

Our Health and Wellbeing Today

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Executive summary

1. This document accompanies the Public Health White Paper, *Healthy Lives, Healthy People*,¹ and is a review of the evidence on the health and wellbeing of people in England today. It has informed the Government's new approach and the proposed outcomes framework for public health.
2. This paper takes a broad approach to looking at health and wellbeing, recognising that health is not just about the presence of disease or illness (be that physical or mental), but also about how well people are. Nor is health just about individuals. Taking a population view is important for understanding potential threats to our health, such as pandemic flu, and for identifying how best to provide health services that are capable of meeting people's different needs.
3. As a nation we are living longer than ever before. The nature of health has changed dramatically over the last 150 years, so much so that we now often take for granted the dramatic gains made to society from improved public health. In the mid 19th century 4 in 5 deaths were before age 65. Today, more than 4 in 5 deaths are after age 65 – English men can expect to live until 77 and English women to 82.
4. The nature of health threats have changed dramatically; infectious disease now only accounts for 2% of deaths. Most people now die in old age and of non-communicable diseases such as circulatory (accounting for 34% of deaths), cancers (27%), and respiratory diseases (14%). Vast improvements in public health have meant that the biggest threats to our lives now are diseases that usually occur later in life. The onset of diseases that occur earlier in life are at least partly linked to the way we live our lives.
5. Such success on improving public health raises new challenges. Not everyone has gained as much as they could have; there remain significant health inequalities in England both in life expectancy and quality of life. Although these are substantial challenges, we should recognise that England is not unique: health inequalities are common to all countries and the extent of health inequalities in England appears typical of other European nations.

6. Social influences on health and behaviour are important for understanding health inequalities and can have life-long consequences. Positive and negative experiences accumulate over people's lives and have lasting effects on health outcomes. This gives greater significance to taking a life course approach to public health and ensuring we get the early years of life right.
7. Mental health and wellbeing are also critical dimensions of health. We know that mental ill health is responsible for a high proportion of the overall burden of ill health and prevalence has been rising. We also know that mental health and wellbeing are important factors for physical health. Focussing on mental health amongst young people is particularly important with half of all lifetime mental illness starting before age 14. Poor mental health in childhood affects educational attainment, increases the likelihood of smoking, alcohol and drug use and has consequences for poorer physical health in later life.
8. The overall disease burden of ill health does not appear to have been rising. Overall prevalence of disease has been fairly stable over the last 30 years and there is some evidence that the impact of diseases on lives has actually lessened. This may reflect better treatments and improved care for people with conditions. However, our ageing population and predicted increases in prevalence in some diseases linked to lifestyle suggest the burden of disease will rise.
9. Different stages in people's lives represent different challenges for, and opportunities to improve health and wellbeing. This paper therefore sets out the challenges through the life course:
 - Starting well: Early on, the health of mothers before and during pregnancy and good parenting are crucial to getting the best start in life.
 - Developing well: As children develop, it is important to encourage healthy habits and avoid the adoption of harmful patterns of behaviour.
 - Growing up well: Childhood is also a critical time for identifying, treating and preventing mental health problems.
 - Living and working well: Lifestyle choices in adulthood can have profound impacts on an individual's longer term health and wellbeing.

- Ageing well: As people age and become increasingly at risk of frailty there are challenges in supporting them to remain resilient to ill health by maintaining their social networks and by being physically active. Protecting vulnerable people, including the elderly, from preventable harms is also an important challenge for public health and includes falls prevention, protecting people from seasonal weather extremes, and providing vaccinations such as the seasonal flu jab.

1. Introduction

- 1.1 This document sets out a review of the evidence on the health of people in England today, completed as part of development of the Public Health White Paper, *Healthy Lives, Healthy People*.²
- 1.2 Our mission in public health is to protect people from serious health threats; help people live longer, healthier lives; and improve the health of the poorest, fastest. This means looking at public health using a number of different health measures, such as life expectancy, quality of life, wellbeing, inequalities (including socioeconomic, gender and ethnic inequalities), as well as our preparedness for emergencies and emerging health threats.

What is public health?

The Faculty of Public Health defines public health as: 'The science and art of preventing disease, prolonging life and promoting health through organised efforts of society.' (Sir Donald Acheson)

There are three domains of public health: health improvement (including people's lifestyles as well as inequalities in health and the wider social influences of health), health protection (including infectious diseases, environmental hazards and emergency preparedness) and health services (including service planning, efficiency, audit and evaluation).³

- 1.3 We are publishing this document alongside the Public Health White Paper *Healthy Lives, Healthy People* so that the current state of the public's health can inform public debate and focus actions to protect and improve people's health locally and nationally, across government and society.
- 1.4 The Chief Medical Officer will continue to publish an annual report on the state of public health, summarising progress made on improving public health.

2. What is health?

We use a broad definition of health that encompasses both physical and mental health, as well as wellbeing. This means we are not only interested in whether or not people are ill or have a health condition, but also in how healthy and well they are.

- 2.1 There is a considerable range of definitions that health and wellbeing could encompass. Clearly, there is more to health than just life expectancy and the presence or absence of disease. In *Healthy Lives, Healthy People*,⁴ we take a broad view of what health means. We care about the physical and mental wellbeing of everyone and we recognise that there is a huge range of societal factors that affect this. By its nature, public health often takes a population view of health – this is important as we know that individual health and wellbeing cannot be seen in isolation from wider society. We also recognise the health inequalities that exist and the importance of addressing them in order to improve the health and wellbeing of society as a whole.
- 2.2 Good health and wellbeing brings many benefits for all of us. Healthier people tend to be happier, tend to play an active role and contribute to society and the economy through their families, local communities and workplaces. Conversely, poor health and wellbeing puts a huge strain on individuals, the NHS, the economy and society.

3. Healthy long lives

We are healthier than we ever have been, but the number of people with longstanding illnesses looks set to rise and many of the diseases people in England now suffer from are linked to lifestyle. The numbers of people smoking, taking illicit drugs and drinking harmful levels of alcohol have all declined in recent years, but many people still lead harmful lifestyles. Protecting the population from health risks, including infectious diseases, remains a challenge, both in terms of preventing the spread of non-immunisable disease and maintaining high uptake rates of immunisations.

- 3.1 Overall, we are living longer than ever before. Today, English men can expect to live until they are 78; this is longer than in most other comparable nations but still less than English women, who can expect to live to 82.⁵ Life expectancy is expected to continue to rise for both men and women, reaching 81 and 85 years of age respectively by 2020.⁶
- 3.2 Infectious diseases, the big public health problem of the past, are now responsible for only 1 in 50 deaths.⁷ Overall, we now enjoy safe air, clean water, and are well protected from environmental hazards. We have effective systems in place to prepare for, and respond to, new threats such as pandemic flu.
- 3.3 However, many people are still dying at a relatively young age – in 2007, more than 1 in 6 deaths occurred before the age of 65.⁸ The leading causes of death in people of all ages are circulatory diseases, cancers and respiratory diseases, which, when combined, accounted for 75% of deaths in 2007.⁹
- 3.4 Going beyond length of life and looking at quality of life, we know there is a substantial burden of ill health from living with conditions that cause people pain, affect mental health or prevent them from doing their usual activities, thereby making life more difficult and increasing the chances of being dependent on the care of others. The good news is that, although we are living longer, there is no strong evidence that the burden of health conditions has increased. Overall, the reporting of longstanding illnesses has been stable for 30 years at around 30% of the population¹⁰ and there is evidence that severity has lessened. Musculoskeletal, circulatory and mental health conditions together account for around 70% of the estimated burden of ill health.¹¹

- 3.5 Some measures of health that are partially self reported, such as healthy life expectancy, have been rising but at a slower rate than life expectancy.¹² This suggests that as people live longer, they are spending more years in poorer health. However, other measures of health provide contradictory evidence, with healthy years rising faster than life expectancy.¹³ We do not know conclusively whether quality of life is rising as quickly as life expectancy overall, or how expectations of what it means to be healthy has changed.
- 3.6 In the future, we are likely to have more people living in poorer health and this presents a significant challenge for health services and wider society. Firstly, we have an ageing population, which partly reflects the huge progress that has been made in reducing mortality and extending lives. Many health conditions increase markedly with age, which will mean a considerable rise in age-related chronic conditions such as diabetes, dementia, blindness and arthritis. It will also mean a greater concentration of poor health, meaning more people living with multiple chronic conditions. It is expected that the number of people who have three or more long-standing illnesses will rise by 60% over the next 10 years.¹⁴
- 3.7 Secondly, several major diseases are expected to become more common in all age groups, reflecting changes in people's lifestyles. For example, higher rates of obesity will result in a higher incidence of chronic conditions such as arthritis and type 2 diabetes. There were an estimated 3 million people with diabetes in England in 2009;¹⁵ estimates suggest that the number of people with diabetes could rise to 4.6 million by 2030.¹⁶ There has also been a rapid rise in gastrointestinal diseases, particularly chronic liver disease where the under-65 mortality rate has increased 5-fold since 1970. Liver disease is strongly linked to the harmful use of alcohol and rising levels of obesity, as well as prevalence of hepatitis B and C.¹⁷
- 3.8 Poor mental health is a significant contributor to the overall burden of ill health: estimates of the burden of poor mental health range from 9%¹⁸ to 23%¹⁹ of the total health burden in the UK and had an estimated cost to society of £77.4 billion in 2003. Almost 1 in 5 (17.6%) of the adult population experience mental ill health at any one time and the number of people with significant neurotic symptoms has increased since 1993.²⁰

Healthy behaviours

- 3.9 Many deaths and illnesses could be avoided by adopting healthier lifestyles. For example, we estimate that a substantial proportion of cancers,²¹ around 30% of circulatory diseases²² and a large proportion vascular dementia could be avoided.²³ This could be done mainly through a combination of reducing smoking rates, improving diet and increasing physical activity.
- 3.10 The single biggest preventable cause of early death and illness is smoking, and 21% of the general adult population currently smoke.²⁴ This has declined consistently, with a reduction of 7 percentage points since 1998 and 18 percentage points since 1980.²⁵ However, at this level, smoking-related disease will remain a significant factor in population ill health and healthcare for the future; smoking-related illness is estimated to cost the NHS £2.7 billion per year.²⁶ The decline in smoking prevalence has been greater in higher-income groups than lower-income groups,²⁷ which has contributed substantially to the widening of health inequalities.²⁸
- 3.11 A majority of adults (61%) were estimated to be either overweight or obese in 2008, with 24% obese and just under 2% morbidly obese.²⁹ England is well above the Organisation for Economic Co-operation and Development (OECD) average for adult obesity prevalence.³⁰ Obesity is linked with socioeconomic status and varies between ethnic groups. For example, prevalence in black African women is around 38% compared with 23% in women in the general population.³¹ Analysis of trends and future projections suggests that obesity prevalence will continue to rise, and by 2020 30% of men and 28% of women are likely to be obese.³²
- 3.12 High blood pressure is a major risk factor for circulatory diseases and affects 30% of the adult population in England.³³ This equates to some 12.7 million people and, of these, it is estimated that 46% are undiagnosed and untreated.³⁴
- 3.13 Diet and low levels of physical activity contribute to both obesity and high blood pressure, and it is estimated that 28% of circulatory diseases are preventable through changes in diet.³⁵ In the adult population, 82% of men and 65% of women consume more than the recommended maximum 6g of salt a day.³⁶ Whilst on average people are eating less saturated fat and added sugar than they were 10 years ago, consumption remains above recommended levels.³⁷

