team.

We would like to thank a range of organisations whose data and work is featured in this report, including: NHS England, Office for National Statistics and UK Health Security Agency.

We would also like to thank all the academics and experts who supported in facilitating access to data, including: Alex Gibson, Sheena Asthana, Tim Windle, John Broggio, Chloe Bright, Alex Brokenshire, Tom Higgins, Krishnan Bhaskaran, Carol Brayne and Fiona Matthews.

*Authors contributed equally to the report.

Acknowledgements (continued)



Many thanks also to all those across the Department of Health and Social Care who helped, in particular:

Leigh Fowler-Dowd, Natasha Roberts, Andrew Hughes, Alice Stonham, Liz Rolfe, Sonia Gill, Laura Powell, Nicholas Brown, Catherine Bray, Caroline Hancock, Ed Klodawski, Paul Niblett, Mark Cook, Mike Jecks, Michael Jackson, Martin White, Thilaksan Vikneswaran, Matt Apps, Bethany Morton, Harry Wilson, Ed Aveyard, Gabrielle Price, Stephanie Webb, Cristina Sanchez, Lois Hanna, Joel Moffat, Andrea Prophet, Cam Lugton, Emma Blair, Jacob Shackleton, Mathew Stubley, Rory Tierney, Shaun Donaghy, Maxim Davis, Emily Green, Katie Brown, Jack Burden, Carrie Pailthorpe, Zachary Gleisner, Anand Srinivasan, George White, Alex Orlek, Allan Baker, Samantha Dunn, John Lomas, Sacha Wyke and Marika Kulesza.

Map boundary file licence:

Source: Office for National Statistics licensed under the Open Government Licence v.3.0

Contains OS data © Crown copyright and database right [2025]

References (1 of 27)



Figure	Further notes and data source
1.1	Source: Office for National Statistics (ONS) as at 2025-07-04. Healthy life expectancy by national area deprivation, England and Wales: between 2013 to 2015 and 2020 to 2022 - Office for National Statistics
1.2	Source: Office for National Statistics (ONS) as at 2025-07-04. Healthy life expectancy by national area deprivation, England and Wales: between 2013 to 2015 and 2020 to 2022 - Office for National Statistics
1.3	Source: Office for National Statistics (ONS) as at 2025-07-04. Healthy life expectancy by national area deprivation, England and Wales: between 2013 to 2015 and 2020 to 2022 - Office for National Statistics
1.4	Source: Office for National Statistics (ONS) as at 2025-07-04. Healthy life expectancy by national area deprivation, England and Wales: between 2013 to 2015 and 2020 to 2022 - Office for National Statistics
1.5	Source: Office for National Statistics (ONS) as at 2025-07-04. Healthy life expectancy by national area deprivation, England and Wales: between 2013 to 2015 and 2020 to 2022 - Office for National Statistics
1.6	Source: Office for National Statistics extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Healthy life expectancy at birth Fingertips, Department of Health and Social Care
1.7	Source: Data up to 2010 to 2012: ONS English life tables (2015) as at 2025-04-30. 2. English Life Tables - Office for National Statistics Source: Data for 2020 to 2022: ONS National life tables: England and Wales (2024) as at 2025-04-30. National life tables: England and Wales - Office for National Statistics

References (2 of 27)



Figure	Further notes and data source
1.8	<p>Source: Data for 1980 to 2023: Office for National Statistics (Crown copyright 2024) as at 2025-06-11. Single year life tables, England and Wales : 2023 - Office for National Statistics</p> <p>Source: Data for 2024: Recent mortality trends in England (2025), Office for Health Improvement and Disparities (OHID) as at 2025-06-11. Recent mortality trends in England - GOV.UK</p>
1.9	<p>Source: Organisation for Economic Co-operation and Development (OECD) (2024) Life expectancy as at 2025-06-03. Organisation for Economic Co-operation and Development (OECD) (2024) Life expectancy</p>
1.10	<p>Source: Office for National Statistics extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Life expectancy at birth Fingertips, Department of Health and Social Care</p> <p>Source: Office for Health Improvement and Disparities (using Ministry of Housing, Communities and Local Government data) as at 2025-03-10. English indices of deprivation 2019 - GOV.UK</p>
1.11	<p>Source: Office for National Statistics extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Life expectancy at birth Fingertips, Department of Health and Social Care</p> <p>Source: Office for Health Improvement and Disparities (using Ministry of Housing, Communities and Local Government data) as at 2025-03-10. English indices of deprivation 2019 - GOV.UK</p>
1.12	<p>Source: Office for National Statistics extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Life expectancy at birth Fingertips, Department of Health and Social Care</p>

References (3 of 27)



