



**Royal Commission into
Victoria's Mental Health System**

WITNESS STATEMENT OF SIR MICHAEL GIDEON MARMOT

I, Professor Sir Michael Gideon Marmot MBBS, MPH, PhD, FRCP, FFPHM, FMedSci, FBA, Director, Institute of Health Equity at University College London, of 1-19 Torrington Place, London WC1E 7HB, United Kingdom, say as follows:

- 1 I make this statement on the basis of my own knowledge, save where otherwise stated. Where I make statements based on information provided by others, I believe such information to be true.
- 2 I am providing evidence to the Royal Commission into Victoria's Mental Health System in my personal capacity, not on behalf of any organisation or institute.

Background

Qualifications and selected achievements and awards

- 3 My academic qualifications include:
 - (a) a Bachelor of Science (Honours) and Bachelor of Medicine/Bachelor of Surgery, each from the University of Sydney; and
 - (b) a Master of Public Health and PhD, both in Epidemiology, from the University of California, Berkeley.
- 4 I have been awarded honorary doctorates from 18 universities. I am a Member of the American National Academy of Medicine, an Honorary Fellow of the American College of Epidemiology, a Fellow of the Academy of Medical Sciences, an Honorary Fellow of the British Academy, and an Honorary Fellow of the Faculty of Public Health of the British Royal College of Physicians.
- 5 I held the Harvard Lown Professorship for 2014-2017 and received the Prince Mahidol Award for Public Health in 2015. I won the Balzan Prize for Epidemiology in 2004, gave the Harveian Oration in 2006 and won the William B. Graham Prize for Health Services Research in 2008.
- 6 In 2000, I was knighted by Her Majesty The Queen for services to Epidemiology and the understanding of health inequalities.

Please note that the information presented in this witness statement responds to matters requested by the Royal Commission.

- 7 I have authored a number of books, including *The Health Gap: the challenge of an unequal world* (Bloomsbury; 2015) and *Status Syndrome: how your place on the social gradient directly affects your health* (Bloomsbury; 2004).

Overview of selected relevant experience

- 8 I have led research groups on health inequalities for more than 40 years.
- 9 I have been Professor of Epidemiology at University College London (UCL) since 1985. I am also the Director of the UCL Institute of Health Equity, a position I have held since its establishment in 2011. The UCL Institute of Health Equity works to reduce health inequities by taking actions that target the social determinants of health.¹ It seeks to support greater health equity in three main ways:
- (a) Building and disseminating the evidence base to ensure the design and implementation of policies and practice are informed by current, high quality research.
 - (b) Working with a wide range of partners (including healthcare services, local governments and a range of regional and global networks), to support and influence the delivery of effective, evidence-based interventions to decrease health inequities.
 - (c) Building stakeholders' understanding of, and capacity to deliver on, actions to reduce health inequalities. Relevant stakeholders include the health workforce, policy makers and community organisations. The Institute seeks to achieve this through a range of activities, including training and mentoring.²
- 10 As Director of UCL Institute of Health Equity, my primary responsibilities are to oversee research on the social determinants of health, including both physical and mental health, and to synthesise evidence to influence policy globally and nationally.
- 11 I previously held the following roles at UCL:
- (a) From 1985 to 2011, I was Head of UCL's Department of Epidemiology and Public Health, which is a world-leading and multi-disciplinary research department.
 - (b) From 1994 to 2011, I was also Director of the UCL International Institute for Society and Health (previously the International Centre for Health and Society).

¹ See further UCL Institute of Health Equity, 'About Us' <<http://www.instituteofhealthequity.org/about-us>> [accessed 25 June 2020]. I explain the concepts of "health inequities" and "social determinants of health" from paragraph 18 below.

² Ibid.

This Institute sought “to take action on the social determinants of health, to provide solutions to global health problems, and to improve the health and wellbeing of all, especially the poorest.”³ It worked in collaboration with UCL's Global Health Equity Group, which continues to operate and is based within UCL's Department of Epidemiology and Public Health. In 2011, the International Institute for Society and Health became the Institute of Health Equity.

- 12 I have also held many leadership roles outside of UCL in the areas of public health and epidemiology. For example, I was President of the British Medical Association (BMA) from 2010 to 2011 and President of the World Medical Association (WMA) from 2015 to 2016.

My work on the social gradient and social determinants of health

- 13 Many of my research projects, and professional appointments, have focused on the social gradients of health, and the role of social determinants of health in reducing health inequities. Indeed, I have spent more than half a lifetime emphasising the importance of psychosocial pathways in illness. For example:

- (a) **The Marmot Review:** In 2008, at the request of the British Government, I chaired an independent strategic review of the most effective evidence-based strategies for reducing health inequalities in England. The review published its report '*Fair Society, Healthy Lives (The Marmot Review)*' in 2010.⁴ The findings of The Marmot Review have had significant influence in England and across the globe. In February 2020, I launched the report '*Health Equity in England: The Marmot Review 10 Years On*'.⁵ Attached to this statement and marked 'MM-1' is a copy of the 2020 report, *The Marmot Review 10 Years On*.
- (b) **Commission on Social Determinants of Health:** I was Chair of the Commission on Social Determinants of Health (CSDH), which was established by the World Health Organization (WHO) in 2005 and produced its highly influential final report, '*Closing the Gap in a Generation*', in 2008 (**CSDH Final Report**). The aim of the CSDH was “to marshal the evidence on what can be

³ UCL International Research Information Service, 'International Institute for Society & Health' <<https://iris.ucl.ac.uk/iris/browse/researchGroup/1392>> [accessed 25 June 2020].

⁴ The final report, and further information about *The Marmot Review*, is available at UCL Institute of Health Equity, 'Fair Society Healthy Lives (The Marmot Review)' <<http://www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review>> [accessed 25 June 2020].

⁵ The final report, and further information about *The Marmot Review 10 Years On*, is available at UCL Institute of Health Equity, 'Marmot Review 10 Years On' <<http://www.instituteofhealthequity.org/resources-reports/marmot-review-10-years-on>> [accessed 25 June 2020].

done to promote health equity and to foster a global movement to achieve it".⁶

The work of the CSDH highlighted the importance of "creating better social conditions for health, particularly among the most vulnerable people".⁷

14 I have established and led a number of longitudinal cohort studies on the social gradient in health. By way of example:

(a) I set up the Whitehall II studies of British civil servants, which investigated the degree and causes of the social gradient in morbidity among this cohort.⁸ The Whitehall II studies are ongoing, with the participants now aged in their 60s, 70s and 80s.

(b) I also set up the English Longitudinal Study of Ageing (ELSA), which collects data from people over 50 about their "physical and mental health, wellbeing, finances and attitudes around ageing and how these change over time".⁹ This data then informs policy across all aspects of ageing in England.

15 I was also:

(a) Chair of the European Review of Social Determinants of Health and the Health Divide, which reviewed health inequities across the 53 Member States of the WHO European Region. An updated reprint of the final report was published in 2014.¹⁰

(b) a Member of *The Lancet*-University of Oslo Commission on Global Governance for Health, '*The political origins of health inequity: prospects for change*', which was published in 2014.¹¹

⁶ Commission on Social Determinants of Health (2008). *Closing the gap in a generation: health equity through action on the social determinants of health. Final report of the Commission on Social Determinants of Health*. Geneva, World Health Organization, p 1, <https://www.who.int/social_determinants/thecommission/en/> [accessed 25 June 2020].

⁷ World Health Organization, 'Social determinants of health' <https://www.who.int/social_determinants/thecommission/en/> [accessed 25 June 2020]. This link also provides further information about the work of the CSDH, and access to the CSDH Final Report.

⁸ Marmot MG et al. (1991) "Health inequalities among British civil servants: the Whitehall II study" *The Lancet* 337(8754) 1387-1393.

⁹ See English Longitudinal Study of Ageing, 'About' <<https://www.elsa-project.ac.uk/>> [accessed 25 June 2020].

¹⁰ The final report, and further information about this Review is available at World Health Organization, 'Review of social determinants and the health divide in the WHO European Region. Final report' <<http://www.euro.who.int/en/publications/abstracts/review-of-social-determinants-and-the-health-divide-in-the-who-european-region.-final-report>> [accessed 25 June 2020].

¹¹ Ottersen OP et al. (2014) "*The Lancet*-University of Oslo Commission on Global Governance for Health. The political origins of health inequity: prospects for change" *Lancet* 383, 630-667,

- (c) Chair of the Commission on Equity and Health Inequalities in the Americas, which was set up in 2016 by WHO's Pan-American Health Organization. The Commission's final report, *'Just societies: Health equity and dignified lives'*, was published in 2019.¹²
- 16 In recent years, WHO has renewed its commitment to acting on the social determinants of health and health equity. This is reflected by the creation of a new Department of Social Determinants of Health within WHO. In September 2019, I participated in a strategic meeting to discuss the scope and priorities of WHO's future work in this area.¹³
- 17 Attached to this statement and marked 'MM-2' is a copy of my curriculum vitae.

Social determinants of health, health equity and the social gradient

An overview of the social determinants of health and health equity

- 18 The social determinants of health (SDH) are the social and environmental conditions in which people are born, grow, work, live, and age. They are sometimes referred to as the causes of ill health. Research on the SDH seeks to identify the pathways and mechanisms by which these conditions shape and drive health outcomes.
- 19 It is important to take a holistic view of the SDH. While good quality healthcare is one determinant of health, research has shown that most of the SDH actually lie *outside* the health care system. As Director-General Dr Margaret Chan said at the launch of the CSDH Final Report:
- "This ends the debate decisively. Health care is an important determinant of health. Lifestyles are important determinants of health. But... it is factors in the social environment that determine access to health services and influence lifestyle choices in the first place."¹⁴
- 20 Indeed, a wide range of social, economic, environmental, political and cultural factors influence how the SDH conditions are experienced in daily life. These factors include

<<https://www.thelancet.com/commissions/global-governance-for-health>> [accessed 25 June 2020].

¹² The final report, and further information about this Commission is available at Institute of Health Equity, 'PAHO Commission on Equity and Health Inequalities in the Americas' <<http://www.instituteofhealthequity.org/about-us/the-institute-of-health-equity/our-current-work/paho-commission>> [accessed 25 June 2020].

¹³ Key documents relating to this meeting can be accessed at World Health Organization, 'Social determinants of health: WHO strategic meeting on Social determinants of health' <https://www.who.int/social_determinants/strategic-meeting/en/> [accessed 25 June 2020].

¹⁴ UCL Institute of Health Equity, 'WHO Commission on Social Determinants of Health: Closing the gap in a generation' <<http://www.instituteofhealthequity.org/resources-reports/commission-on-social-determinants-of-health-closing-the-gap-in-a-generation>> [accessed 25 June 2020].

"economic policies and systems, development agendas, social norms, social policies and political systems"¹⁵ – in other words, "the distribution of power, money and resources".¹⁶

- 21 Unfair distribution of these elements creates avoidable health inequalities, known as health inequities. Conversely, health equity "means fair opportunity to live a long, healthy life. Inequities in health are not inevitable or necessary they are unjust and are the product of unfair social, economic and political arrangements."¹⁷
- 22 In 2003, I co-edited the second edition of the publication, '*Social determinants of health: The Solid Facts*', which was prepared at the request of the WHO's Regional Office for Europe.¹⁸ This publication was used by decision makers, policy makers, academics and health professionals around the globe. The interest it generated was one of the factors which led to the establishment of the CSDH. It explains how the following 10 psychological and social influences can impact physical and mental health and life expectancy:
 - (a) The social gradient;
 - (b) Stress;
 - (c) Early life;
 - (d) Social exclusion;
 - (e) Work;
 - (f) Unemployment;
 - (g) Social support;
 - (h) Addiction;
 - (i) Food; and
 - (j) Transport.

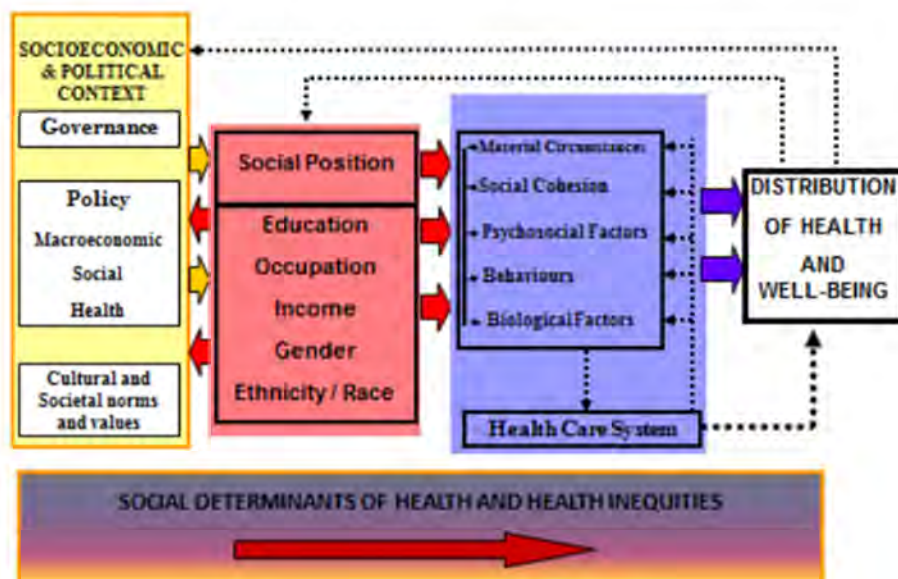
¹⁵ WHO Department of Public Health, Environmental and Social Determinants of Health, *Social Determinants of Health Unit* (2017), p 1, <https://www.who.int/social_determinants/SDH-Brochure-May2017.pdf?ua=1> [accessed 25 June 2020].

¹⁶ UCL Institute of Health Equity, 'Action on the Social Determinants of Health' <<http://www.instituteofhealthequity.org/about-our-work/action-on-the-social-determinants-of-health->> [accessed 25 June 2020].

¹⁷ UCL Institute of Health Equity, 'Working Toward Health Equity' <<http://www.instituteofhealthequity.org/about-our-work/working-toward-health-equity->> [accessed 25 June 2020].

¹⁸ WHO, 'Social determinants of health. The solid facts. Second edition' <<http://www.euro.who.int/en/publications/abstracts/social-determinants-of-health.-the-solid-facts->> [accessed 25 June 2020].

- 23 The causes of ill health – and the causes of those causes – are complex and interrelated. This is reflected in the following diagram:¹⁹



¹⁹ This diagram is sourced from the CSDH Final Report, p 43. This diagram was amended from Solar O & Irwin A (2007). *A conceptual framework for action on the social determinants of health. Discussion paper for the Commission on Social Determinants of Health*. Geneva, World Health Organization. For an explanation of this diagram, see UCL Institute of Health Equity, 'Action on the Social Determinants of Health' <<http://www.instituteofhealthequity.org/about-our-work/action-on-the-social-determinants-of-health>> [accessed 25 June 2020].

- 24 At the WHO strategic meeting about the SDH in 2019, I presented an updated version of the above diagram, which we modified partly for the American context and partly to reflect some changes in our thinking:²⁰



An overview of the social gradient

- 25 As noted above, much of my research has been devoted to establishing the chain of causation between the circumstances in which people live, and their physical and mental health. More than 15 years ago, I labelled the linking of social status to health: the "Status Syndrome",²¹ which I described as follows:

"Imagine a parade. Everyone in society is ranked according to his or her social position. The unemployed come first, followed by the unskilled manual labourers, then the semi-skilled, the skilled, the clerks and shop assistants, after them the teachers and middle managers, and then the senior managers, the lawyers, doctors and judges. With few exceptions, this ranking by social position has produced a ranking according to life expectancy. The higher the social

²⁰ Marmot MG, "Department of SDH at WHO Discussion Meeting", 12 September 2019, WHO, Geneva, slide 12, <https://www.who.int/social_determinants/contact/4_Marmot_Health-equity.pdf?ua=1> [accessed 25 June 2020].

²¹ Marmot MG, *Status Syndrome: how your place on the social gradient directly affects your health* (Bloomsbury; 2004).

position, the longer can people expect to live, and the less disease can they expect to suffer. This is the social gradient in health.”²²

The relationship between mental health and the social gradient

- 26 Mental illness, in general, follows the social gradient. There is good evidence that the more common mental illnesses (depression and anxiety) “are distributed according to a gradient of economic disadvantage across society and that the poor and disadvantaged suffer disproportionately from common mental disorders and their adverse consequences.”²³
- 27 For example, a systematic literature review conducted in 2010 found that, of the 115 epidemiological studies reviewed, over 70% reported positive associations between common mental illnesses and a variety of poverty measures in low and middle-income countries.²⁴
- 28 In 2014, the Gulbenkian Mental Health Platform and WHO published a paper that my colleagues from the UCL Institute of Health and I wrote on the social determinants of mental health. In that paper, we wrote:

“Mental health and many common mental disorders are shaped to a great extent by the social, economic, and physical environments in which people live... Certain population subgroups are at higher risk of mental disorders because of greater exposure and vulnerability to unfavourable social, economic, and environmental circumstances, interrelated with gender. Disadvantage starts before birth and accumulates throughout life.”²⁵

²² Marmot MG, “Social determinants of health: a panoramic view”, International Balzan Prize Foundation, 2004, <<https://www.balzan.org/en/prizewinners/michael-marmot/social-determinants-of-health-a-panoramic-view-marmot>> [accessed 25 June 2020].

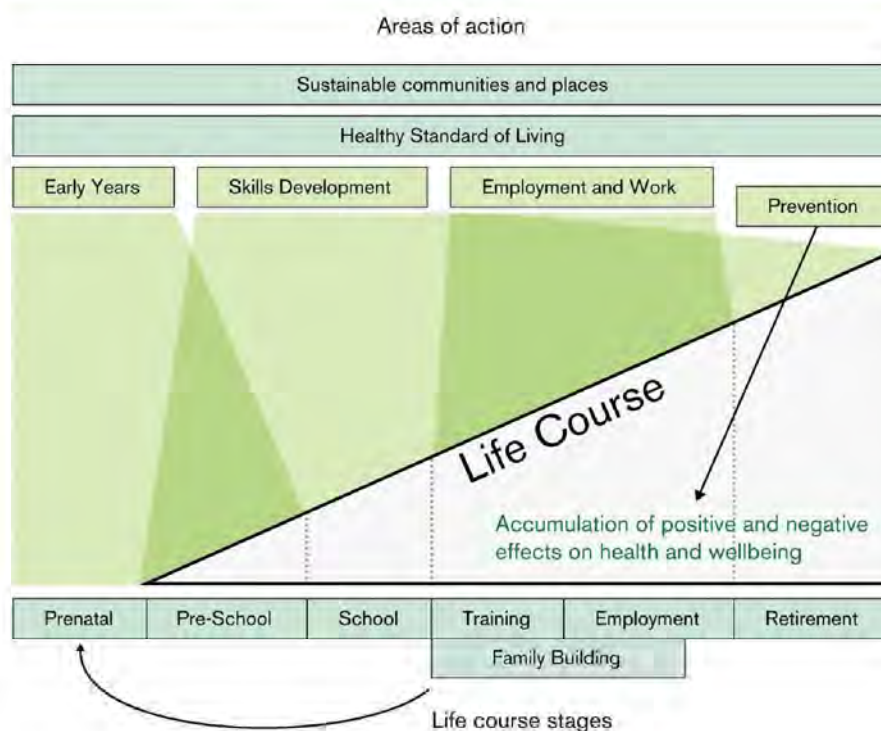
²³ World Health Organization (2014). “Social determinants of mental health”. Geneva, Switzerland, p 16 (citations omitted), <https://apps.who.int/iris/bitstream/handle/10665/112828/9789241506809_eng.pdf?sequence=1> [accessed 25 June 2020]. See also: Patel V, Lund C, Hatherill S et al. “Chapter 7: Mental disorders: equity and social determinants” in Blas E and Kurup AS (Eds.) (2010), *Equity, social determinants and public health programmes*, World Health Organization, Geneva, <https://www.who.int/sdhconference/resources/EquitySDandPH_eng.pdf> [accessed 25 June 2020]; Priority Public Health Conditions Knowledge Network (2007). *Social determinants of mental disorders. Report from the mental health node to the Priority Public Health Conditions Knowledge Network of the Commission on Social Determinants of Health*. Geneva, World Health Organization.

²⁴ Lund C, Breen A, Flisher A, Kakuma R, Corrigall J, Joska J, et al. (2010) Poverty and common mental disorders in low and middle income countries: A systematic review. *Social Science & Medicine*, 71, 517-28, cited in World Health Organization (2014). “Social determinants of mental health”. Geneva, Switzerland, p 16.

²⁵ World Health Organization (2014). “Social determinants of mental health”. Geneva, Switzerland, p 9 (citations omitted),

- 29 However, these observations are not necessarily true for all forms of mental illness. In particular, the relationship between mental health and the social gradient is more complex for psychotic illnesses such as schizophrenia. For example, a person with psychosis may be unemployable, and this may lead to downward social mobility. In such a situation, it is difficult to establish [the direction and extent of] causation between the person's psychotic illness and their socioeconomic descent.
- 30 Importantly, actions to address health and wellbeing must be taken *across the life course*. These actions are as relevant to mental health as they are to physical health. The need for a system-wide, whole-of-life approach is reflected in the following diagram.²⁶

Figure 5 Action across the life course



- 31 The Marmot Review, published in 2010, concluded that action on the following six policy objectives is required to reduce health inequities:
- (a) Give every child the best start in life.
 - (b) Enable all children, young people and adults to maximise their capabilities and have control over their lives.

<https://apps.who.int/iris/bitstream/handle/10665/112828/9789241506809_eng.pdf?sequence=1> [accessed 25 June 2020].

²⁶ The Marmot Review, 2010, p 20.

- (c) Create fair employment and good work for all.
- (d) Ensure healthy standard of living for all.
- (e) Create and develop healthy and sustainable places and communities.
- (f) Strengthen the role and impact of ill-health prevention.²⁷

The importance of early childhood to good mental health and wellbeing

- 32 Governments seeking to support good outcomes among people living with mental illness should focus their policies and actions on early childhood.
- 33 Research in Britain shows that:
- (a) half the lifetime risk of mental illness (excluding dementia) begins by age 14, and 75% by age 24,²⁸ and
 - (b) 70% of children and adolescents who experience mental health problems have not had appropriate interventions at a sufficiently early age.²⁹

I am not aware of whether there has been equivalent research in Australia, but I have no reason to believe the statistics would be significantly different.

- 34 The research on mental health of children and young people indicates that acting in early childhood will have a substantial impact on future mental illness in adulthood.³⁰

Poverty and deprivation

- 35 The following two areas of influence should be a priority for action by governments:
- (a) childhood poverty and deprivation; and
 - (b) the conditions in which children are raised, including parental influences.

These are interrelated issues and are best considered together.

²⁷ Fair Society, Healthy Lives (*The Marmot Review*), 2010, p 15 and see also Figure 5 on p 19,.

²⁸ Campion J (2019) *Public mental health: Evidence, practice and commissioning*. Royal Society for Public Health, 9, <<https://www.rsph.org.uk/uploads/assets/uploaded/b215d040-2753-410e-a39eb30ad3c8b708.pdf>> [accessed 25 June 2020] and see the citations therein.

²⁹ Children's Society (2008) *The Good Childhood Inquiry: health research evidence*. London: Children's Society, cited at Mental Health Foundation, 'Mental health statistics: children and young people' <<https://www.mentalhealth.org.uk/statistics/mental-health-statistics-children-and-young-people>> [accessed 25 June 2020].

³⁰ See for example: CSDH Final Report, Chapter 5; Siddiqi A, Hertzman E, Irwin LG and Hertzman C, "Chapter 5: Early child development: a powerful equalizer" in *The Commission on Social Determinants of Health Knowledge Networks*, Lee JH and Sadana R (Eds.) (2011), *Improving Equity in Health by Addressing Social Determinants*, World Health Organization, Geneva, available at <<https://apps.who.int/iris/handle/10665/44793>> [accessed 25 June 2020].

36 In Britain, our research shows that, since 2010, rates of child poverty have increased, and inequalities in many social and economic outcomes are widening.³¹ For example:

- (a) in 2010/2011, of the children living in household with a single parent not in work, 62% were in poverty. By 2017/2018, that figure had risen to 70%; and
- (b) in 2010/2011, 18% of children living in household with a single parent in full time work were in poverty. By 2017/2018, that figure had risen to 30%. These are particularly concerning statistics because employment is supposed to be the way out of poverty.³²

37 Housing insecurity, and homelessness, can have a profound impact on a person's ability to be an attentive and nurturing parent. In 2016, the housing charity Shelter found that one third of working families [in England] were a single pay cheque away from homelessness.³³ For families like these, who are so close to the [poverty] margin, missing a pay cheque can push them under that margin. For the children in these families, this [will/can] have an impact on their early childhood development, which in turn [will/can] have an impact on mental health.

The conditions in which children live

38 The linguistic, cognitive, social, emotional and behavioural development of children follows the social gradient. For example, studies of children at ages three and five show that, the lower the income of the parents, the less well the children score on these five dimensions of development.³⁴

39 A key part of this social gradient equation relates to parental input. Playing, talking, singing and reading with children are all behaviours that we associate with 'good

³¹ MM-1, *The Marmot Review 10 Years On*, p 42 (citations omitted).

³² MM-1, *The Marmot Review 10 Years On*, p 43 (Figure 3.5), based on Department for Work and Pensions, 'Households below average income: 1994/95 to 2017/18' <<https://www.gov.uk/government/statistics/households-below-average-income-199495-to-201718>> [accessed 25 June 2020]. Regarding the link between employment and mental health: "Poor mental health outcomes are associated with precarious employment (e.g. informal work, non-fixed term temporary contracts, and part-time work). Workers who perceive work insecurity experience significant adverse effects on their physical and mental health... The conditions of work also affect health and health equity. Poor work quality may affect mental health almost as much as loss of work." (CSDH Final Report, p 72, citations omitted).

³³ Shelter (2016). "One in three working families only one paycheque away from losing their home", cited in MM-1, *The Marmot Review 10 Years On*, p 115.

³⁴ See for example Kelly Y, Sacker A, Del Bono E, Francesconi M, Marmot MG. What role for the home learning environment and parenting in reducing the socioeconomic gradient in child development? Findings from the Millennium Cohort Study (2014) *Archives of Disease in Childhood* 96, 832-837.

parenting'. These behaviours have been shown to have a significant, measurable impact on children's development.³⁵

- 40 One predictor of mental illness in children is mental illness in their parents. Some may argue that this is explained by genetics. While biology may play a role, it is also the case that the circumstances that lead to poor mental health and wellbeing in the parents can similarly lead to poor mental health in the children.³⁶

What can governments do?

- 41 The research discussed above begs the question – what actions can governments take? In my opinion, governments can take a range of steps to create the conditions in which good parenting can happen.
- 42 Governments can and should be working to reduce the scale of child poverty and deprivation. However, addressing this challenge is not just about money. Rather, actions must focus on the conditions in which children live and are raised, including parental influences and wider societal influences. These influences have a significant impact on the mental health and wellbeing of those children, which persist throughout the life span, into adolescence and adulthood.
- 43 As a starting point, there needs to be greater recognition of the interrelatedness between poverty and parental input. For example, if a single mother is living in, or close to, poverty and someone tells her, “*you should read bedtime stories to your children*”, the mother's response may well be, “*I would read bedtime stories, if I knew where we were going to sleep tonight and if I had a bed and a book*”.
- 44 As we wrote in *The Marmot Review 10 Years On*:

“Parenting approaches are often heralded as key to children's development in the early years but it is important to recognise that parenting is also related to families' social and material circumstances. Put simply, it is easier to parent more effectively when social and economic circumstances are favourable and when stress and anxiety are lower; although, of course, positive and negative approaches to parenting apply across the socioeconomic gradient. Parenting is influenced, although not determined, by parents' own childhoods and their

³⁵ Ibid.

³⁶ Campion J (2019) *Public mental health: Evidence, practice and commissioning*. Royal Society for Public Health, 27-28 <<https://www.rsph.org.uk/uploads/assets/uploaded/b215d040-2753-410e-a39eb30ad3c8b708.pdf>> [accessed 25 June 2020].

current lives, including their own mental wellbeing, their social and material circumstances and their networks of support.”³⁷

Support services to give children the best start in life

- 45 Governments can support mental health by ensuring there are appropriate and accessible support services for families with young children. The Sure Start Children’s Centres in England have been a best practice example of effective support services:

“The core purpose of Sure Start Children’s Centres is to improve outcomes for young children and their families, with a particular focus on the most disadvantaged, so children are equipped for life and ready for school, no matter what their background or family circumstances. Sure Start and Children’s Centres exemplify proportionate universal approaches, as advocated in the Marmot Review, approaches designed to have important pro-equity impacts, levelling up gradients in outcomes.”³⁸

- 46 Unfortunately, we have seen significant cuts to funding for Sure Start Children’s Centres as part of the British government’s austerity measures. In the last 10 years, around 1000 of these centres have closed. These cuts have “undermined outcomes for young children and their families – particularly those from more disadvantaged backgrounds and areas.”³⁹

Adverse childhood experiences

- 47 Adverse childhood experiences (ACEs) also follow the social gradient and can have a detrimental impact upon mental health:

“Children growing up in deprived areas, in poverty, and those of a lower socioeconomic position are more likely to be exposed to ACEs compared with their more advantaged peers. ACEs elevate the risk that children and young people will experience damage to health, or to other social outcomes, across the life course. Common types of ACEs are abuse and neglect; living in a household where there is domestic violence, drug or alcohol misuse, mental ill health, criminality, or separation; and living in care...

In many cases multiple ACEs are experienced simultaneously and children who experience four or more adversities are at a significantly increased risk of poor health outcomes across the life course compared with those with no ACEs. Those who experience multiple ACEs have an increased risk of disease,

³⁷ MM-1, *The Marmot Review 10 Years On*, p 42 (citations omitted).

³⁸ MM-1, *The Marmot Review 10 Years On*, p 46.

³⁹ MM-1, *The Marmot Review 10 Years On*, p 37 and see further the discussion at pp 46-49.

including heart disease, cancer, lung disease, liver disease, stroke, hypertension, diabetes, asthma, arthritis and mental health problems. The World Health Organisation estimates that, in 21 countries studied, 30 percent of adult mental illness could be attributed to ACEs. However, these are just estimates there are concerns that other adversities in childhood are associated with poor adult outcomes.”⁴⁰

- 48 ACEs raise difficult questions about when a child should be taken out of the family home and placed in care. On the one hand, leaving a child with parents who, for example, are violently abusive or who abuse drugs and/or alcohol can of course be harmful for the child. On the other hand, my understanding is that it costs around \$100,000 a year to take a child into care. In my view, that money could instead be spent on working with families to try and deal with the problems (e.g. the alcohol, drugs and violence) and keep the families together, where it is safe to do so. One model could involve an organisation taking legal responsibility of the children and then working with the families to keep them, or bring them back, together. I believe there may be services in Victoria that are seeking to implement this kind of approach in their work with Indigenous Australians.
- 49 Notwithstanding these difficult questions about when to take children into care, governments can and should play a role in seeking to reduce ACEs. In doing so, it is necessary to adopt “[c]omprehensive whole-systems approaches that take effective and sustained action on the causes, prevalence and impacts of ACEs and impacts of deprivation across all of children’s frontline services”.⁴¹ Two examples of government interventions that may be effective in reducing ACEs are:
- (a) family benefits or the tax system which drive a reduction in the number of families in poverty and a proportionate increase in income among those at the lower end of the socio-economic spectrum; and
 - (b) family support services, particularly during the earliest years (e.g. the Sure Start centres discussed above).⁴²

Employment and psychosocial working conditions

- 50 In addition to early childhood, another key SDH is employment and working conditions:

“The 2010 Marmot Review concluded that being in good employment is usually protective of health while unemployment, particularly long term unemployment,

⁴⁰ MM-1, *The Marmot Review 10 Years On*, pp 45-46 (citations omitted).

⁴¹ MM-1, *The Marmot Review 10 Years On*, p 46.

⁴² MM-1, *The Marmot Review 10 Years On*, p 46.

contributes significantly to poor health. However, being in work is not an automatic step towards good health and wellbeing; employment can also be detrimental to health and wellbeing and a poor quality or stressful job can be more detrimental to health than being unemployed. Unemployment and poor quality work are major drivers of inequalities in physical and mental health.”⁴³

- 51 Job insecurity is stressful, and stress is associated with poor mental health. In *The Marmot Review 10 Years On*, we found that, while employment rates in England have increased since 2010, there has also been an increase in poor quality work, including part-time, insecure employment. The incidence of stress caused by work has also increased since 2010:

“Workload pressures, including tight deadlines, long hours, too much responsibility, a lack of managerial support and fear of losing the job were the main causes of work-related stress. Data from the Health and Safety Executive show that rates of self-reported work-related stress, depression and anxiety have been increasing since 2010... and this is at least partly as a result of poor-quality work.