- 3.14 Fewer than 40% of adults meet physical activity guidelines, and activity rates by this measure generally declines with age from 36% in 25–34 year olds to 28% in 55–64 year olds. Just 20% of men and 17% of women aged 65–74 meet physical activity guidelines, and this declines further to just 9% of men and 6% of women aged over 75.³⁸ Lower levels of physical activity are also linked to some ethnic groups and lower household income.³⁹
- 3.15 Some behaviours affect people other than those directly involved. For example, alcohol consumption can also be a civil disorder issue and affect incidence of violence; in addition it carries the risk of addiction. The UK alcohol consumption level has doubled over the last 50 years, going from one of the lowest levels per capita in Europe to near the average.⁴⁰ In more recent years we have been drinking less as a society,⁴¹ but alcohol-related deaths⁴² and hospital admissions⁴³ are still rising as we deal with the consequences of harmful alcohol use occurring over a number of decades.
- 3.16 Most people drink sensibly, however nearly a quarter (23%) of the adult population in England report drinking above lower-risk guidelines.⁴⁴ Some 2.4 million adults (7% of men and 5% of women in England) regularly drink at higher-risk levels, with an average intake of 78 units per week – more than double the NHS limits.⁴⁵ In 2007, 1.6 million of these adults were dependent on alcohol,⁴⁶ a 25% increase since 2001.⁴⁷ Drunkenness is associated with almost half of assaults and more than 1 in 4 incidents of domestic violence.⁴⁸ The estimated cost of alcohol to the NHS is around £2.7 billion every year.⁴⁹
- 3.17 Illicit drug use is also associated with a cost to society in terms of crime and, although the number of people using heroin or crack is in decline, there remains an estimated societal cost in terms of drug-fuelled crime of £13.9 billion a year.⁵⁰ About a third of the population admits to taking illicit drugs at some stage in their lives and around 1 in 5 young adults say they recently used drugs (mostly cannabis). Almost 3 million people (8.6% of adults) used an illicit drug in the last year, the lowest level since the *British Crime Survey* began measuring it in 1996 (when the rate was 11.1%).⁵¹ Of the less than 2% of the population who have used opiates or crack in the past year, most will stop when they realise where it is heading, before they become addicted.⁵²
- 3.18 In community mental health, drug and alcohol treatment populations, substance misuse and mental ill health are often found to co-exist. Nearly half of patients treated within community mental health teams reported problem substance use in the past year, and up to three-quarters of substance misuse patients had had recent psychiatric disorders.⁵³

Protecting health

- 3.19 The quality of the environment around us affects any community. Issues such as pollution, air quality, noise, the availability of green and open space, transport, housing, access to good quality food and social isolation all influence the health and wellbeing of the local population. For instance, the societal health costs of noise and poor air quality are estimated to be £5-8 billion⁵⁴ and £9-19 billion⁵⁵ respectively.
- 3.20 Climate change represents a challenge in terms of long term health services planning and emergency preparedness.⁵⁶ A report written by independent scientists states the direct impacts of climate change include increased heatwave-related illness and deaths; respiratory effects of increased ground-level ozone; flood-related health effects (such as mental health impacts); increased incidence of sunburn and skin cancers; increased exposure to biting insects and vector-borne diseases; and increased allergic conditions with extended pollen seasons and changing pollen distribution.⁵⁷
- 3.21 Infectious diseases pose a risk to communities as well as individuals, and protecting people from them requires constant vigilance. Some infections are of particular concern at the moment, namely tuberculosis (TB), hepatitis and sexually transmitted infections (STIs).
- 3.22 There has been a steady increase in TB in the UK since the late 1980s, with 8,423 new cases reported in England in 2009⁵⁸ – an increase of 5.7% compared with 2008. TB mainly affects populations who are socially and economically disadvantaged, such as non-UK born minority ethnic communities, those who are homeless, those who use drugs, and prisoners.
- 3.23 We estimate that 142,000 people aged 15–59 years are chronically infected with hepatitis C in England,⁵⁹ only about half of whom may be aware of their condition. Hepatitis C is almost always spread via blood-to-blood transmission and more than 90% of known cases in which there is information on risk factors are associated with injecting drug use.⁶⁰
- 3.24 Prevalence of STIs is rising, with almost half a million new diagnoses in 2009 (excluding HIV).⁶¹ HIV rates remain relatively high, with 2,760 new diagnoses in 2009,⁶² and undiagnosed HIV is still a problem – around 26% of the estimated 86,500 people living with HIV at the end of 2009 were unaware of their infection.⁶³ This means they are unable to benefit from effective treatment and risk unwittingly passing HIV on to others.

- 3.25 Although cases of food-borne infections have steadily declined over the last decade, continued vigilance, sound surveillance and the prevention and control of outbreaks remain important. Food-borne infections (such as *E. coli*) remain a significant cause of preventable illness in people of all ages and can be especially severe in certain vulnerable groups, such as the very young and the very old.
- 3.26 Our immunisation programme is a key part of protecting the population from infectious diseases and, as long as levels remain sufficiently high, providing 'herd immunity' that protects individuals who cannot be immunised. Uptake rates for pre-school childhood immunisations are slowly improving, but there are considerable variations across the country; London, for example, has lower uptake rates than the rest of England, in part because of the more mobile population. Uptake of the measles, mumps, and rubella (MMR) vaccine continues to lag behind that of other vaccines, although the gap is reducing – uptake rates improved from 76.3% in 2008 to 82.9% in 2010.⁶⁴ These vaccination levels will protect those children who have been immunised but will not provide herd immunity as uptake needs to be at 95% for effective community protection.
- 3.27 The well-established seasonal flu vaccination programme for those aged 65 or over achieves uptake rates of 70–75%, which is one of the highest in Europe.⁶⁵

4. Wellbeing

Wellbeing is an important part of our health. England's population has average wellbeing when compared internationally, but there are likely to be wide variations within the country.

- 4.1 As a concept, wellbeing is applied in a wide range of contexts and with different meanings. We are using a broad definition that includes physical, social and emotional dimensions of wellbeing, as adopted by the Department for Environment, Food and Rural Affairs:
- ‘a positive physical, social and mental state; it is not just the absence of pain, discomfort and incapacity. It requires that basic needs are met, that individuals have a sense of purpose, that they feel able to achieve important personal goals and participate in society. It is enhanced by conditions that include supportive personal relationships, strong and inclusive communities, good health, financial and personal security, rewarding employment, and a healthy and attractive environment.’⁶⁶
- 4.2 A wide variety of techniques is used to measure wellbeing but doing so remains difficult, as does tracking progress. Broadly speaking, England experiences slightly better wellbeing than the rest of the UK and is in line with the average of other European countries.⁶⁷ In 2007 a European study found that life satisfaction in the UK was just above average, ranking the UK 11th out of 31 European countries.⁶⁸ Another comparison by the New Economics Foundation also suggests that the UK is around the average of similar countries for levels of wellbeing, on a par with France and Germany.⁶⁹
- 4.3 Mental wellbeing is an important part of both mental and physical health. Research has found that mental wellbeing can have a distinct impact on improving physical health⁷⁰ and reducing mortality.⁷¹ A recent survey of 18,500 people in the north-west of England found that 20.4% of the population had relatively high levels of mental wellbeing.⁷² However, rates of wellbeing within specific localities varied widely – 60.2% of people reported high levels of wellbeing in some areas, whereas this stood at only 5.7% in others. The same measure of wellbeing⁷³ is now included in the 2010 *Health Survey for England* and will provide new insights on wellbeing next year. The Office for National Statistics has also announced that it will develop new measures of national wellbeing.⁷⁴

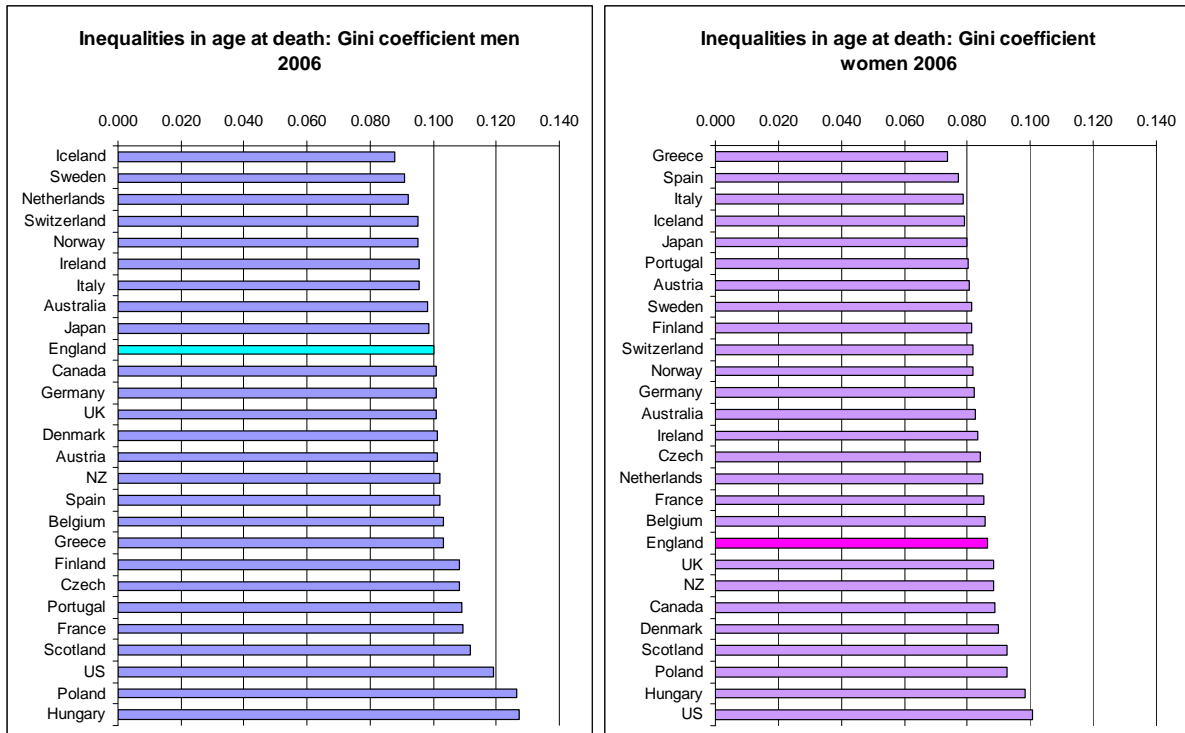
- 4.4 Social networks and capital are also important factors for health and wellbeing. Social capital can be defined as the resources available through strength of relationships with family and friends as well as through participation in wider social groups and activities in the community. It can be considered both an attribute of individuals and the larger community. In terms of individual social capital, one study in England found that 18% of men and 11% of women reported a severe lack of perceived social support, and 36% of men and 31% of women had low levels of contact with friends.⁷⁵

5. Health inequalities

There are significant health inequalities in England relating to social status, both in life expectancy and quality of life, and some groups also face further inequalities. Health inequalities are an internationally recognised phenomenon and England experiences similar-scale challenges as other wealthy countries.

- 5.1 There have always been inequalities in health, and they continue to be present today, with some people living longer than others, and some people living in better health than others. Public health is concerned with reducing differences in health and wellbeing and reducing systematic patterns in those differences. This means both:
- reducing the severity of ill health and premature mortality where it occurs across the population; and
 - reducing the pattern of ill health and premature mortality according to particular characteristics, such as income.
- 5.2 There are many ways of measuring differences in health experience. Looking at differences in mortality across individuals in different countries, the evidence suggests that the scale of differences between individuals is not a unique challenge for England and is, in fact, a challenge in most countries. Figure 5.1 illustrates this, showing how the Gini coefficient in age at death varies by gender across countries;⁷⁶ the Gini co-efficient is a measure inequality, with a value of 0 signifying total equality and a value of 1 maximal inequality. The coefficients for English men and women are similar at 10% and 8.6% respectively and have both been improving since 1980. The differences between wealthy countries appear small and England is unexceptional.

Figure 5.1: Inequalities in age at death, Gini coefficients for men and women in 2006, WHO life tables

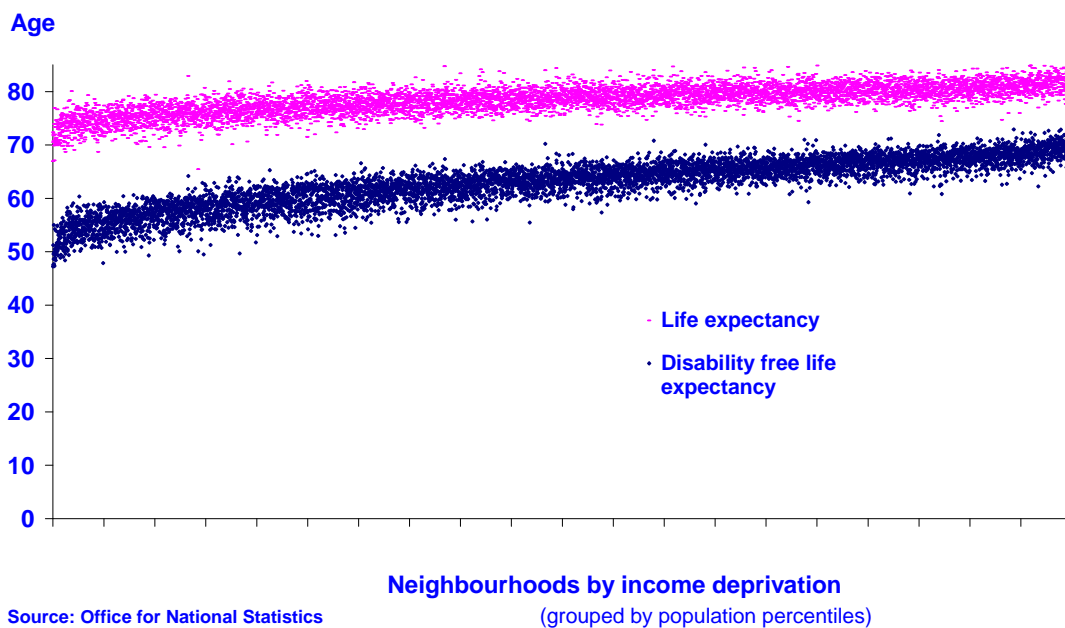


5.3 We are also concerned with the systematic nature of differences in health. As *The Marmot Review*, an independent review of health inequalities,⁷⁷ has extensively demonstrated, there is a systematic pattern of declining health linked to declining socioeconomic status in England – this is the so-called ‘social gradient’. There are concentrations of both shorter life expectancy and greater disability and these tend to be, although are not exclusively, in some of the poorest areas of England (see Figure 5.1). This means that people living in disadvantaged areas are more likely to bear a higher burden of ill health.