Figure	Further notes and data source
1.13	<p>Source: Data for England and Wales 2023: Office for National Statistics (ONS): Estimates of the population for England and Wales, table 9 as at 2025-06-13. Estimates of the population for England and Wales - Office for National Statistics</p> <p>Source: Data for Germany and Italy: United Nations, Department of Economic and Social Affairs, Population Division (2024). World Population Prospects: The 2024 Revision, custom data acquired via website. as at 2025-05-20. Data Portal</p>
1.14	<p>Source: Data for England and Wales 1911 and 1948: Office for National Statistics (ONS): Estimates of the population for England and Wales, table 8 as at 2025-06-13. Estimates of the population for England and Wales - Office for National Statistics</p> <p>Source: Data for England and Wales 2023: Office for National Statistics (ONS): Estimates of the population for England and Wales, table 9 as at 2025-06-13. Estimates of the population for England and Wales - Office for National Statistics</p> <p>Source: Data for England and Wales 2043: Office for National Statistics (ONS): 2020-based interim national population projections: year ending June 2022 estimated international migration variant as at 2025-06-13. 2020-based interim national population projections: year ending June 2022 estimated international migration variant - Office for National Statistics</p>
1.15	<p>Source: Organisation for Economic Co-operation and Development (OECD) (2023) Historic population as at 2025-06-03. Organisation for Economic Co-operation and Development (OECD) (2023) Historic population</p>

References (4 of 27)



Figure	Further notes and data source
1.16	<p>Source: Office for National Statistics extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Supporting information - % population aged under 18 Fingertips, Department of Health and Social Care</p> <p>Source: Office for National Statistics extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Supporting information - % population aged 65+ Fingertips, Department of Health and Social Care</p>
1.17	<p>Source: Data for England and Wales 2023: Office for National Statistics (ONS): Estimates of the population for England and Wales, table 9 as at 2025-06-13. Estimates of the population for England and Wales - Office for National Statistics</p> <p>Source: Data for local authorities: Office for National Statistics (ONS): Estimates of the population for England and Wales as at 2025-06-13. Estimates of the population for England and Wales - Office for National Statistics</p>
1.18	<p>Source: ONS population projections for local authorities, 2018 based (NOMIS) as at 2025-06-06. Estimates of the population for England and Wales - Office for National Statistics</p> <p>Source: ONS population projections for local authorities, 2023 based (NOMIS) as at 2025-06-06. Population projections for local authorities by five-year age groups and sex, England - Office for National Statistics</p>
1.19	<p>Source: United Nations, Department of Economic and Social Affairs, Population Division (2024). World Population Prospects 2024, Online Edition. [WPP2024_POP_F07_1_DEPENDENCY_RATIOS_BOTH_SEXES.xlsx] Estimates and Medium variant as at 2025-04-16. World Population Prospects</p>
1.20	<p>Source: Old age dependency ratio, Department of Health and Social Care as at 2025-09-25. Old age dependency ratio, Department of Health and Social Care</p>

References (5 of 27)



Figure	Further notes and data source
1.21	Source: ONS (2023) as at 2025-06-13. Older people living in care homes in 2021 and changes since 2011 - Office for National Statistics
1.22	Source: ONS (2023) as at 2025-06-13. Profile of the older population living in England and Wales in 2021 and changes since 2011 - Office for National Statistics
1.23	Source: ONS (2024) as at 2025-06-13. Births in England and Wales - Office for National Statistics
1.24	Source: Births by parents' characteristics, Office for National Statistics (ONS), 2024 as at 2025-06-13. Births by parents' characteristics - Office for National Statistics
2.1	Source: Data for 2001 to 2023: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-11. Data for 2001 to 2023: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) Source: Data for 2024: Recent mortality trends in England (2025), Office for Health Improvement and Disparities (OHID) as at 2025-06-11. Recent mortality trends in England - GOV.UK
2.2	Source: Office for Health Improvement and Disparities (using Office for National Statistics data) as at 2025-03-20. Excess mortality in England - GOV.UK
2.3	Source: Office for National Statistics (ONS), released 19 January 2023, ONS website, statistical bulletin, Winter mortality in England and Wales: 2021 to 2022 (provisional) and 2020 to 2021 (final) as at 2025-04-24. Winter mortality in England and Wales - Office for National Statistics

References (6 of 27)



Figure	Further notes and data source
2.4	<p>Source: Time periods 1915 to 2015: Causes of death over 100 years, Office for National Statistics (ONS) as at 2025-06-11. Causes of death over 100 years - Office for National Statistics</p> <p>Source: Time period 2023: Office for Health Improvement and Disparities (ONS data) as at 2025-09-25. Causes of death 2023 - Office for Health Improvement and Disparities (using Office for National Statistics data)</p>
2.5	<p>Source: NOMIS as at 2025-01-13. NOMIS</p>
2.6	<p>Source: Data for 2001 to 2023: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-11. Mortality Profile Fingertips Department of Health and Social Care</p> <p>Source: Data for 2024: Recent mortality trends in England (2025), Office for Health Improvement and Disparities (OHID) as at 2025-06-11. Recent mortality trends in England - GOV.UK</p>
2.7	<p>Source: Data for 1973 to 2013: Office for National Statistics: Population estimates and deaths by single year of age for England and Wales and the UK, 1961 to 2016 as at 2025-01-13. Population estimates and deaths by single year of age for England and Wales and the UK, 1961 to 2016 - Office for National Statistics</p> <p>Source: Data for 2023: Office for National Statistics: Deaths registered in England and Wales as at 2025-01-13. Deaths registered in England and Wales - Office for National Statistics</p>
2.8	<p>Source: Recent mortality trends in England (2025), Office for Health Improvement and Disparities (OHID) as at 2025-06-11. Recent mortality trends in England - GOV.UK</p>