...

Young people are increasingly citing mental health problems as the reason for work absence: in 2009, 7.2 percent of young people attributed their sickness absence to mental health conditions rising to 9.6 percent in 2017 and there is also an association between work stress and ethnic background.”⁴⁴

- 52 Workplace stress and psychosocial working conditions are areas where governments can and should take action. Governments and workplace health and safety regulators should look at introducing:

- (a) more overt policies and regulations for psychosocial work conditions; and
- (b) relatively objective measures of psychosocial workplace risks, which can be monitored to assess progress and compliance.

- 53 In my experience, governments tend to take a very different approach to psychosocial safety in the workplace than they do to physical safety in the workplace. Governments have no difficulty imposing regulations and responsibilities to protect against physical risks, such as making sure we are not exposed to asbestos or toxic chemicals in the workplace. In the case of physical hazards, there are legal instruments to punish workplaces that violate the relevant standard.

⁴³ MM-1, *The Marmot Review 10 Years On*, p 58 (citations omitted). See also CSDH Final Report, Chapter 7: Fair employment and decent work.

⁴⁴ MM-1, *The Marmot Review 10 Years On*, p 61 (citations omitted).

- 54 It is of course more complicated to develop and enforce rules or guidance when it comes to psychosocial hazards. Managing psychosocial workplace risks is not so much about individual mental health, as it is about levels of psychological demand in the workplace, such as the extent of control and learning opportunities, social support and the balance between effort and reward. These are complex factors.
- 55 Nonetheless, there are examples of governments trying to get involved in regulating exposure to toxic stress in the workplace. Such efforts tend to involve developing standards for better psychosocial working conditions, with a view that implementing these standards will lead to better mental health at work. Several years ago, I encouraged an Advisory Group to the UK Health and Safety Executive to develop standards to address psychosocial safety in the workplace. While they were sympathetic, my impression was that they considered it too difficult a matter to pursue.

Social isolation

- 56 Social isolation in older people is deadly – it kills. But before social isolation kills an older person, it harms their mental health. There is much that governments can do to reduce social isolation in older people and, in turn, improve their mental health.⁴⁵
- 57 In Britain, there have been extreme funding cuts to the adult social care sector. The government reduced investment in adult social care. Adult social care plays an important role in addressing the social isolation experienced by older people. Part of the curative function of adult social care comes from sitting with the older person, having a cup of tea and chatting with them. Because of the funding cuts, adult social care workers no longer have time for the cup of tea and chat; they have to tend to the person's physical needs (for example, by changing their wound dressing) and then go. In my view, these financial and time pressures are making the situation worse for socially isolated older people.

The role of communities and local governments in addressing the SDH and mental health

- 58 Communities play a key role in addressing the SDH. All of us in the community have a role to play in supporting good mental health and wellbeing. As we say at the UCL Institute of Health Equity, 'health is a human right' – 'do something; do more; do better'.
- 59 Specifically in relation to early childhood, we know that social isolation has a negative impact on parents' mental wellbeing, which in turn can have a negative impact on the

⁴⁵ See for example *The Marmot Review*, pp 137-138.

wellbeing of the children.⁴⁶ Therefore, one of the key ways the community can help foster wellbeing (for parents and children) is through social connection.

The role of local governments

- 60 Local governments are important community institutions and can have a key role in promoting mental health and wellbeing.
- 61 National governments tend to view the community through policy lenses such as austerity and welfare; they are completely detached from what life is like for the 70% of children of single parents who are living in poverty. They don't have a clue what this reality means for these children. There is also a political dimension to the work of national governments on these issues – they seem to take quite different approaches depending on where they sit on the political spectrum.
- 62 In contrast, politicians at the local government level tend to have a much better understanding of the social determinants of health and the conditions that people are born, grow, live, work and die in. In my experience, the differences in approach are less marked at the local government level, whatever their political complexion. Local governments are much closer to the community – they know what it's like 'on the ground'.
- 63 In Britain, responsibility for public health was moved into local government. Based on my observations of the work in Coventry and Greater Manchester (which I discuss further below), this can provide great opportunities. That is, it can be both efficient and effective to have public health teams work closely with the Mayor's office, housing and other community development and social services. However, this is only the case where there is sufficient budget. In Britain, the public health budgets were cut at the same time the local government budgets were cut. This kind of financial pressure naturally makes it much harder to support positive health and wellbeing.

Best practice examples to address the SDH

- 64 In England, around three quarters of local authorities are now working to embed 'Marmot principles' in their approaches to improving health and reducing inequalities.⁴⁷ By 'Marmot principles', I mean the principles which underlie the six recommendations in *The Marmot Review*, which I set out at paragraph 31 above.

⁴⁶ See for example *The Marmot Review*, p 97.

⁴⁷ UCL, 'The Marmot Review: national and local policies to redress social inequalities in health' <<https://www.ucl.ac.uk/impact/case-studies/2014/dec/marmot-review-national-and-local-policies-redress-social-inequalities-health>> [accessed 25 June 2020].

- 65 Two best practice examples of integrated, systems-wide partnerships are the English city of Coventry, which has declared itself a 'Marmot City', and Greater Manchester, which has signalled its intention to develop as a 'Marmot Region'. Both of these examples demonstrate that SDH such as early childhood development can be improved by local action, without any change to national policy.

The city of Coventry

- 66 The city of Coventry "has focused strongly on health inequalities by attempting to reduce inequalities in the social determinants. The council has developed strong cross-sector and whole-of-city approaches to do this ... which has helped establish the system-wide approach to reducing inequality across the council."⁴⁸
- 67 *The Marmot Review 10 Years On* includes examples of activities in Coventry which seek to achieve this goal. A flavour of these activities is provided in the below extract:

"Coventry is an ethnically diverse and growing city in the West Midlands with a rate of deprivation that is higher than the average for England. Close to one-third of Coventry's 195 neighbourhoods (lower super output areas or LSOAs) are among the 20 percent most deprived in England. As such, the city has significant health inequalities and differences in life expectancy. There was a 11.7 year gap in male life expectancy at birth between the highest and lowest income deciles and a 7.9 year gap in life expectancy at birth in 2012. Recognition of the gap in both life expectancy and disability-free life expectancy led to a decision by the Council to pursue becoming a 'Marmot City' in 2013 and adopting a city-wide, whole-systems, assets-based approach to reducing the social gradient in health.

Coventry has worked with organisations from the public sector, the community and voluntary sector, and departments in the council, drawing on the strengths and assets of each partner and receiving no additional funding. Key to its success has been developing high levels of trust between partner organisations, developing shared values regarding fairness and social justice (based on the Marmot Principles). At the outset the governance and operational dimensions of the approach were loosely defined, allowing the approach to develop and become iterative and adaptable.

The challenge Coventry faced was significant, given that the approach was to be adopted locally without the support of a national policy framework for action. However, from the outset Coventry had a strong base of support among senior

⁴⁸ MM-1, *The Marmot Review 10 Years On*, p 136.

leaders that made it possible to communicate the approach, at least at managerial levels, across the council. The leadership included the leader of the council, the chief executive, the cabinet member for health and the director of public health. The commitment across political and corporate strands of leadership to taking a whole-systems approach allowed several levers to be used at once to galvanise action.”⁴⁹

Greater Manchester

- 68 The city-region of Greater Manchester has been developing and implementing system-wide approaches to improve health equity and integrate or unify the public service.⁵⁰ The Mayor of Greater Manchester was the Secretary of State for Health when *The Marmot Review* was produced in 2010 and so he came to his current role with a strong awareness of the ‘Marmot principles’ and the importance of the SDH.
- 69 The Mayor of Greater Manchester came together with the region’s ten district councils in 2011 to form the Greater Manchester Combined Authority (GMCA). As *The Marmot Review 10 Years On* report explains:

“GMCA works with other local services, the devolved health and care system in GM, businesses, communities and other partners to improve the city-region... Devolution has empowered Greater Manchester to further develop new ways of working which has included a new model for Unified Public Services. The ambition is that the integration of health and social care services is brought together with a range of other public services including education, policing, fire, housing, employment and benefits services. This will provide local teams of public servants that will be aligned to common population footprints of 30,000–50,000 residents. The freedoms permitted by devolution, such as integration of health and social care services and new opportunities for joint commissioning, have enabled the development of a truly place-based population health system across Greater Manchester appropriate for taking action on health inequalities. It means that local public services can together focus on upstream determinants of health while mitigating crises downstream with effective multidisciplinary care for those most in need.”⁵¹

⁴⁹ MM-1, *The Marmot Review 10 Years On*, p 136 (citations omitted). For a recent evaluation of the work in Coventry, see UCL Institute of Health Equity, ‘Coventry Marmot City Evaluation 2020’ <<http://www.instituteofhealthequity.org/resources-reports/coventry-marmot-city-evaluation-2020>> [accessed 25 June 2020].

⁵⁰ For a recent evaluation of the work in Greater Manchester, see UCL Institute of Health Equity, ‘Greater Manchester Evaluation 2020’ <<http://www.instituteofhealthequity.org/resources-reports/greater-manchester-evaluation-2020>> [accessed 25 June 2020].

⁵¹ MM-1, *The Marmot Review 10 Years On*, p 137.

- 70 The city-region of Greater Manchester has achieved particularly impressive progress in closing inequalities in the early years of life. For example, over a five year period, school readiness for all pupils improved significantly in Greater Manchester (from around 47% in 2013 to around 68% in 2018/19). This has closed the gap when compared to the national average (almost 72%).⁵²
- 71 In addition, between 2015/16 and 2018/19, the proportion of students in Greater Manchester eligible for free school meals who achieved a good level of development at the end of the Reception⁵³ improved by 4%. This is a faster rate of improvement than for England as a whole, and another way in which Greater Manchester has closed the gap.⁵⁴
- 72 These statistics are particularly notable because one measure of childhood poverty is eligibility for free school meals (because it is a means-tested benefit). Indeed, recent national research showed that boys and girls eligible for free school meals “had considerably lower levels of reaching a good level of development than their peers of the same gender”.⁵⁵

Health promotion and prevention

- 73 In my experience, there tends to be a division between:
- (a) on the one hand, people who think that the poor health of the poor is due to their poor behaviour. People of this mindset often think that if the people with poor health simply take the advice being given to them, and behave properly, then their ‘problems’ will be solved; and
 - (b) on the other hand, people like me who take a more holistic view of the SDH and the impact of a person’s life conditions on their physical and mental health and wellbeing. I, and others who share this mindset, take the view that it is pointless to give people advice if they are not living in the conditions where they are able to *act* on that advice.
- 74 Health promotion activities tend to adopt the former mindset; though not exclusively, they tend to have an underlying ethos of getting people to behave better, without necessarily taking into account all the various conditions, drivers and barriers that influence those behaviours.

⁵² MM-1, *The Marmot Review 10 Years On*, p 41.

⁵³ Reception is the year before Year One, for children aged 4-5.

⁵⁴ MM-1, *The Marmot Review 10 Years On*, p 41.

⁵⁵ MM-1, *The Marmot Review 10 Years On*, p 38, citing Stone J, Hirsch D (2019). *Local indicators of child poverty, 2017/18*. Department of Social Sciences, Loughborough University.

- 75 For example, a health promotion activity targeting healthy eating may seek to apply 'nudge theory' by putting chocolate on the highest shelves of the supermarket, and fruit and vegetables on the more accessible middle shelves. The rationale is that this change will 'nudge' people to eat fruit and vegetables, and not eat chocolate. However, if the fruit and vegetables are more expensive than the chocolate and a parent has no money to pay the rent, they are more likely to buy the chocolate than the fruit and vegetables, to at least keep their children from starving.
- 76 In my view, the same line of reasoning applies to the kind of behaviours that will lead to better mental health. For example, a health promotion campaign might advise people to take time to talk with a friend if they are feeling stressed. On its face, that is sensible advice. However, for a single mother living in poverty who cannot pay the rent, simply talking to a friend is unlikely to cure all of her causes of stress and ease her suffering.
- 77 I think there is a place for health promotion. However, I do not think it is the appropriate 'solution' to the complex problems of mental health inequities.

Public health approaches to mental health and the SDH

- 78 Individual approaches are absolutely vital when it comes to *treating* somebody who is suffering with their mental health. People with mental illness need treatment, just as people with physical illness need treatment. In the case of mental illness, that treatment may be therapeutic, pharmacological or some other form or combination of treatment.
- 79 However, when it comes to *prevention*, my general view is that public health approaches are far more likely to be effective than approaches tailored to individuals.

Examples of public health approach to prevention

- 80 Suicide is an example of an area where there can be an effective public health approach to prevention. For example, there is evidence that:
- (a) when a country's unemployment rate goes up, suicide rates go up; and
 - (b) the more generous a government is in implementing measures such as labour market programs, unemployment benefits and retraining, the weaker the link between unemployment and suicide.⁵⁶ Well-developed active labour market programs represent a public health approach to tackling the severe mental health issue of suicide.

⁵⁶ Marmot MG,. Commentary: Mental Health and public health (2014) *International Journal of Epidemiology* 43(2), 293-296, and the references cited therein. See also the discussion in MM-1, *The Marmot Review 10 Years On*, p 33.

81 By way of further example, in the United States there has been an increase in deaths of the white working class⁵⁷ from suicide, alcohol-related deaths and poisoning due to opioids and other drugs (all of which are, in a way, mental illnesses). These so-called “deaths of despair” are the subject of a new book by Princeton University economists Anne Case and Angus Deaton, who argue that this modern epidemic is a failure of capitalism, American style.⁵⁸

82 Attempts to address the deaths of despair provide a further illustration of how we can use public health approaches. An individual ‘treatment’ approach for someone who has overdosed with oxycodone may, for example, involve quickly administering a reversing agent to try to stop them from dying. In contrast, a public health approach would involve looking at the conditions of the white working-class in America that actually led to these deaths of despair. I elaborated on this observation recently in *The Lancet*.⁵⁹

“The link between these two phenomena—deaths of despair and a flawed democracy—might be social and economic inequality...

But what causes subgroups of Americans to overdose; and those same groups to have high death rates from suicide and alcohol?

Such a causal chain leads back to the nature of society. The suspicion of the importance of social determinants of health is fuelled by the observation of a social gradient in deaths of despair: the fewer the years of education, the higher the risk of death....

If deterioration in the lives of white working-class people in the USA represents the causes of the causes of deaths of despair, the causes of the causes of the causes are to be found in the failures of American capitalism to deliver wellbeing to the many. Far from redistribution of income following a Robin Hood tradition, American capitalism is more Sheriff of Nottingham with redistribution upwards [that is, robbing the poor to help the rich].”

83 This kind of public health approach goes far beyond the boundaries of organised public health. It requires us to address the very architects of our social and economic system. In my view, this is the kind of approach we need to tackle mental health inequities.

⁵⁷ Middle aged non-Hispanic white men and women, particularly those without a 4-year bachelor’s degree.

⁵⁸ Case A and Deaton A “Deaths of Despair and the Future of Capitalism” (Princeton University Press, 2020).

⁵⁹ Marmot MG (2020) “Book: Despair, democracy, and the failures of American capitalism” *The Lancet* 395, 1027-1027.

Options for public health prevention and promotion interventions

84 The CSDH Final Report provides a number of options for mental health prevention and promotion actions, as summarised in the following table:⁶⁰

Differentials	Determinant	Intervention
Differential health-care access	Lack of available services	Improving availability of mental health services through integration into general health care
	Unacceptable services	Ensuring that mental health staff are culturally and linguistically acceptable
	Economic barriers to care	Providing financially accessible services
Differential consequences	Financial consequences of impact of depression on productivity	Support to caregivers to protect households from financial consequences of depression; rehabilitation programmes
	Social consequences of depression	Antistigma campaigns; promotion of supportive family and social networks
	Financial consequences of depression treatment	Reduce cost
	Lifestyle consequences of depression	Mental health promotion, including avoidance of substance abuse
Differential vulnerability	Early developmental risks	Promote ECD programmes
	Early developmental risks, maternal mental illness, weak mother–child bonding	Mother–infant interventions, including breastfeeding
	Developmental risks for adolescence	Depression prevention programmes targeting adolescents
	Development risks for older adults	Education and stress-management programmes; peer support mechanisms
	Inaccessibility to credit and savings facilities	Improve access to credit and savings facilities for poor
Differential exposure	Violence/crime	Violence/crime prevention programmes
	Social fragmentation	Promoting programmes building family cohesion and wider social cohesion
	Natural disasters	Trauma and stress support programmes
	Injury prevention	Targeting conditions of multiple deprivation
	Inadequate housing	Housing improvement interventions
	Poor neighbourhoods	Relocation programmes
	Unemployment	Employment programmes, skills training
Socioeconomic context and position	Lack of government policy and legislation; human rights framework	Strengthening mental health policy; legislation and service infrastructure
	Substance abuse	Alcohol and drugs policies
	Stigma	Mental health promotion programmes
	Unemployment	Economic policies to promote stability and financial security, and provide adequate funding for a range of public sector services (health, social services, housing)

⁶⁰ CSDH Final Report, p 98 (Table 9.1), citing Priority Public Health Conditions Knowledge Network (2007). *Social determinants of mental disorders. Report from the mental health node to the Priority Public Health Conditions Knowledge Network of the Commission on Social Determinants of Health*. Geneva, World Health Organization.

Differentials	Determinant	Intervention
	Financial insecurity	Welfare policies that provide a financial safety net
	Work stress	Protective labour policies (e.g. restrictions on excessive shift work, worker rights protection, job security)
	Lack of education	Mandating basic education, incentives, financial support

sign here ► 

print name Sir Michael Gideon Marmot

date 26 June 2020



Royal Commission into
Victoria's Mental Health System



ATTACHMENT MM-1

This is the attachment marked 'MM-1' referred to in the witness statement of Sir Michael Gideon Marmot dated 26 June 2020.

HEALTH EQUITY IN ENGLAND: THE MARMOT REVIEW 10 YEARS ON

HEALTH EQUITY IN ENGLAND: THE MARMOT REVIEW 10 YEARS ON

Note from the Chair

AUTHORS

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The work of the Review was informed and guided by the Advisory Group and the Health Foundation.

Suggested citation: Michael Marmot, Jessica Allen, Tammy Boyce, Peter Goldblatt, Joana Morrison (2020) Health equity in England: The Marmot Review 10 years on. London: Institute of Health Equity

HEALTH FOUNDATION



The Health Foundation supported this work and provided insight and advice. IHE would like to thank in particular: Jennifer Dixon, Jo Bibby, Jenny Cockin, Tim Elwell Sutton, Grace Everest, David Finch Adam Tinson, Rita Ranmal.

AUTHORS' ACKNOWLEDGEMENTS

We are indebted to the Advisory Group that informed the review: Torsten Bell, David Buck, Sally Burlington, Jabeer Butt, Jo Casebourne, Adam Coutts, Naomi Eisenstadt, Joanne Roney, Frank Soodeen, Alice Wiseman.

We are also grateful for advice and insight from the Collaboration for Health and Wellbeing.

We are grateful for advice and input from Nicky Hawkins, Frameworks Institute; Angela Donkin, NFER; and Tom McBride, Early Intervention Foundation for comments on drafts. We are grateful to Madhavi Bajekal, UCL/ Legal & General for input on life expectancy data. We are grateful to Greater Manchester Health and Social Care Partnership, Greater Manchester Combined Authority and the Greater Manchester localities.

SOURCE MATERIALS FOR CASE STUDIES

Source materials used in the case studies presented in the report were collated by Jessica Allen, Tammy Boyce, Peter Goldblatt and Joana Morrison. Some case studies were provided by People's Health Trust.

We are grateful to the following organisations that represent the case studies: ACORN Ethical Lettings, Advice Nottingham, Aspire & Succeed, Beat the Cold, Bikes for All, Centre for Local Economic Strategies, Edberts House, English for Action (EFA), Eastern Savings and Loans Credit Union, Gateshead Public Health, Justice Prince, Magic Breakfasts, Malmo City Council, Northumbria Foundation Trust Welfare Rights Team, Nottingham City Council, Open Door Community Action Trust, Positive Youth Foundation, Redcar Athletic Football Club Limited, the Resurgam Trust, Stepping Stones for Families, Streetgames, Switcher, Surrey Minority Ethnic Forum (SMEF), Tower Hamlets Whole Systems Data Project, Wales Future Generation Commission, West Midlands Fire Service, Whitehawk GPs.

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Foreword by Michael Marmot

England is faltering. From the beginning of the 20th century, England experienced continuous improvements in life expectancy but from 2011 these improvements slowed dramatically, almost grinding to a halt. For part of the decade 2010-2020 life expectancy actually fell in the most deprived communities outside London for women and in some regions for men. For men and women everywhere the time spent in poor health is increasing.

This is shocking. In the United Kingdom, as in other countries, we are used to life expectancy and health improving year on year. It is what we have come to expect. The UK has been seen as a world leader in identifying and addressing health inequalities but something dramatic is happening. This report is concerned with England, but in Scotland, Wales and Northern Ireland the damage to health and wellbeing is similarly nearly unprecedented.

Put simply, if health has stopped improving it is a sign that society has stopped improving. Evidence from around the world shows that health is a good measure of social and economic progress. When a society is flourishing health tends to flourish. When a society has large social and economic inequalities there are large inequalities in health. The health of the population is not just a matter of how well the health service is funded and functions, important as that is: health is closely linked to the conditions in which people are born, grow, live, work and age and inequities in power, money and resources – the social determinants of health.

The damage to the nation's health need not have happened.

When, in 2015–16, statistics from the Office for National Statistics and Public Health England first showed that the increase in life expectancy had nearly ground to a halt, we at the UCL Institute of Health Equity were cautious, in the usual academic fashion. We were reluctant to attribute the slowdown in health improvement to years of austerity because of difficulty in establishing cause and effect – we cannot repeat years without austerity just to test a hypothesis. The fact that austerity was followed by failure of health to improve and widening health inequalities does not prove that the one caused the other. That said, the link is entirely plausible, given what has happened to the determinants of health.

The evidence we compile in this 'ten years on' report, commissioned by the Health Foundation, explores what has happened since the Marmot Review of 2010. Austerity has taken its toll in all the domains set out in the Marmot Review. From rising child poverty and the closure of children's centres, to declines in education funding, an increase in precarious work and zero hours contracts, to a housing affordability crisis and a rise in homelessness, to people with insufficient money to lead a healthy life and resorting to foodbanks in large numbers, to ignored communities with poor conditions and little reason for hope. And these outcomes, on the whole, are even worse for minority ethnic population groups and people with disabilities (1). We cannot say with certainty which of these adverse trends might be responsible for the worsening health picture in England. Some, such as the increase in child poverty, will mostly show their effects in the long term. We can say, though, that austerity has adversely affected the social determinants that impact on health in the short, medium and long term. Austerity will cast a long shadow over the lives of the children born and growing up under its effects.

Given the strength of evidence on social determinants and health inequalities, it is not an act of hubris to speculate that had the Government acted on all the recommendations in the Marmot Review, health would have continued to improve and health inequalities not have grown larger (2). Certainly, a report we subsequently prepared in 2012 warned of the risks to health from austerity policies.

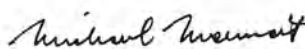
We endorse today what we wrote in the Marmot Review 10 years ago:

Health inequalities are not inevitable and can be significantly reduced... avoidable health inequalities are unfair and putting them right is a matter of social justice. There will be those who say that our recommendations cannot be afforded, particularly in the current economic climate. We say that it is inaction that cannot be afforded, for the human and economic costs are too high (3).

In this '10 years on' report, we rely on updated evidence but we use the same framework of analysis as the 2010 Marmot Review. In support of that judgement, we cite the Royal Society for Public Health, which surveyed its members and a panel of experts on their views on the major UK public health achievements of the 21st century to date (4). The top three were the smoking ban, the sugar levy and the 2010 Marmot Review. We cite this as an indicator that the public health community judges that we got the evidence, approach and proposals broadly right. This review, therefore, looks at what has happened, or is new, in five of the six domains that we judged to be crucial for improvement of health and reduction of health inequalities, and makes recommendations for what needs to be done now (4).

Globally, actions to address inequalities have moved on since 2010. We are reporting in the era of the UN Sustainable Development Goals, or SDGs. At least 11 of the 17 SDGs can be seen as key social determinants of health. The twin problems of social inequalities and climate change have to be tackled at the same time. Addressing each is vital to creating a society that is just, and sustainable for the current and future generations. New Zealand has shown the way a government can reorder national policies. The government there has put wellbeing, not growth, at the heart of its economic policy: enabling people to have the capabilities they need to lead lives of purpose, balance and meaning.

The question we should ask is not, can we afford better health for the population of England, but what kind of society do we want? The recommendations we made 10 years ago, and those that we make here, will create conditions for all members of society to lead flourishing lives, to achieve their full potential, and to enjoy levels of good health currently experienced by people who live in the most advantaged circumstances. Every society will have some level of economic and social inequalities. What we can envisage, and work towards, is a society that creates the conditions for everyone to be able to lead lives they have reason to value (5). That we do not have such a society at the moment is shown by the slowdown in life expectancy improvement, deteriorations in physical and mental health and widening health inequalities.



Michael Marmot (Chair)

Chapter 1

Introduction

Fair Society Healthy Lives, the Marmot Review, published in 2010, set out an analysis of the causes of health inequalities in England and what needed to be done to address them. The Marmot Review showed the importance of social determinants of health acting through the life course.

Since then, life expectancy in England has stalled, years in ill health have increased and inequalities in health have widened. Among women, particularly, life expectancy declined in the more deprived areas of the country. Some areas, especially in the North, have been ignored left behind, as health has improved elsewhere.

This report, *Health equity in England: The Marmot Review 10 years on*, was commissioned by the Health Foundation, to explore what has happened to health inequalities and social determinants of health in the decade since the Marmot Review. We provide in-depth analysis of health inequalities in England and assess what has happened in key social determinants of health, positively and negatively, in the last 10 years. Critically, we set out an agenda for the Government and local authorities to take action to reduce health inequalities in England. This agenda is based on evidence and practical action evidence from the Marmot Review, and enhanced by new evidence from the succeeding decade, including evidence and learning from practical experience of implementing approaches to health inequalities in England and internationally.

THE 2010 MARMOT REVIEW

In 2010 there was concern from both the Labour Government and the Conservative-led Coalition Government that followed it that health inequalities in England were too wide and action to reduce them had to happen. To inform that action the Government in 2008 commissioned Michael Marmot to review what government and wider society could do to reduce health inequalities. With colleagues at what later became the UCL Institute of Health Equity, we convened nine task groups of more than 80 experts to review the evidence and assembled a distinguished Commission to deliberate on that evidence. The result was the Marmot Review, *Fair Society Healthy Lives*, published in 2010.

In the Marmot Review, we made recommendations in six domains:

- Give every child the best start in life
- Enable all children, young people and adults to maximise their capabilities and have control of their lives
- Create fair employment and good work for all
- Ensure a healthy standard of living for all
- Create and develop healthy and sustainable places and communities
- Strengthen the role and impact of ill health prevention.

In the 2010 Marmot Review, we also coined the phrase 'proportionate universalism'. We were and continue to be impressed by the evidence that universalist approaches create solidarity and cohesion but, as we pointed out in 2010, health inequalities are not confined to poor health for the poor and good health for everyone else: instead, health follows a social gradient. Everyone below the top has greater risk of worse health than those at the top. We need to be sensitive to this gradient and respond *proportionately* to need. The lower people are in the hierarchy and the more deprived, the greater the threat to health. A proportionate universal approach addresses the social gradient. As Coventry City Council has put it: "A Marmot approach demands that we resource and deliver services at a scale and intensity proportionate to the degree of need; just focussing on one group of disadvantaged individuals or one geographical area won't deliver change" (6).



ACTION ON THE 2010 MARMOT REVIEW

NATIONAL ACTION

The 2010 Marmot Review was welcomed by the Coalition Government in the Public Health White Paper of 2010, in which it accepted all of the Marmot Review recommendations apart from one – ensuring a healthy standard of living for all. Since 2010, however, successive governments in England have not prioritised action on health inequalities and many, but not all, policies in health and social determinant areas have run counter to the Marmot Review's recommendations. There has been no new national health inequalities strategy and little priority given to social determinants of health towards supporting greater equity in health. In Section 4 we describe actions that have taken place since 2010 and set out how the Government can now lead a new agenda to tackle widening health inequalities in England.

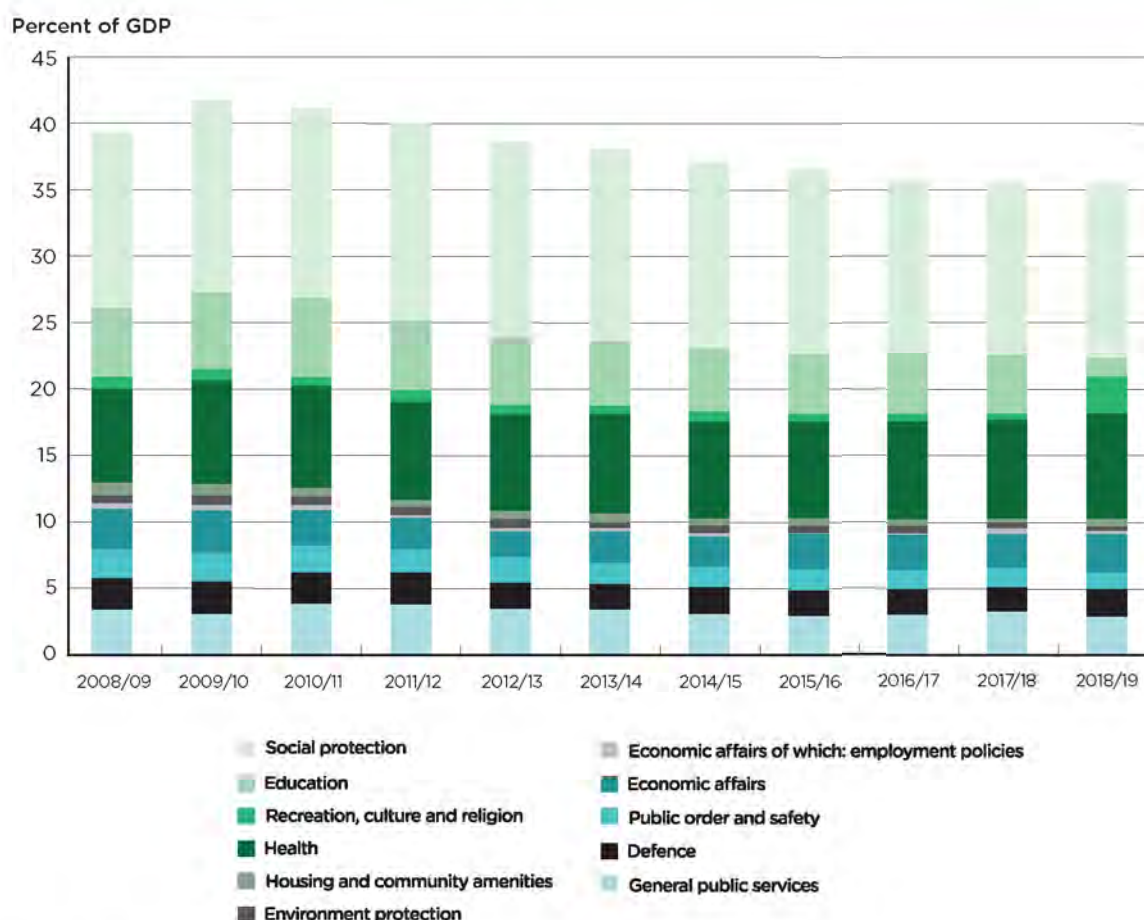
More encouragingly, many other organisations, particularly local government, have adopted and adapted the approaches and recommendations advocated in the 2010 Marmot Review. NHS England and Public Health England both have the stated aim and ambition to reduce health inequalities; in Section 4 we discuss how far they are achieving this and what more they and other stakeholders can do. There is certainly much further scope for these and other organisations to act on the social determinants and we set out ways of doing this throughout this report.