5.4 The gap in life expectancy between the poorest parts of the country (mostly urban areas of deprivation)⁷⁸ and England as a whole is 2.1 years for males and 1.7 years for women. This pattern also exists within smaller areas – so much so that looking at differences between local authorities masks more significant differences within them. This is as true for Kensington and Chelsea as it is for Manchester; in the former, life expectancy for males is 7 years lower in the most deprived parts of the borough than in the least.

- 5.5 As death rates have fallen over time, people in *all* parts of England are living longer – this applies to the poorer areas as well as the richer ones. Life expectancy in Manchester is now 74 years for men and 79 years for women; this is lower than England’s average.⁷⁹ However, life expectancy in the areas with the worst health and deprivation indicators – of which Manchester is one – has still increased by 3.1 years for males and 2.1 years for females since 1995–97.⁸⁰ On average, people in these areas⁸¹ are now living longer than people, as a whole, did in England in 2000. In short, everyone is living longer – but the gap in health outcomes has continued to widen as average life expectancy has risen faster than life expectancy in the poorest areas.
- 5.6 Inequalities are not limited to life expectancy and are worse when the impact of diseases and conditions on a person’s ability to live their life is taken into account. The Marmot review states a gap of 7 years in life expectancy between the richest and poorest neighbourhoods, and a gap in disability-free life expectancy that can be up to 17 years (see Figure 5.2).⁸²

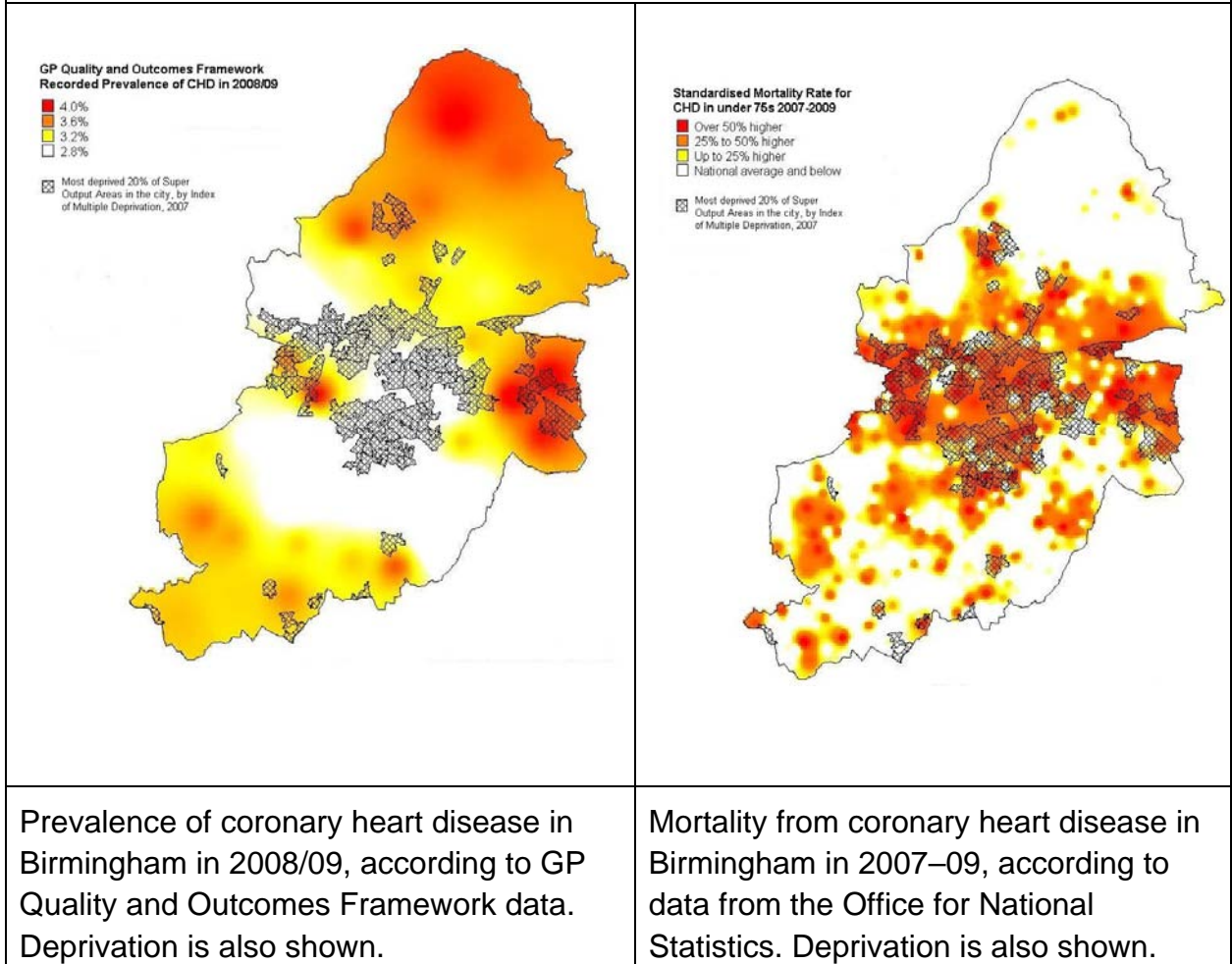
Figure 5.2: Life expectancy and disability-free life expectancy at birth, by neighbourhood income level, England, 1999–2003



- 5.7 We can draw similar graphs to Figure 5.1 classifying individuals not by where they live, but by their level of education, occupation and housing conditions – and see similar gradients.⁸³ Put simply, the higher one’s social position, the better one’s health is likely to be.

- 5.8 England is not unique in experiencing health inequalities according to socioeconomic status. Comparisons of socioeconomic inequalities in health across countries suggest that England has similar challenges to other wealthy northern European countries.⁸⁴ The World Health Organisation published the final report of its *Commission on Social Determinants of Health* in 2008 and found evidence of large health inequalities across the world, in both wealthy countries and those with lower incomes.⁸⁵
- 5.9 Understanding inequalities by cause further illustrates the persistence in the social gradient. The risk of a child dying on the roads more than doubles for children in the most deprived areas.⁸⁶ Children in the lowest quintile of households classified by household income also have three times more emotional and behavioural problems than those in the highest quintile.⁸⁷ People in lower socioeconomic groups experience the highest prevalence of anxiety and depression⁸⁸ and are more likely to suffer from chronic conditions like diabetes.⁸⁹
- 5.10 Some harmful health behaviours are also strongly associated with socioeconomic status. Harm from alcohol, illicit drugs and smoking is concentrated in people from lower socioeconomic groups, with 30% of men and 20% of women in the most disadvantaged groups having at least two or three high-risk behaviours compared with less than 10% (men) and less than 5% (women) in the least disadvantaged groups.⁹⁰ Those in the most deprived fifth of the population suffer two to three times greater loss of life due to alcohol, although it should be noted that people drinking more than the NHS guidelines are present throughout society.⁹¹ Users of heroin and crack also tends to be concentrated in the poorest communities – evidence puts their rates of premature death at between 12 and 17 times greater than that of the non drug using population.⁹²
- 5.11 There are wide variations in health outcomes across the country and different local areas face different public health challenges. Appendix 1 provides several maps of England to illustrate some of the variations observed across the country – the wide variation highlights the differences in priorities for public health action in local areas.
- 5.12 There can also be variations in outcomes in relatively small areas. Figure 5.3 shows how location, access to healthcare services (in this case primary care), and deprivation play a role in outcomes for coronary heart disease in Birmingham, where mortality (concentrated in the generally more deprived centre of the city) shows a very different prevalence pattern compared with that of people receiving treatment (concentrated in the generally less deprived suburbs).

Figure 5.3 Variation in Birmingham – showing stark differences between the location of coronary heart disease patients registered with GPs, and the locations where coronary heart disease mortality rates are highest.

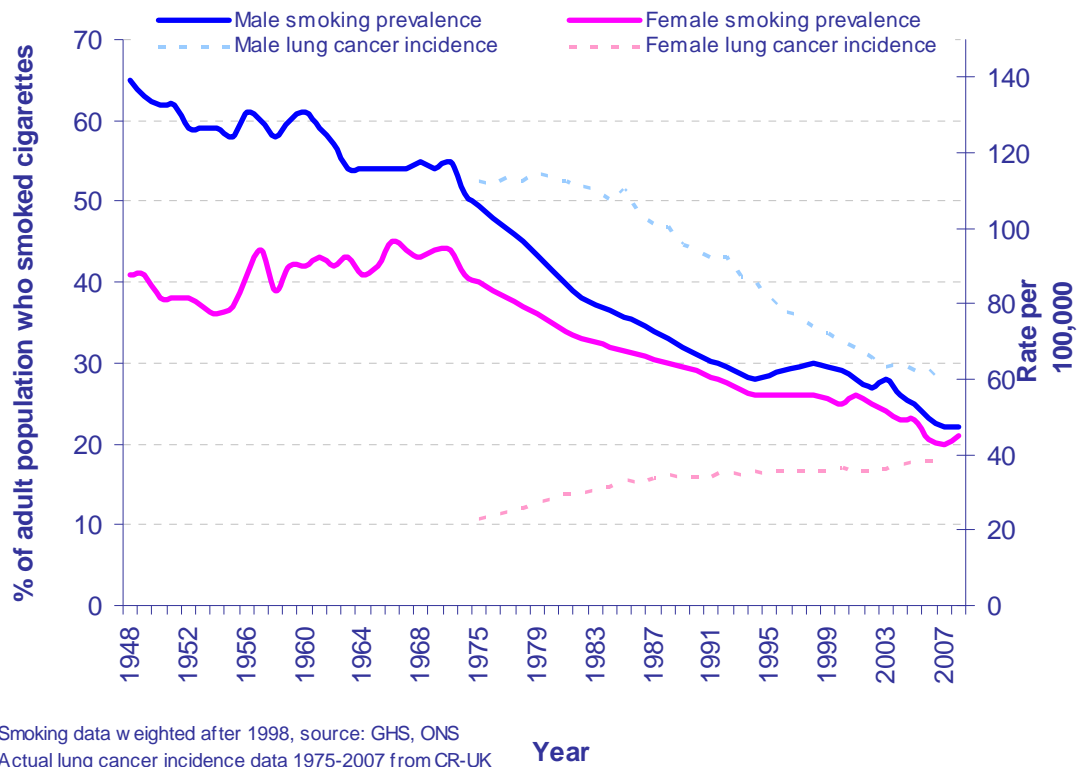


5.13 Looking beyond neighbourhoods and deprivation, certain groups have poorer health and some are uniquely disadvantaged because of a combination of their circumstances. For example:

- People with schizophrenia: A total of 0.4% of the population experience psychosis each year.⁹³ A recent UK study found that, of those living with schizophrenia in the community, men experienced 20.5 years lower life expectancy and women 16.4 years lower life expectancy than the general population.⁹⁴ The largest single cause of this inequality is an increased rate of smoking, more than three times that of the general population.⁹⁵
- People infected with HIV: Black African communities and men who have sex with men remain disproportionately affected by HIV in the UK; in 2009 they constituted 36% and 42% of the 65,319 individuals diagnosed with HIV infection respectively.⁹⁶

- People who are homeless: The average age of death for people who are homeless in the UK is between 40 and 44 years.⁹⁷
 - People with disabilities: Experience unequal access to health services and inequalities in health. Particular barriers can be demonstrated for some specific groups, especially people with learning disabilities, who experience poorer health outcomes and shorter life expectancy.⁹⁸
- 5.14 There are also large inequalities according to gender. The gap between male and female life expectancy has been narrowing faster within England than in comparable countries. Male life expectancy in England is among the highest in the world – above the average life expectancy for OECD, EU15 and G7 member countries. In contrast female life expectancy is relatively poor – approximately the same as the average for OECD countries but below that of the G7 and EU15 countries.⁹⁹ This partly reflects higher premature mortality for women when compared internationally, especially with regard to deaths from cancer and circulatory, digestive and respiratory diseases.
- 5.15 The narrowing of the gender gap in life expectancy in England reflects both relative success in reducing male mortality and relative failure in reducing female mortality when compared with other countries. The root causes of this are complex but one key factor appears to be historical smoking rates. Smoking among English men has declined earlier and further than in other countries; in comparison, smoking among English women peaked later than it did for English men but higher and earlier than it did for women in many comparable countries. Female smoking rates have also declined at a slower pace than those for men. As there is a long delay between smoking and the full effects on an individual's health being realised (Figure 5.4), trends that are rooted in smoking rates from the 1960s and 1970s are now contributing to relatively higher rates of smoking-related diseases among women in England and, hence, smaller gains in life expectancy. This illustrates how long it can take before policy changes have their full impact on health outcomes and why it is important to take a whole-life course approach to public health.