References (7 of 27)



Figure	Further notes and data source
2.9	<p>Source: 2001 to 2023 male and female data: Under 75 mortality rate from all causes Fingertips Department of Health and Social Care. as at 2025-06-11. 2001 to 2023 male and female data: Under 75 mortality rate from all causes Fingertips Department of Health and Social Care.</p> <p>Source: 2024 male and female data: Recent mortality trends in England (2025), Office for Health Improvement and Disparities (OHID) as at 2025-06-11. Recent mortality trends in England - GOV.UK</p> <p>Source: 2023 person data: Under 75 mortality rate from all causes, OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Person data: Under 75 mortality rate from all causes Fingertips, Department of Health and Social Care</p>
2.10	<p>Source: Inequalities in mortality involving common physical health conditions, England, Office for National Statistics as at 2025-01-13. Inequalities in mortality involving common physical health conditions, England - Office for National Statistics</p>
2.11	<p>Source: Institute for Health Metrics and Evaluation (IHME). GBD Results. Seattle, WA: IHME, University of Washington, 2024 as at 2025-05-20. VizHub - GBD Results</p>

References (8 of 27)



Figure	Further notes and data source
2.12	<p>Notes: Raw data was provided directly by the paper authors for this report.</p> <p>Source: Valabhji J, Barron E, Pratt A, Hafezparast N, Dunbar-Rees R, Turner EB, Roberts K, Mathews J, Deegan R, Cornelius V, Pickles J, Wainman G, Bakhai C, Johnston DG, Gregg EW, Khunti K. Prevalence of multiple long-term conditions (multimorbidity) in England: a whole population study of over 60 million people. J R Soc Med. 2024 Mar;117(3):104-117. doi: 10.1177/01410768231206033. Epub 2023 Oct 31. PMID: 37905525; PMCID: PMC11046366 as at 2025-01-06. Valabhji J, Barron E, Pratt A, Hafezparast N, Dunbar-Rees R, Turner EB, Roberts K, Mathews J, Deegan R, Cornelius V, Pickles J, Wainman G, Bakhai C, Johnston DG, Gregg EW, Khunti K. Prevalence of multiple long-term conditions (multimorbidity) in England: a whole population study of over 60 million people. J R Soc Med. 2024 Mar;117(3):104-117. doi: 10.1177/01410768231206033. Epub 2023 Oct 31. PMID: 37905525; PMCID: PMC11046366</p>
2.13	<p>Source: REAL Centre analysis of patient level primary care data (CPRD) linked to HES and ONS mortality data as at 2025-06-03. REAL Centre analysis of patient level primary care data (CPRD) linked to HES and ONS mortality data</p>
2.14	<p>Source: Office for Health Improvement and Disparities (OHID), 2025, using Plymouth University data as at 2025-09-25. CHD prevalence - Office for Health Improvement and Disparities (OHID), 2025, using Plymouth University data</p>

References (9 of 27)



Figure	Further notes and data source
2.15	<p>Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Mortality rate from cardiovascular disease, all ages Fingertips, Department of Health and Social Care</p> <p>Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Mortality rate from ischaemic heart disease, all ages Fingertips, Department of Health and Social Care</p> <p>Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Mortality rate from stroke, all ages Fingertips, Department of Health and Social Care</p>
2.16	<p>Source: Organisation for Economic Co-operation and Development (OECD) (2024) Causes of mortality as at 2025-06-03. Organisation for Economic Co-operation and Development (OECD) (2024) Causes of mortality</p>
2.17	<p>Source: NHS England, Cancer Registration Statistics, England, 2022 (2025 data refresh) as at 2025-03-13. Cancer Registration Statistics, England, 2022 - NHS England Digital</p>
2.18	<p>Source: NHS England, Cancer Registration Statistics, England, 2022 (2025 data refresh) as at 2025-03-13. Cancer Registration Statistics, England, 2022 - NHS England Digital</p>
2.19	<p>Source: NHS England, Cancer Registration Statistics, England, 2022 (2025 data refresh) as at 2025-06-12. Cancer Registration Statistics, England 2022 supplementary request - NHS England Digital</p>
2.20	<p>Source: NOMIS as at 2025-01-13. NOMIS</p>

References (10 of 27)