Austerity has taken a significant toll on equity and health, and is likely to continue to do so, even as it is rolled back, particularly on the health of children whose lives have been affected by it. Reversing the effects of austerity requires addressing the extent to which funding by the state for social welfare and social infrastructure has decreased and how to reinvest to achieve the greatest impact on equity. Particularly important to reducing short- and long-term inequalities in health is to reinvest first and most in areas of greatest need, those that have experienced the greatest reductions in resources. As we discuss in the report, that is mostly regions in the North of England, more deprived areas and ignored communities throughout England.

In the 2010 Marmot Review it was argued that governments need to ensure that there are sufficient resources in social determinants to support health and, critically, that these are distributed equitably to reduce inequalities. The data presented in this report show that government spending has not only declined in key social determinants of health, but that it is now also allocated in a less equitable way – meaning that spending allocations are less weighted towards deprived areas and communities than previously. This runs counter to the aim of proportionate universalism articulated in the 2010 Marmot Review and, in failing to meet need, it is regressive.

Government spending as a percentage of gross domestic product (GDP) declined by seven percentage points between 2009/10 and 2018/19, from 42 percent to 35 percent. Figure 1.1 describes these declines, and provides further detail by service sector. Social protection and education spending has declined by 1.5 percent of GDP. Spending on public order and safety, housing and community amenities has also been significantly reduced. A view point that says that less government spending is desirable must engage, we argue, with the likely effects on health, and health equity, of such reductions. In Section 3 we describe some of the impacts of these declines in spending.

Figure 1.1. Public sector expenditure on services by function as a percentage of GDP, UK, 2008/09 to 2018/19

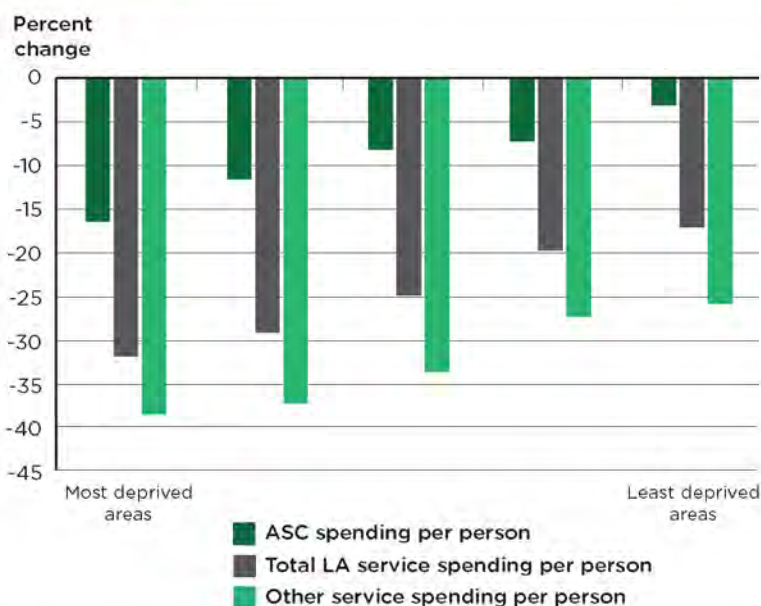


Source: HMT National Statistics, 2019 (7)

Cuts to local authorities over the decade have been hugely significant; local government allocations from the Ministry of Housing, Communities and Local Government declined by 77 percent between 2009/10 and 2018/19 (8). The impact of these reductions on local government's capacity have been widespread and sustained. There have also been large cuts to most other Departments' expenditure.

But it is not just the impact of overall cuts; it is how and where they have fallen which has impacted most on inequalities. Analysis from the Institute for Fiscal Studies shows how the more deprived areas, with greatest need, had the greatest reductions in per person spending, shown in Figure 1.2. The cuts over the period shown have been regressive and inequitable – they have been greatest in areas where need is highest and conditions are generally worse. It is likely that the cuts have harmed health and contributed to widening health inequalities in the short term and are highly likely to do so over the longer term.

Figure 1.2. Average change in council service spending per person by quintile of Index of Multiple Deprivation average score, 2009/10 to 2017/18



Source: Institute for Fiscal Studies, 2018 (9)

Note: LA=local authority; ASC=adult social care; Other services=all council services except adult social care

Other national governments in the UK and elsewhere have taken a different path and prioritised health inequalities and social determinants in the decade since the Marmot Review. We describe some of these endeavours in Section 4 and suggest how the Government in England can learn from them to reduce unnecessary and unjust inequalities in health and length of life. It is vital that the Government prioritises health inequalities and develops a strategic plan for reducing them including through action on the social determinants, and we make proposals for that in this report. Given that the negative impacts of austerity and deteriorating health have disproportionately impacted regions in the North of England it is essential that regional inequalities are reduced. We propose actions, including monitoring, to ensure that this happens.

LOCAL AUTHORITY ACTIONS

While there has been limited action on health inequalities nationally, many local authorities have taken forward the recommendations and approaches outlined in the 2010 Marmot Review. A survey by the King's Fund conducted in 2011 found that over 75 percent of local authorities had incorporated the approach directly into their health and wellbeing strategies (10).

The social determinants approach continues to be highly relevant to local authorities, particularly given the strong focus on place, wellbeing and cross-sectoral working by local governments, which social determinants approaches require and which local government is well set up to deliver (11). In fact, some local authorities are leading the way in demonstrating how to make local and regional approaches to reducing

health inequalities both practical and effective and there is much for national government to learn.

Coventry declared itself a 'Marmot City' in 2013 and there have been actions across the whole of the city's government to create a fairer and more flourishing city; we describe how and assess the impacts in an evaluation report that accompanies this report (12). Greater Manchester is developing a sustained programme of action on health inequalities and inequalities in social determinants, declaring itself a 'Marmot Region' in 2019, described in examples in this report and in a longer case study that also accompanies the report. Other places have also adopted the recommendations further outlined in Sections 3 and 4, which assess in detail the most effective ways to develop health inequality approaches through action on the social determinants.

COMMUNITY ACTIONS

Community empowerment is central to efforts to reduce health inequalities and was one of the key features of the Marmot Review (13) (3):

Our vision is of creating conditions for individuals to take control of their own lives. For some communities this will mean removing structural barriers to participation, for others facilitating and developing capacity and capability through personal and community development (3).

This vision is even more significant 10 years on, as the capacity and resources of local government have declined and deprived communities have borne the brunt of the funding cuts and many have experienced rising need during the 2010 recession and subsequently.

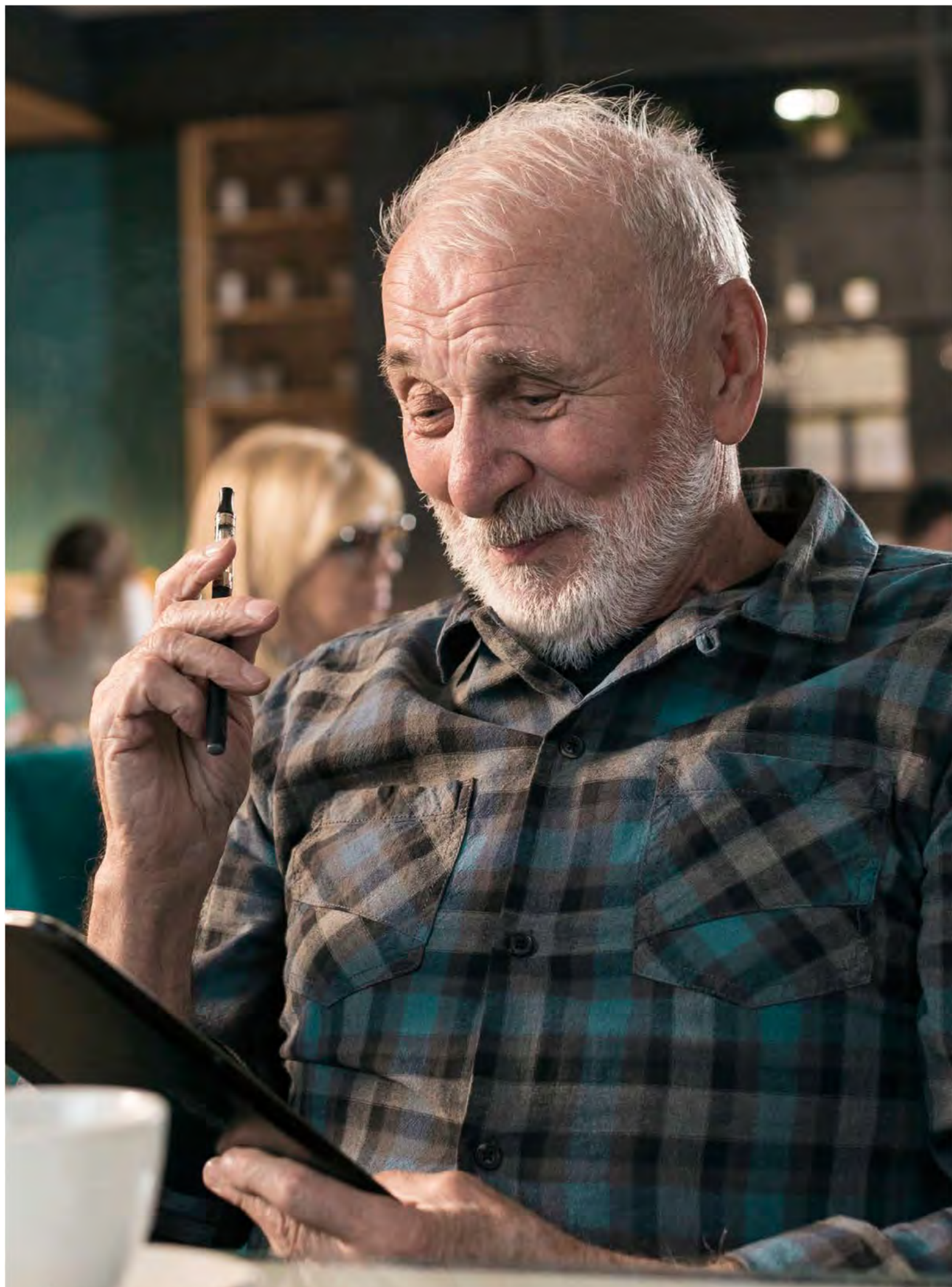
There are excellent examples of how community-led organisations have developed their own approaches and resources and strengthened local social, economic, environmental, cultural and political circumstances – in so doing they bolster their own health and that of the rest of the community. We include many important examples of community actions in this report, and in Section 4 set out how other sectors and policy-makers can adapt and scale up effective activities.

THE MARMOT REVIEW 10 YEARS ON REPORT

In the 10 years since the Marmot Review there have been momentous social, economic and political changes, which have, we argue, impacted on the health of the population and on health inequalities in England. Continued unchecked, they will have detrimental impacts in the future. Ten years of austerity policies and rolling back the state have resulted in widespread reductions in public spending and intervention in almost all areas; and, at the same time, social, economic and regional inequalities have deepened. As we show throughout this report, the most deprived areas and communities, particularly in the North of England, have experienced the greatest declines in funding in almost all social, economic and cultural domains, and poverty, poor health and socioeconomic inequalities have increased.

Following this introduction, Section 2 of this report describes changes in inequalities in life expectancy and health over the last decade and explores some of the explanations for these changes. Section 3 is concerned with the social determinants of health since 2010 and reviews changes in five of the six priority areas from the original Marmot Review and makes recommendations for action. Section 4 describes in detail national, local and community actions on health inequalities and social determinants over the last decade, some of which were directly influenced by the original Marmot Review. Proposals for prioritising and implementing action on the social determinants of health are made, setting out an agenda for the Government to ensure that the trend of rising inequality and poor health is reversed and improvements made.

A word on language. In the report we follow the usual practice in the UK of referring to health *inequalities*. In our global work we refer to health inequities, as those systematic inequalities between social groups that are judged to be avoidable by reasonable means and are not avoided – hence they are unfair. The evidence we rely on suggests that many of the health inequalities we see can be avoided. Putting them right is a matter of social justice. We reflect that in our title (and our institute's name): health equity.



Chapter 2

Life expectancy and health inequalities since 2010

SUMMARY:

Life expectancy since 2010

- Increases in life expectancy have slowed since 2010 with the slowdown greatest in more deprived areas of the country.
- The UK has seen low rates of life expectancy increases compared with most European and other high-income countries.
- Inequalities in life expectancy have increased since 2010, especially for women.
- Female life expectancy declined in the most deprived 10 percent of neighbourhoods between 2010-12 and 2016-18 and there were only negligible increases in male life expectancy in these areas.
- There are growing regional inequalities in life expectancy. Life expectancy is lower in the North and higher in the South. It is now lowest in the North East and highest in London.
- Within regions, life expectancy for men in the most deprived 10 percent of neighbourhoods decreased in the North East, Yorkshire and the Humber and the East of England.
- Life expectancy for women in the most deprived 10 percent of neighbourhoods decreased in every region except London, the West Midlands and the North West.
- For both men and women, the largest decreases were seen in the most deprived 10 percent of neighbourhoods in the North East and the largest increases in the least deprived 10 percent of neighbourhoods in London.
- In every region men and women in the least deprived 10 percent of neighbourhoods have seen increases in life expectancy and differences between regions for these neighbourhoods are much smaller than for more deprived neighbourhoods.

Health since 2010

- There is a strong relationship between deprivation measured at the small area level and healthy life expectancy at birth. The poorer the area, the worse the health.
- There is a social gradient in the proportion of life spent in ill health, with those in poorer areas spending more of their shorter lives in ill health.
- Healthy life expectancy has declined for women since 2010 and the percentage of life spent in ill health has increased for men and women.

Mortality rates since 2010

- There has been no sign of a decrease in mortality for people under 50. In fact, mortality rates have increased for people aged 45-49. It is likely that social and economic conditions have undermined health at these ages. For people in their 70s mortality rates are continuing to decrease, but not for those at older ages.
- The slowdown in life expectancy increase cannot for the most part be attributed to severe winters. More than 80 percent of the slowdown, between 2011 and 2019, results from influences other than winter-associated mortality.
- There are clear socioeconomic gradients in preventable mortality. The poorest areas have the highest preventable mortality rates and the richest areas have the lowest.

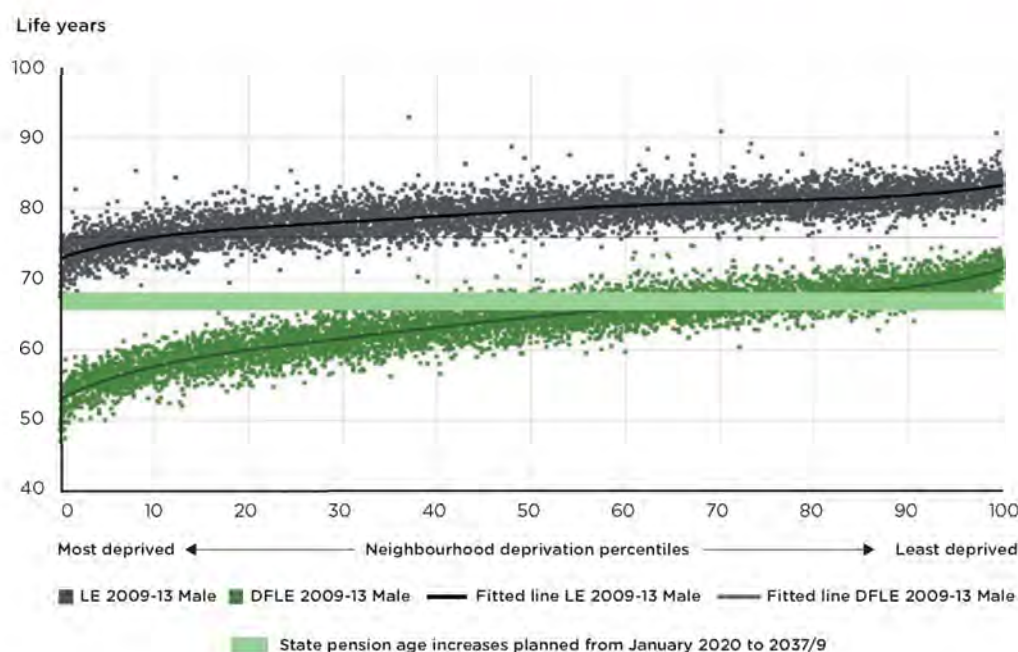
In the 2010 Marmot Review we labelled health inequalities as ‘unjust’ and ‘unnecessary’. Since 2010 there have been worrying deteriorations in health and widening health inequalities in England. In this section we explore these in detail and quantify the limited contribution of seasonal factors to these deteriorations. We also indicate that, while stalling life expectancy mainly reflects stalling mortality at older ages, at younger ages people are now experiencing increasing mortality. At the same time conditions in the social determinants of health have worsened, explored further in Section 3. While attributing causation is complex, it is likely that some of the key social determinants have affected health inequalities in recent years – although because many are experienced early in life, it may be too soon to see impacts yet.

LIFE EXPECTANCY AND HEALTH EXPECTANCY

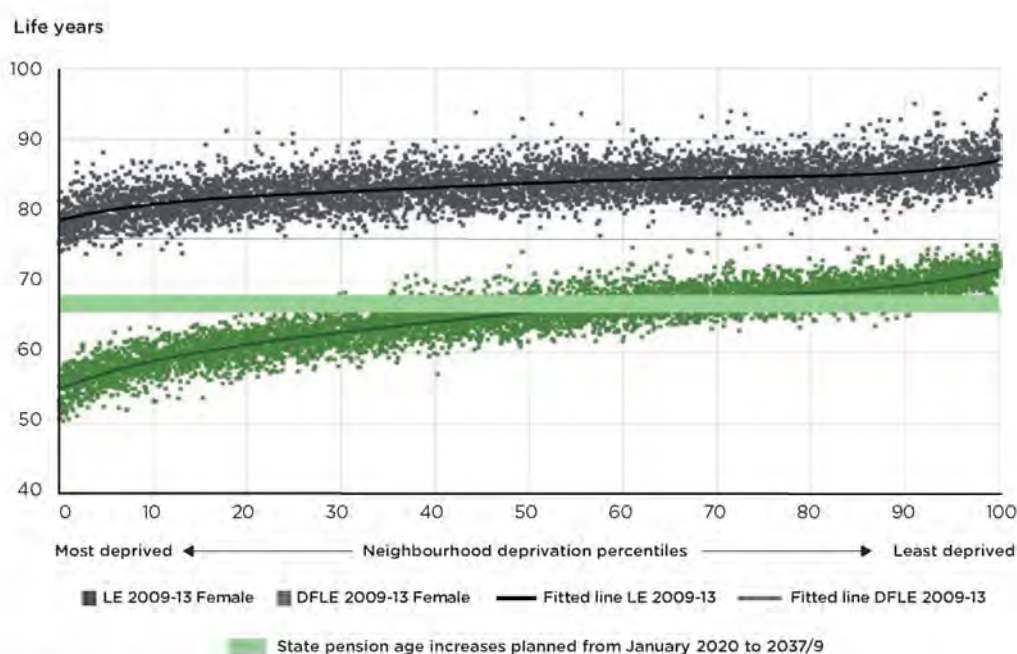
The 2010 Marmot Review described the close association between life expectancy, disability-free life expectancy and area deprivation around the time of the 2001 Census. In Figure 2.1 we use data from the latest available Census, 2011, to illustrate this association once more. It shows how the social gradient in health runs from the top of the socioeconomic spectrum to the bottom. Poverty is bad for health, but the gradient means that health inequalities are more profound and far-reaching: everyone below the top is likely to live shorter lives and develop a disability earlier than those at the top. Increasing social disadvantage is associated with increases in both types of health disadvantage.

Figure 2.1. Life expectancy at birth by neighbourhood deprivation percentiles, 2009-13, England

a) Males



b) Females



Source: Office for National Statistics (ONS) and Department for Work and Pensions (14) (15) (16)

Note: Each dot represents life expectancy (LE) or disability-free life expectancy (DFLE) of a neighbourhood (middle level super output area)

The graphs show a number of important features of the systematic relationship between health and area deprivation. Firstly, there is a clear social gradient in life expectancy and disability-free life expectancy. The aim should be for everyone in society to have the good health and length of life of those at the top – to level up. We call for two societal goals: improve health for everybody and reduce inequalities. The data presented in this report show that progress in the first has slowed, and progress in the second, reducing inequalities, has been negative.

Secondly, the social gradient in disability-free life expectancy is steeper than the gradient in life expectancy. As a result, people living in areas with more disadvantage not only expect to live a shorter life but also to spend more of that shorter life with a limiting long-term illness. Action to reduce health inequalities must be proportionate, with more intensive action lower down the social gradient, but action must also be universal, to raise and flatten the whole gradient.

Thirdly, the light green band running across the graph represents the changes currently planned to the state pension age (SPA). The bottom of the band is the SPA in January 2020 for those born in mid-1954 and the top the planned progressive increase of SPA over the years to 2037–39, from ages 67 to 68, for those born between April 1970 and April 1978. The intention of the increase is that the average proportion of adult life spent above SPA should be 32 percent (17).

However, Figure 2.1 suggests:

- Those in the least deprived areas will spend a markedly larger proportion of their lives eligible for a state pension than those in deprived areas

- Only people in the least deprived 20–30% of areas will be eligible for a state pension before they can expect to develop a disability, with those in the most deprived areas spending many years with a disability prior to reaching SPA

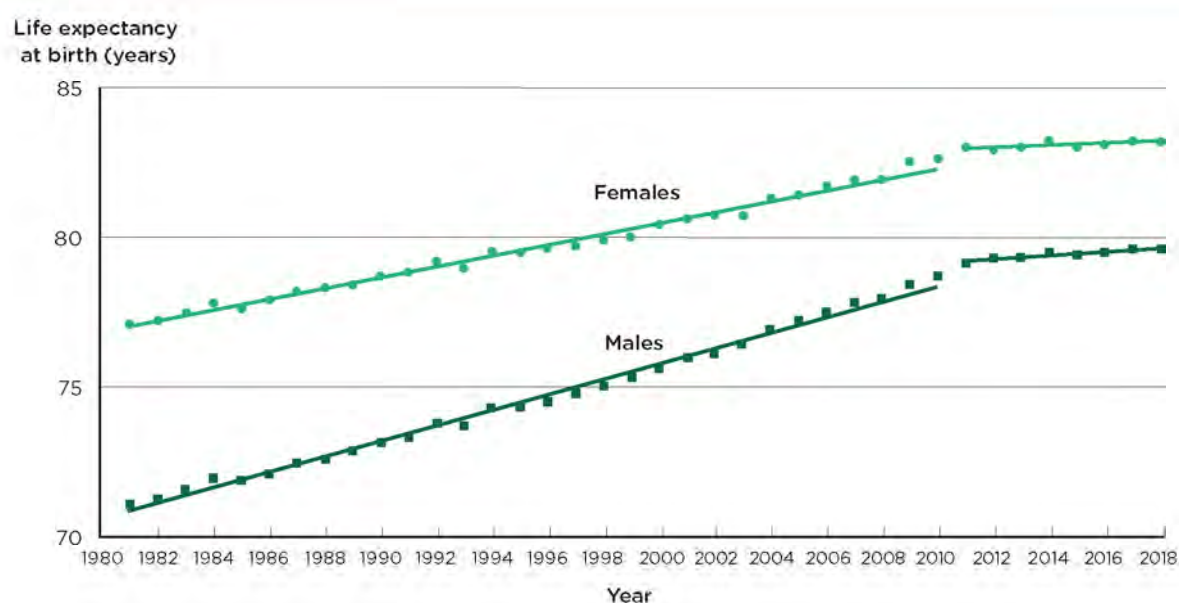
Raising the retirement age as planned is likely to increase the numbers of people with a disability needing to rely on working age benefits for support unless the gradient in disability-free life expectancy is levelled up to that of less deprived areas.

LIFE EXPECTANCY AT BIRTH SINCE 2010

Life expectancy at birth has been increasing since the beginning of the 20th century. However, these improvements, which were around a one-year increase every five-and-a-half years for women and every four years for men during the period 1981 to 2010, slowed to a rate of a one-year increase every 28 years for women and 15 years for men in the years 2011 to 2018 (18).

Period life expectancy at birth is the number of years a baby born in a particular year could expect to live if they experienced, throughout their lives, the age-specific mortality rates that existed in the year of their birth; at the time of the 2010 Marmot Review, period life expectancy at birth in England was 78.7 years for males and 82.6 years for females (3). By 2018 it was 79.6 years for males and 83.2 years for females – increases of only 0.9 years for men and 0.6 years for women. In comparison, a decade earlier, between 2000 and 2008, the increases were 2.2 and 1.5 years, respectively (18) (19) (20). Figure 2.2 describes these changes.

Figure 2.2. Life expectancy at birth for males and females, England, 1981–2018



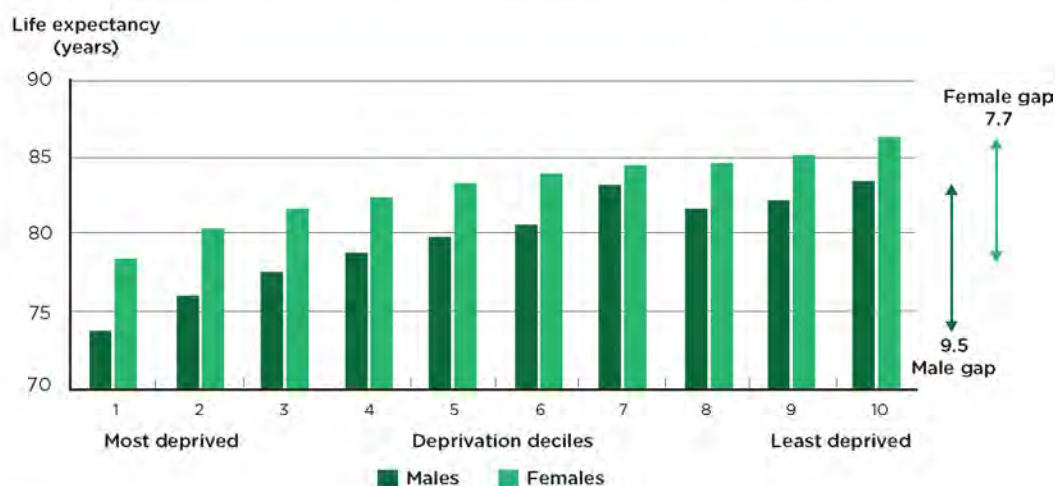
Source: ONS, 2019 (20)

Since 1981 male life expectancy has increased more quickly than female life expectancy, especially during the 1990s. As a result, the gap in life expectancy at birth between males and females, shown in Figure 2.2, narrowed from 6 years in 1981 to 3.6 years by 2012, where it has more or less remained ever since (22).

INEQUALITIES IN LIFE EXPECTANCY AT BIRTH

In England, the difference in life expectancy at birth between the least and most deprived deciles was 9.5 years for males and 7.7 years for females in 2016-18, shown in Figure 2.3. In 2010-12, the corresponding differences were smaller - 9.1 and 6.8 years, respectively. Life expectancy at birth for males living in the most deprived areas in England was 73.9 years, compared with 83.4 years in the least deprived areas; the corresponding figures for females were 78.7 and 86.3 years in 2016-18. Males in the five least deprived deciles, approximately 50 percent of the male population, could expect to live beyond the age of 80 years, while those in the five most deprived deciles could not (18). Females in the most deprived decile could also not expect to live more than 80 years, while those in the two least deprived deciles could expect to live beyond 85 years.

Figure 2.3. Life expectancy at birth by area deprivation deciles and sex, England, 2016-18

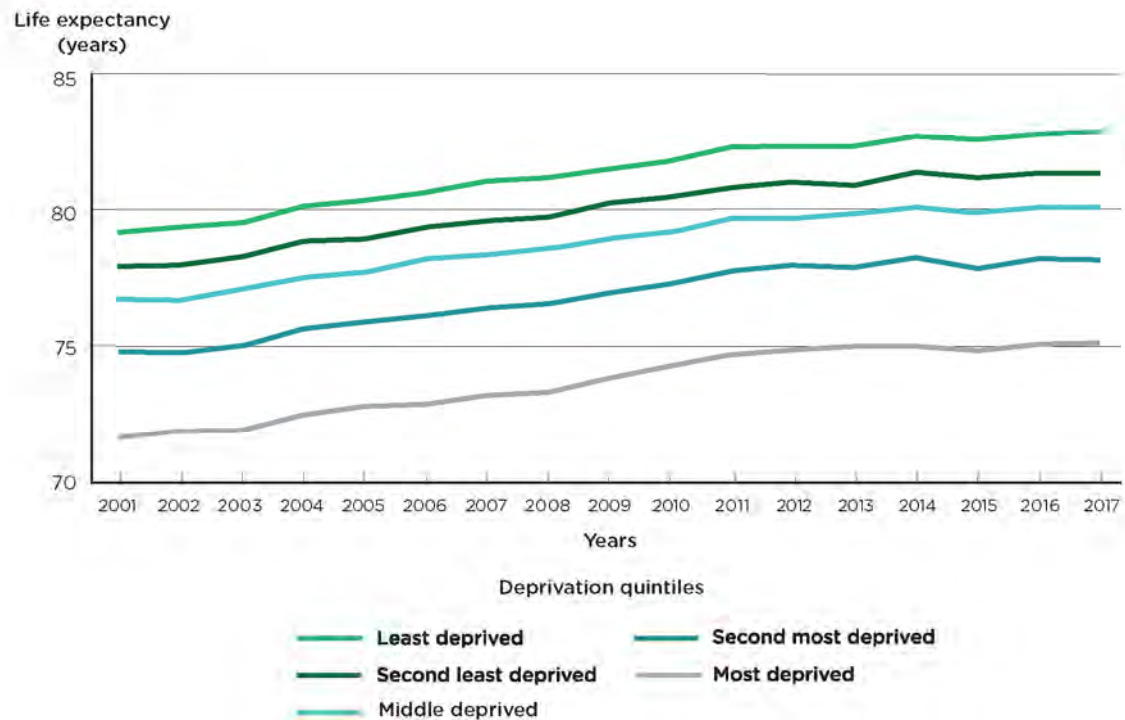


Source: ONS, 2020 (23)

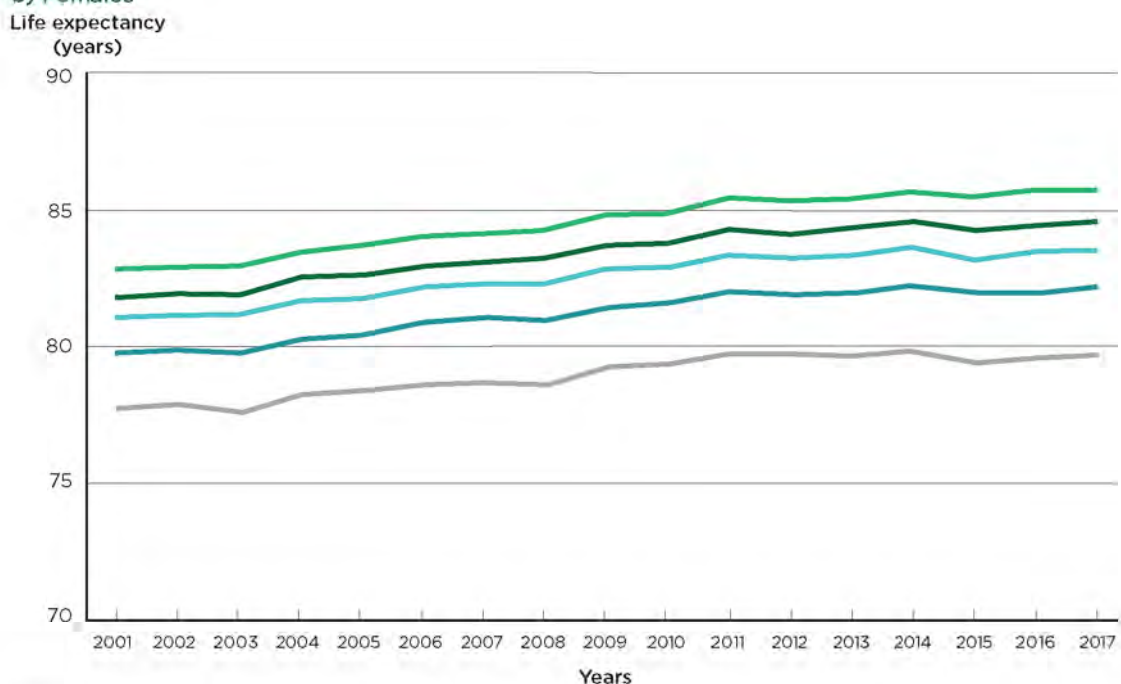
Looking at trends in inequalities in life expectancy by area deprivation, the most significant changes since 2010 have been both a stalling of life expectancy increases and a greater widening of inequalities in life expectancy than in the previous decade, described in Figure 2.4. People in the most deprived area quintile experienced slower improvements in life expectancy than the rest of the population between 2001 and 2017. The differences between the least and most deprived area quintiles in 2001 were 7.4 for men and 5.0 for women. These differences increased to 7.5 and 5.4, respectively, in 2010 and further increased to 7.7 and 6.1, respectively in 2017 – a substantially greater rate of increase in inequalities, especially for women, in the years since 2010 than in the previous decade.