Figure 5.4: Lung cancer incidence and smoking trends, Great Britain, by sex, 1948-2008



- 5.16 Although male life expectancy in England appears comparatively good, women in England still live longer than men, in common with all comparable countries. Moreover, although overall premature mortality for English men compares well internationally, mortality rates for several major disease areas – circulatory, respiratory and digestive diseases – are worse than the average for EU15 countries. This suggests there is significant potential for further improving male life expectancy.
- 5.17 These serious health inequalities do not arise by chance, their drivers are many and complex. Although genetic or other pre-determined factors clearly play a role in some specific areas (for instance, the susceptibility to developing diabetes in those of South Asian descent),¹⁰⁰ patterns of ill health are too large and systematic for purely pre-determined factors to be anything but a small factor in the overall health experience. The main drivers can be summarised as the wider social influences on health, the lifestyles people have and the services they use. Improvement across all three factors is needed to reduce inequalities and improve overall health.

5.18 In summary, the challenge of reducing health inequalities is about:

- reducing the proportion of people dying prematurely and the proportion of those experiencing poorer health; and
- reducing the systematic patterns in poorer health and premature mortality such that being poor or living in a particular area does not predispose people to worse health outcomes.

6. Public health challenges throughout people's lives

Social influences on health are important and affect our health from pregnancy onwards. Positive and negative experiences accumulate over life to affect health outcomes, so it is important to get the early years right and understand the public health challenges at different stages in people's lives.

Social influence on health and the life course

- 6.1 Health and wellbeing are not static; they constantly evolve throughout our lives and reflect the way we have previously lived. Social and biological influences on development start at conception and operate through pregnancy to influence our health at birth. From birth, we are then exposed to a wide range of experiences – social, economic, psychological and environmental – that can affect our health and wellbeing. These change as we progress through the different stages of life such as pre-school, school, employment/training, family-building and retirement.
- 6.2 It is vital to consider health throughout our whole lives, from pregnancy to death. How we live our lives at earlier stages can have life-long effects on health and, often, the consequences are poorly understood and not properly considered. This highlights the importance of considering the impacts of early development on future health and wellbeing, as well as the key moments in life that affect our future health trajectory.
- 6.3 Social influences on health include our everyday circumstances – work, housing, the built environment, access to green spaces, mobility and transport, the natural environment and social networks – and the risks to which we are exposed, such as violence and abuse.¹⁰¹ The accumulation and interactions of wider social influences on health affect our social development, our behaviours and, consequently, our health and wellbeing. These effects may be protective or hazardous – increasing esteem, life skills, resilience and resistance to ill health and encouraging 'healthy behaviours', or damaging self-regard, undermining social skills and the ability to learn, and creating the conditions for mental and physical ill health.

- 6.4 It is important to consider the role of wider social factors in enabling people to make healthy choices. An individual's capability to make a healthy choice will depend not only on their own free will, but also on the range choices presented in a locality, affordability of different options, their mental wellbeing and personal drive to value their health.

Starting well

Health of mothers is critical to the development of their children both before and after birth. Their nutritional status before and during pregnancy is of concern and a small, but significant, proportion of them suffer from mental health problems before and after giving birth.

Infant mortality and prevalence of low birth weight are high when compared internationally.

- 6.5 The health and wellbeing of women before, during and after pregnancy is an important factor in giving children a healthy start in life and laying the groundwork for good health and wellbeing later on. The key public health challenges in the very early stages of people's lives are:
- preventing infant mortality (which, although improving, is high when compared internationally);
 - encouraging and enabling the good health of mothers, both before and during pregnancy and after birth; and
 - maximising early child development.

Infant mortality and low birth weight

- 6.6 There has been substantial progress in reducing infant mortality: there are now fewer than 4.6 deaths per 1,000 live births in England, down from 18 deaths per 1,000 live births in 1970.¹⁰² This is linked in part to improved standards of living and better maternity services.¹⁰³
- 6.7 Whilst relatively few children die in infancy, these rates are higher than in comparable European countries and infant mortality is a key indicator of wider health inequalities. There is a 70% gap in infant mortality between managerial/professional groups and routine/manual groups.¹⁰⁴ Infant mortality rates in some ethnic groups (for instance, babies born to mothers of Pakistani or Caribbean origin) are almost twice the national average.¹⁰⁵

- 6.8 Risk factors for infant mortality include:
- Maternal obesity: contributes to 8% of all infant deaths.¹⁰⁶ Obesity in pregnancy seems to be rising; one study conducted in Middlesbrough between 1990 and 2004 found that the percentage of pregnant women in the overweight body mass index (BMI) group rose from 21.5% to 25.3%.¹⁰⁷
 - Smoking during pregnancy: contributes to 6% of all infant deaths¹⁰⁸ and accounts for about a third of the difference in infant deaths between the most and least deprived groups in the population.¹⁰⁹ The proportion of mothers who smoked throughout their pregnancy fell from 19% to 17% between 2000 and 2005,¹¹⁰ but is much higher (45%) among mothers under 20 years of age.¹¹¹
 - Failure to initiate breastfeeding: contributes to 1% of all infant deaths.¹¹² A total of 22% of women do not initiate breastfeeding and the UK ranks as one of the lowest countries in Europe in the proportion of babies receiving any breast milk.¹¹³
- 6.9 Children born with a low birth-weight face immediate and life-long risks to their health and development. The immediate health consequences can include poor health in the first 4 weeks of life and a higher risk of infant mortality. In the longer term, life course consequences include higher associations with premature death from coronary artery disease and delayed physical and intellectual development in early childhood and adolescence. Incidence is relatively high, with 7.1% of UK births defined as being of low birth-weight; above the European average for the EU15 and EU27 countries.¹¹⁴
- 6.10 There are social inequalities relating to low birth-weight in England and Wales.¹¹⁵ Babies from manual backgrounds are more likely to have a low birth weight than those from non-manual backgrounds – 8% compared with 6%; in addition, babies of lone parents are more likely to be of low birth weight than babies of couples – 10% compared with 7%.¹¹⁶ Higher rates of low birth weight are also found among Asian women in the UK.¹¹⁷ Smoking during pregnancy is a key risk factor associated with low birth-weight.¹¹⁸
- 6.11 After birth, breastfeeding has clear health gains for both mother and baby, improving life chances, health and wellbeing. The latest average breastfeeding prevalence at 6–8 weeks in England was 46.2%.¹¹⁹ Rates are lowest for those in the poorest circumstances, with half the number of babies in routine/manual groups being breastfed at 6 weeks compared with those in managerial/professional groups.¹²⁰

Maternal health

- 6.12 Maternal health before, during and after pregnancy lays the foundation for healthy fetal development, as well as a child's physical and emotional health.
- 6.13 Many pregnancies are unplanned¹²¹ and the number of people entering pregnancy in poor health is increasing;¹²² often women have not had time to change their diet accordingly. The Scientific Advisory Committee on Nutrition has expressed concern over the diets of women and the impact that energy-dense diets of low micronutrient content have on their babies.¹²³
- 6.14 Poor maternal mental health during pregnancy is associated with low birth-weight¹²⁴ and increased rates of mental ill health in children.¹²⁵ Maternal depression and anxiety in pregnancy and during a child's early life affect 10–15% of pregnant women¹²⁶ and are several times more common among mothers living in poverty than those who are not.¹²⁷
- 6.15 By screening for specific infectious diseases in pregnancy the transmission risk from mother to baby can be reduced. Screening for hepatitis B, HIV and syphilis is offered to all pregnant women and uptake is high at 93–95%.¹²⁸ Before and after birth mothers are also offered screening for issues that affect the health of the baby, for instance screening for hearing difficulties, some genetic conditions and Down's syndrome.

High quality care and emotional development

- 6.16 A child's early experiences and environment – from the very first days and weeks – influence their brain development during the early years of life. Warm, positive and healthy parenting can help to create a strong foundation for the future and there is evidence to show that parenting can go some way to mediate the effects of poverty and deprivation.¹²⁹ These early stages are also a time when parents are particularly motivated to do the best for their child, make lifestyle and behaviour changes, and are when particular additional health or development needs, such as physical development issues or speech and language needs, can be identified.
- 6.17 Parenting style and behaviour both have a strong influence on children's development. It is difficult to measure parenting as judging what makes a good parent can be hard to define and there is much that is still unknown. However, it is estimated that:
- around 5% of 3-year-olds did not have a warm relationship with their mother and 5% experienced negative or harsh parenting;¹³⁰
 - 17% of parents admitted shouting at their children daily when they were aged 3;¹³¹ and

- as many as 10% of children have experienced physical abuse and up to 30% have experienced emotional abuse.¹³²
- 6.18 Some 10% of children and adolescents have emotional and behavioural problems,¹³³ which are some of the most important causes of functional disability in children.¹³⁴ Mental health problems in childhood are associated with a broad range of poor outcomes in adulthood including higher rates of adult mental illness, higher likelihood of unemployment, reduced earnings and criminal activity.¹³⁵

Developing well

A warm and supportive parenting relationship is crucial for good child development. Habits that are established as children often carry through to later life; this makes smoking, poor diet and obesity in children of particular concern.

- 6.19 How children develop at an early stage in their lives is crucial for their future health and wellbeing. The parent–child relationship is vital to children’s development, learning, achievement and wider wellbeing. Poor parenting is a risk factor for mental health problems while good parent–child relationships reduce the risk of children adopting unhealthy lifestyle choices.
- 6.20 Pedestrian injury is the leading cause of accidental death of children in the UK. In 2009 almost 21,000 children and young people aged under 16 were hurt in road accidents on roads in Great Britain. Of these, 81 were killed and a further 2,590 were injured seriously enough to be admitted to hospital or suffer a fracture or other serious injury.¹³⁶ There is a significant social gradient and local variation in deaths from road accidents (Figure A1, Appendix 1).