Figure	Further notes and data source
2.21	<p>Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Mortality rate from breast cancer, all ages (Female) Fingertips, Department of Health and Social Care</p> <p>Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Mortality rate from lung cancer, all ages Fingertips, Department of Health and Social Care</p> <p>Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Mortality rate from colorectal cancer, all ages Fingertips, Department of Health and Social Care</p> <p>Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Mortality rate from prostate cancer, all ages (Male) Fingertips, Department of Health and Social Care</p>
2.22	<p>Source: Change in cancer mortality by site, Office for Health Improvement and Disparities (using Office for National Statistics data) as at 2025-09-25. Change in cancer mortality by site, Office for Health Improvement and Disparities (using Office for National Statistics data)</p>
2.23	<p>Source: Cancer Survival in England, cancers diagnosed 2016 to 2020, followed up to 2021, NHS England, 2023 as at 2025-05-14. Cancer Survival in England, cancers diagnosed 2016 to 2020, followed up to 2021 - NHS England Digital</p>
2.24	<p>Source: Inequalities in mortality involving common physical health conditions, England, Office for National Statistics as at 2025-01-13. Inequalities in mortality involving common physical health conditions, England - Office for National Statistics</p>
2.25	<p>Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Diabetes: QOF prevalence Fingertips, Department of Health and Social Care</p>

References (11 of 27)



Figure	Further notes and data source
2.26	Notes: Financial year end data (31 March in the year shown). Local authority data is based on the location of the GP practice where a person is registered. Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Diabetes: QOF prevalence Fingertips, Department of Health and Social Care
2.27	Source: OHID, based on Sport England data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Obesity prevalence in adults, (using adjusted self-reported height and weight) Fingertips, Department of Health and Social Care
2.28	Notes: The survey sample did not measure blood pressure in 2004, the survey was not completed in 2020, and survey results from 2021 are excluded due to methodological inconsistency. Source: NHS England (2024), Health Survey for England, 2022: Adults' health data tables as at 2025-01-09. Health Survey for England, 2022 Part 2 - NHS England Digital
2.29	Source: NHS England (2024), Health Survey for England, 2022: Adults' health data tables as at 2025-01-09. Health Survey for England, 2022 Part 2 - NHS England Digital Source: NHS England (2020). Health Survey for England, 2019: Adult health data tables as at 2025-03-25. Health Survey for England, 2019: Data tables - NHS England Digital
2.30	Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. COPD: QOF prevalence Fingertips, Department of Health and Social Care
2.31	Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Under 75 mortality rate from respiratory disease Fingertips, Department of Health and Social Care

References (12 of 27)



Figure	Further notes and data source
2.32	Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Under 75 mortality rate from liver disease Fingertips, Department of Health and Social Care
2.33	Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Dementia: QOF prevalence Fingertips, Department of Health and Social Care
2.34	Source: A two-decade comparison of prevalence of dementia in individuals aged 65 years and older from three geographical areas of England: results of the Cognitive Function and Ageing Study I and II Matthews, Fiona E et al. The Lancet, Volume 382, Issue 9902, 1405 - 1412 as at 2025-05-20. A two-decade comparison of prevalence of dementia in individuals aged 65 years and older from three geographical areas of England: results of the Cognitive Function and Ageing Study I and II Matthews, Fiona E et al. The Lancet, Volume 382, Issue 9902, 1405 - 1412
2.35	Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Depression: QOF prevalence - retired after 2022/23 Fingertips, Department of Health and Social Care
2.36	Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Mental Health: QOF prevalence Fingertips, Department of Health and Social Care
2.37	Source: Office for National Statistics extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Suicide rate Fingertips, Department of Health and Social Care
2.38	Source: Office for National Statistics extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Age-standardised rate for suicide by age and sex Fingertips, Department of Health and Social Care

References (13 of 27)



Figure	Further notes and data source
2.39	<p>Source: UK Health Security Agency (UKHSA) - [2024-HIV-data-tables-England.ods]Table2a - HIV testing, PrEP, new HIV diagnoses and care outcomes for people accessing HIV services: 2024 report. The annual official statistics data release (data to end of December 2023). October 2024, UK Health Security Agency, London as at 2025-04-16. HIV: annual data - GOV.UK</p> <p>Source: UK Health Security Agency (UKHSA) - [2024-HIV-data-tables-England.ods]Table1a - HIV testing, PrEP, new HIV diagnoses and care outcomes for people accessing HIV services: 2024 report. The annual official statistics data release (data to end of December 2023). October 2024, UK Health Security Agency, London as at 2025-04-16. HIV: annual data - GOV.UK</p>
2.40	<p>Source: UK Health Security Agency extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. HIV late diagnosis in people first diagnosed with HIV in the UK Fingertips, Department of Health and Social Care</p>
2.41	<p>Notes: Includes new diagnoses of: chancroid, Lymphogranuloma venereum (LGV), donovanosis, chlamydia, gonorrhoea, first episode anogenital herpes, new HIV diagnosis, molluscum contagiosum, non-specific genital infection (NSGI), pelvic inflammatory disease (PID) and epididymitis: non-specific, scabies and pediculosis pubis, syphilis (primary, secondary and early latent), trichomoniasis and first episode genital warts. Data from 2015 onwards additionally includes new diagnoses of Mycoplasma genitalium and Shigella: flexneri, sonnei and unspecified.</p> <p>Source: UK Health Security Agency extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. All new STI diagnoses rate per 100,000 Fingertips, Department of Health and Social Care</p>
2.42	<p>Source: UK Health Security Agency, National STI surveillance data 2023: Table 1. as at 2025-04-25. Sexually transmitted infections (STIs): annual data - GOV.UK</p>