Figure 2.4. Life expectancy at birth by area deprivation quintiles and sex, England, 2001 to 2017

a) Males



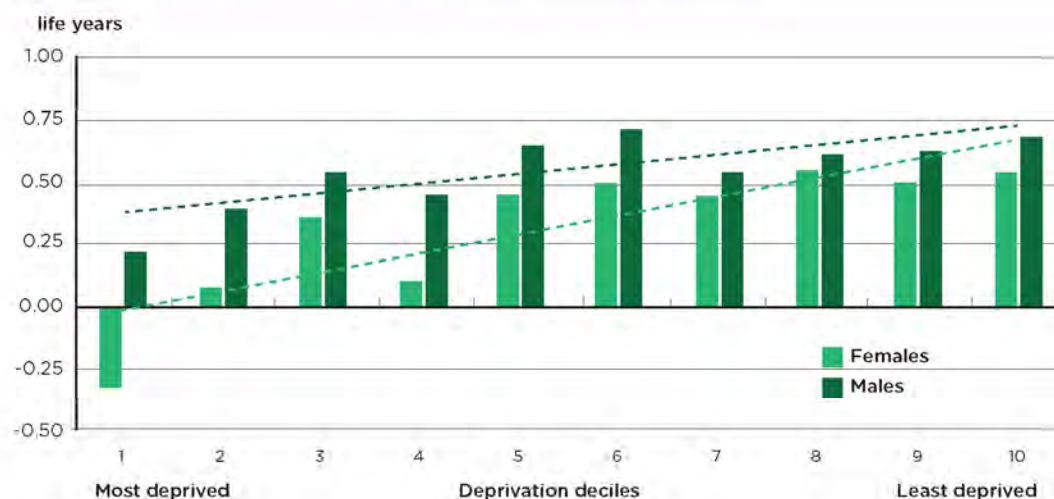
b) Females



Source: Calculated by Bajekal M using ONS data (2019) (24)

Figure 2.5 shows the most recent widening of inequalities in life expectancy between deciles of area deprivation from 2010-12 to 2016-18. While women in the most deprived area decile experienced a decrease in life expectancy of 0.3 years, those in the top six experienced increases of around 0.5 years. While life expectancy for men increased in all area deciles, the magnitude of the increase was only 0.2 in the most deprived decile, compared to between 0.5 and 0.7 years in the six least deprived deciles.

Figure 2.5. Gain in life expectancy by sex, England, 2010-2012 to 2016-18



Source: Based on PHE, 2020 (18)

INEQUALITIES IN LIFE EXPECTANCY AT BIRTH WITHIN AND BETWEEN REGIONS

As in 2010, there are clear inequalities in life expectancy between regions in England and between area deprivation deciles within each region. Since 2010 there have been some significant changes in regional inequalities. Principally, life expectancy in London increased more rapidly than elsewhere from 2010, so that the region had improved from having the fourth highest life expectancy to the highest for males (80.7 years) and females (84.5 years) by 2016-18 (28). By contrast, the North East, which previously shared with the North West the lowest levels of life expectancy until 2011-12, had a slower rate of improvement than the North West after 2012 to become the region with the lowest life expectancy in 2016-18 – at 77.9 and 81.7 years for males and females, respectively. For both men and women this is 2.8 years below the life expectancy in London.

While changes in relative positions in average regional life expectancy provide important information about how different regions are performing in health, inequalities in life expectancy within regions indicate the source of these regional differences. Figure 2.6 shows the changes in life expectancy at birth that took place between 2010-12 and 2016-18 in the least and most deprived deciles in each region in England.

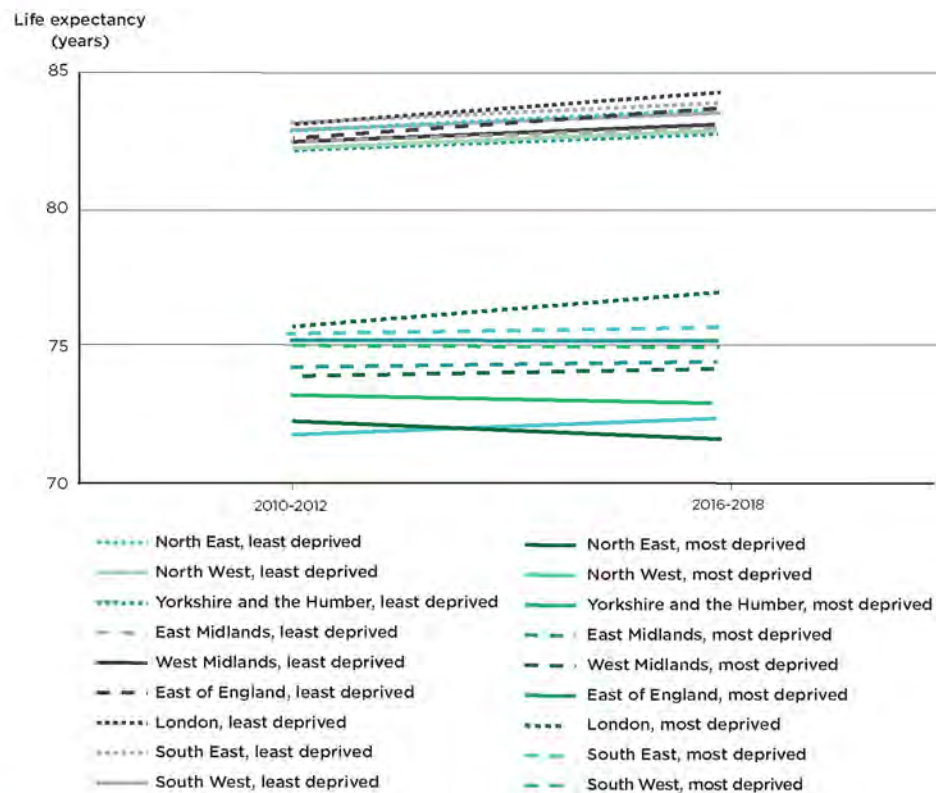
The most striking feature is that regional variation in life expectancy in the least deprived deciles was 1.4 and 1.2 years for males and females respectively in 2016-18, while in the most deprived areas it was 5.2 and 5.4 years for males and females, respectively. Wealthier areas in the North and South have similar life expectancy to one another, while more deprived areas have lower life expectancy in the North. That is to say the life expectancy difference between regions can largely be accounted for by regional differences between more deprived areas.

In the most advantaged area decile, life expectancy increased for males and females in every region between 2010-12 and 2016-18. By contrast, life expectancy for women in the most deprived area decile decreased in every region except London, the West Midlands and the North West. For men in the most deprived area decile, life expectancy decreased in the North East, Yorkshire and the Humber and the East of England. For both men and women, the largest decreases were seen in the most deprived area decile in the North East and the largest increases in the least deprived area decile in London.

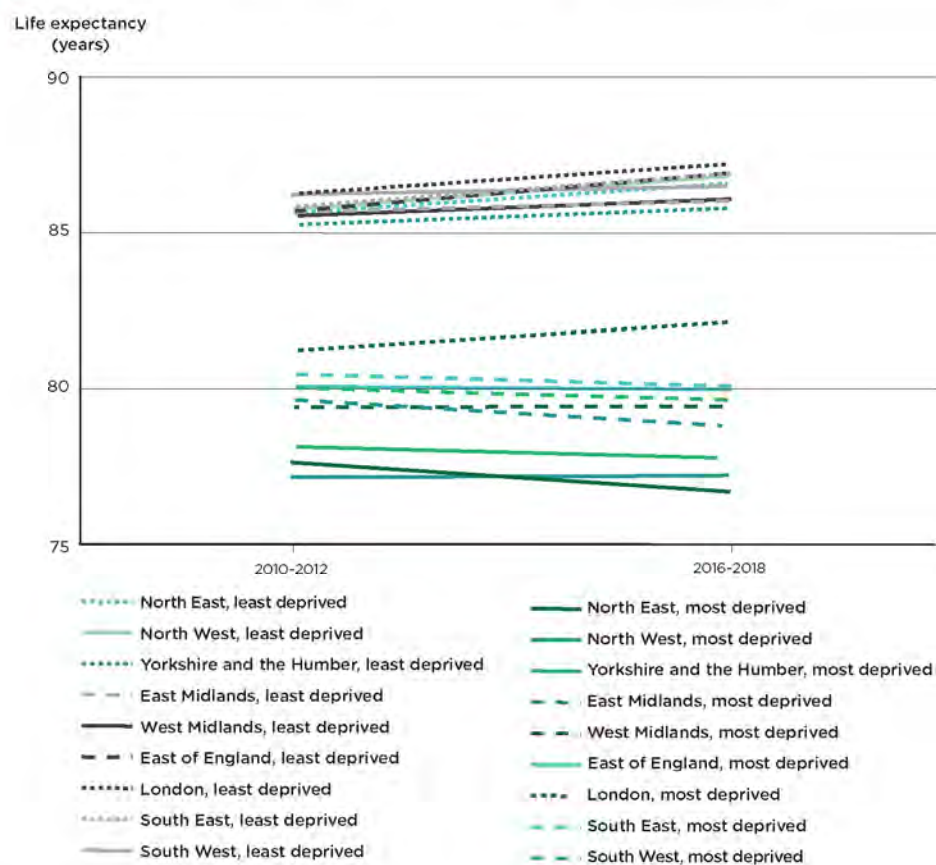
As we describe in Section 3, this may be related to deteriorating conditions in some of the key social determinants in those regions.

Figure 2.6. Life expectancy at birth by sex for the least and most deprived deciles in each region, England, 2010-12 and 2016-18

a) Males



b) Females

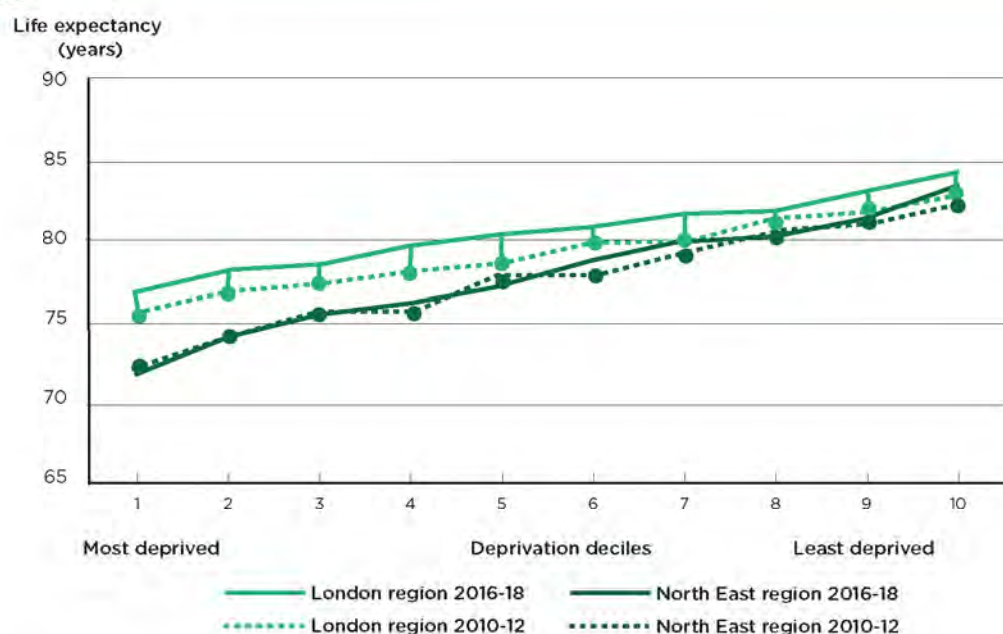


Source: Based on PHE, 2019 (25)

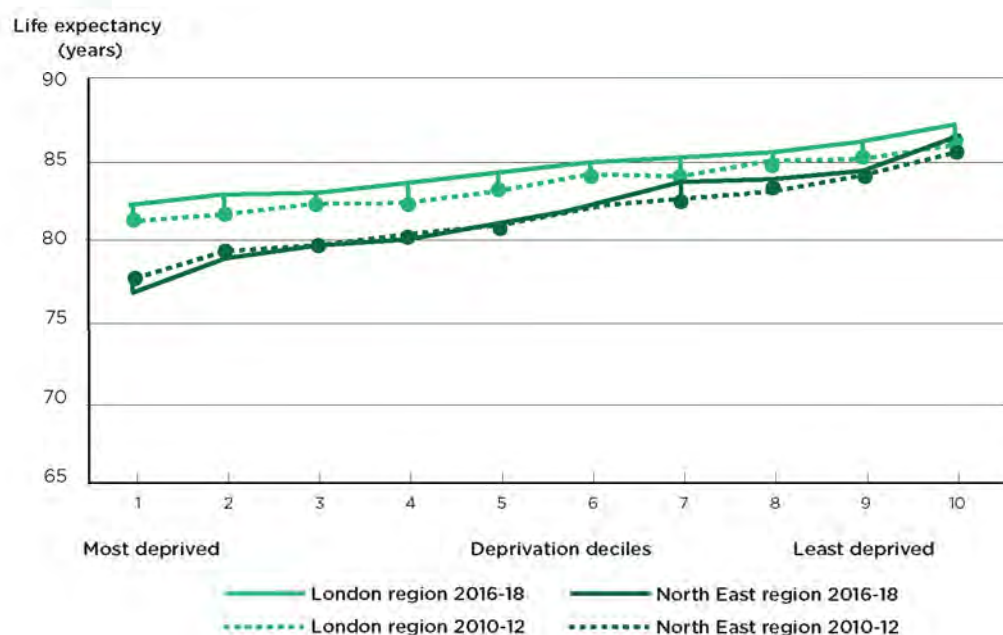
As described above, people living in affluent areas in every region are living longer; it matters little for life expectancy where those areas are in the country. Region matters much more for people living in deprived areas. This can be illustrated by comparing London with the North East region (Figure 2.7). The gradient in life expectancy is steeper in the North East than in London. The health disadvantage of living in the North East increases with the level of deprivation of the area of residence. Figure 2.7, also shows that, in the North East, life expectancy stagnated between 2010-12 and 2016-18 for men living in more deprived areas, and actually declined for women. By contrast, it increased for both men and women in the least deprived area deciles. For those living in London, life expectancy increased in all deciles for both men and women.

Figure 2.7. Life expectancy at birth by sex and deprivation deciles in London and the North East regions, 2010-12 and 2016-18

a) Males



b) Females



Source: Based on PHE, 2020 (18)

Ethnicity is not collected at death registration. It is, therefore, not possible to calculate life expectancy estimates or mortality rates ethnicity based solely on death registration data in England. Researchers at the University of Leeds developed two methods to create estimates of 2001 ethnic mortality rates. The first method used the relationship between self-reported illness and mortality for local areas. The second used the geographical distributions of ethnic groups in the 2001 Census along with the overall mortality rates of these areas (26). The two methods produced very different results, but both pointed to those with Pakistani and Bangladeshi ethnicity having the lowest life expectancy and non-British whites having the highest (30). However, both results could have been affected by the socio-economic characteristics of the areas in which they lived (often known as the ecological fallacy), cultural differences in self-reporting of illness and patterns of migration (for example, recent migrants being healthier than longstanding and second-generation migrants).

To address these problems, ONS are using the recent linkage of almost all death records back to the 2011 Census to calculate mortality rates by ethnicity as recorded in the Census. While this type of analysis has always been possible using existing longitudinal and cohort studies, these have suffered from relatively small numbers in individual minority ethnic groups and differential return migration between ethnic groups affecting follow-up to death.

Separately, PHE is investigating the use of mortality records linked to hospital episode records coded for ethnicity. We can speculate that in the future, if hospital records were to be linked to census, then methods could be devised to estimate life expectancy by ethnicity across the decade using multiple sources to take account of differential recording of ethnicity between sources and changes in the ethnic composition of the country over time.

HEALTH EXPECTANCY AT BIRTH

While life expectancy is one important measure of health, how long a person can expect to live in good health is perhaps an even more significant measure of quality of life. Certainly, recent debates have focused on adding 'life to years, rather than just years to life'. Giving cause for concern on top of the stalling in life expectancy improvements, recent measures are showing that improvements in health have stalled too and have even declined for many. For women, healthy life expectancy has declined since 2009–11 and for both men and women years spent in poor health have increased (25).

In Table 2.1 ONS data show that healthy life expectancy at birth in England in 2015–17 was 63.4 years for males and 63.8 years for females, meaning that more than one-fifth of life for both sexes will likely be spent in ill health. The figures in red in Table 2.1 indicate the deterioration since 2009–11. This shows that disability-free life expectancy has also decreased for both males and females since 2009–11 and years with disability and percentage of life with a disability have both increased (18) (25).

Table 2.1. Healthy life expectancy and proportion of life spent in good health, by sex, 2009–11 to 2015–17 England

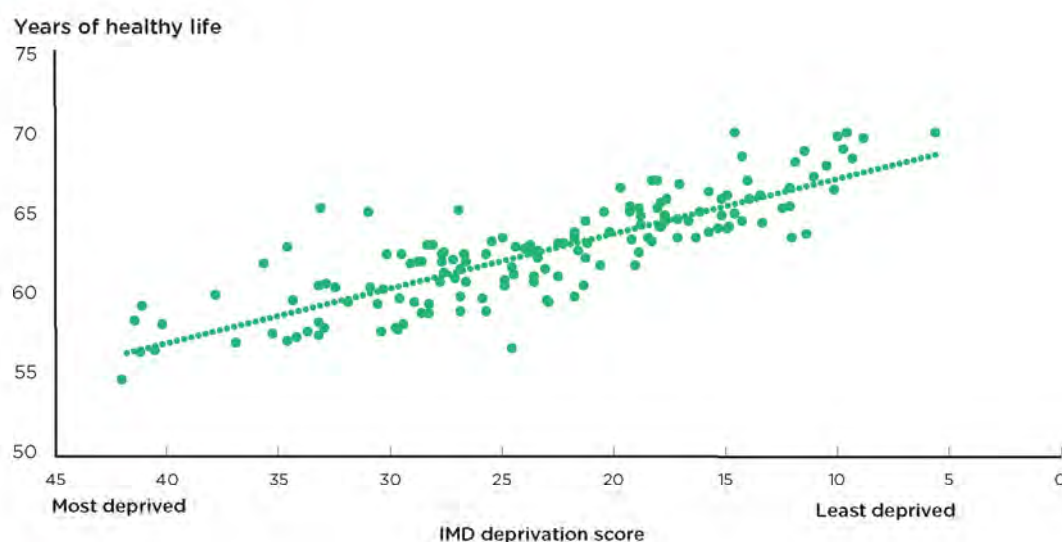
	Healthy life expectancy (HLE)	Years in poor health	Percentage life spent in poor health	Disability-free life expectancy (DFLE)	Years with disability	Percentage life spent with disability
Males						
2009–11	63.0	15.8	20.0	63.5	15.3	19.4
2012–14	63.4	16.1	20.2	63.1	16.3	20.5
2015–17	63.4	16.2	20.3	63.1	16.5	20.7
Females						
2009–11	64.0	18.7	22.6	63.9	18.8	22.7
2012–14	63.9	19.3	23.2	62.8	20.3	24.4
2015–17	63.8	19.4	23.3	62.2	21.0	25.2

Source: ONS (32)

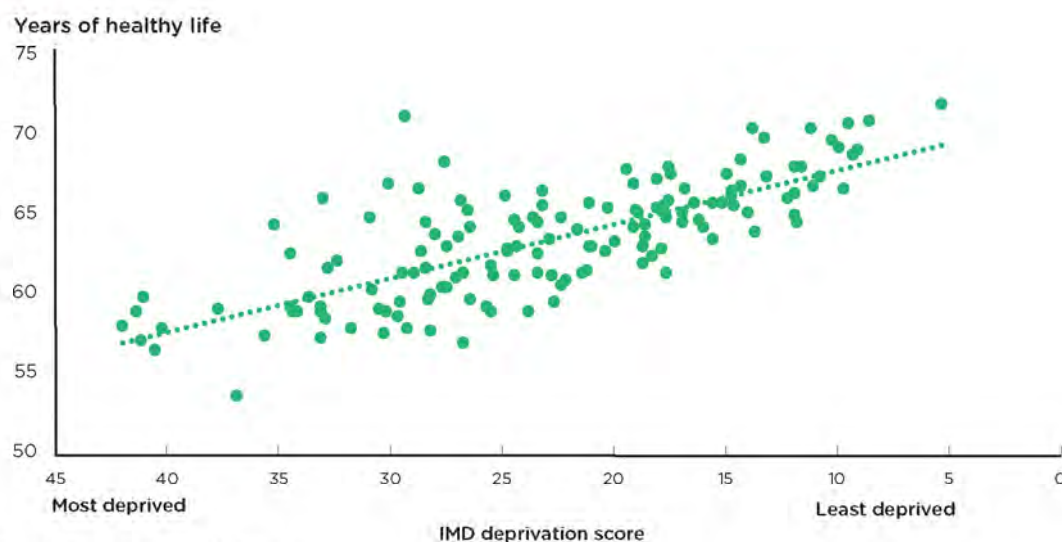
Figure 2.1 showed the social class gradient for disability-free life expectancy at small area level. Figure 2.8 shows the relationship between local authority deprivation and healthy life expectancy at birth – a different measure of health expectancy. On average, healthy life expectancy at birth differs by 12 years between the most and least deprived local authorities for men and women.

Figure 2.8. Healthy life expectancy at birth by index of multiple deprivation score of upper tier local authorities, England, 2015-17

a) Males



b) Females

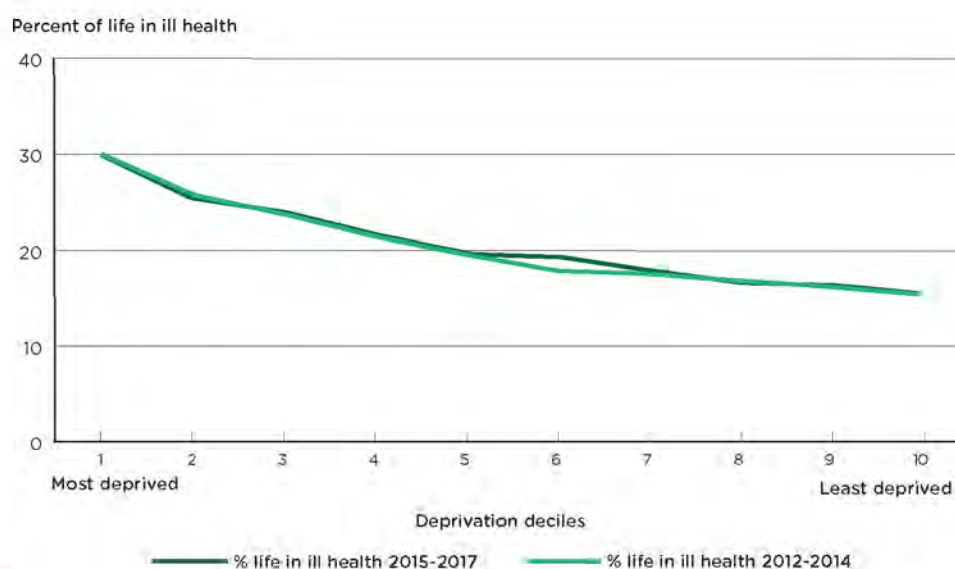


Source: Based on PHE, 2019 (18)

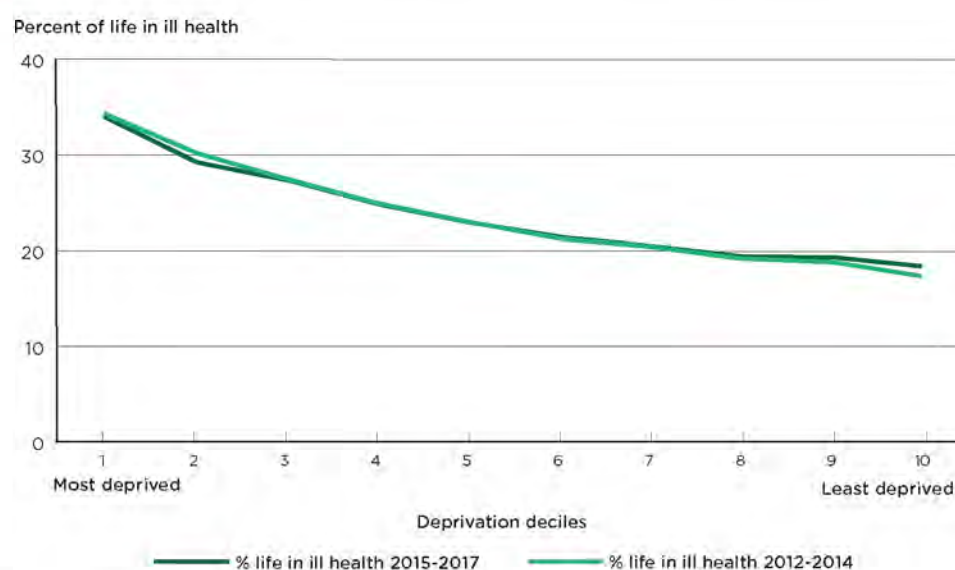
Figure 2.9 shows that in 2015–17 females in the most deprived decile spent 34 percent of their life in ill health compared with 18 percent of life for those in the least deprived decile. Among males the corresponding figures were 30 and 15 percent, respectively.

Figure 2.9. Percentage of life spent in ill health by deprivation decile, England, 2012–14 and 2015–17

a) Males



b) Females



Source: Based on PHE, 2019 (18)

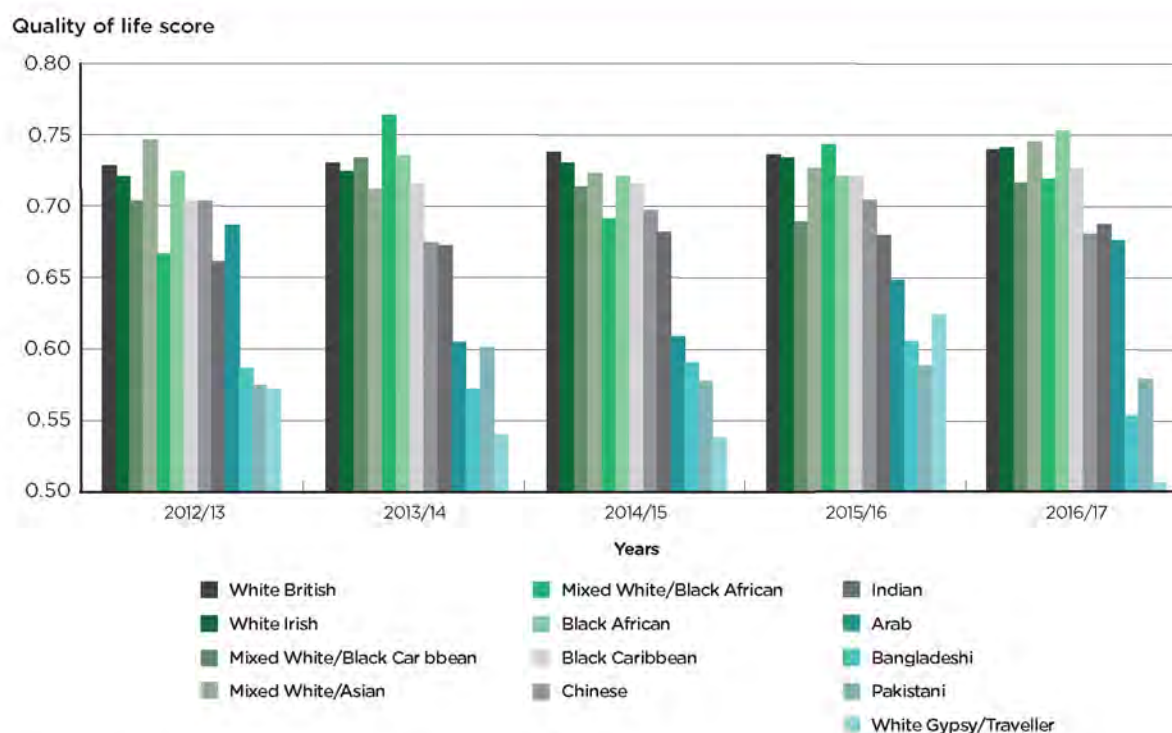
Using data from the 2001 Census, the same analysis that was used to calculate life expectancy ethnicity, showed that half of the minority ethnic groups – mostly black, Asian and mixed ethnic groups – had significantly lower DFLE at birth than white British men or women. The lowest DFLEs observed were for Bangladeshi men and Pakistani women. DFLE was highest for Chinese men and women (27). However the same biases that were discussed under life expectancy apply to these results.

A separate analysis of inequalities among older persons, aged 60 years and over, using Understanding Society data (from the UK Household Longitudinal Study) for

2009–11, shows that even after accounting for social and economic disadvantage, in this age group minority ethnic groups are more likely than white British people to report limiting health and poor self-rated health (29). Other reviews, including the background analyses for this report, describe outcomes in a range of social determinants of health for minority ethnic groups (29). Intersections between socioeconomic status, ethnicity and racism intensify inequalities in health for ethnic groups. Some groups, notably individuals identifying as Gypsy or Irish Traveller, and to a lesser extent those identifying as Bangladeshi, Pakistani or Irish, stand out as having poor health across a range of indicators (29).

Public Health England measured quality of life in England using the EQ-5D questionnaire, a standard health and well-being survey, with a scale from 0 to 1, which represents full/good health. However, as it is not age standardised, results could be affected by differential ageing of the various ethnic groups that still include first generation migrants. Figure 2.10 shows changes in scores for years 2012/13 to 2016/17 (28).