Healthy behaviours

- 6.21 There is evidence that lifestyle behaviours and habits established during school-age years can influence a person’s health throughout their life. The prevalence of unhealthy behaviours, such as smoking and drinking, is now falling among children but, in some cases, is still high when compared internationally and can reflect the socioeconomic gradient.¹³⁷

- 6.22 By the time they start school, as many as 13% of children are already overweight and a further 10% are obese; these figures rise to 14% and 18% by the end of primary school.¹³⁸ Once childhood obesity is established, the evidence is clear that it continues into adulthood. Excess weight is also related to the family environment; there are strong associations between the BMI levels of parents and those of their children. These associations are maintained as children grow into middle age.¹³⁹
- 6.23 About 12–24% of girls aged 11–18 years showed evidence of low iron status,¹⁴⁰ which increases their risk of iron deficiency anaemia. Only 22% of boys and 7% of girls aged 11–18 years consume the recommended five portions of fruit and vegetables per day,¹⁴¹ and children aged 4-18 consume more sugar than is recommended.¹⁴²
- 6.24 Over 8 out of 10 adults who have ever smoked regularly began as older children or teenagers (up to and including age 19).¹⁴³ Those who start smoking when they are young are three times more likely to die of a smoking-related disease.¹⁴⁴ Smoking prevalence among 11–15 year olds has reduced from its peak of 13% in 1996 to 6% in 2009.¹⁴⁵
- 6.25 There has also been a decline in illicit drug use by 11–15 year old pupils since 2001. Regular drug use (at least once a month) has been reported by 4% of pupils (2009), down from 7% in 2003.¹⁴⁶ Despite this encouraging fall, the best available evidence suggests that lifetime drug use among school-aged children in the UK remains at relatively high levels when compared with other EU countries.¹⁴⁷
- 6.26 Half of lifetime mental illness (excluding dementia) starts by the age of 14¹⁴⁸ and 75% by the mid-20s.¹⁴⁹ Some mental health conditions are exclusive to childhood whilst others emerge in childhood or adolescence.
- 6.27 In the last national survey that was undertaken, 1 in 10 children aged 5–16 years were estimated to have a diagnosable mental disorder.¹⁵⁰ The prevalence of mental disorders in 5–16 year olds from routine occupational families (15%) was nearly four times that of those from higher professional families (4%).¹⁵¹
- 6.28 Mental health problems in childhood and adolescence are also associated with many poor childhood outcomes such as lower educational attainment, increased likelihood of smoking, alcohol and drug use, poorer social skills and poorer physical health.¹⁵²
- 6.29 In 2009/2010 there were 607,000 referrals to England's children's services.¹⁵³ The incidents of harm are likely to be higher with research estimating that 1 in 10 children experience some form of neglect or psychological harm. These children are at greater risk of developing substance misuse habits, mental health issues, adopting risky sexual behaviour, exhibiting criminal behaviour and educational failure.¹⁵⁴

- 6.30 There are a common set of factors that predict a range of unhealthy lifestyle choices and poor health outcomes, meaning they are likely to 'cluster' in particular individuals. For instance, one study found that children aged 12–13 years who drank alcohol were three times more likely to be hard drug users by the age of 17–18, and almost twice as likely to engage in violence and have become pregnant.¹⁵⁵

Growing up well

Most young people act sensibly, however risk-taking behaviour is highest in teenagers and young adults, with relatively high levels of binge drinking, STIs and illicit drug use.

Suicide in young people has fallen in the long term, but risen slightly recently; the majority of lifetime mental health issues emerge before people reach 25.

- 6.31 Adolescence/young adulthood is an important development stage characterised by physical, neurological and emotional development. Research is starting to demonstrate how areas of the brain – for example, those responsible for decision-making and risk assessment – continue to mature until individuals are in their mid-20s. Adolescence may also be a stage when young people want to test boundaries and experiment with new experiences – the rates of those who smoke, drink alcohol and have poor sexual health are high compared with their counterparts in other areas of Europe.
- 6.32 Alcohol-related accidents (including drink driving) are the leading cause of death for 16–24 year olds, and are responsible for over 27% of male and 15% of female deaths in this age group.¹⁵⁶
- 6.33 Since 2003, there has been a downward trend in young people are drinking alcohol. Of those young people that do drink, there has also been small reduction in the average amount of alcohol consumed since 2003.¹⁵⁷ However, 16–24 year olds are the group most likely to drink to become drunk (often known as binge drinking). An estimated 28% of young adults drink this way and put themselves, or people they are with, in harm's way.¹⁵⁸ In total, some 37% of young adults are estimated to have 'hazardous or harmful' drinking patterns.¹⁵⁹
- 6.34 Most long-term mental health conditions emerge in adolescence or young adulthood, with almost 1 in 6 people aged 16–24 years reporting a neurotic disorder.¹⁶⁰ Hospital admissions for self harm are rising,¹⁶¹ with estimates of 7–14% of adolescents self-harming. In addition, as many as 20–45% of older adolescents say they have had suicidal thoughts.¹⁶²

- 6.35 The suicide rate among 15–24 year olds in England rose from 3.9 to 4.0 deaths per 100,000 people between 2005 and 2009. However, this has fallen steeply from a peak in men of 24 per 100,000 in 1998.¹⁶³
- 6.36 Poor sexual health is a problem for young people, the prevalence of STIs continues to increase and 15–24 year olds – particularly young women – continue to be the group most affected in the UK.¹⁶⁴ Of all 15–24 year olds diagnosed with an STI last year, around 1 in 10 will become re-infected within a year.¹⁶⁵ Teenage conceptions are at a 20-year low (40 cases per 1,000 under-18s), but the rate is still high when compared with Western Europe.¹⁶⁶
- 6.37 Skin cancer is among the top five cancers in 15–24 year olds; in 2009, around 6% of 11–17 year olds used a sunbed, with many starting use at age 14.¹⁶⁷
- 6.38 There is a rising trend in obesity among 16–24 year olds; this rose from 6.4% in 1993 to over 10.7% in 2008.¹⁶⁸ Linked to this, the overall quality of the diet of young adults is low: only 19% of 16–24 year olds consume the recommended five portions of fruit and vegetables a day, compared with 27–34% of people in older age groups.¹⁶⁹

Living and working well

Work is good for both physical and mental health, however work-related stress, depression and anxiety are of significant concern.

In addition, as people get older, the risk of developing certain diseases increases. In order to try to prevent disease, or diagnose it early, there are successful screening programmes for those who are in their later working years.

- 6.39 Adults form a large segment of the population. Choices and behaviours during adulthood can have profound impacts on people's health for the rest of their lives. Being in positive employment is a critical influence on health and wellbeing, and the public health challenges in adulthood include preventing chronic illness later in life. The environment in which we live is also important for the way people live their lives and has consequences for health. For example, recent work has shown that where people have good access to green space they are 27% more likely to physically active.¹⁷⁰

- 6.40 It is never too late to adopt a healthy lifestyle to see health benefits. People can gain benefits from being more physically active later in life even if they have previously been inactive until middle age or beyond,¹⁷¹ and reducing their salt intake can lower their blood pressure in just four weeks.¹⁷²
- 6.41 Taking into account the nature and quality of work, there is strong evidence to suggest that work is generally good for physical and mental health and wellbeing.¹⁷³ For healthy people of working age, many disabled people, most people with common health problems and social security beneficiaries, work can be therapeutic and can reverse the adverse health effects of unemployment.¹⁷⁴ For instance, standardised mortality rates are lower among people in employment than people who are unemployed, irrespective of socioeconomic group.¹⁷⁵ Of course, the relationship is two-way: improving health is also important for increasing employment.¹⁷⁶
- 6.42 Particular groups of people have traditionally had lower chances of being in work, including disabled people, people with mental health conditions and people with long-term conditions.¹⁷⁷
- 6.43 Depending on its nature and quality, work can positively affect mental health.¹⁷⁸ Being in employment and maintaining social contacts improves mental health outcomes, prevents suicide and reduces reliance on health services.¹⁷⁹ Existing mental health problems can be a barrier to accessing work due to the stigma associated with poor mental health.¹⁸⁰
- 6.44 The costs of working-age ill health in the UK run to £100 billion per year – this is more than the annual budget for the NHS.¹⁸¹ Around 172 million working days were lost to sickness absence in 2007, at a cost of over £13 billion to the economy.¹⁸² Of these, the leading causes were mental health problems and musculoskeletal conditions; some 9.8 million working days were lost in Britain in 2009/10 due to work-related stress, depression or anxiety,¹⁸³ and 17% of people claiming incapacity benefit have a musculoskeletal condition.¹⁸⁴
- 6.45 In England, 1 in 10 people provide unpaid care to relatives or friends, and 1.2 million people care for over 50 hours a week. In the 2001 census, carers providing high levels of care were twice as likely to report poor health compared with those who did not have any caring responsibilities.¹⁸⁵

- 6.46 Towards the end of a person's working life diseases such as cancer start to form a significant proportion of all deaths. Early detection/diagnosis of cancer has a significant impact on outcomes, and can be achieved through symptomatic diagnosis or screening. The UK has world leading cancer screening programmes¹⁸⁶ – in 2008/09, 5.5 million women were screened for breast or cervical cancer and approximately 5,900 lives were saved.¹⁸⁷ The new bowel cancer screening programme is expected to save 2,400 lives a year by 2025.¹⁸⁸ However, it has been estimated that 10,000 deaths could be avoided each year primarily through earlier diagnosis of symptomatic cancer.¹⁸⁹
- 6.47 Screening can also stop the progression of disease. Screening for diabetic retinopathy (the most common cause of blindness in people of working age in the UK) is offered on an annual basis to all those who have diabetes. This programme is expected to halve rates of blindness from retinopathy.¹⁹⁰

Ageing well

The number of people aged over 65 is rising and members of this age group have different public health challenges to those presented by younger people. Rates of smoking and drinking are low, but challenges that are set to increase include preventing falls, dementia, depression and excess deaths in winter.

- 6.48 The UK population is ageing rapidly and, by 2033, almost a quarter of the population will be over 65.¹⁹¹ The numbers of frail,ⁱ older people is also rising – current estimates vary from 800,000 to 1 million¹⁹² – as is the level and complexity of their needs. Improving older people's general health and wellbeing can reduce frailty and improve resilience, meaning they require less help from health and social care services.
- 6.49 The public health challenges for older people are different to those of working-age adults. Smoking and drinking prevalence are low compared with the rest of the population (although many people are affected by diseases partly caused by sustained risky behaviour through adulthood), and dealing with disability and frailty, falls, dementia and depression are the significant public health challenges. The prevalence of poor diets and malnutrition is high in those who are very old.¹⁹³

ⁱ 'Frailty' can be defined as that phase of ageing where people lose muscle strength and walking speed, fatigue more easily, and often have a degree of functional, sensory or early cognitive impairment. This in turn means they don't have much 'functional reserve' so that any physical illness can make a critical difference between them coping and not coping, needing services or not needing services.

- 6.50 The average life expectancy at 65 is 20.4 years for women, and 17.7 years for men¹⁹⁴, while healthy life expectancy is 14.6 years and 12.9 years respectively.¹⁹⁵ Both life expectancy and healthy life expectancy at 65 have risen significantly in the last 20 years.¹⁹⁶ The figures for both men and women vary across the country and socioeconomic gradient,¹⁹⁷ reflecting continuing inequalities that are present earlier in the life course.
- 6.51 The average age of rural residents is nearly six years older than people living in urban areas which can present additional public health challenges.¹⁹⁸ There are particular challenges with the provision of services in rural areas due to the higher cost of delivering services in more remote locations, the greater sparsity of rural communities and the demographic features of the rural population.¹⁹⁹
- 6.52 Functional disability rises with age: 20% of men and women aged 55–64 years report difficulty in at least one of six activities of daily living, such as moving about the house and getting dressed. These rates rise to 58% of men and 65% of women aged 85 years and over.²⁰⁰
- 6.53 In 2008/09 there were over 36,000 ‘excess winter deaths’ in England (ie, deaths in winter over and above the rate of deaths during the rest of the year); this is a higher figure than that in some colder European countries.²⁰¹ These deaths mainly occurred in people aged over 65.²⁰² The key factors in reducing winter deaths are increasing warmth and reducing damp. A theoretical maximum of around 18,000 deaths are attributable to cold conditions and only a proportion to cold housing; up to 10,000 deaths in the UK might be prevented if indoor temperatures were raised to 21°C.²⁰³
- 6.54 Musculoskeletal conditions, including osteoporosis, bone fragility, fractures, and falls, account for over 60% of the reported burden of longstanding illnesses in the over-65s.²⁰⁴ Each year, 35% of over-65s and 45% of over-85s experience one or more falls.²⁰⁵ Hip fracture is the most common serious injury related to falls in older people – around 76,000 hip fractures occur in the UK each year,²⁰⁶ costing the NHS £1.4 billion, and numbers may double by 2050.²⁰⁷
- 6.55 Factors that could help prevent musculoskeletal conditions and prevent their escalation include a higher vitamin D intake (8–38% of people over 65 have a low vitamin D intake),²⁰⁸ increased physical activity (which declines significantly with age), correct footwear, safe housing, a safe environment and reducing smoking rates earlier in life.
- 6.56 Dementia affects 5% of people aged over 65 and 20% of those aged over 80. An estimated 750,000 people in the UK have dementia;²⁰⁹ this figure is expected to double in the next 30 years.²¹⁰

- 6.57 About half of all cases of dementia have a vascular component (ie, linked to the blood supply to the brain). There is an opportunity to minimise the effects of dementia, or prevent it altogether, for some people through changes in their diet and lifestyle earlier in life. A major problem is that only a third of people are diagnosed with dementia and, when they are, it is generally late in their illness or at a time of crisis.²¹¹ At this point, it is too late to make considered future plans and provide early support that may avert crises. However, the risk of vascular dementia can be reduced through:
- physical activity (for those without cognitive impairment);²¹²
 - cognitive exercise interventions;²¹³
 - social engagement²¹⁴ and socially stimulating activity;²¹⁵ and
 - treatment of hypertension.²¹⁶
- 6.58 A quarter of older people in the community have symptoms of depression requiring intervention,²¹⁷ and 20–25% of those with dementia also have major depression.²¹⁸ Depression can also be misdiagnosed as dementia and, therefore, not treated appropriately in this age group.
- 6.59 For older people, living with longstanding illnesses, disability, poverty, social isolation, bereavement, underlying dementia or cognitive impairment and carer stress are all factors that impact negatively on mental health.