References (14 of 27)



Figure	Further notes and data source
2.43	Source: UK Health Security Agency, National STI surveillance data 2023: Table 1. as at 2025-04-25. Sexually transmitted infections (STIs): annual data - GOV.UK
2.44	Source: UK Health Security Agency, National STI surveillance data 2023: Table 2. as at 2025-04-25. Sexually transmitted infections (STIs): annual data - GOV.UK
2.45	Source: UK Health Security Agency (UKHSA) - Tuberculosis incidence and epidemiology, England, 2023: supplementary data as at 2025-04-01. Tuberculosis in England, 2024 report - GOV.UK
2.46	Source: Clostridioides difficile (C difficile) infection (CDI): annual data - GOV.UK as at 2025-01-08. Clostridioides difficile (C difficile) infection (CDI): annual data - GOV.UK Source: MRSA bacteraemia: annual data - GOV.UK as at 2025-01-08. MRSA bacteraemia: annual data - GOV.UK
2.47	Source: English surveillance programme for antimicrobial utilisation and resistance (ESPAUR) report - GOV.UK (2023 to 2024 report) as at 2025-01-08. English surveillance programme for antimicrobial utilisation and resistance (ESPAUR) report - GOV.UK Source: English surveillance programme for antimicrobial utilisation and resistance (ESPAUR) report - GOV.UK (2018 to 2019 report) as at 2025-02-13. English surveillance programme for antimicrobial utilisation and resistance (ESPAUR) report - GOV.UK (2018 to 2019 report)
3.1	Source: MBRRACE-UK as at 2024-12-20. Maternal mortality 2021-2023 MBRRACE-UK NPEU
3.2	Source: MBRRACE-UK as at 2024-12-20. Maternal mortality 2021-2023 MBRRACE-UK NPEU

References (15 of 27)



Figure	Further notes and data source
3.3	Source: OHID, based on NHS England data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Smoking status at time of delivery Fingertips, Department of Health and Social Care
3.4	Source: OHID, based on NHS England data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Smoking status at time of delivery Fingertips, Department of Health and Social Care
3.5	Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Under 18s conception rate / 1,000 Fingertips, Department of Health and Social Care
3.6	Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Infant mortality rate Fingertips, Department of Health and Social Care
3.7	Source: Organisation for Economic Co-operation and Development (OECD) (2024) Maternal and infant mortality as at 2025-06-03. Organisation for Economic Co-operation and Development (OECD) (2024) Maternal and infant mortality
3.8	Source: Organisation for Economic Co-operation and Development (OECD) (2024) Maternal and infant mortality as at 2025-06-03. Organisation for Economic Co-operation and Development (OECD) (2024) Maternal and infant mortality
3.9	Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Infant mortality rate Fingertips, Department of Health and Social Care
3.10	Source: Child mortality (death cohort) tables in England and Wales, Office for National Statistics as at 2025-02-13. Child and infant mortality (by year of death), England and Wales - Office for National Statistics

References (16 of 27)



Figure	Further notes and data source
3.11	Source: Office for National Statistics licensed under the Open Government Licence as at 2025-05-21. Child and infant mortality (by year of death), England and Wales - Office for National Statistics
3.12	Source: Office for Health Improvement and Disparities (using Office for National Statistics data) as at 2025-09-25. Child and adolescent mortality, Office for Health Improvement and Disparities (using Office for National Statistics data)
3.13	Source: NOMIS as at 2025-01-13. NOMIS
3.14	Source: NOMIS as at 2025-01-13. NOMIS
3.15	Source: NOMIS as at 2025-01-13. NOMIS
3.16	Source: NHS England, National Child Measurement Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Reception prevalence of obesity (including severe obesity) Fingertips, Department of Health and Social Care Source: NHS England, National Child Measurement Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Year 6 prevalence of obesity (including severe obesity) Fingertips, Department of Health and Social Care
3.17	Source: NHS England, National Child Measurement Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Reception prevalence of obesity (including severe obesity) Fingertips, Department of Health and Social Care Source: NHS England, National Child Measurement Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Year 6 prevalence of obesity (including severe obesity) Fingertips, Department of Health and Social Care

References (17 of 27)