Figure 2.10 Average health-related quality of life score for people aged 65 and older, by ethnicity 2012/13-2016/17, England



Source: Based on PHE, 2019 (18)

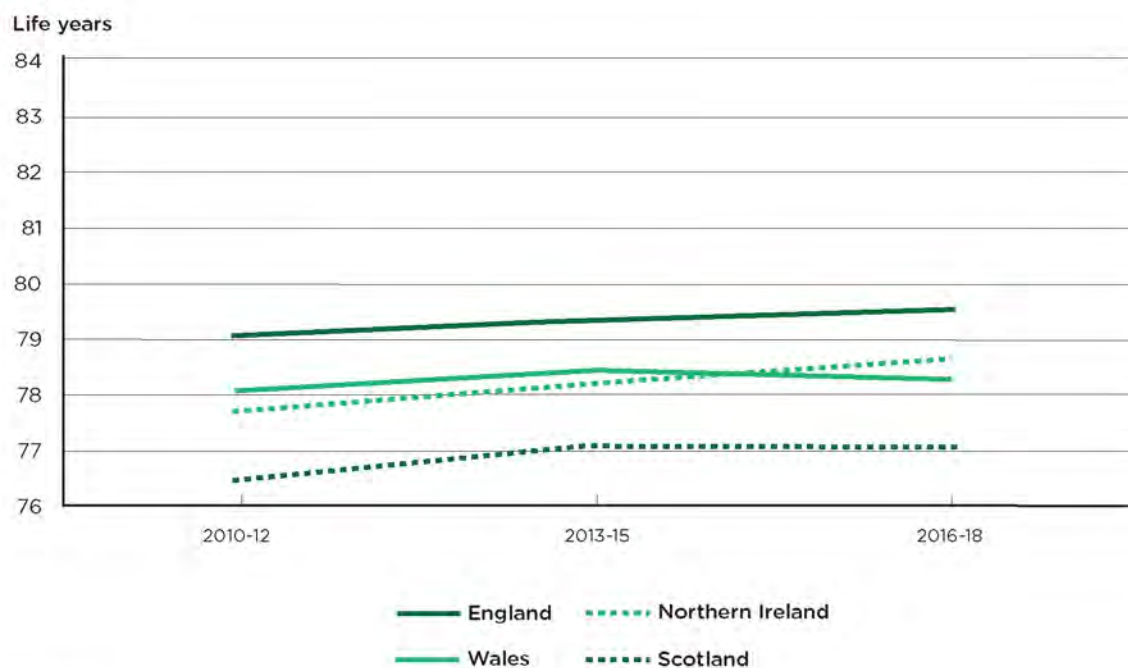


LIFE EXPECTANCY AND HEALTH EXPECTANCY ACROSS COUNTRIES OF THE UK AND INTERNATIONAL COMPARISONS

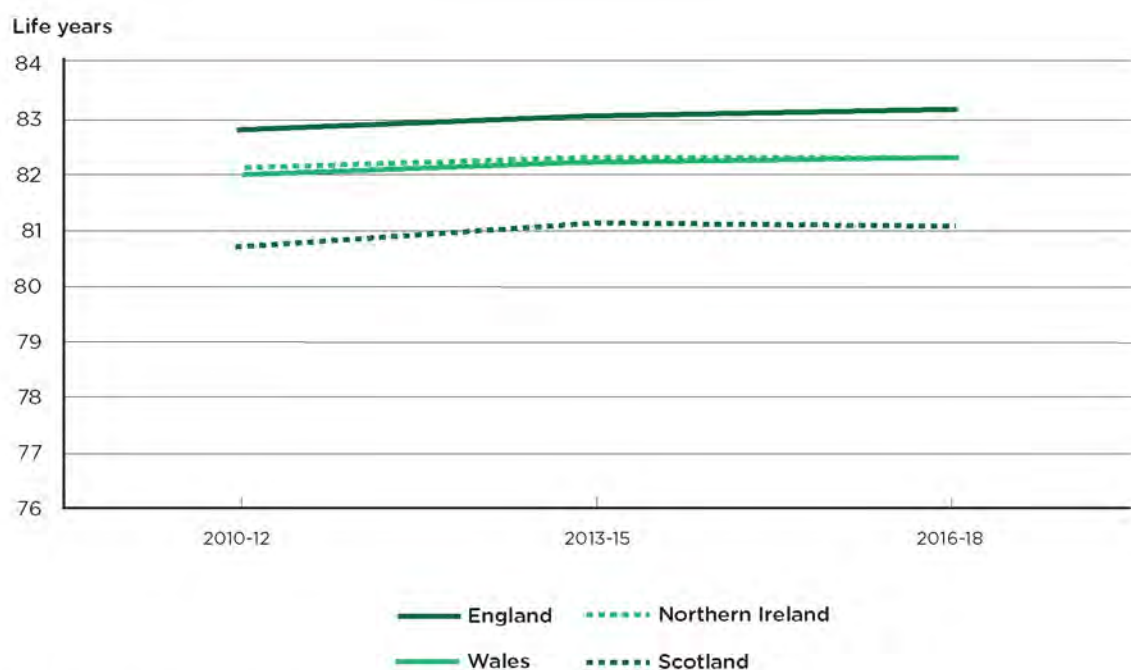
Scotland, Northern Ireland and Wales have experienced slowdowns in life expectancy improvements since 2010 similarly to England, as shown in Figure 2.11. Looking in more detail, there have been declines in life expectancy for men in Wales and Scotland since 2013-15 and a decline in life expectancy for women in Scotland since 2013-15.

Figure 2.11. Life expectancy at birth by sex, UK countries, 2010-12 to 2016-18

a) Males



b) Females

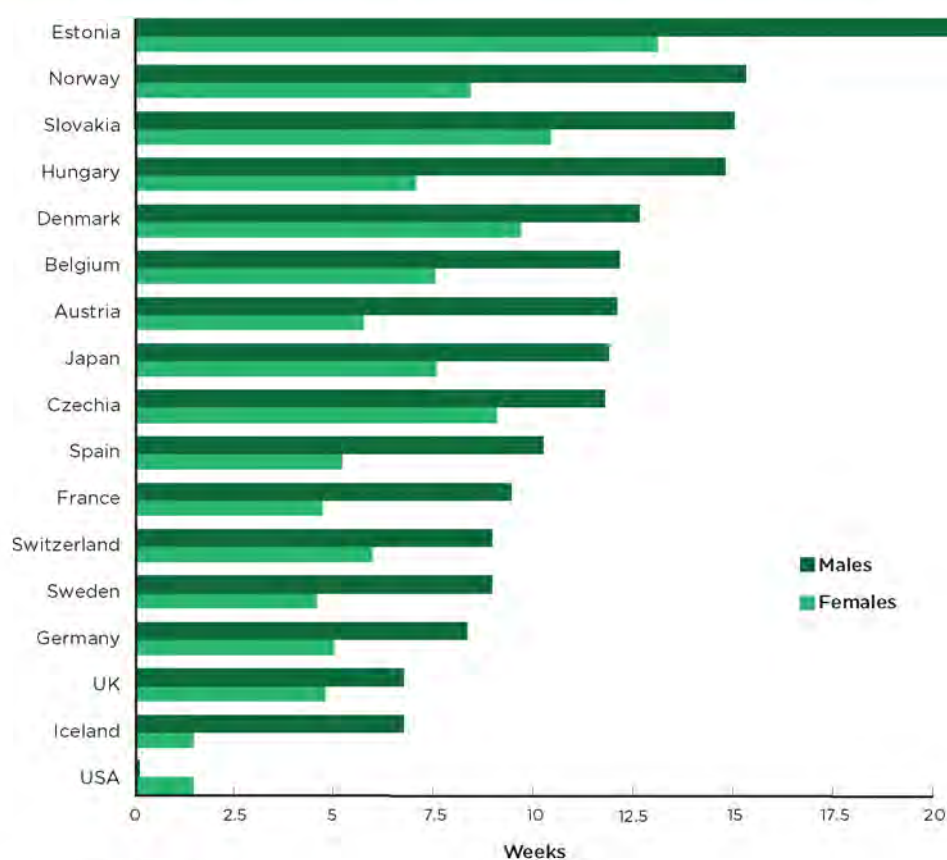


Source: Based on ONS, 2019 (30)

Compared with other nations internationally, between 2011 and 2017 the slowdown in life expectancy in the UK has been marked and the UK as a whole has experienced lower rates of improvement annually than all the countries shown in Figure 2.12, except the USA (which has had declining life expectancy since 2014) and Iceland (31). Importantly, these lower levels of improvement are not because the UK has the highest or 'peak' life expectancy; many countries have higher levels of life expectancy and continue to improve at a much faster rate than the UK. Compared with other countries

in the Organisation for Economic Co-operation and Development (OECD), men in the UK had the second largest reduction in life expectancy improvement (73 percent reduction in improvement from 2011–16 compared with 2006–11) after the USA (90 percent reduction in improvement from 2010–15 compared with 2005–10). Life expectancy for women in the UK had the slowest rate of improvement, showing a 90 percent slowdown, compared with an 87 percent slowdown for women from the USA, 45 percent in Sweden and Germany, and 43 percent in France (32) (33).

Figure 2.12. Average annual life expectancy improvement in weeks, 2011 to 2017, selected OECD countries

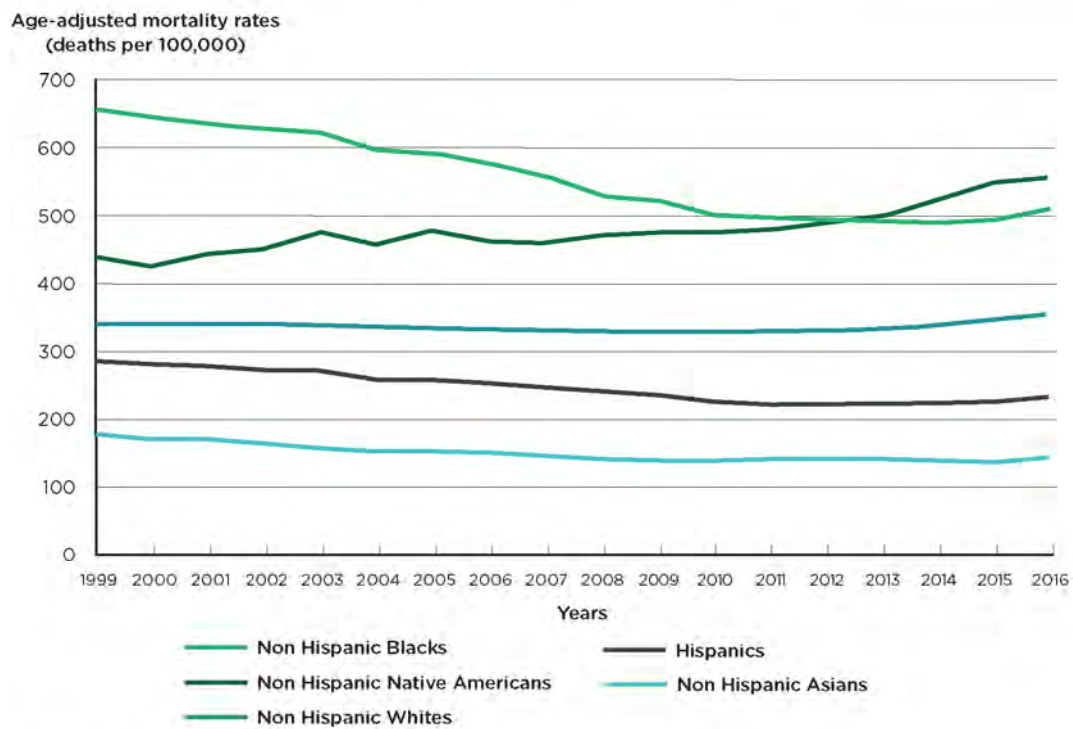


Source: Based on ONS, 2019 (19)

Other countries that at various times have had significant decreases in life expectancy and widening health inequalities have seen these changes happen as a result of catastrophic or severe political, social or economic disruptions. The break-up of the Soviet Union in 1991, for example, was followed by economic collapse in successor republics, which had devastating consequences on population health across the region. Life expectancy decreased by four years among Russian men, from 62 years in 1980 to 58 years in 1999 (34) (35), and there were similar declines in life expectancy among men in Armenia, Belarus, Latvia and Lithuania, as well as in other post-Communist countries, including Bulgaria and Romania (34). Also, suicide rates climbed steeply, by 60 percent in Russia, 80 percent in Lithuania and 95 percent in Latvia, for example, between 1989 and 1999.

As mentioned, the USA has experienced decreasing average life expectancy since 2014. This decrease is largely explained by rising mortality for middle-aged, lower educated white people who have suffered social, cultural and particularly economic exclusions and loss of status. The big contributors are deaths from accidental poisonings, opioids, suicide and alcohol which Case and Deaton have labelled as 'deaths of despair' (36). Mortality has also been rising among American Indians and Alaskan Natives and is now rising in African Americans – all of whom have always had higher rates of mortality than white Americans – see Figure 2.13 (37). The rises have been more marked for people aged 45–54 than for other age groups.

Figure 2.13. Age-adjusted mortality rates by race and sex, United States, 1999 - 2017



Source: Woolf et al., 2018 (37)

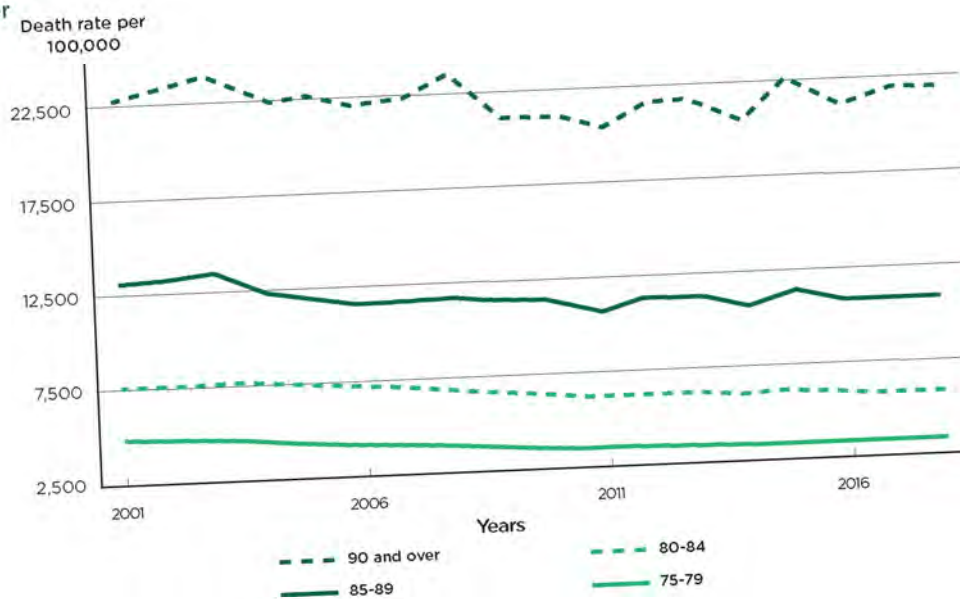
MORTALITY RATES

Life expectancy at birth is calculated using age-specific mortality rates. Patterns of mortality by age, the diseases that contribute to deaths at different ages and the changes that take place in these rates are fundamental to understanding why life expectancy is stalling and inequalities are widening.

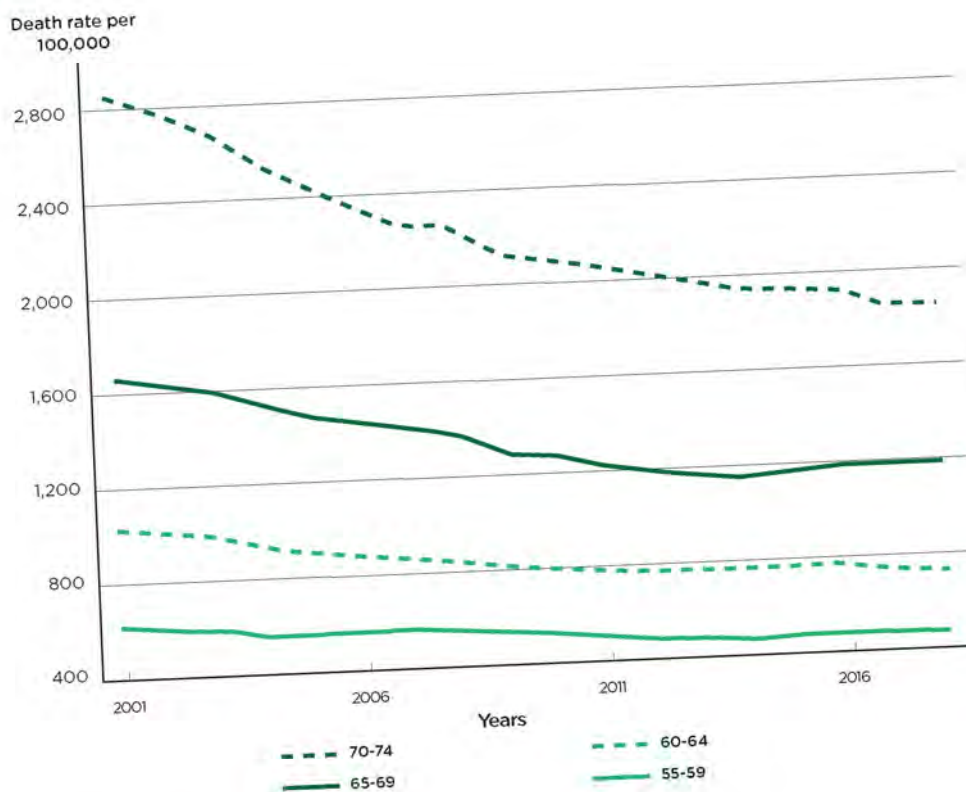
Following the same patterns as previous decades, mortality rates for all age groups fell in the years 2001 to 2011, except for those aged 90 years and older, shown in Figure 2.14. However, since 2011, there have been unexpected increases in mortality rates for those aged under 50, except for 1–4 years olds, while for those over 50 mortality rates have largely stalled.

Figure 2.14. Trends in age-specific mortality rates, England, 2001–18

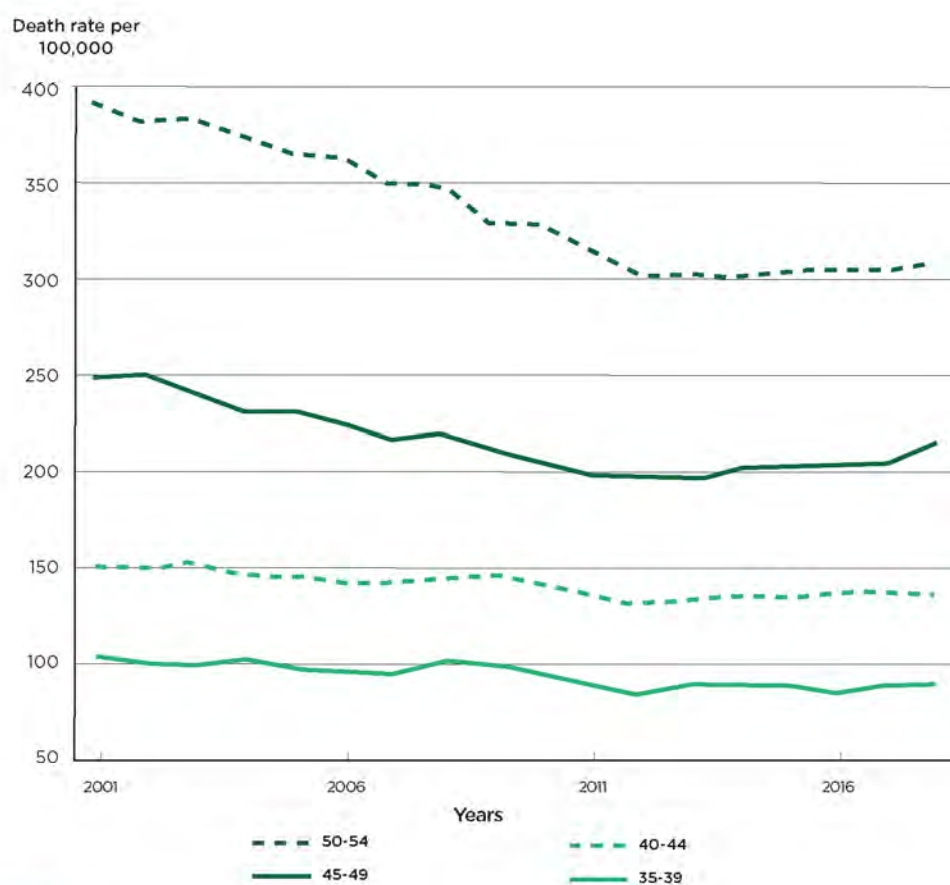
a) Ages 75 and over



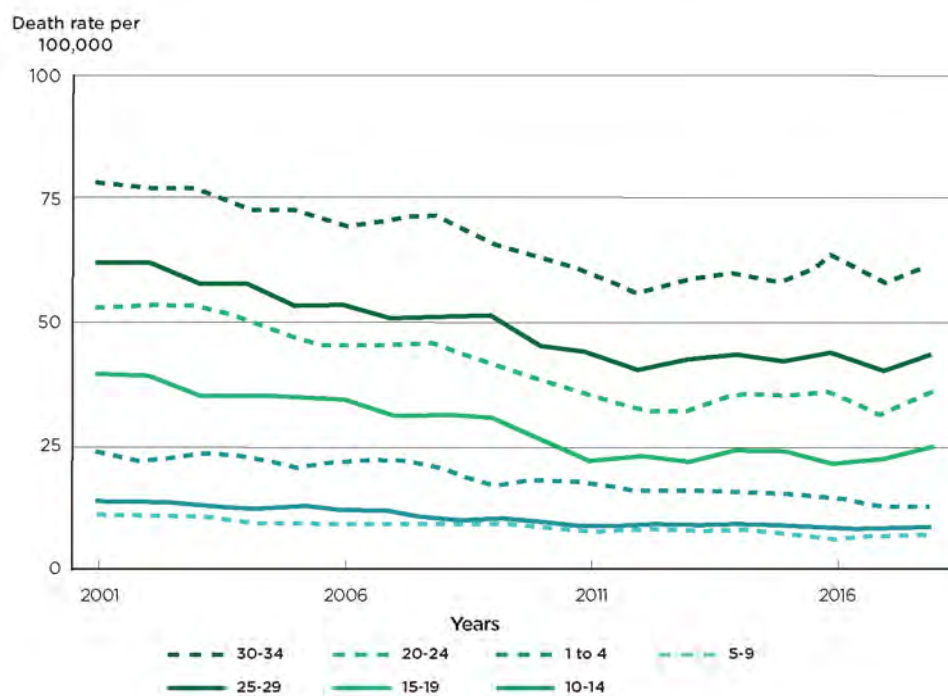
b) Ages 55 to 74



c) Ages 35 to 54



d) Ages 1 to 34



Source: Based on PHE, 2018 (22) and ONS, 2019 (38)

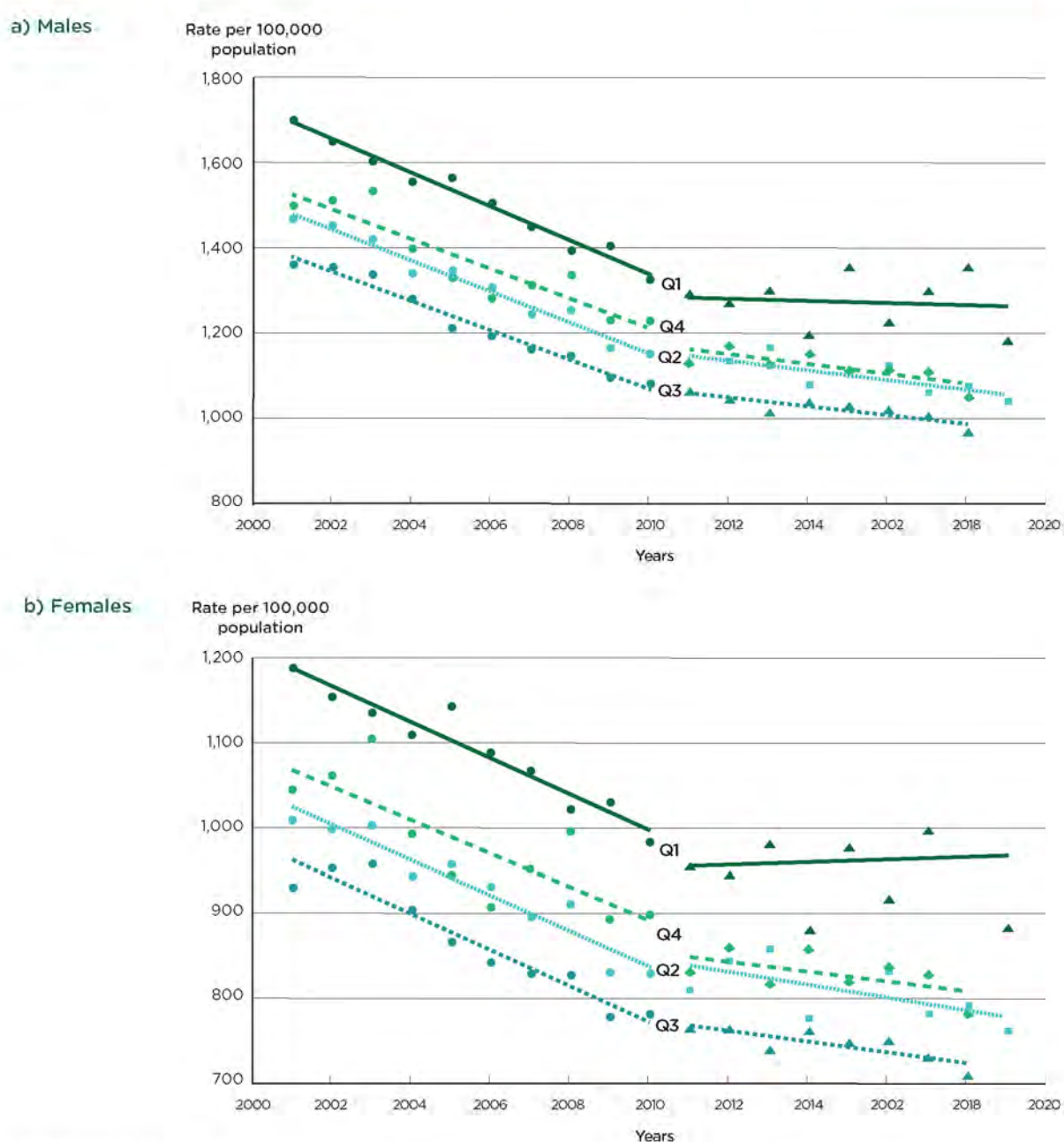
These increases in mortality during middle age and younger ages may be similar to increases in mortality for these age groups in the USA (36) (39).

A review of recent trends in mortality in older populations in England indicates that, as the population ages, there are likely to be more people living with dementia and other long-term conditions that may make them particularly vulnerable to the effects of flu and other cold weather risk factors (22). Some commentators have suggested that seasonal factors could have been a major factor in recent mortality trends (40). For this review, we have calculated that improvements in mortality rates have slowed down in non-winter months as well as in winter

months over the last decade, described in Figure 2.15. This means that most of the deterioration in mortality rates since 2011 cannot be accounted for by increased seasonal factors, including flu and cold weather. This is significant for understanding the recent widening in health inequalities and declines in life expectancy described above; the drivers of these trends lie in other factors, including deteriorating social determinants of health (described in Section 3).

Figure 2.15 depicts mortality rates by quarter of the year and sex between 2001 and 2018. It shows a marked decline in mortality rates until 2010, followed by much slower declines in every quarter and even increases in quarter 1.

Figure 2.15. Mortality rates by quarter of registration and sex, England, 2001–10 and 2011–18



Source: Based on ONS (41)

Note: Q1 to Q4 represents deaths registered in each of the four quarters of the year. Q1 relates to registrations in January to March, Q2 to those in April to June, Q3 to those in July to September and Q4 to those in October to December.

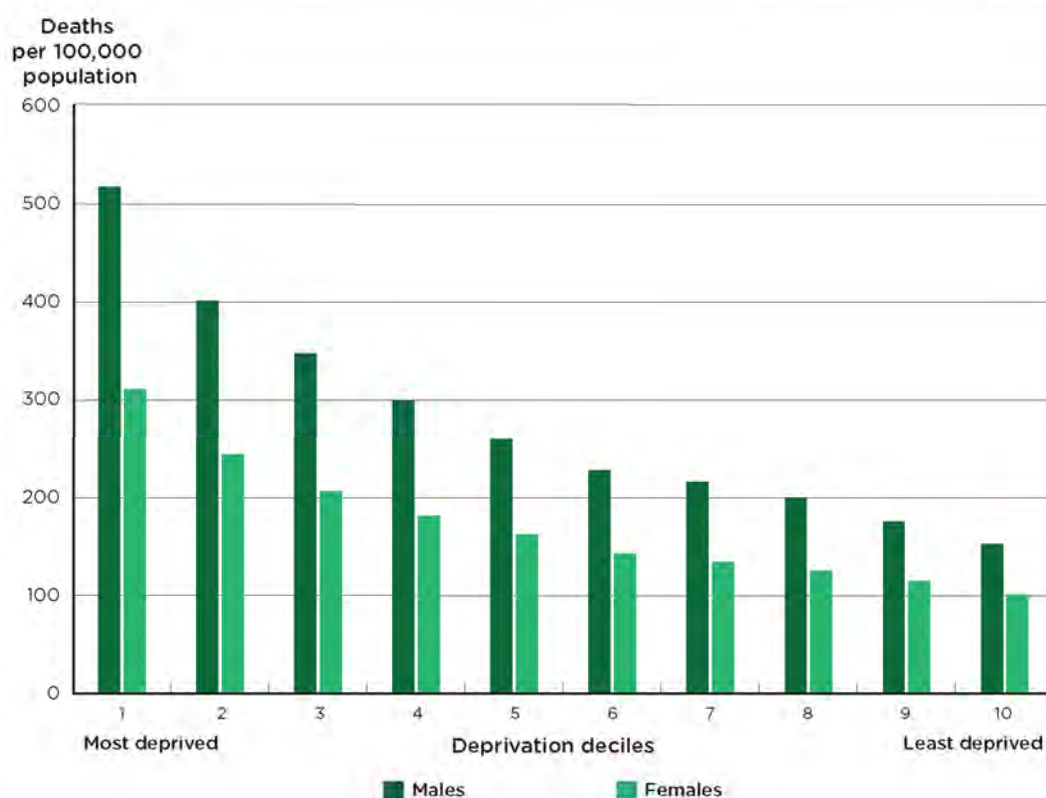
Our analysis shows that if the change in mortality in winter were the same in summer, this would only account for 13 percent of the slowdown in male mortality and 17 percent of the slowdown in female mortality. In other words, the majority (87 and 83 percent) of the annual slowdown in mortality for males and females respectively has been due to factors other than the effects of greater winter-associated mortality in 2011-18/19 compared with 2001-10.

INEQUALITIES IN AVOIDABLE MORTALITY

'Avoidable mortality' refers to deaths that could have been avoided through timely and effective healthcare, or by public health interventions, or both (42), including action on the 'causes of the causes' of mortality – the social determinants of health.

The risk of avoidable mortality is at least three times higher for women and men living in the most deprived local areas compared with those living in the least deprived areas. The fact that these deaths are 'avoidable' through deploying health care and public health measures does not mean that lack of health care was the original cause of the inequalities. It does, however, indicate that much of the mortality for those in the most deprived areas could be avoided, described in Figure 2.16.

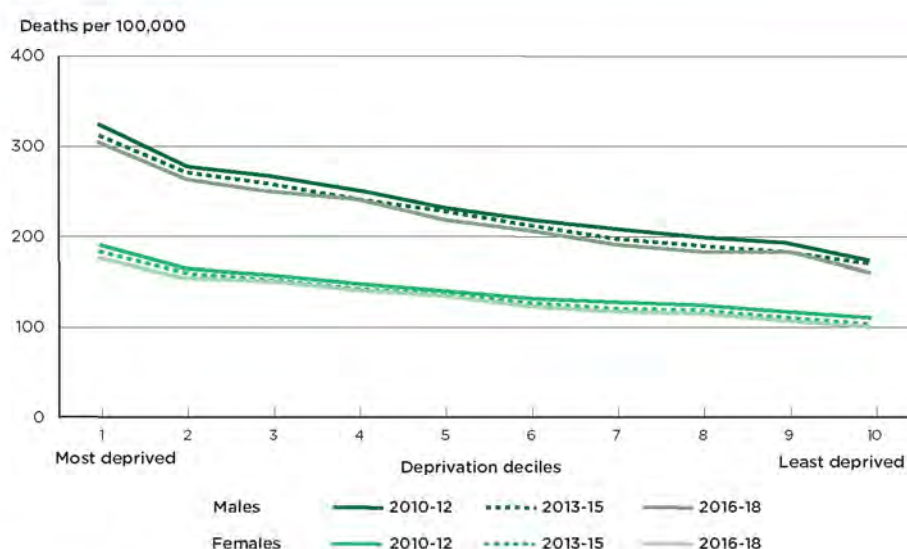
Figure 2.16. Age standardised avoidable mortality rates (per 100,000) by deprivation decile, England, 2017



Source: Based on ONS, 2019 (42)

Figure 2.17 shows mortality from causes considered preventable for men and women by area deprivation decile over time. Preventable mortality refers to deaths that could be avoided through public health interventions (42). Between 2010-12 and 2016-18 there was a slight decline in mortality from preventable diseases in every decile; the difference between the most deprived and the second most deprived was larger than between other deciles, and that difference widened. This suggests that more emphasis on proportionate universal action is required to address the majority of preventable deaths.

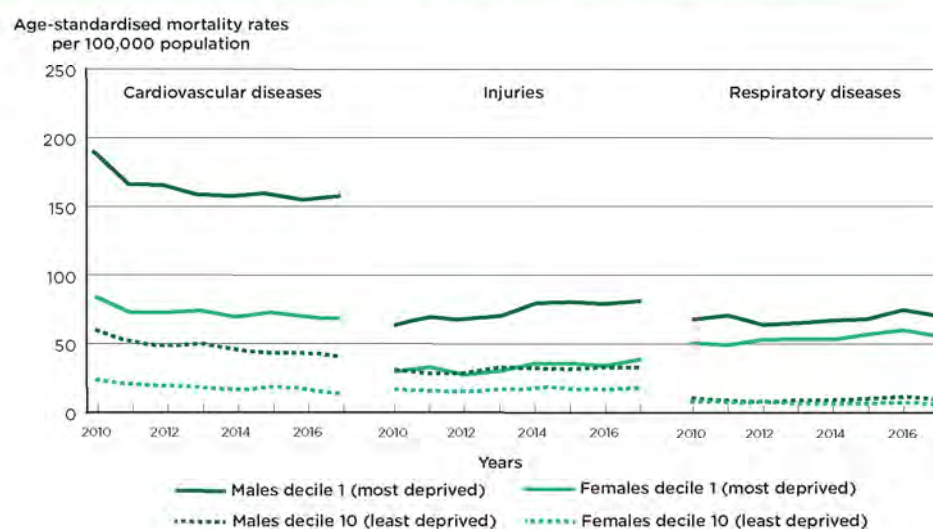
Figure 2.17. Mortality rate from causes considered preventable, deprivation decile and sex, England, 2010-12 to 2016-18



Source: Based on PHE, 2019 (18)

Overall, inequalities in avoidable deaths increased markedly between 2010 and 2017 in the most deprived areas in England, by eight percent among females and 17 percent among males (42). Specifically, as described in Figure 2.18, avoidable mortality rates from respiratory diseases have risen in the most deprived area deciles since 2010, remaining much lower and largely constant in the least deprived area deciles. Mortality rates from injuries are higher and increasing in the most deprived decile for males and females. Figure 2.18 also shows declining avoidable deaths in cardiovascular diseases in England but much higher, and latterly stalling, rates for males and females in the most deprived deciles.