Appendix 1

- A.1 The Figures in this Appendix illustrate the regional variation in public health challenges across people's lives. They show a number of variables by local authority area across England – and the variation across the different measures suggest the need for locally tailored approaches.
- A.2 Figures A1, A2 and A3 illustrate three childhood public health issues – road traffic casualties, educational attainment at key stage 2, and childhood obesity all following slightly different regional trends.
- A.3 Figures A4, A5, A6 and A7 show differences in adult behaviours – estimates of adult obesity prevalence, and mortality from smoking and alcohol.
- A.4 Figure A8 shows the regional variation in all mortality under 75 – illustrating the inequalities in mortality in different areas. Finally, Figure A9 illustrates the variations in excess winter deaths across England.

Figure A1: Child road traffic casualties, by local authority²¹⁹

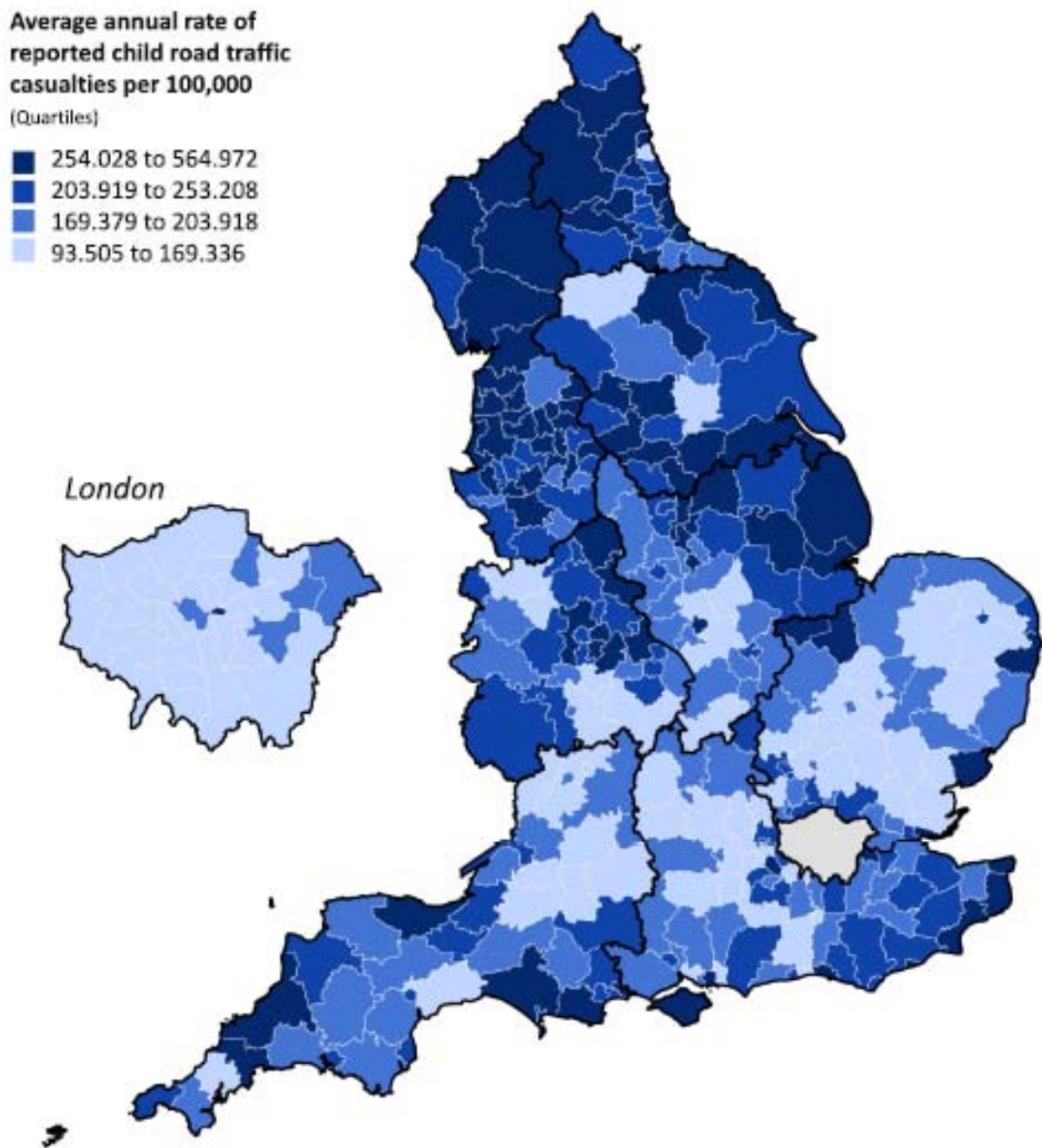


Figure A2: Achievements in the Early Years Foundation Stage Profile teacher assessments, by local authority²²⁰

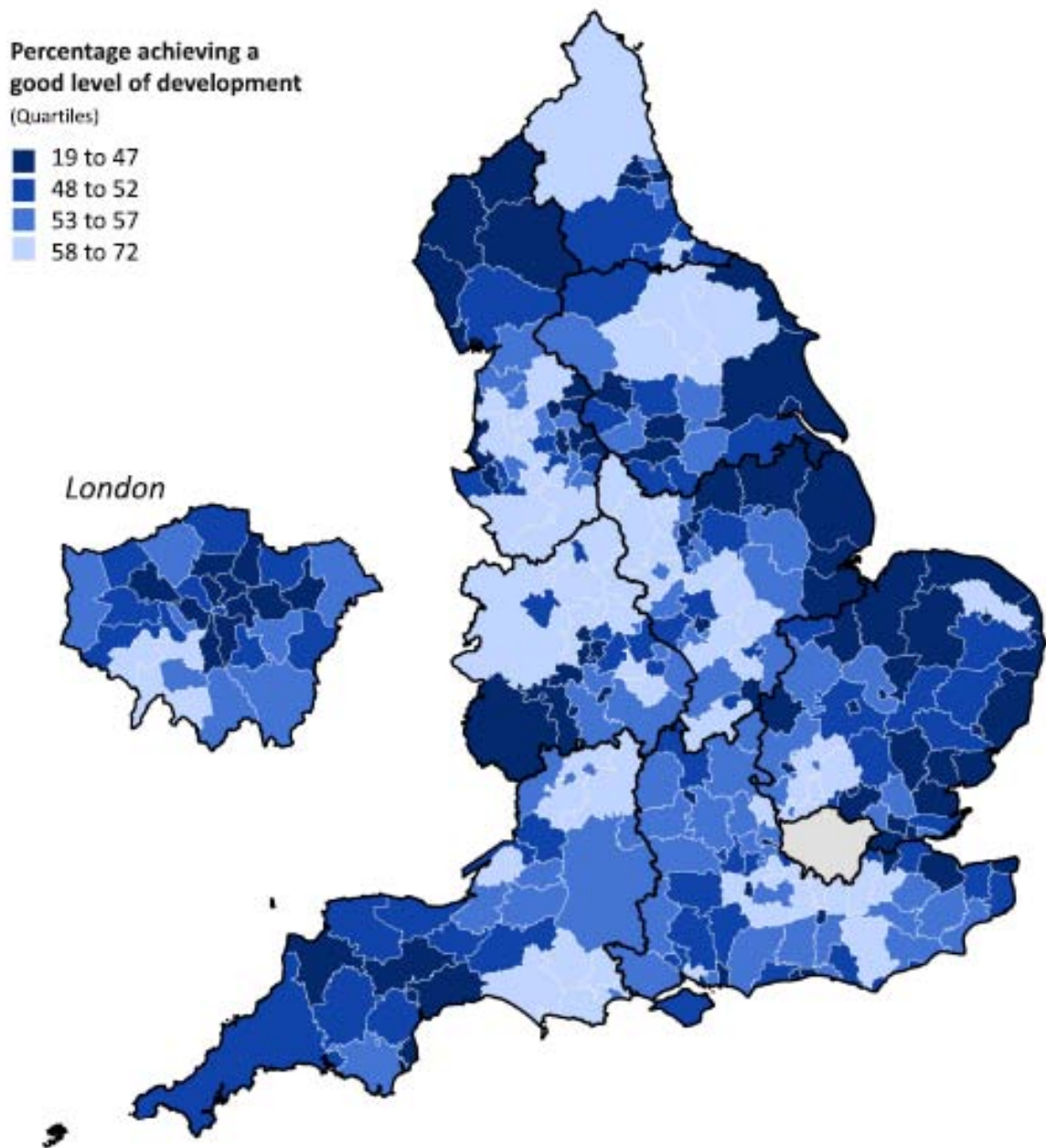


Figure A3: Prevalence of obesity in Year 6 children, by local authority compared to the England average²²¹

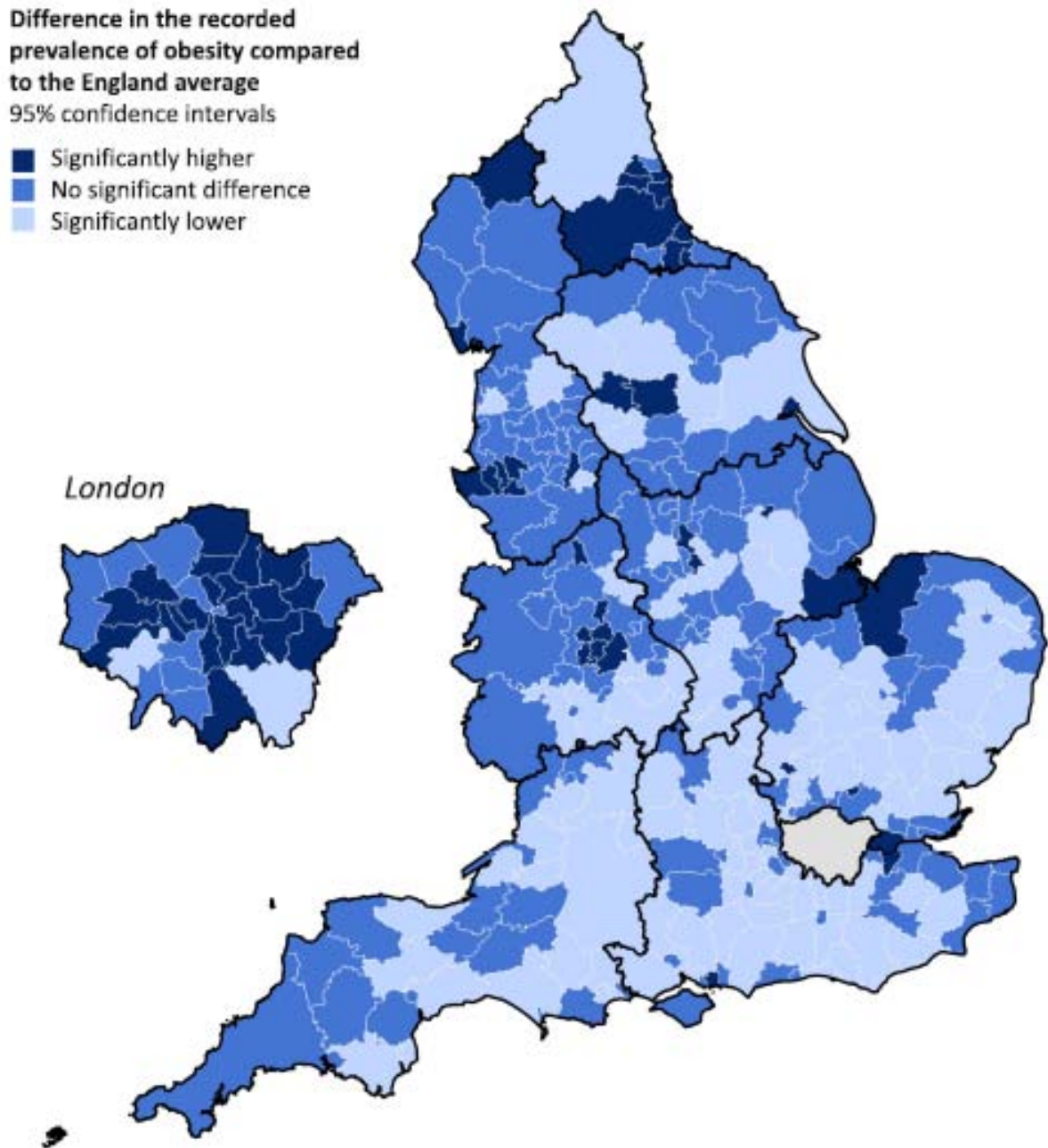


Figure A4: Prevalence of obesity in adults, by local authority, synthetic estimates 2006-2008²²²