Figure	Further notes and data source
3.18	<p>Source: NHS England, National Child Measurement Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Reception prevalence of obesity (including severe obesity) Fingertips, Department of Health and Social Care</p> <p>Source: NHS England, National Child Measurement Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Year 6 prevalence of obesity (including severe obesity) Fingertips, Department of Health and Social Care</p>
3.19	<p>Source: NHS England, National Child Measurement Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Reception prevalence of obesity (including severe obesity) Fingertips, Department of Health and Social Care</p> <p>Source: NHS England, National Child Measurement Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Year 6 prevalence of obesity (including severe obesity) Fingertips, Department of Health and Social Care</p>
3.20	<p>Source: Patterns and trends in child obesity, Department of Health and Social Care using National Child Measurement Programme data as at 2025-05-07. Obesity, physical activity and nutrition - Data Fingertips Department of Health and Social Care</p>
3.21	<p>Source: Patterns and trends in child obesity, Department of Health and Social Care using National Child Measurement Programme data as at 2025-05-07. Obesity, physical activity and nutrition - Data Fingertips Department of Health and Social Care</p>
3.22	<p>Notes: IMD is assigned using child postcode which had poor completion in 2006 to 2007 (the first year of NCMP data collection) so data is presented for 2007 to 2008 instead when postcode completion was greater than 95%.</p> <p>Source: Patterns and trends in child obesity, Department of Health and Social Care using National Child Measurement Programme data as at 2025-05-07. Obesity, physical activity and nutrition - Data Fingertips Department of Health and Social Care</p>

References (18 of 27)



Figure	Further notes and data source
3.23	<p>Notes: IMD is assigned using child postcode which had poor completion in 2006 to 2007 (the first year of NCMP data collection) so data is presented for 2007 to 2008 instead when postcode completion was greater than 95%.</p> <p>Source: Patterns and trends in child obesity, Department of Health and Social Care using National Child Measurement Programme data as at 2025-05-07. Obesity, physical activity and nutrition - Data Fingertips Department of Health and Social Care</p>
3.24	<p>Source: Smoking, Drinking and Drug Use among Young People in England, Copyright © 2024, NHS England. as at 2025-05-21. Smoking, Drinking and Drug Use among Young People in England - NHS England Digital</p>
3.25	<p>Notes: Regular e-cigarette users are defined as usually using an e-cigarette at least once per week. Current e-cigarette users are defined as regular users (see earlier definition) plus occasional users (defined as using an e-cigarette sometimes but less than once per week, but excluding those who had tried them just once or twice in total). Ever used e-cigarettes are defined as those who have ever used an e-cigarette including ex e-cigarette users and those who have only tried them once or twice.</p> <p>Source: Smoking, Drinking and Drug Use among Young People in England, Copyright © 2024, NHS England. as at 2025-01-30. Smoking, Drinking and Drug Use among Young People in England - NHS England Digital</p>
3.26	<p>Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Drank alcohol in the last week, 15 year olds Fingertips, Department of Health and Social Care</p>
3.27	<p>Source: NHS Digital (2018). Mental health of children and young people in England, 2017 as at 2025-03-11. Mental Health of Children and Young People in England, 2017 [PAS] - NHS England Digital</p>

References (19 of 27)



Figure	Further notes and data source
3.28	Source: Data for children aged 5 to 10 years: NHS Digital (2020): Mental health of children and young people in England, 2020 as at 2025-06-12. Mental Health of Children and Young People in England, 2020: Wave 1 follow up to the 2017 survey - NHS England Digital Source: Data for children aged 11 to 16 years and 17 to 19 years: NHS Digital (2023): Mental health of children and young people in England, 2023 as at 2025-06-12. Mental Health of Children and Young People in England, 2023 - wave 4 follow up to the 2017 survey - NHS England Digital
4.1	Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Smoking Prevalence in adults (aged 18 and over) - current smokers (APS) Fingertips, Department of Health and Social Care
4.2	Source: Organisation for Economic Co-operation and Development (OECD) (2024) Tobacco consumption as at 2025-06-03. Organisation for Economic Co-operation and Development (OECD) (2024) Tobacco consumption
4.3	Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Smoking Prevalence in adults (aged 18 and over) - current smokers (APS) Fingertips, Department of Health and Social Care
4.4	Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Smoking Prevalence in adults (aged 18 and over) - current smokers (APS) Fingertips, Department of Health and Social Care
4.5	Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Smoking Prevalence in adults (aged 18 and over) - current smokers (APS) Fingertips, Department of Health and Social Care
4.6	Source: Health Survey for England 2022, Part 2: Data tables, Adult and children's overweight and obesity tables, NHS England as at 2025-05-09. Health Survey for England 2022, Part 2: Data tables - NHS England Digital

References (20 of 27)