Figure 2.18. Age-standardised avoidable mortality rates (per 100,000) for cardiovascular and respiratory diseases and injuries, by sex and most and least deprived deciles, England, 2010-17



Source: Based on ONS, 2019 (42)

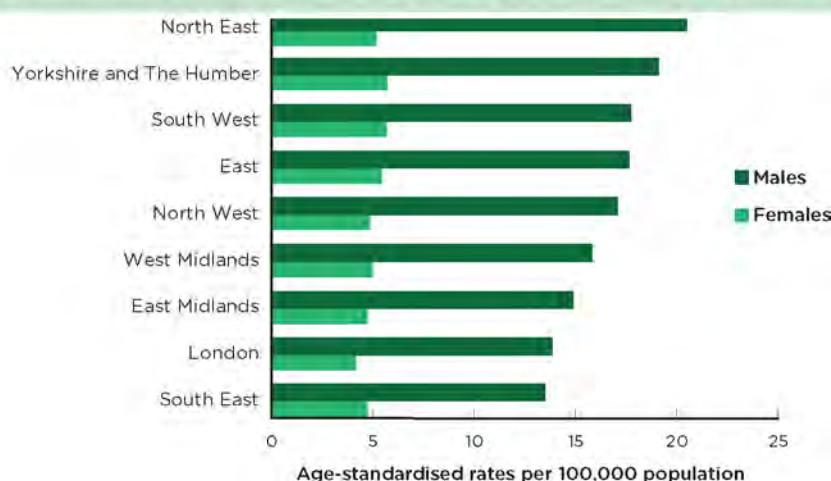
Another important cause of avoidable mortality is suicide and suicidal behaviour (self-harm), and this is also more common in more deprived communities than in wealthier areas, as well as more common for men than women (43) (44). A systematic review of European countries found a significant association between deprivation or socioeconomic disadvantage and suicidal behaviour (45). Factors that contribute to suicides include unemployment, job insecurity, unmanageable debt and lack of support services, all of which are more likely to occur in the most deprived deciles (46) (47) (48), described further in Section 3.

In 2018, 6,507 deaths were registered as suicides in the UK, although it is likely that suicide rates are higher but some are registered as undetermined deaths. The age standardised rate was significantly higher

in 2018 than in 2010 (in 2018 it was 11.2 per 100,000 for all population, 15.8 for males and 4.9 for females) (49). For both men and women, as incomes increase, suicide levels decrease. Multiple reports using English data find suicidal behaviours are consistently higher in areas with the highest level of deprivation, with estimates that rates are double or three times higher than in the least deprived areas (50).

As shown in Figure 2.19, among men, the region with the highest suicide rate in 2018 was the North East (20.4 per 100,000); this suicide rate was significantly higher than in London and the South East, the areas with the lowest suicide rates for males. For females, the highest suicide rates in 2018 were in Yorkshire and the Humber and the South West (both 5.7 per 100,000) and the lowest rate was seen in London (4.1 per 100,000 for women) (49).

Figure 2.19. Age-standardised suicide rates for English regions by sex, deaths registered in 2018



Source: Based on ONS, 2019 (49)

SUMMARY

For many groups in England, health and life expectancy are deteriorating and there are clear systematic inequalities in the groups for whom this is happening. Broadly speaking, poorer communities, women and those living in the North have experienced little or no improvement since 2010. There has been a slowdown in life expectancy of a duration not witnessed in England for 120 years and that has not been seen to the same extent across the rest of Europe or in most other OECD countries and health has deteriorated for the population as a whole.

While at this stage it is impossible to establish precisely why life expectancy has stalled and why health inequalities in England are widening, we can establish that a change in winter-associated mortality and ill health is not the main factor. We can also establish that the health situation is somewhat similar to other countries that have experienced political, social and economic disruption and widening social and economic inequalities. In some of the key social determinants, inequalities are widening in England and the protective role of the state in supporting people is being reduced and realigned away from more deprived areas and communities.



Chapter 3

The social determinants of health

Since the 2010 Marmot Review there have been important developments in the evidence about the social determinants of health and implementation of interventions and policies to address them. There have also been fundamental political, cultural, social, economic and policy changes that have profoundly affected all aspects of the social determinants in England. This section describes some of the most important developments in five of the six areas set out in the 2010 Marmot Review, changes that may explain why health has deteriorated for many in England, and will likely continue to do so in the longer term.

The sixth area, 'Strengthen the role and impact of ill health prevention', is not included. Much has been written on this topic and many interventions and policies have aimed to influence health behaviours and ill health prevention in the years since the 2010 Marmot Review, in England and around the world (4) (11) (51) (52) (53).

There is a good deal of consensus that actions to prevent unhealthy behaviours and improve prevention are much needed, including from IHE. Since 2010 the UK's National Institute for Health and Care Excellence (NICE) has published more than 50 public health guidelines. Since 2010 there has also been growing interest and focus on the commercial determinants of health, particularly commercial practices which support or promote consumption of unhealthy behaviours and practices usually for profit. As there has been a great deal of focus on the role and impact of ill health prevention and commercial determinants this Review does not cover this topic. But we add to the consensus on the need for public health and wider society measures which support and sustain healthy behaviours and practices and preventive action on the major killers.

The approach we take is to address *the causes of the causes*. Act on the five areas set out in the 2010 Marmot Review, of early child development, education, good working conditions, having enough money to live on, and creating safe and healthy environments so people will be able to live more healthily. There is evidence to reject the twin notions that people are poor because they make poor choices, and that the poor health of the poor results from poor choices. Rather, it is poverty that leads to unhealthy choices and the poor health of those lower down the social hierarchy results from the restricted range of options available to those on low incomes, as well as the direct health impacts associated with the stresses and poor conditions which result from poverty. As an illustration, the poor diet of people in poverty is, very largely, the result of poverty, not poor choices (discussed in Section 3D).

The evidence base for the priority objectives 1–5 in the 2010 Marmot Review was substantial at the time and has grown more so. Rather than repeat the evidence for the relationships between the five areas and health, each section of this review covers particular issues that have increased in importance for equity, and that have also been a focus of policy since 2010. For example, housing and in-work poverty have become increasingly significant in driving health inequalities in recent years – evidence about them has grown and there have been major changes nationally, locally and at community level. It is particularly important to assess these now.

The areas covered here were decided on through a review of the evidence, much of which is described in the background reviews that underpin this report and through a process of consultation with the Advisory Group and other stakeholders. Sections 3A–E present an overview of the main policy changes, a discussion of trends in outcomes related to inequalities, and recommendations about future directions and action. Each includes case studies of best practice (54). The areas we cover in each of 3A–E are by no means comprehensive reviews of each area – they are selective, identifying areas that have seen greatest change and have had the potential to impact on inequalities since 2010.

3A - Give every child the best start in life

SUMMARY

- Since 2010, progress has been made in early years development, as measured by children's readiness for school. Clear socioeconomic inequalities persist, with a graded relationship between these measures and level of deprivation.
- For low-income children, levels of good development are higher in more deprived areas than in less deprived areas.
- Rates of child poverty, a critical measure for early child development, have increased since 2010 and are now back to their pre-2010 levels with over four million children affected.
- Child poverty rates are highest for children living in workless families – in excess of 70 percent
- Funding for Sure Start and Children's Centres, and other children's services, has been cut significantly, particularly in more deprived areas.
- More deprived areas have lost more funding for children and youth services than less deprived areas, even as need has increased.
- There are still low rates of pay and a low level of qualification required in the childcare workforce.

Such is the strength of evidence linking experiences in the early years to later health outcomes that this was the priority area for the 2010 Marmot Review, for three main reasons. Firstly, inequalities in the early years have lifelong impacts, secondly, it is the period of life when interventions to disrupt inequalities are most effective, and thirdly and related to the first two points, interventions in the early years have been shown to be cost-effective and to yield significant returns on investment.

In 2016, the Early Intervention Foundation estimated that the national cost of 'late intervention' (the acute, statutory and essential benefits and services that are required when children and young people experience significant difficulties in life that might have been prevented) was £16.6 billion (7). The 2010 Marmot Review concluded that reducing inequalities in early years experiences should be a priority for reducing inequalities in multiple desirable outcomes, including health.

The key messages related to early years in the 2010 Marmot Review were:

- Good quality services in the early years have enduring effects on health and other outcomes.
- These outcomes are particularly strong for those from disadvantaged backgrounds.
- A good quality workforce makes a difference to health outcomes but the childcare workforce remains low paid and low status.
- Pre and postnatal policy and services should be integrated.

Since 2010 evidence has repeatedly shown that positive experiences early in life are closely associated with a range of beneficial long-term outcomes, including better performance at school, better social and emotional development, improved work outcomes, higher income and better lifelong health, including longer life expectancy (3) (55) (56) (57). Conversely, less positive experiences early in life, particularly experiences of adversity, relate closely to many negative long-term outcomes: poverty, unemployment, homelessness, unhealthy behaviours and poor mental and physical health. Since 2010 IHE and other organisations have continued to assess the growing body of evidence describing the associations between experiences in early years, education, and short- and long-term health outcomes (3) (55) (58) (59) (60) (61) (70).

The 2010 Marmot Review had three main objectives for the early years:

1 Reduce inequalities in the early development of physical and emotional health, and cognitive, linguistic and social skills.

2 Ensure high quality maternity services, parenting programmes, childcare and early years education to meet needs across the social gradient.

3 Build the resilience and wellbeing of young children across the social gradient.

Since 2010 there have been some limited progress and some negative outcomes in achieving these objectives. Progress has been made on readiness for school and attainment during school, although clear socioeconomic inequalities persist and there are wide inequalities in outcomes between regions. Gender inequalities remain and there are inequalities related to ethnic background that require much greater focus. Children's Centres have been significantly cut but there has been increased availability and funding for free childcare places, which is positive. The resilience and mental wellbeing of children and young people continue to be significant cause for concern and there are worrying indications of deteriorations and widening socioeconomic inequalities in mental wellbeing.

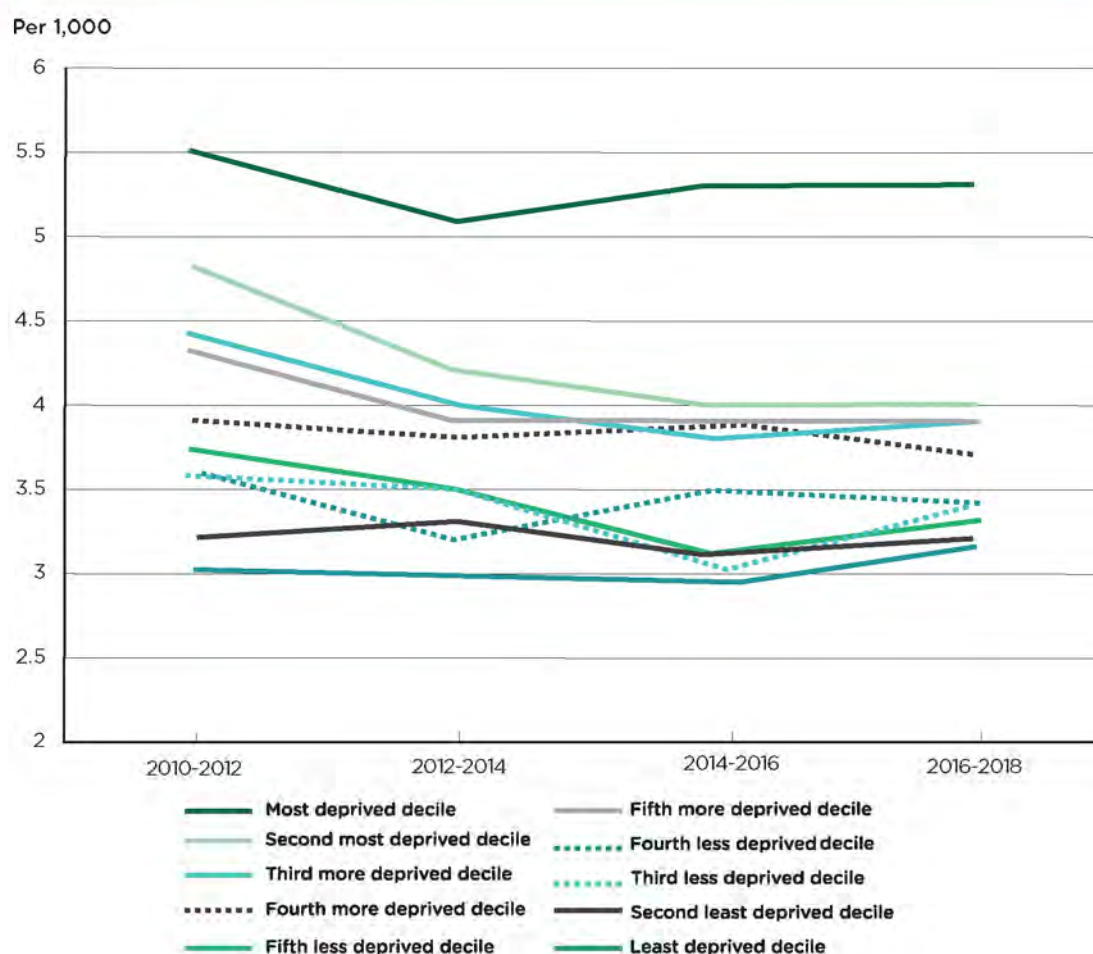
In this section we highlight inequalities in attainment outcomes during the early years; these set trajectories for inequalities throughout the rest of life. We highlight the increase in child poverty, particularly in families with parents in work. Family poverty during childhood affects all aspects of development and health both in the short and long term and the increases in child poverty, assessed both before and after housing costs, in the last decade are a serious concern and must be

reversed. We also highlight the socioeconomic gradient in adverse childhood experiences, which lead to a range of poor outcomes for children and later life, and discuss the closure of many Sure Start and Children's Centres, which has undermined outcomes for young children and their families – particularly those from more disadvantaged backgrounds and areas.

INEQUALITIES IN HEALTH IN CHILDHOOD

As well as impacting on long-term health and other outcomes throughout life, socioeconomic position directly affects children's health and there is a social gradient in children's health. The most deprived 10 percent of children are nearly twice as like to die (5.3 per 1,000) as the most advantaged 10 percent of children (3.1 per 1,000), and children in more deprived areas are more likely to face a serious illness during childhood and to have a long-term disability (62). One clear indicator of the impact of family circumstance is infant mortality; although overall rates are low, there are inequalities linked to level of deprivation and there have been increases in the most deprived decile since 2010 (Figure 3.1).

Figure 3.1. Infant mortality rate (per 1,000), by district and unitary authority deprivation decile, England, 2010-12 to 2016-18



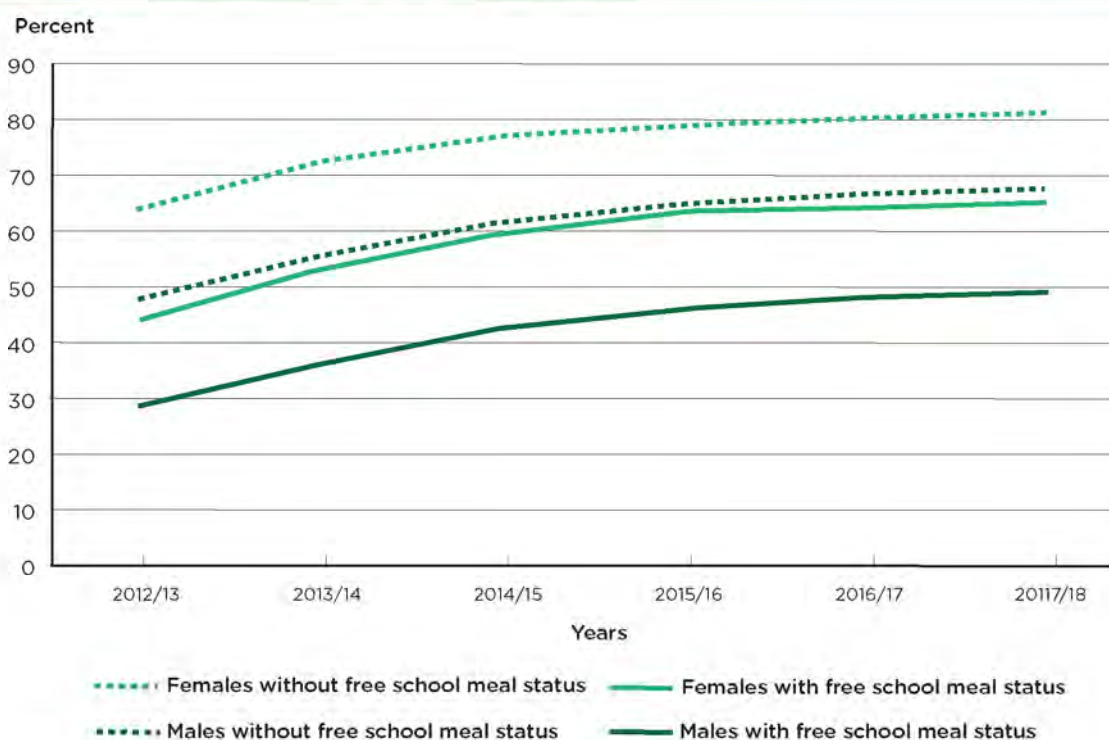
Source: Based on PHE 2019 (18)

INEQUALITIES IN DEVELOPMENT OUTCOMES IN THE EARLY YEARS

Experiences and the ability to thrive and develop well during the early stages of childhood relate closely to outcomes in a wide range of areas, including health, throughout the rest of life. For instance, strong communication and language skills in the early years are linked with success in education, higher levels of qualifications, higher wages and better health (68) (67). Socioeconomic inequalities in child development are already recognisable in the second year of life and have an impact by the time children enter school and persist and deepen during their school years. Since 2010, inequalities in development during the early years have persisted (72).

One measure of attainment in early childhood is the rate of children achieving a 'good' level of development at the end of Reception class (age 5). Children achieving a good level of development are those achieving at least the expected level within the following: communication and language; physical development; personal, social and emotional development; literacy; and mathematics, all of which are considered early learning goals. Overall rates have improved since 2010 but there are still persistent socioeconomic inequalities, as shown in Figure 3.2. For both girls and boys, those eligible for free school meals had considerably lower levels of reaching a good level of development than their peers of the same gender. Boys receiving free school meals had the lowest level of development throughout the years described (73).

Figure 3.2. Percentage of children achieving a good level of development at the end of Reception, by eligibility for free school meals and by sex, England, 2012-18



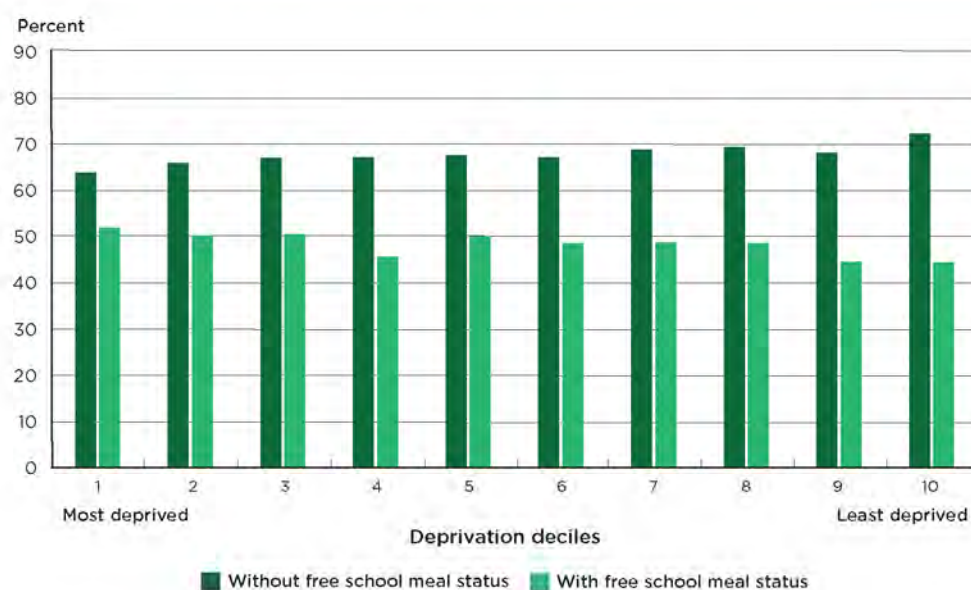
Source: Based on PHE 2019 (63)

Since 2010 a striking finding has been that poor children appear to thrive better in poorer areas than in richer ones. Among children eligible for free school meals, those in the more deprived deciles achieved a better level of development at the end of Reception than those children eligible for free school meals in the least deprived areas, described in Figure 3.3. Low-income children living in higher income areas do worse than low-income children in lower income areas. We need better understanding about the links between

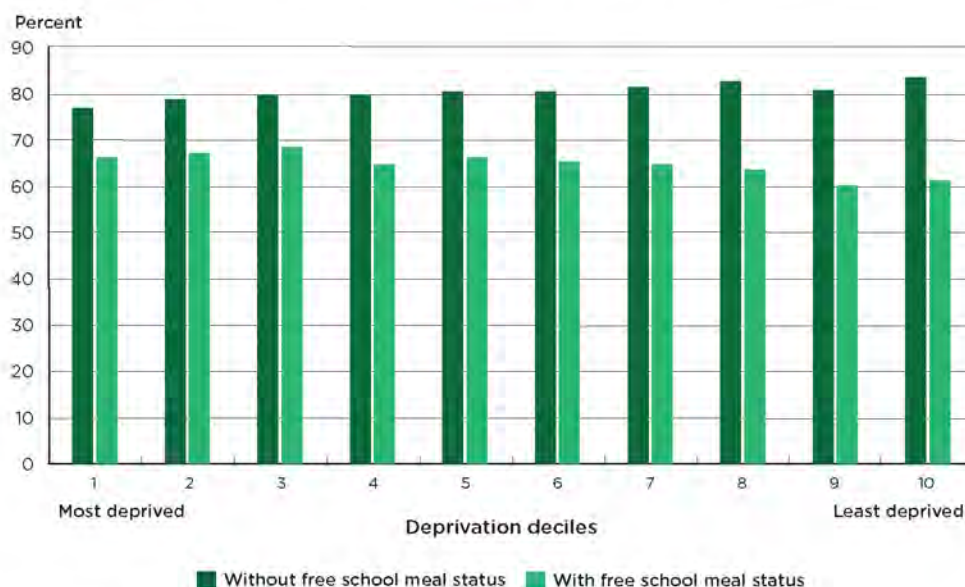
deprivation, demographic factors, school approaches and levels of development. It seems clear that schools and perhaps communities in some more deprived areas are making a beneficial difference for the most deprived students and breaking the close association between deprivation and lower outcomes. A second possibility is that being a poorer child among more privileged children may lead to feelings of exclusion and lack of self-esteem (64).

Figure 3.3. Percentage of children achieving a good level of development at the end of Reception, by level of deprivation and eligibility for free school meals and by sex, England, 2017/18

a) Males



b) Females



Source: Based on PHE 2019 63)

There are also clear regional differences in school readiness, which are not solely related to levels of deprivation. In 2017/18 the proportion of all children achieving a good level of development at the end of Reception was better in the South East, London and the East of England. The East and West Midlands, Yorkshire and the Humber and the North West regions performed worse than the national average (2). London performed best for children eligible for free school meals, followed by the West Midlands.

As described, children from lower socioeconomic families are much more likely to have lower levels of development in the first year of school than children from more affluent families. Clearly, poverty is bad for attainment, for a range of other important outcomes and for health. One approach to improving outcomes in the early years is for schools to break the link between poverty and poor outcomes by providing more family support services and interventions in schools, in an attempt to mitigate the impacts of poverty – see case studies of London and Manchester.

CASE STUDY: LONDON SCHOOLS – CLOSING THE GAP AT PRIMARY AND SECONDARY LEVEL

Many of the areas with the highest levels of childhood deprivation in England are located in London (65). The rate of children in poverty in London was 37 percent after housing costs in 2018, (that is, living in households with less than 60 percent of contemporary median household income), higher than in any other region of England (66). Despite these high levels of poverty and disadvantage, in some deprived areas in London disadvantaged children do better than disadvantaged pupils in any other region at both primary and secondary school (67).

In inner London low-income children in primary schools show substantially higher attainment scores at Key Stage 2 than low-income children in other regions. London schools have developed strong system leadership and positive school cultures that have been crucial in lifting attainment, supported by government initiatives such as the National Strategies, the London Challenge, Teach First and the Academies Programme (64).

Within Greater London, Richmond upon Thames has almost doubled the number of low-income children reaching school-readiness (from 36 to 61 per cent) in the last three years, partly as a result of a local authority-led campaign to improve support for disadvantaged children (68).

Low secondary school attainment among disadvantaged children outside London is a major challenge for social mobility. Relatively high levels of educational attainment for low-income children in London may help to explain London's high performance in social mobility (67) (69). Twelve of the 32 areas with the highest social mobility index in 2017 were in inner London, where 26 percent of secondary pupils were eligible for free school meals, compared with the national rate of 13 percent (67).

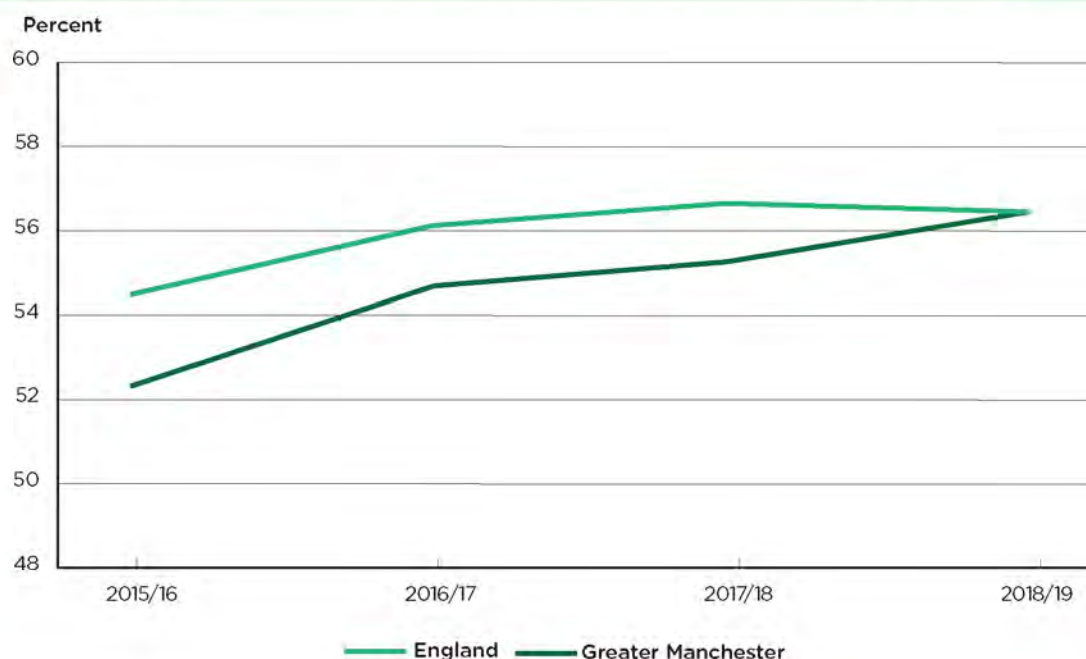
Conversely, some of the least deprived areas in England in 2017 were among the worst for offering good education and employment opportunities to their most disadvantaged residents. The needs of more disadvantaged children who live in less deprived areas in these areas can be overlooked, especially if they are dispersed across isolated rural schools (67). Schools in densely populated urban areas also benefit from support from nearby 'outstanding' schools and sometimes from high levels of family support and engagement. Some schools in rural and coastal areas are isolated and unable to tap into partnership infrastructure for support (67).



CASE STUDY: GREATER MANCHESTER – CLOSING INEQUALITIES IN THE EARLY YEARS

School readiness for all pupils has improved in Greater Manchester. In the school year 2018/19, 68.2 percent of children achieved a good level of development, compared with 71.8 percent nationally, in 2013 this figure was 47.3 percent. In Greater Manchester, levels of good development at the end of Reception for children eligible for free school meals have improved by four percentage points since 2015/16, a rate of improvement faster than for England as a whole. Greater Manchester has closed the gap in school readiness when compared to the England average.

Pupils achieving a good level of development eligible for Free School Meals 2015/16-2018/2019



Source: Based on PHE 2019 (63)

These marked improvements are the result of a significant endeavour by schools and children's services to improve school readiness, which has been a priority outcome for Greater Manchester. Tough targets have been set, including all early years settings to be rated 'good' or 'outstanding' in 2020, and to close the gap in school readiness between Greater Manchester and the national average (54).

Particular programmes include:

- At scale implementation of early years pathways across GM to support; speech, language and communication; parent and infant mental health; physical development; and social, emotional and behavioural needs
- A focus on delivering both universal and targeted parenting and child development programmes which are evidence-based, like Solihull approach and Incredible Years
- Developing an Early Years Workforce Academy to support workforce development amongst all early years practitioners (in public and private settings) and encourage more integrated working
- I-THRIVE programme to promote children's and young people's wellbeing

While we have highlighted areas which have made important improvements to children's experiences and outcomes in the early years through provision of effective support services; reducing child poverty would be a more far – reaching and effective strategy.

CHILD POVERTY

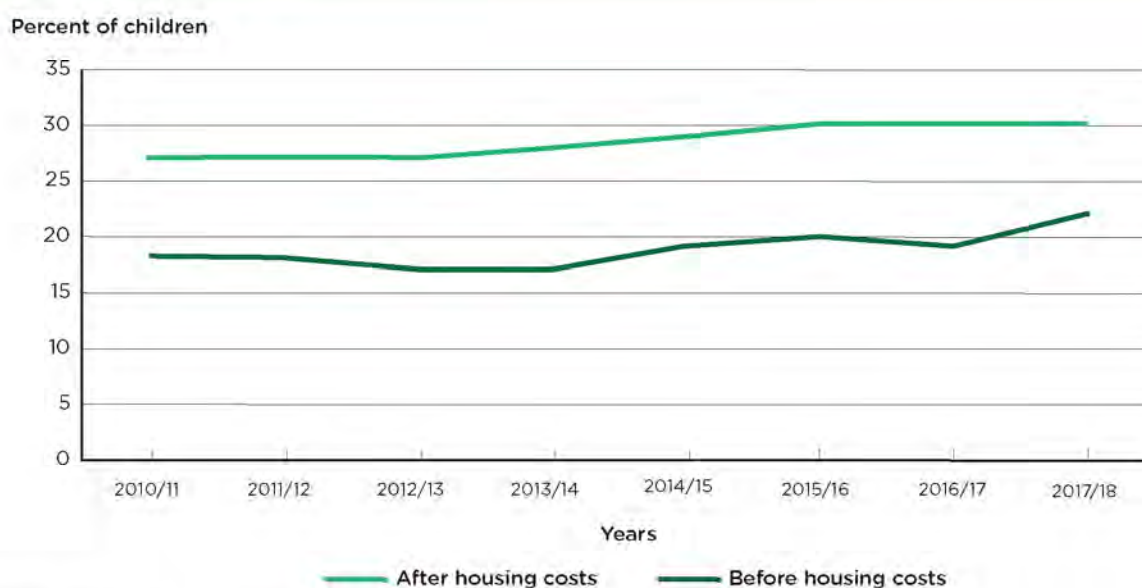
Parenting approaches are often heralded as key to children's development in the early years but it is important to recognise that parenting is also related to families' social and material circumstances. Put simply, it is easier to parent more effectively when social and economic circumstances are favourable and when stress and anxiety are lower; although, of course, positive and negative approaches to parenting apply across the socioeconomic gradient. Parenting is influenced, although not determined, by parents' own childhoods and their current lives, including their own mental wellbeing, their social and material circumstances and their networks of support (56) (57).