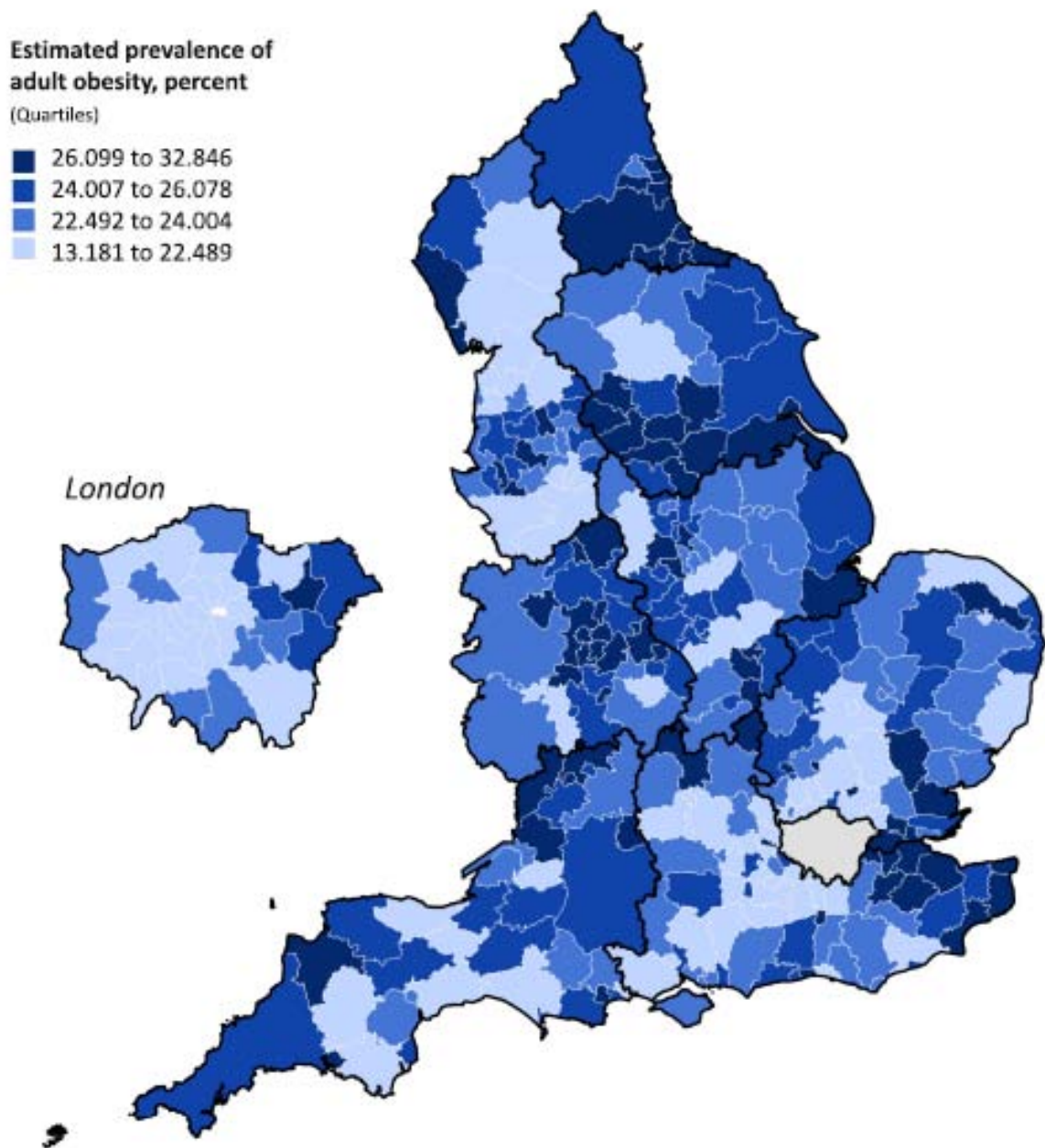


Figure A5: Smoking related deaths by local authority²²³

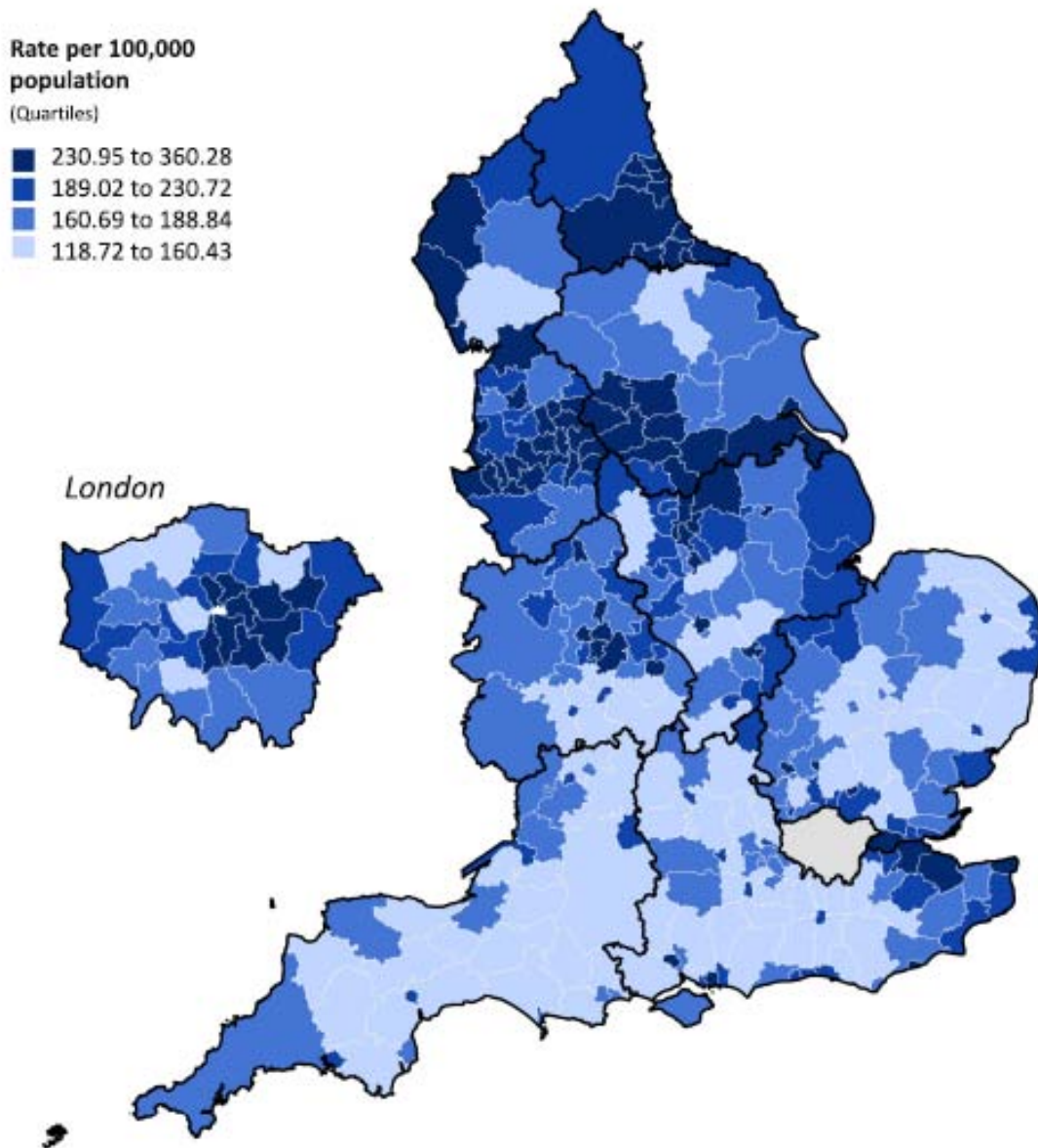


Figure A6: Alcohol related deaths, females, by local authority²²⁴

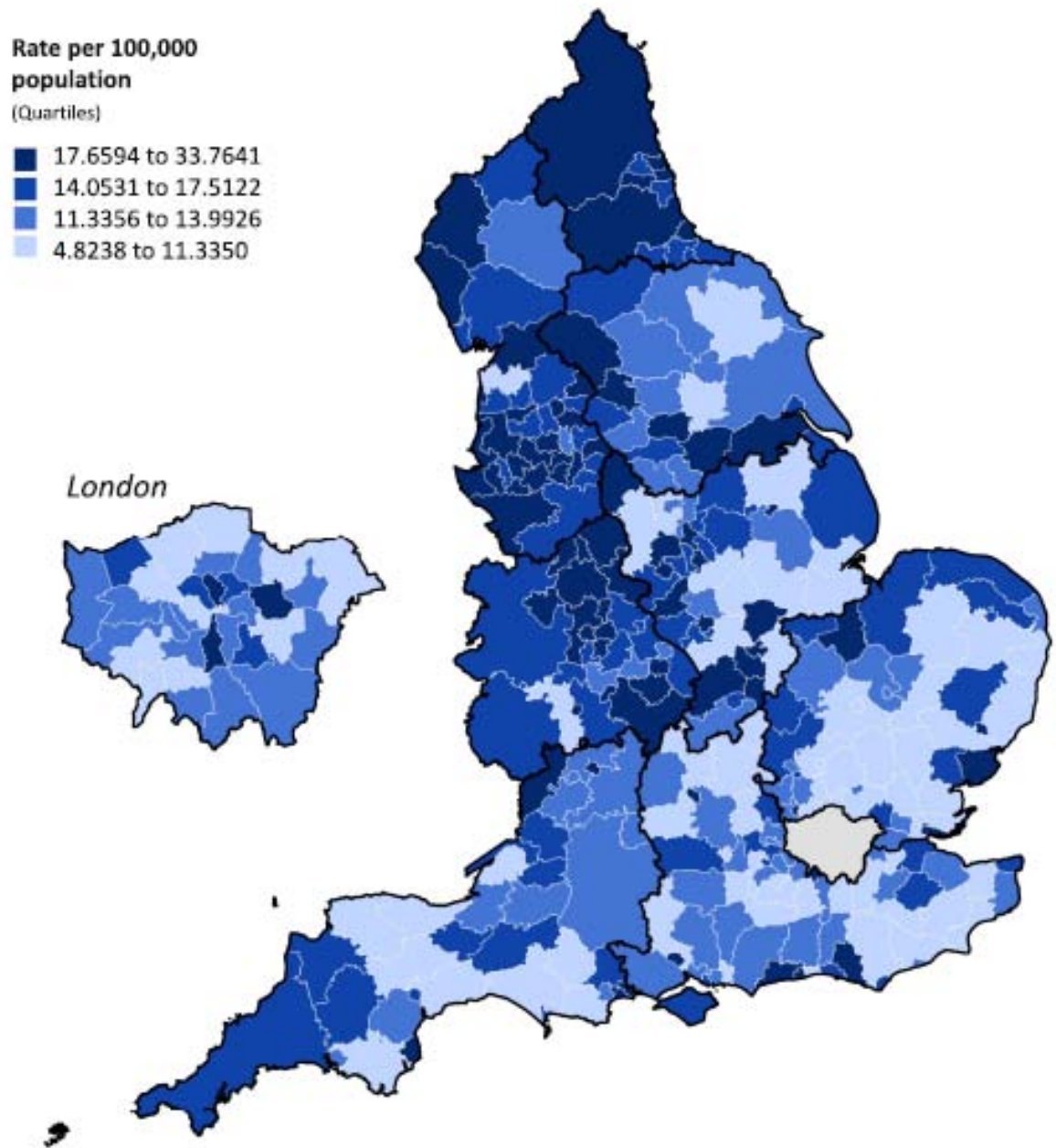


Figure A7: Alcohol related deaths, males, by local authority²²⁵

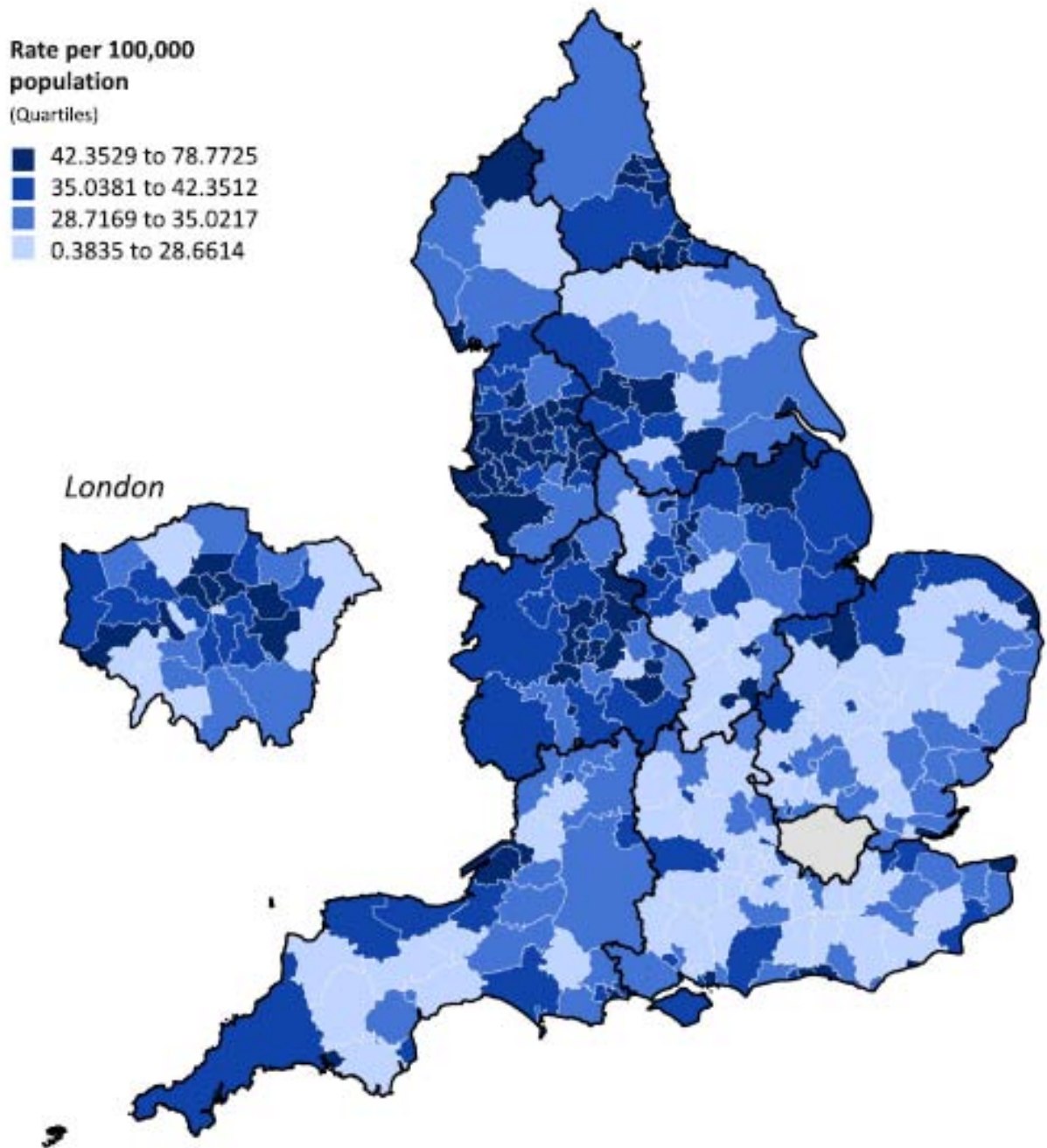


Figure A8: All cause mortality (in under 75s), by local authority²²⁶