Figure	Further notes and data source
4.7	Source: Patterns and trends in adult obesity, Department of Health and Social Care using Health Survey for England data as at 2025-05-07. Obesity, physical activity and nutrition - Data Fingertips Department of Health and Social Care
4.8	Source: Patterns and trends in adult obesity, Department of Health and Social Care using Health Survey for England data as at 2025-05-07. Obesity, physical activity and nutrition - Data Fingertips Department of Health and Social Care
4.9	Source: Association of BMI with overall and cause-specific mortality: a population-based cohort study of 3.6 million adults in the UK. Krishnan Bhaskaran et al, Lancet diabetes endocrinology, 2018; 6:944-53 as at 2025-05-09. Association of BMI with overall and cause-specific mortality: a population-based cohort study of 3.6 million adults in the UK. Krishnan Bhaskaran et al, Lancet diabetes endocrinology, 2018; 6:944-53
4.10	Source: OHID, based on Food Standards Agency data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Fast food outlets per 100,000 population Fingertips, Department of Health and Social Care
4.11	Source: Health Survey for England 2022: Adult drinking (table 3). Published by NHS England, part of the Government Statistical Service (2024) as at 2025-01-30. Health Survey for England 2022: Adult drinking (table 3). Published by NHS England, part of the Government Statistical Service (2024)
4.12	Source: Health Survey for England 2022: Adult drinking (table 5). Published by NHS England, part of the Government Statistical Service (2024) as at 2025-01-30. Health Survey for England 2022: Adult drinking (table 5). Published by NHS England, part of the Government Statistical Service (2024)

References (21 of 27)



Figure	Further notes and data source
4.13	Source: Estimated weekly alcohol consumption by survey year, age and sex, Health Survey for England, NHS England. as at 2025-04-30. Estimated weekly alcohol consumption by survey year, age and sex, Health Survey for England, NHS England.
	Source: Estimated weekly alcohol consumption by survey year, age and sex, Health Survey for England, NHS England. as at 2025-04-30. Estimated weekly alcohol consumption by survey year, age and sex, Health Survey for England, NHS England.
4.14	Source: Estimated weekly alcohol consumption by survey year, age and sex, Health Survey for England, NHS England. as at 2025-04-30. Estimated weekly alcohol consumption by survey year, age and sex, Health Survey for England, NHS England.
	Source: Estimated weekly alcohol consumption by survey year, age and sex, Health Survey for England, NHS England. as at 2025-04-30. Estimated weekly alcohol consumption by survey year, age and sex, Health Survey for England, NHS England.
4.15	Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Alcohol-related mortality Fingertips, Department of Health and Social Care
	Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Alcohol-specific mortality Fingertips, Department of Health and Social Care
4.16	Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Alcohol-related mortality Fingertips, Department of Health and Social Care
4.17	Source: NHS England (2024). Statistics on Public Health, England 2023 as at 2025-03-13. Part 4: Affordability and expenditure - NHS England Digital

References (22 of 27)



Figure	Further notes and data source
4.18	Source: The Monitoring and Evaluating Scotland's Alcohol Strategy (MESAS) monitoring report, Public Health Scotland, 2022 as at 2025-05-21. MESAS monitoring report 2022 - Publications - Public Health Scotland
4.19	Source: The Monitoring and Evaluating Scotland's Alcohol Strategy (MESAS) monitoring report, Public Health Scotland, 2022. as at 2025-05-13. MESAS monitoring report 2022 - Publications - Public Health Scotland
4.20	Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Deaths from drug misuse Fingertips, Department of Health and Social Care
4.21	Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Deaths from drug misuse Fingertips, Department of Health and Social Care
4.22	Source: OHID, based on Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Deaths from drug misuse Fingertips, Department of Health and Social Care
4.23	Source: OHID, based on Sport England data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Percentage of physically active adults Fingertips, Department of Health and Social Care
4.24	Source: OHID, based on Sport England data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Percentage of physically active adults Fingertips, Department of Health and Social Care
4.25	Source: Road traffic estimates in Great Britain: 2023 - GOV.UK as at 2025-01-08. Road traffic estimates in Great Britain: 2023 - GOV.UK

References (23 of 27)



Figure	Further notes and data source
4.26	Source: Trends in UK sulphur dioxide, nitrogen oxides, non-methane volatile organic compounds, ammonia and particulate matter (PM10, PM2.5) emissions - GOV.UK as at 2025-04-29. ENV01 - Emissions of air pollutants - GOV.UK
4.27	Source: Department for Environment, Food and Rural Affairs extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Air pollution: fine particulate matter (new method - concentrations of total PM2.5) Fingertips, Department of Health and Social Care
4.28	Source: Department for transport as at 2025-05-06. Transport Statistics Finder: interactive dashboard
4.29	Source: RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations) as at 2025-05-13. Statistics - Index of tables Source: LFS (Labour Force Survey) as at 2025-05-13. Labour Force Survey (LFS) - HSE
4.30	Source: INAC01 SA: Economic inactivity by reason (seasonally adjusted), Office for National Statistics (ONS), 2025 Impact of reweighting on Labour Force Survey key indicators, Office for National Statistics (ONS), 2024 as at 2025-06-13. INAC01 SA: Economic inactivity by reason (seasonally adjusted) - Office for National Statistics Source: INAC01 SA: Economic inactivity by reason (seasonally adjusted), Office for National Statistics (ONS), 2025 Impact of reweighting on Labour Force Survey key indicators, Office for National Statistics (ONS), 2024 as at 2025-06-13. Impact of reweighting on Labour Force Survey key indicators: December 2024 - Office for National Statistics
4.31	Source: Health Foundation analysis of Department for Work and Pensions Family Resources Survey, 2021/22 as at 2025-02-21. Health Foundation analysis of Department for Work and Pensions Family Resources Survey, 2021/22