Family circumstances, so vital for development in the early years and for young people, have deteriorated for many since 2010, rates of child poverty have increased and inequalities in many social and economic outcomes are widening. This is concerning and will continue to have long-term negative impacts on the lives of affected children and their families and communities. Reducing child poverty is an essential health and equity strategy, as well as important for influencing other outcomes throughout life (3).

Rates of child poverty, a critical measure for early child development, have increased in England since 2010 and are now back to their pre-2010 levels. The number of children growing up in poverty is on the rise after taking account of housing costs, this figure now exceeds four million. An average of one in five children, 22 percent, were living in poverty before housing costs in England in 2017-18. After taking housing costs into consideration, child poverty rates increased to 30 percent and were higher in areas with high housing costs – for example, child poverty rates were 37 percent in London after housing costs and 19 percent before housing costs (66).

Figure 3.4 shows child poverty rates before and after housing costs, demonstrating the significant difference housing costs make to child poverty rates – an eight percent point increase after housing costs in 2017/18. Child poverty rates, after housing costs, increased between 2012/13 and 2015/16, and rates before housing cost have also experienced a steady rise since 2013/14. Absolute numbers of children in poverty have increased proportionately to now exceed four million after housing costs (66) (70).

Figure 3.4. Percent of children living in poverty measured before and after housing costs, England, 2010/11-2017/18



Source: Based on Department for Work and Pensions, 2019 (66)

Note: Low-income families are those in receipt of out-of-work benefits or tax credits or whose reported income is less than 60 percent of median income

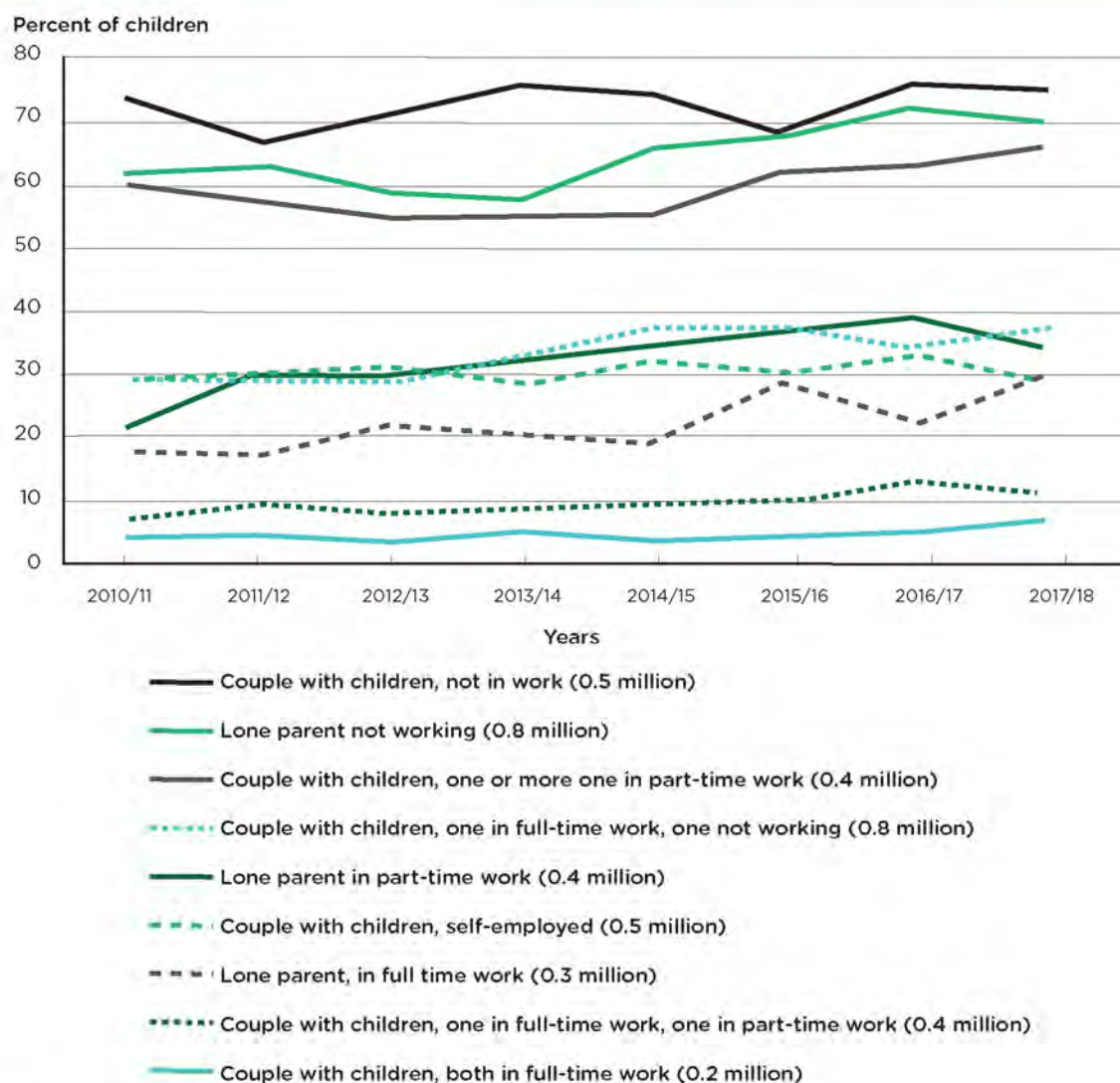
The highest rates of child poverty are experienced by children in lone-parent families; 47 percent of children living in lone-parent families are in poverty in the UK, after housing costs, and these children are particularly at risk of low outcomes and poor health, both in childhood and throughout life. Children in large families are also at a greater risk of living in poverty – 43 percent of children living in families with three or more children were living in poverty in the UK in 2018 (66).

Some minority ethnic groups have particularly high rates of child poverty (66). In 2017/18, 45 percent of minority ethnic children lived in families in poverty after housing costs, compared with 20 per cent of children in white British in the UK families (70). These children experience cumulative impacts of the intersections between poverty and exclusion and discrimination, which harms health and life chances even from the earliest age.

Government responses aimed at reducing child poverty have been to encourage parents to work, and to provide free or reduced-cost childcare places to support this. However, increasingly, having parents in work is not a guaranteed route out of poverty for children in England (see Section 3C) and rates of children in poverty living in working households have increased since 2010, described in Figure 3.5. For lone-parent families in full-time work in 2010/11, after taking

housing costs into account, child poverty rates were 18 percent; this rate had increased to 30 percent by 2017/18. Child poverty is highest for children living in workless families – in excess of 70 percent of children in these families are in poverty, up from just over 60 percent in 2010, and this affects 1.3 million children. Even for those in two parent families, where one of the parents is not working or working part time, there are 1.6 million children living in poverty (66) (66).

Figure 3.5. Percentage of children living in households with less than 60 percent of median household income, after housing costs, UK, 2010/11–2017/18



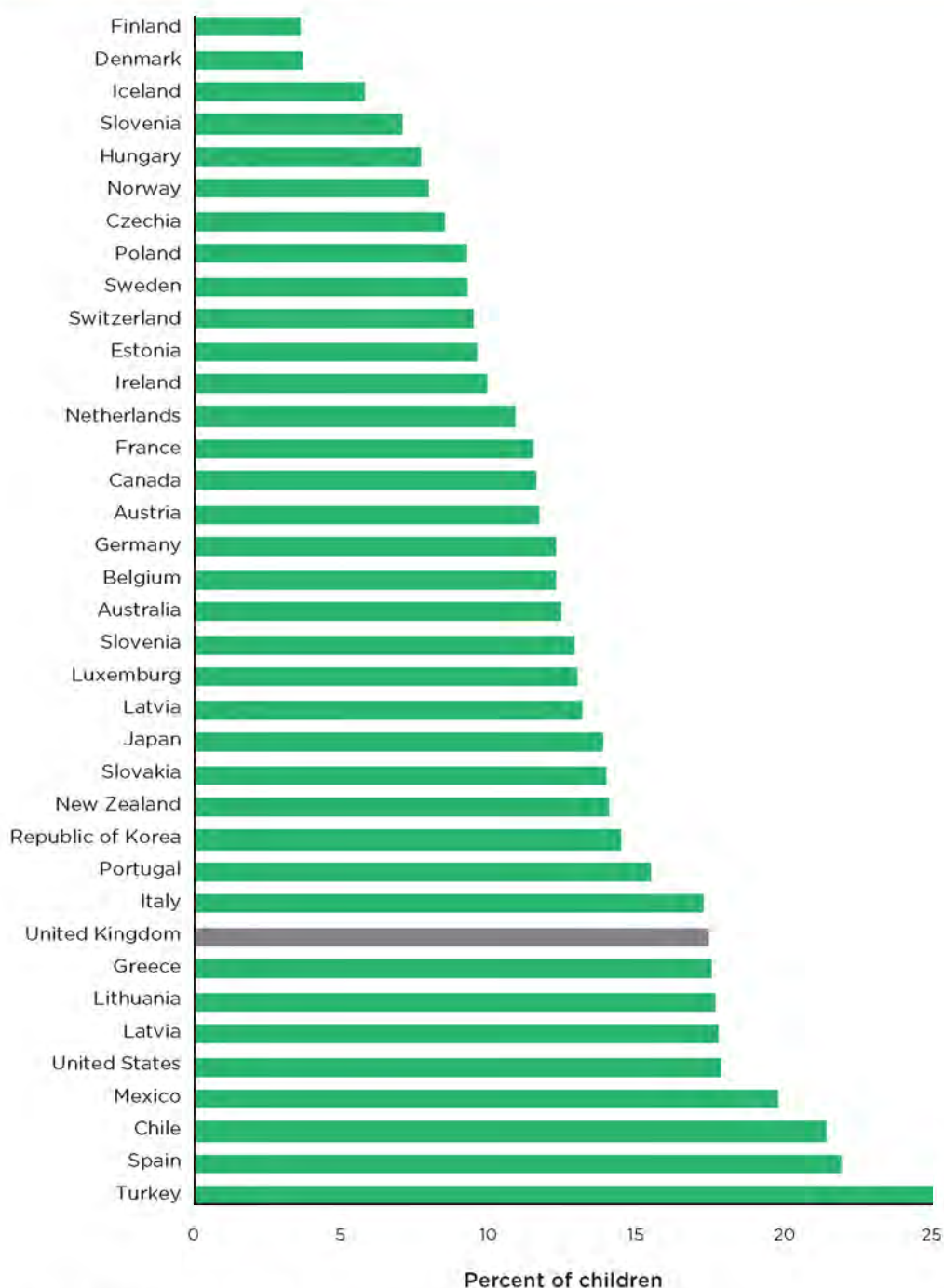
Source: Based on Department for Work and Pensions, 2019 (66)

Data in Sections 3C and 3D demonstrate the significant increases in poverty rates for people in work since 2010, affecting children the most. Section 3D shows that changes to the tax and benefit system has been regressive over the last 10 years: the poorest have lost a greater share of their income compared with the richest 10 percent and benefit reform, has pushed many families into deep and persistent poverty, which is transmitted to the next generation – intergenerational poverty and lack of social mobility have become firmly entrenched.

In England the proportion of children in poverty is projected to continue to increase under present policies and children's life chances are set to diminish further (72) (73). The Institute for Fiscal Studies predicts relative child poverty after housing costs will increase to 36.6 percent in 2021 in the UK (74)(75).

Child poverty is not an inevitability, but largely the result of political and policy choices in areas including social protection, taxation rates, housing and income and minimum wage policies. Many countries in the Organisation for Economic Co-operation and Development (OECD), have considerably lower rates of child poverty than England, shown in Figure 3.6.

Figure 3.6. Percentage of children aged 0 to 17 living in households in relative income poverty, OECD countries, 2017 or latest previous year



Source: Based on OECD, 2020 (76)

Note: Data are based on equivalised household disposable income, i.e. income after taxes and transfers adjusted for household size. The poverty threshold is set at 50 percent of median disposable income in each country.

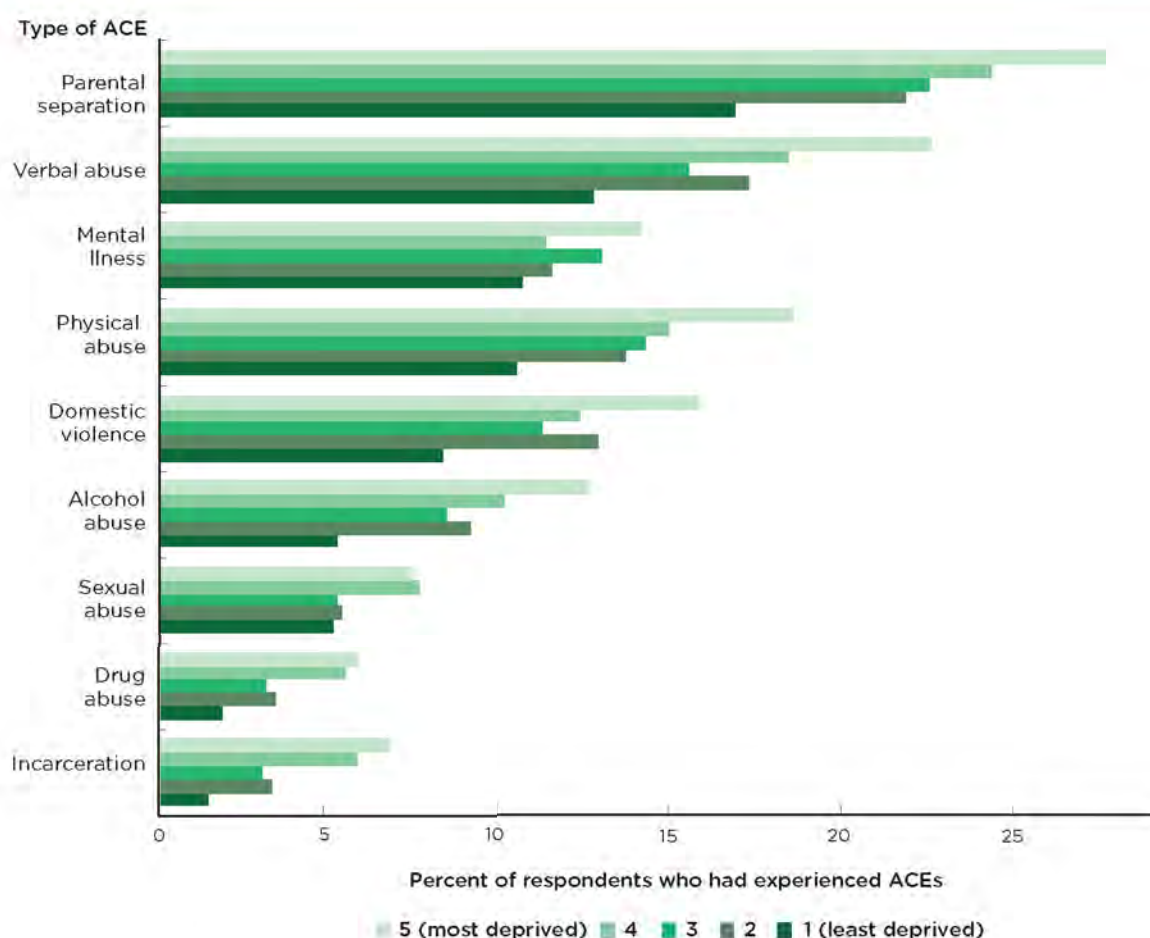
ADVERSE CHILDHOOD EXPERIENCES

One clear impact of poverty is an increase in the likelihood of experiencing adverse childhood experiences (ACEs). Children growing up in deprived areas, in poverty, and those of a lower socioeconomic position are more likely to be exposed to ACEs compared with their more advantaged peers (60) (67). ACEs elevate the risk that children and young people will experience damage to health, or to other social outcomes, across the life course (60). Common types of ACEs are abuse and neglect; living in a household

where there is domestic violence, drug or alcohol misuse, mental ill health, criminality, or separation; and living in care (78).

In 2015 IHE published a report describing the health impacts from ACEs and inequalities in their occurrence. Figure 3.7 shows there is a clear social gradient in the experience of ACEs, related to deprivation. While all ACEs are present across society, inequalities in wealth, disadvantage and the existence of poverty impact on the chances of experiencing one or more ACE (79).

Figure 3.7. Percentage of survey respondents, aged 18–69 years, who experienced a range of ACEs, by deprivation quintile, England, 2013



Source: Allen et al. (77) (79)

In many cases multiple ACEs are experienced simultaneously and children who experience four or more adversities are at a significantly increased risk of poor health outcomes across the life course compared with those with no ACEs (92). Those who experience multiple ACEs have an increased risk of disease, including heart disease, cancer, lung disease, liver disease, stroke, hypertension, diabetes, asthma, arthritis and mental health problems. The World Health Organisation estimates that, in 21 countries studied, 30 percent of adult mental illness could be attributed to ACEs (80). However, these are just estimates there are concerns that other adversities in childhood are associated with poor adult outcomes (81).

One of the criticisms of the ACEs approach is the lack of contextualisation of the role of poverty and the social determinants of health. A systematic review of the relationship between childhood socioeconomic position and ACEs found that much of the ACEs literature and policy documents fail to adequately consider social and economic position (81). Instead, the literature and subsequent policies have individualised problems and solutions, and ignored the role of poverty and the social determinants of health (83) (84).

Comprehensive whole-systems approaches that take effective and sustained action on the causes, prevalence and impacts of ACEs and impacts of deprivation across all of children's frontline services is necessary to improve health, reduce inequalities in health, prevent the transmission of disadvantage and inequality across generations and improve the quality of life of children, young people and adults.

Reducing ACEs necessitates reducing the number of families in poverty and proportionately increasing income among those at the lower end of the social gradient, particularly for lone mothers, through family benefits or the tax system, for example (85). The Scottish government, which has supported the ACEs approach in the past, recently stated the importance of understanding the impact of child poverty in relation to preventing and addressing ACEs (83). Family support services, particularly during the earliest years, are another important intervention.

FUNDING FOR EARLY YEARS SERVICES SINCE 2010

At the same time that child poverty rates have been increasing, there have been significant cuts in funding for family support services. The growing mismatch between need and funding risks widening inequalities in outcomes for families and children (83). Funding for local authority children and young people's services fell by £3 billion between 2010/11 and 2017/18 – a 29 percent reduction (87).

The 2010 Marmot Review noted that there had been a strong government commitment to the early years and it welcomed Sure Start, stating that it was vital that these services were sustained over the long term. The core purpose of Sure Start Children's Centres is to improve outcomes for young children and their families, with a particular focus on the most disadvantaged, so children are equipped for life and ready for school, no matter what their background or family circumstances. Sure Start and Children's Centres exemplify proportionate universal approaches, as advocated in the Marmot Review, approaches designed to have important pro-equity impacts, levelling up gradients in outcomes.

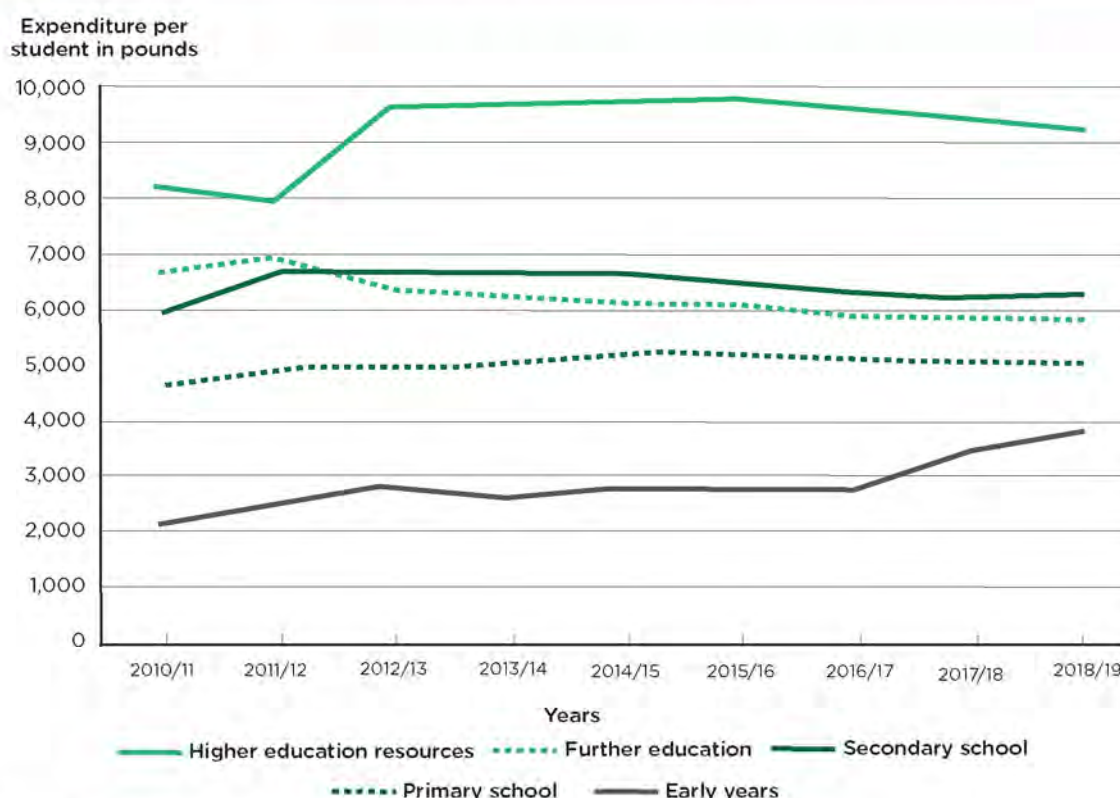
However, since 2010 Sure Start centres and Children's Centres have been widely cut, following a shift to fund free childcare places. Spending on Sure Start peaked in 2010 at £1.8 billion (2019 value) and reduced by two-thirds to £600 million by 2017–18. The Institute for Fiscal Studies (IFS) reports that more than 500 Sure Start centres closed between 2011 and 2017 (88), while the Sutton Trust estimates that there had been 1,000 closures by 2017 (89). The focus of remaining centres has changed to referred families with high need (89), which will not help to reduce inequalities across the whole gradient. The reductions in number and change in approach of Sure Start and Children's Centres are likely to have had a significant impact on inequalities in health and other outcomes.

Evaluations suggest that Sure Start benefitted the most disadvantaged children and families the most (90). The IFS impact study found positive health and equity impacts from Sure Start programmes. For example, it reported that there were 5,000 fewer hospital admissions of 11 year olds each year for children who participated in Sure Start, benefitting children living in disadvantaged areas the most, while there was relatively little difference in wealthier areas (88) (91).

Another major national evaluation of Children's Centres and their impact from 2009–14 found positive effects, especially improvement in family outcomes related to family engagement with Children's Centres and service use (88). The most disadvantaged groups showed stronger positive effects, and were more likely to use services at their registered local Children's Centre than services at other centres or institutions. They will therefore have been more affected by cuts to provision at local centres (89).

While family support has decreased, there have been welcome increases in government spending on early childcare and pre-primary education. Figure 3.8 shows that spending on early years, per child, has increased since 2010, while spending per pupil in secondary and tertiary education has decreased since 2010 and for primary children there have been decreases since 2015–16 (87).

Figure 3.8. Spending per pupil/student per year at different stages of education, 2010/11 to 2018/19



Source: IFS, 2019 annual report on education spending in England (87)

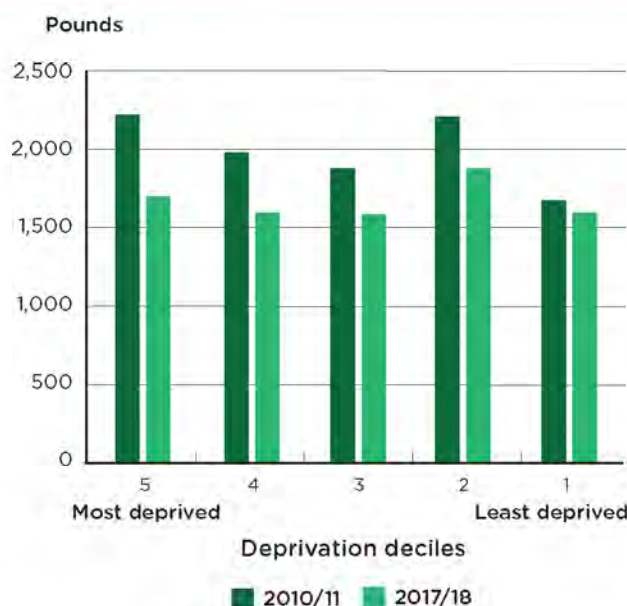
Note: Expenditure is in 2019–20 prices.

The recent increase in spending on the early years is welcome but the level of funding and investment remains below OECD and EU averages. Spending in England on the early years is currently 0.8 percent of GDP (latest available figures, 2015), compared with Iceland which spends 1.8 percent of GDP (87) (111).

The way that the money on the early years is spent is, of course, critical to equity. The increased spending on the early years has mainly been to support offers for free childcare places for 3 and 4 year olds; since 2009–10 spending on free early education and childcare places has increased by 140 percent to stand at £3.8 billion in 2017/18 (87).

As family support services, which benefitted disadvantaged children the most, have gone into decline, equity has become much less of a consideration in funding allocations. In the most deprived local authorities, spending on children and young people's services has fallen almost five times faster than in the least deprived local authorities (92). Figure 3.9 shows while all areas experienced declines in funding between 2010/11 and 2017/18, the most deprived areas had declines of 24 percent between 2010/11 and 2017/18 and the least deprived areas experienced declines of only five percent.

Figure 3.9. Spending on children and young people's services (per head), by deprivation, in real terms, England, 2010/11 and 2017/18



Source: Based on The Children's Society 2018 (92)

There has been a clear shift away from support for low-income families. In 2007/08, 45 percent of all government spending on the early years and childcare support was targeted explicitly at low-income families (93). By 2018 – despite a new funded childcare offer for disadvantaged children – the share of spending on low-income families had decreased to 27 percent (93).

While all regions have experienced declines in funding to children and young peoples' services, the North East has had the steepest decline, at 34 percent between 2010/11 and 2017/18. The South East experienced the smallest decline, 22 percent (93). The shifts in funding away from more deprived areas, low-income families and the North over the past decade have significant implications for health inequalities and for inequalities in a range of other outcomes throughout life.

CHILDCARE WORKFORCE

The 2010 Marmot Review noted that a highly educated, well paid childcare workforce is essential for delivering good quality experiences for babies, young children and their families. The Marmot Review proposed increasing pay and qualifications for childcare workers. However, recent analysis reports that a large proportion of childcare workers still struggle financially and are on low rates of pay – earning around 40 per cent less than the average female worker. Ninety-three percent of the early years workforce are female (94). A high proportion of childcare workers are forced to claim state benefits or tax credits (44.5 percent) due to low overall income, despite working, many full-time. The sector suffered a pay reduction of nearly five percent in real terms between 2013 and 2018, while other working women had average rises of 2.5 percent (94).

Childcare providers frequently report difficulties in hiring staff, particularly well qualified staff that have full 'Early Years Educator' status (a level 3 qualification). Overall, the childcare workforce is far less qualified than the teaching workforce (94). Additionally, in 2018 EU nationals comprised 5.1 percent of all childcare workers and retention of staff may well be problematic after Brexit.

PROPOSALS FOR ACTION

Investment in the early years, the stage at which the most significant changes can be made to people's long-term outcomes, is the most cost-effective and equity-effective time to invest. Estimating the cost of inaction in the early years is complex; poor experiences and experience of ACEs in the early years increase the demands made on many government budgets – health, education, crime, and social security and tax revenue. Despite this difficulty, it is clear that the savings to be made from early intervention could be substantial. For example, in 2012 it was estimated youth unemployment costs the public purse £4.8 billion per year and a further £2.9 billion in the future (116). The cost of youth crime in the UK is £8.5–£11 billion per year and in 2012/13 local authorities in England the cost of children in care was £2.5 billion per year (117). Estimates in the 2010 Marmot Review suggested that health inequalities cost the UK £31–£33 billion a year in lost productivity and £20–£32 billion a year in lost tax revenue and higher benefit payments.

CASE STUDY: REDUCING INEQUALITIES IN THE EARLY YEARS IN SCOTLAND

In Scotland, focusing tailored support on the early years is part of actions to mitigate health inequalities. In 2018 one child in five in Scotland was living in relative poverty, rising to one in three in Glasgow. NHS Scotland recommended actions to reduce inequalities including: training for the public sector workforce, specialist outreach and targeted services in locations and ways likely to reduce inequalities in access and co-producing services (97).

The Stepping Stones for Families' Family Wellbeing Service delivers holistic support to families of pre-school children attending nurseries in parts of Glasgow. The service offers support on poverty, social isolation, mental and physical health, addictions and parenting. Parents are referred through nursery staff (primarily through Nursery Heads or deputies) or engagement with Family Wellbeing workers, project staff located in eight council nurseries but not employed by the local authority. The service originally received five years of funding from the National Lottery and they continue to offer practical and emotional support to parents including: applying for benefits, attending benefit tribunals, moving from unsuitable housing and support dealing with social landlords. Participating in the parental programme and attending trips with their children improved parents' confidence and resilience and reduced social isolation in both mothers and fathers.

In 2018 the service was evaluated through interviews with parents and staff. It found it had a "clear positive impact on parenting skills and resilience, parent/child and family relationships". The service was found to have had particularly effective impacts on improving social isolation, mental health and confidence (98).

Recommendations for giving every child the best start in life

- Increase levels of spending on early years and as a minimum meet the OECD average and ensure allocation of funding is proportionately higher for more deprived areas.
- Reduce levels of child poverty to 10 percent – level with the lowest rates in Europe.
- Improve availability and quality of early years services, including Children's Centres, in all regions of England.
- Increase pay and qualification requirements for the childcare workforce.



3B - Enable all children, young people and adults to maximise their capabilities and have control over their lives

SUMMARY

- Clear and persistent socioeconomic inequalities in educational attainment that were present in 2010 remain.
- Regionally, the North East, North West and East Midlands have the lowest levels of attainment at age 16 and London has the highest.
- Since 2010 the number of exclusions from school have significantly increased in both primary and secondary schools.
- Pupil numbers have risen while funding has decreased by eight percent per pupil, with particularly steep declines in funding for sixth form (post-16) and further education.
- Youth services have been cut since 2010 and violent youth crime has increased greatly over the period.

As with inequalities in the early years, inequalities experienced during school years have lifelong impacts – in terms of income, quality of work and a range of other social and economic outcomes including physical and mental health. Many of these associations were described in the 2010 Marmot Review and have been discussed too in subsequent reports from IHE and other organisations (3) (120) (121) (122) (123) (124).

The Marmot Review described the graded relationship between socioeconomic position and educational outcomes and the associations with health and other outcomes in later life.

The Marmot Review had three main objectives to reduce inequalities during this period in life:

1 Reduce the social gradient in skills and qualifications.

2 Ensure that schools, families and communities work in partnership to reduce the gradient in health, wellbeing and resilience of children and young people.