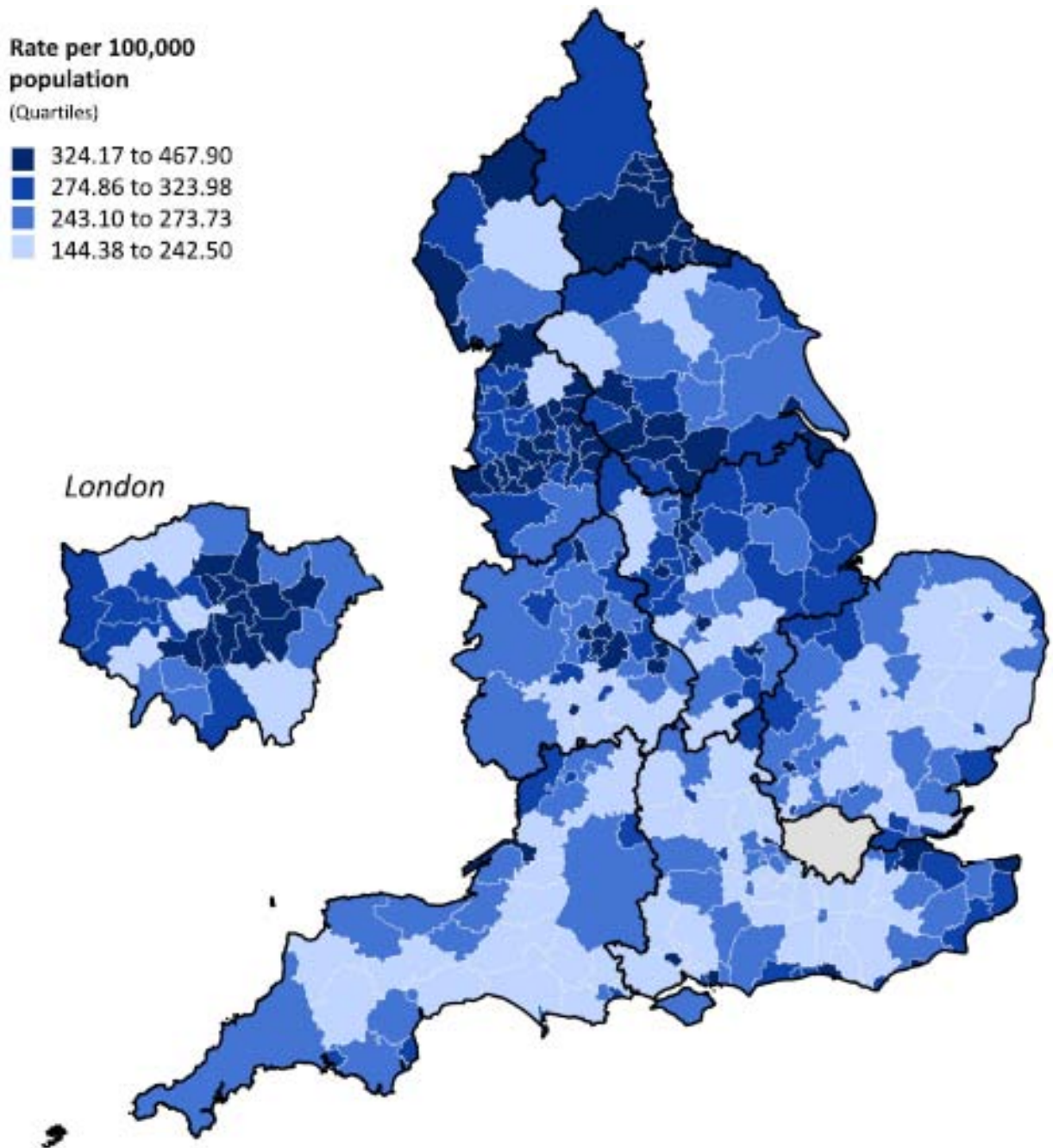
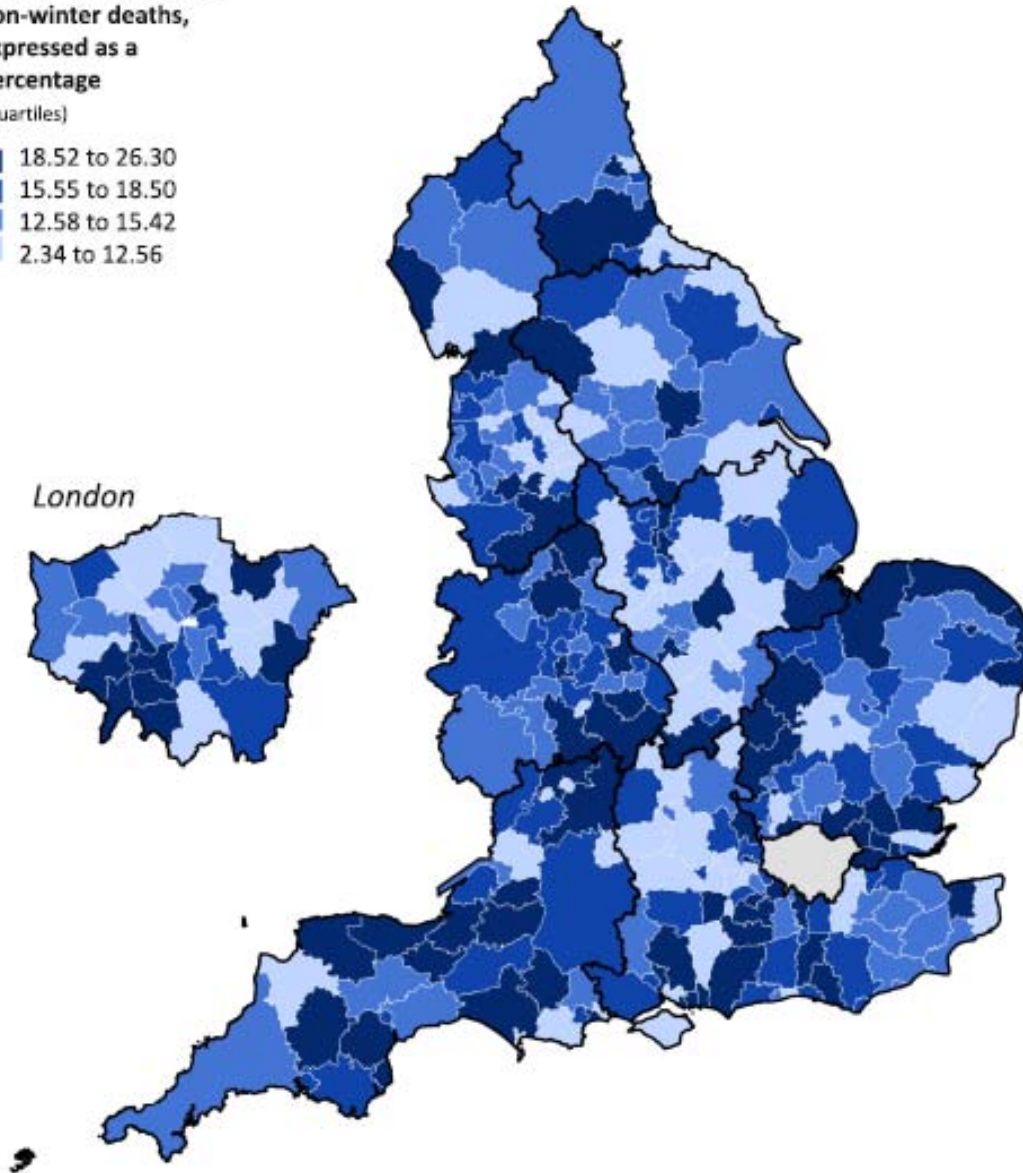


Figure A9: Excess winter deaths, by Local Authority²²⁷

Excess winter deaths
divided by the average
non-winter deaths,
expressed as a
percentage
(Quartiles)

- 18.52 to 26.30
- 15.55 to 18.50
- 12.58 to 15.42
- 2.34 to 12.56



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