References (24 of 27)



Figure	Further notes and data source
4.32	Source: OHID, based on Ministry of Housing, Communities and Local Government and Office for National Statistics data extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Homelessness: households in temporary accommodation Fingertips, Department of Health and Social Care
5.1	Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Population vaccination coverage: MMR for two doses (5 years old) Fingertips, Department of Health and Social Care
	Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Population vaccination coverage: Dtap IPV Hib HepB (2 years old) Fingertips, Department of Health and Social Care
	Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Population vaccination coverage: MenB (1 year) Fingertips, Department of Health and Social Care
	Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Population vaccination coverage: PCV booster Fingertips, Department of Health and Social Care
	Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Population vaccination coverage: MMR for one dose (2 years old) Fingertips, Department of Health and Social Care
	Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Population vaccination coverage: MenB booster (2 years) Fingertips, Department of Health and Social Care
5.2	Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Population vaccination coverage: MMR for two doses (5 years old) Fingertips, Department of Health and Social Care

References (25 of 27)



Figure	Further notes and data source
5.3	Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Population vaccination coverage: MMR for two doses (5 years old) Fingertips, Department of Health and Social Care
5.4	Source: UK Health Security Agency extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Population vaccination coverage: HPV vaccination coverage for one dose (12 to 13 year old) Fingertips, Department of Health and Social Care Source: UK Health Security Agency extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Population vaccination coverage: HPV vaccination coverage for two doses (13 to 14 years old) Fingertips, Department of Health and Social Care
5.5	Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Population vaccination coverage: Flu (at risk individuals) Fingertips, Department of Health and Social Care
5.6	Source: UKHSA Seasonal influenza vaccine uptake in frontline healthcare workers in England: winter season 2023 to 2024 as at 2025-02-19. Seasonal influenza vaccine uptake in frontline healthcare workers in England: winter season 2023 to 2024 - GOV.UK
5.7	Source: UK Health Security Agency extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Population vaccination coverage: PPV Fingertips, Department of Health and Social Care
5.8	Source: UK Health Security Agency extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Population vaccination coverage: PPV Fingertips, Department of Health and Social Care

References (26 of 27)



Figure	Further notes and data source
5.9	<p>Source: NHS England, Breast Screening Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Cancer screening coverage: breast cancer Fingertips, Department of Health and Social Care</p> <p>Source: NHS England, Cervical Screening Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Cancer screening coverage: cervical cancer (aged 50 to 64 years old) Fingertips, Department of Health and Social Care</p> <p>Source: NHS England, Cervical Screening Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Cancer screening coverage: cervical cancer (aged 25 to 49 years old) Fingertips, Department of Health and Social Care</p> <p>Source: NHS England, Bowel Cancer Screening Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Cancer screening coverage: bowel cancer Fingertips, Department of Health and Social Care</p>
5.10	<p>Source: NHS England, Breast Screening Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Cancer screening coverage: breast cancer Fingertips, Department of Health and Social Care</p>
5.11	<p>Source: NHS England, Breast Screening Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Cancer screening coverage: breast cancer Fingertips, Department of Health and Social Care</p>
5.12	<p>Source: NHS England, Cervical Screening Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Cancer screening coverage: cervical cancer (aged 25 to 49 years old) Fingertips, Department of Health and Social Care</p>
5.13	<p>Source: NHS England, Cervical Screening Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Cancer screening coverage: cervical cancer (aged 50 to 64 years old) Fingertips, Department of Health and Social Care</p>

References (27 of 27)



Figure	Further notes and data source
5.14	Source: NHS England, Bowel Cancer Screening Programme extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Cancer screening coverage: bowel cancer Fingertips, Department of Health and Social Care
5.15	Source: Ipsos (2024): Evaluation of the targeted lung health check programme for NHS England as at 2025-05-20. Evaluation of the targeted lung health check programme for NHS England Ipsos
5.16	Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Abdominal Aortic Aneurysm Screening Coverage Fingertips, Department of Health and Social Care
5.17	Source: NHS England extracted from Fingertips (Crown copyright 2025) as at 2025-06-10. Diabetic eye screening: uptake Fingertips, Department of Health and Social Care