3 Improve the access and use of quality lifelong learning across the social gradient (3).

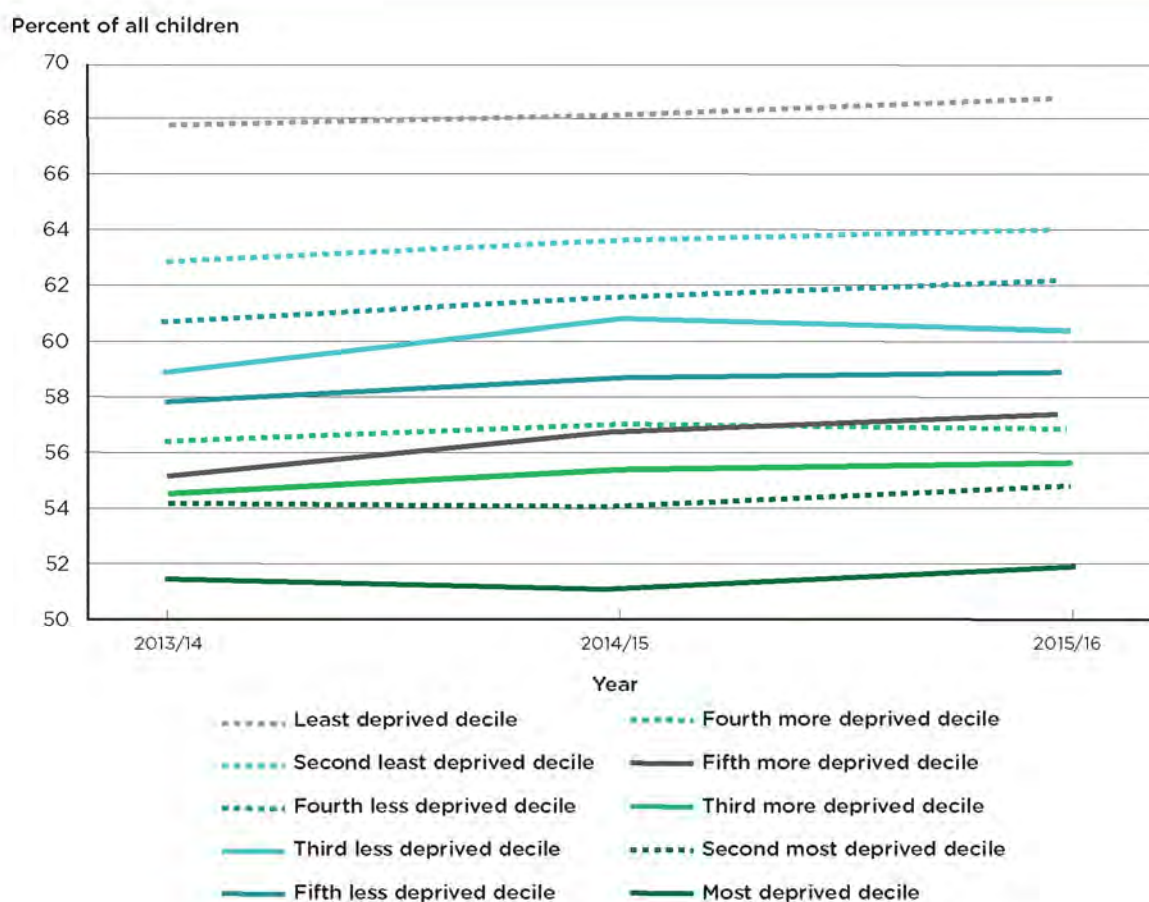
This section assesses trends in socioeconomic inequalities that have persisted since 2010 and explores other issues at this stage of life that have become more of a priority since 2010. These include funding cuts, especially for sixth form and other post-16 education and youth services, significant increases in exclusions from schools and increases in violent youth crime, which are also related to adverse childhood experiences (see previous section). All of these are felt most sharply in more deprived areas and for more deprived young people, significantly affecting inequalities in health and other areas throughout life.

INEQUALITIES IN EDUCATIONAL ATTAINMENT

The previous section, 3A, described clear socioeconomic inequalities in readiness for school at age five. These inequalities tend to deepen as children progress through primary and into secondary school. Inequalities in level of educational attainment are closely related to a range of socioeconomic inequalities that children experience, which relate to lifelong inequalities in health and other outcomes.

As with other measures of attainment and development, there is a clear and persistent social gradient in educational attainment: the higher the level of deprivation, the lower the proportion of children with five or more GCSEs at grades A*-C, equivalent to 9-4 on the new GCSE grade scale (125). Figure 3.10 shows that nearly 17 percent more children from the least deprived decile had an educational achievement of five or more GCSEs at these grades than those from the most deprived decile in 2016.

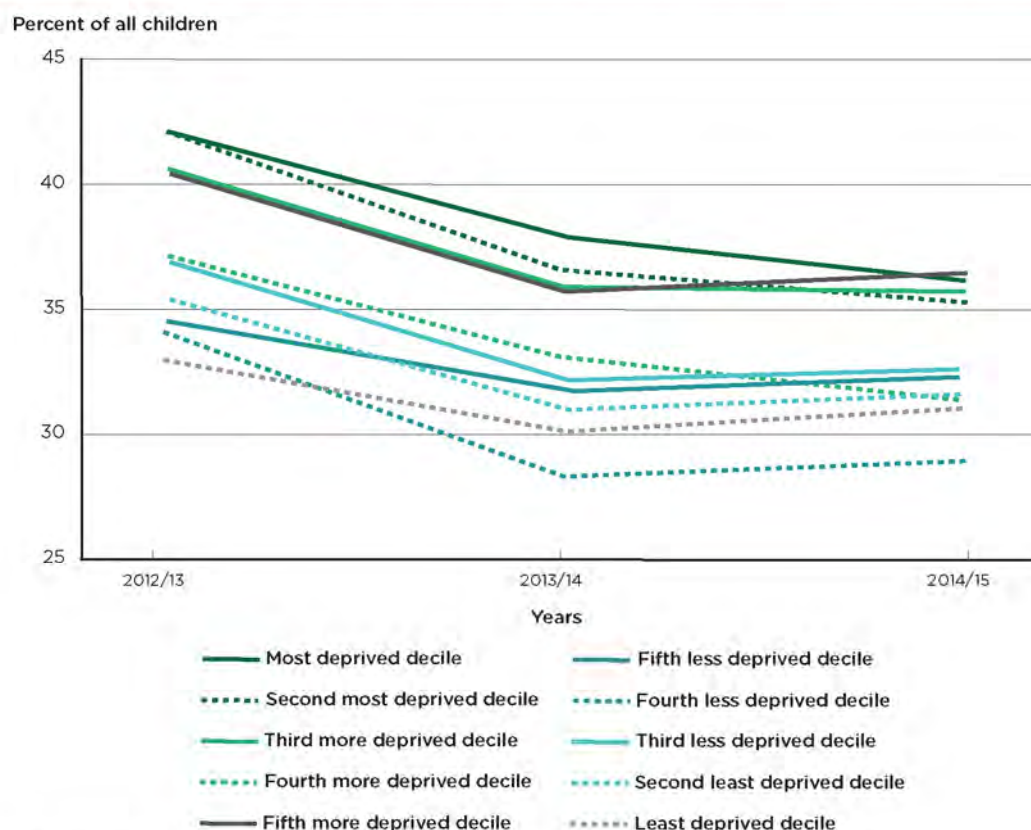
Figure 3.10. Percentage of all children aged 15-16 achieving five or more GCSEs at grades A*-C, by district and unitary authority deprivation deciles, England, 2013-16



Source: Based on PHE fingertips tool, 2019 (63)

As with readiness for school, described in Section 3A, low-income students eligible for free school meals performed better in their GCSEs in more deprived than in less deprived areas, as shown in Figure 3.11. This is an important and marked feature of inequalities in educational attainment.

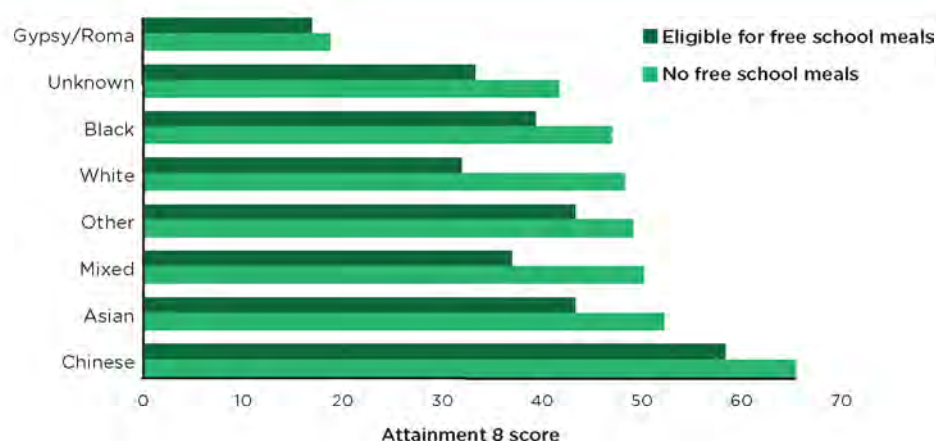
Figure 3.11. Percentage of children eligible for free school meals achieving at least five A*-C grades including English and Maths at GCSE, by county and unitary authority deprivation deciles, England, 2012-15



Source: Based on PHE fingertips tool, 2019 (63)

Another assessment of attainment at age 16 is the Attainment 8 score, which measures pupils' performance in eight GCSE-level qualifications (105). Figure 3.12 shows significant inequalities related to eligibility for free school meals and ethnicity. As in Figure 3.11 there are clear inequalities between those eligible and not eligible for free school meals. For each ethnic group described, those eligible for free school meals do worse but there are different levels of attainment related to ethnicity. Chinese, Asian and mixed ethnic background children scored higher than average for Attainment 8 (106).

Figure 3.12. Average Attainment 8 score, by ethnicity and free school meal eligibility, England 2017/18



Source: Based on Department for Education, 2019 (106)

Clearly, different approaches within schools are needed to help close the gap in attainment for more disadvantaged students and to reduce inequalities in attainment related to ethnic background.

CASE STUDY: RICHMOND ACADEMY, GREATER MANCHESTER – TURNING A PRIMARY SCHOOL AROUND

Richmond Academy is a primary school serving one of the areas with the highest levels of deprivation in the UK – St Mary's Ward in Oldham, Greater Manchester – where 90 percent of children attending live in the 10 percent of most deprived households. Approximately one-third of children are eligible for free school meals.

In 2013 Richmond Primary School was graded as inadequate by Ofsted. In the early years foundation stage only 38 percent of children left the Reception year in line with age-related expectations, thus school readiness was well below average. At Key Stage 1, two-thirds of children did not meet age-related expectation at age 7; and only 40 percent were leaving primary school at age 11 having reached national expectations for their age in reading, writing and maths at Key Stage 2. More than two-thirds were leaving primary school unable to read or write appropriately to their age, many were unprepared for secondary school, aspirations were low, they had negative attitudes to learning and some had challenging behavioural problems. Attendance was also well below national average.

To make substantial and sustained change, a new ethos was required both within the school and across the community. The belief needed to be instilled that every child, regardless of their circumstance, has the right to leave school able to communicate with confidence and able to read and write well. Decisive and deliberate actions were taken, which included leadership development, effective professional training for staff, raising the expectations of pupils, parental education and engagement, and changing pupils' attitudes to learning.

Within two years pupils aged 11 were leaving with the same educational attainment as the national average. The biggest changes were to set high expectations and improve the quality of teaching and learning for all pupils, including the most vulnerable. That required ensuring every child's educational needs were met, especially those with special educational needs and disability. Developing a strategic approach was underpinned by the importance of language and talk throughout the curriculum. The age range of the school was also extended to include two year olds, to maximise the impact of the early years provision.

Equally important has been parental engagement, in particular the targeted programme REAL, which supports literacy by developing opportunities for learning; recognising and valuing small steps; interacting in positive ways; and modelling explicit literacy and language interventions. Parents also attend community coffee mornings and classes that can progress to adult learning opportunities and employment (107).

FREE SCHOOLS AND ACADEMIES

Free schools and academies were first given approval in the Academies Act 2010 (108). Since then any local authority wishing to establish a new school must seek proposals for an academy or free school, with a traditional local authority school only being allowed if no suitable proposal is made to the local authority for a free school or academy. Since July 2015 the Government has regarded all new academies as free schools; in 2019 there were more than 500 free schools in England (109). The Department for Education plans to have nearly 900 free schools, out of just over 4,100 secondary schools and 16,800 primary schools, in operation by September 2020 (110). They can be operated by charities, universities, independent schools, community and faith groups, teachers, parents or businesses. Unlike local authority-funded schools, free schools do not have to follow the national curriculum and teachers do not have to be qualified (111).

There is mixed evidence about the impact of free schools on attainment and the evidence is disputed. Research by the Institute of Education suggested that Swedish free schools, on which the English approach was based, have had a positive effect on pupils' academic achievements (112). However, research published by Bristol University concluded that the experience of Sweden is limited in the extent to which it can help predict the impact in England (109). A 2018 analysis of the impacts of free schools and academies in relation to inequalities found that free schools are located in areas that are more deprived than average but have intakes that are more affluent than the average for the neighbourhoods from which they recruit, with the exception of academy chains. The authors concluded that free schools are socially selective and reproduce socioeconomic inequalities (113) (114).

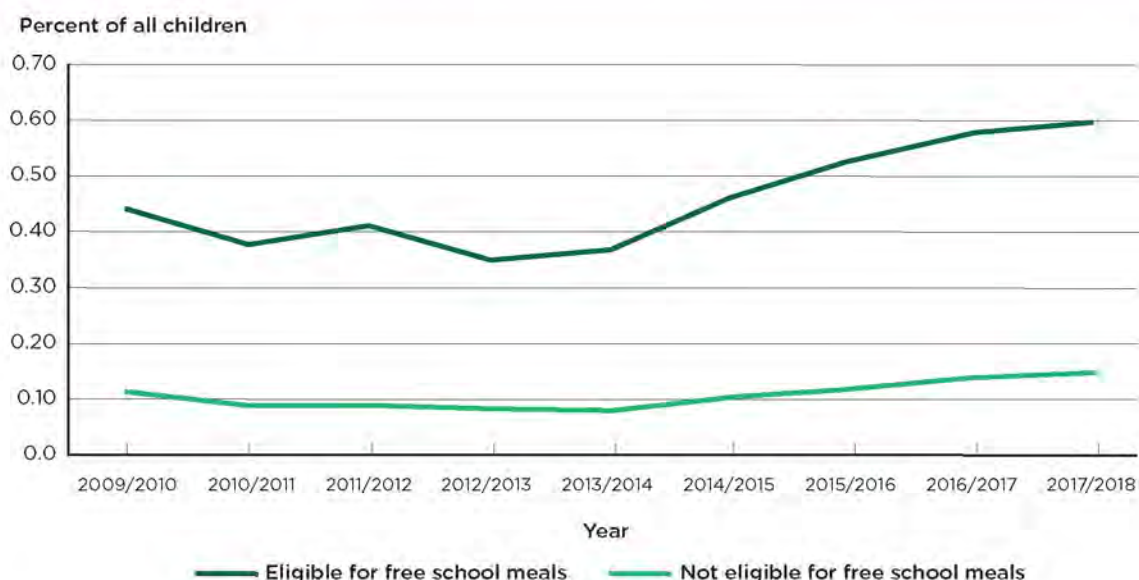


SCHOOL EXCLUSIONS

Since 2010 there have been significant increases in the rate of school exclusions in both primary and secondary schools and there are clear socioeconomic inequalities in the risk of being excluded. Lifelong outcomes for excluded children are poor. Analysis in 2015/16 showed that just seven percent of children who were permanently excluded went on to achieve good passes in English and maths GCSEs, qualifications that are seen as important for future prospects and are associated with health in later life (115). There are also associations between exclusion and being a perpetrator or victim of crime, discussed further below.

In 2012 the Department of Education found children eligible for free school meals were four times more likely to be punished by a permanent exclusion and close to three times more likely to get a fixed-period exclusion than children who were not eligible for free school meals (116). Figure 3.13 shows the increase in secondary school permanent exclusions by eligibility of pupils for free school meals. Those who are eligible for free school meals and were punished by a permanent exclusion have experienced a steeper increase in exclusions since 2013/14 than those excluded and were not eligible for these (117).

Figure 3.13. Percentage of state-funded, secondary school permanent exclusions, by free school meals eligibility, England, 2009/10 to 2017/18



Source: Based on Department for Education data, 2019 (117)

According to a report from the Institute for Public Policy Research (IPPR), excluded children were twice as likely to be in the care of the state, four times more likely to be growing up in poverty and ten times more likely to have a mental health problem in 2017 (118). Children with some types of special educational need, children with a disability, boys, and those who have been supported by social care are also all more likely to be excluded from school than those without these characteristics. Exclusion rates vary too by ethnic group (136). Bangladeshi, Chinese and Indian children are around half as likely to be excluded as White British children. Children from other ethnic groups are more likely to experience exclusion, in particular Black Caribbean, Gypsy, Roma and Traveller children and pupils of a mixed background (115).

Official figures on numbers excluded are likely to mask the scale of the problem, with pupils forced out of mainstream schools by informal methods that are not captured in national exclusions data (118). The IPPR report found that 48,000 pupils were being educated in the alternative provision sector in 2016 which caters for excluded students, with tens of thousands more leaving school rolls in what appear to be illegal exclusions, a practice known as 'off-rolling' (118). Exclusion and off-rolling are not the only possible responses to disruption, and they are certainly not effective or equitable; one reason for the increase in exclusions is the pressure on schools to achieve high grades and good Ofsted ratings (115).

The 2019 Timpson Review of Social Exclusion made 30 recommendations to ensure that permanent exclusions are only made appropriately. Most of these are aimed at schools themselves (115). Some of the key recommendations in the Review suggest that funding should be sufficient to ensure schools are able to put in place alternative interventions that avoid the need for exclusion where appropriate. Local authorities should include information about support services for parents and carers of children at risk of exclusion (115).



The All-Party Parliamentary Group on knife crime discussed in 2018 and 2019 the worrying rising numbers of school exclusions and how those excluded from school can be supported to stay away from knife crime and be reintegrated back into mainstream school settings (119). There are many approaches that could support schools to reduce numbers of excluded students. Organisations working alongside schools, communities and young people are often highly effective in ensuring pupils remain engaged with the education system, as well as reducing crime and antisocial behaviour and reducing inequalities in outcomes for young people (119), as illustrated in the case study – Football Beyond Borders.

CASE STUDY: FOOTBALL BEYOND BORDERS

Football Beyond Borders (FBB) is an education and social inclusion charity that uses football as a tool to tackle the root causes of low educational attainment, poor school attendance and challenging behaviour. FBB works with more than 1,000 Key Stage 3 pupils (11–14 year olds) in 45 secondary schools across London, Essex and Greater Manchester. Since September 2019 it has been working with more than 1,000 young people each week. Selected pupils are those under-performing at school and many are at risk of school exclusion.

The programme uses a football-themed learning and literacy curriculum. The intervention runs for a minimum of two years and is delivered to groups of up to 16 students, combining weekly two-hour sessions: one hour in the classroom; one hour on the football pitch. FBB coaches also attend parents' evenings to ensure the programme is embedded within the life of partner schools. Individual participants are set targets and continuation on the programme is dependent on meeting these. School-wide achievement is rewarded by participation in trips, such as meeting Premier League footballers, attending International and Premier League matches, or visiting inspirational professionals in their place of work for career-based experiences. For the most vulnerable students, FBB provides one-to-one therapeutic support to support the development of their social and emotional learning.

In 2017/18 93 percent of the students who were at risk of exclusion at the start of the year finished the year still in school. In 2017/18, when measured against control groups, the FBB participants had 28 percent fewer school behaviour points (given to students for poor behaviour or approach to learning) in Year 1 and 46 percent fewer in Year 2. FBB partner schools spent on average £11,150 less on the FBB group than the control group through reductions in exclusions, respite and additional behavioural and therapeutic interventions (120).

YOUTH CRIME

Being a perpetrator or victim of crime is closely associated with deprivation and exclusion. It has lifelong impacts on health and a range of social and economic outcomes throughout life. Youth crime and violence is one of the multiple negative outcomes of disadvantage and exclusion, and being a victim or perpetrator of crime, or living in an area with high crime, and being involved in the criminal justice system directly impact on health (121). Numerous studies report the stress and mental health impacts of living in a violent environment and being involved in the criminal justice system.

Overall, youth crime rates have fallen since 2010. The number of children who received a caution or sentence fell by 78 percent between 2008 and 2018, although the decrease has been more pronounced for White children (82 percent) than Black children (56 percent) and in 2017/18 Black children were four times more likely than White children to be arrested (122).

Despite the welcome overall declines in youth crime, violent and particularly knife crimes have increased significantly among young people over the last decade. Knife crime particularly affects young males from deprived communities. Household poverty and area deprivation are closely associated with youth violence (123). In 2013 60 percent of young people excluded from school nationally had offended in the previous 12 months (118).

Between 2010/11 and 2018 there was a 31 percent increase in the total number of offences in England involving a knife or sharp instrument and a 162 percent increase in the number of threats to kill using a knife or sharp object (124). The increase in knife crime has occurred across England but with substantial regional differences. In the same period there was a 102 percent increase in estimated knife (or sharp instrument) offences recorded by North East Police, a 91 percent recorded rise in Yorkshire and the Humber, a 90 percent recorded rise in the South East, and a 41 percent recorded rise in the South West (124). London has the highest rate of offences (125).

Analysis of council youth service budgets and knife crime data since 2014 has found areas suffering the largest cuts to spending on young people have seen bigger increases in knife crime than other areas. Figures obtained by the All-Party Parliamentary Group on knife crime show the average council cut real-terms spending on youth services by 40 percent between 2016 and 2019 (119). Some local authorities reduced their spending on services such as youth clubs and youth workers by as much as 91 percent over that period.

FUNDING FOR SCHOOLS

There have been reductions in per pupil funding for secondary education since 2013-14, described in figure 3.8. The IFS reports that there were cuts of 8 percent (by central and local government) to school spending per pupil in England in real terms between 2009-10 and 2018-19, and from 2015-19 spending per pupil fell by five percent in real terms (126). During the same period numbers of pupils increased – from just under seven million in 2010 to 7.6 million in 2018 in state-funded schools (127) (128) (129). For many schools this has led to cutting subjects and reductions in the workforce. The IFS estimates that reversing the cuts and bringing education spending back in line with 2009-10 would cost about £4.7 billion by 2022-23 (126).

Post-16 education has been particularly hard hit, with spending per student in school sixth forms reported to have fallen by 23 percent in real terms between 2009/10 and 2018/19 (130) (131). Funding for further education (FE) has declined the most: in 1990-91, spending per student in FE was 50 percent higher than spending per student in secondary schools, but was about eight percent lower in 2018.

An analysis by the National Education Union published in 2019 found that special needs provision in England had been reduced by £1.2 billion because of shortfalls in funding increases from central government since 2015; this reduction will worsen inequalities in attainment (132).

In the 2010 Marmot Review we set out how supporting young people to develop their capabilities was an essential component of supporting health equity and greater equity throughout life. Youth services have an essential role to play in that. However, since 2010, in addition to cuts in school funding there have been significant cuts in funding for youth services following reductions in local authority funding from central government. Data from the Department of Education indicate that, from 2010-16, spending on youth services fell by 66 percent in real terms (133). The case study of Coventry shows how a council has managed to maintain some youth programmes despite funding cuts.



CASE STUDY: YOUTH SERVICES IN COVENTRY

In Coventry cuts to local government budgets have led to cuts in youth service provision. In 2017 Coventry Council reduced the universal youth offer, which was previously delivered through youth centres and community venues. As an alternative model, the local authority worked closely with the Positive Youth Foundation (PYF) to establish the Coventry Youth Partnership as a vehicle to galvanise the voluntary youth work sector, and provide a network of local providers of youth provision. This network is now driving forward the youth work agenda locally.

Positive Youth Foundation (PYF) is a registered charity in Coventry, established with the purpose of supporting young people to achieve their full potential. The service has a strong strategic representation across a number of policy objectives including health, education, social action and community engagement. PYF deliver developmental programmes, taking positive approaches to help young people experiencing challenging circumstances move forward in their lives. Programmes are delivered seven days of the week.

The organisations ethos is based upon a strong shared commitment to reaching young people where they are, building relationships of respect and trust, and supporting young people to succeed. As part of its intensive offer, Positive Youth Foundation, run programmes to keep young people in mainstream education and support young people not in education, employment or training (NEET). They provide open-access youth services available to all, adopting a proportionate universal approach but concentrating activities in areas of high unemployment, deprivation and health inequalities. Positive Youth Foundation is supported by a range of funders and commissioners, with a wide range of outcomes met across a diverse delivery timetable (134).

While this overview only touches on many of the changes to the education system and experiences of young people in England since 2010, those reviewed here have significant health equity impacts. Socioeconomic inequalities in attainment during primary and secondary school have lifelong impacts on health and on a range of other outcomes throughout life. Since 2010 inequalities in attainment have persisted, although some schools and areas have shown promise in improving outcomes even in the most deprived circumstances – but at national level these approaches are not systematically applied and funding cuts are undermining the potential to do more. Funding has become an even greater concern in the decade since the Marmot Review as numbers of pupils have grown while secondary school funding, and particularly sixth form funding and funding for education post 16, has reduced recently. This has limited the ability of schools to provide the intensive work and leadership required to reduce inequalities in attainment and experience of schools.

Exclusions from school have increased and this is a major concern for equity: exclusion is associated with a range of harmful short-term impacts and long-term impacts that can endure throughout life, and should be given more attention by all those concerned with public health and health inequalities. Similarly, violent crime, particularly among young males in deprived areas and those excluded from school, has serious immediate and long-term health impacts and is a particular concern for equity. This, too, is an issue for focus by public health and all those concerned with reducing health inequalities.

Recommendations for enabling all children, young people and adults to maximise their capabilities and have control over their lives

- Put equity at the heart of national decisions about education policy and funding.
- Increase attainment to match the best in Europe by reducing inequalities in attainment.
- Invest in preventative services to reduce exclusions and support schools to stop off-rolling pupils.
- Restore the per-pupil funding for secondary schools and especially sixth form, at least in line with 2010 levels and up to the level of London (excluding London weighting).

3C - Create fair employment and good work for all

SUMMARY

- Employment rates have increased since 2010.
- There has been an increase in poor quality work, including part-time, insecure employment.
- The number of people on zero hours contracts has increased significantly since 2010.
- The incidence of stress caused by work has increased since 2010.
- Real pay is still below 2010 levels and there has been an increase in the proportion of people in poverty living in a working household.
- Automation is leading to job losses, particularly for low-paid, part-time workers and the north of England will be particularly affected.

The period covered by employment usually encompasses the longest segment of people's lives: approximately 40 to 50 years. It also often covers the years when people are raising families, and as such is a particularly important period for the transmission of inequities to the next generation.

In the 2010 Marmot Review there were three priority objectives for employment (3).

- 1 Improve access to good jobs and reduce long-term unemployment across the social gradient.
- 2 Make it easier for people who are disadvantaged in the labour market to obtain and keep work.
- 3 Improve the quality of jobs across the social gradient.

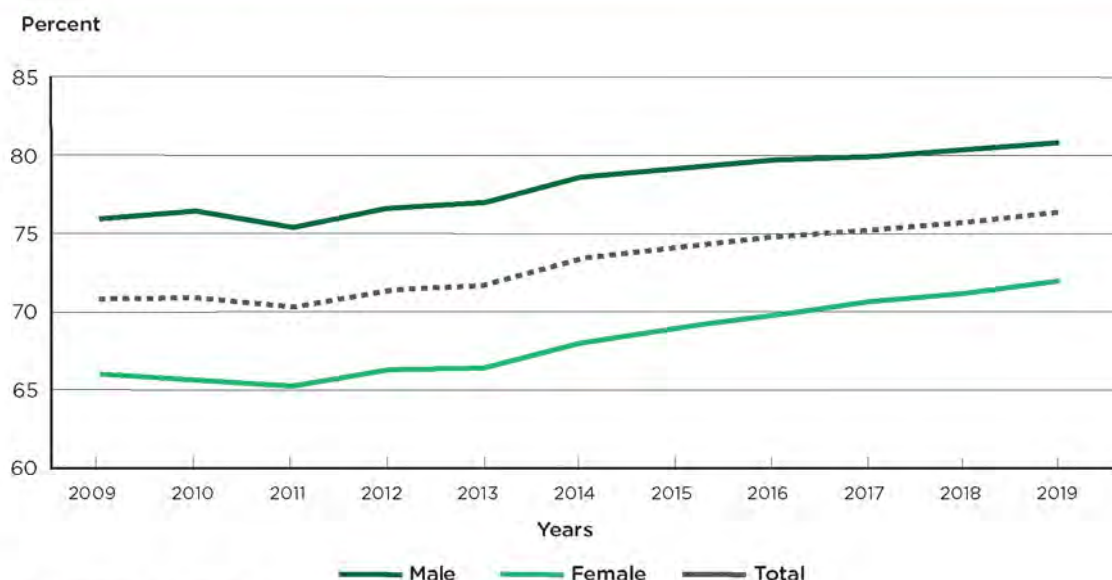
The 2010 Marmot Review concluded that being in good employment is usually protective of health while unemployment, particularly long term unemployment, contributes significantly to poor health (3) (135) (136). However, being in work is not an automatic step towards good health and wellbeing; employment can also be detrimental to health and wellbeing and a poor quality or stressful job can be more detrimental to health than being unemployed (137) (138) (139). Unemployment and poor quality work are major drivers of inequalities in physical and mental health (136).

Since 2010 there have been profound shifts in many aspects of the labour market and employment practices in England. Rates of unemployment have decreased but increases in employment have often been in low-paid, unskilled, self-employed, short-term or zero hours contract jobs –which have seen a steady growth. Rates of pay have not increased and, notably, more people in poverty are now in work than out of work. The rise of automation in the labour market also has implications for health inequalities which are outlined.

EMPLOYMENT RATES SINCE 2010

Since 2010 employment rates have increased in England for both men and women, shown in Figure 3.14.

Figure 3.14. Employment rates (people aged 16 to 64 years) in England, quarterly data from January - March 2009 to September - November 2019



Source: Based on ONS, 2019 (140)

CASE STUDY: ASPIRE & SUCCEED, BIRMINGHAM

The Local Conversation in Lozells in Birmingham is supported by Aspire & Succeed and funded by People's Health Trust. Local residents decided on three issues that were most important to them - children and young people; jobs and money; and place, environment and safety.

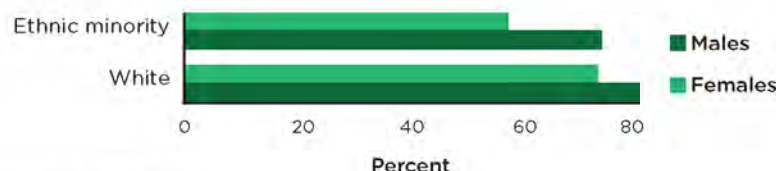
Their 'Access to Employment' project works in partnership with local job centres in Birmingham. It recognised that the services on offer did not always work for the city's community of Lozells and set out to enable local people who had been out of work to develop their job-hunting skills, by looking at form-filling and how to present information. The organisation has strong partnerships with English for Speakers of Other Languages (ESOL) providers locally, so given this service was already available it was keen to provide support that went beyond language skills. It creates mock interviews and other scenarios to prepare residents for real-life events. It found that despite having skills and qualifications, people lacked confidence, particularly if they had been out of work for a long time or had little experience of the workplace.

The organisation offers volunteering opportunities to local people to help them to accumulate the skills and experience needed to become more socially active and, if needed, job-ready. Aspire & Succeed facilitates courses and events that bring communities together. It works in collaboration with a number of local organisations in Lozells to encourage people to access activities beyond Aspire & Succeed and build relationships with other leaders in the neighbourhood.

Aspire & Succeed finds that the more residents interact with other people, the more it increases their participation levels and boosts their confidence. Higher levels of confidence raise their aspirations and when residents see their peers doing things and starting training or work they want to do the same, creating a ripple effect and building employment prospects throughout the neighbourhood (141).

Despite the increase in employment since 2010, the risk of being unemployed and particularly long-term unemployed is still highly unequal between different groups. White people, married men, people with no disabilities and those with higher qualifications have higher employment rates than minority ethnic groups, women, lone parents, people with disabilities (142). Figure 3.15 shows lower rates of employment for minority ethnic groups than white people in the period 2018/19 and lower rates for women than men in both groups.

Figure 3.15. Percent of white and minority ethnic population aged 16–64 who are employed, by sex, England, July 2018/June 2019



Source: Based on ONS, 2019 (140)

Analysis from the Resolution Foundation of employment rates between 2008 and 2018 across the UK shows that employment has risen in every part of the UK apart from parts of Yorkshire and the Humber, with urban areas doing better than rural areas (142). However, as in 2010 there continue to be clear regional differences in employment rates in

England. The highest employment rates at the end of 2019 were found in the South West, followed closely by the South East and the East of England. The lowest employment rate was seen in the North East, followed by Yorkshire and the Humber (143). A project aiming to help address falling employment among men in one town in the North East, Redcar, is described in the box.

CASE STUDY: REDCAR ATHLETIC FOOTBALL CLUB – RETURNING TO WORK IN MIDDLE-AGE

The drop-in centre run by Redcar Athletic Football Club supports unemployed men in Redcar aged 45 and over. It targets men who have been heavily impacted by the collapse of the town's steel industry, Redcar's major employer for more than 170 years. The centre provides a place where men can meet and share experiences and access resources to prepare them for re-employment, training or retirement.

The project received funding from People's Health Trust through its Active Communities programme, which takes a resident-led approach to addressing health inequalities. Regular morning and afternoon sessions provide an opportunity to build social connections, skills and confidence, with around 50 men attending twice a week. Participants have taken up training through the project and got involved in work experience and volunteering, a fundamental part of the project's ethos. Many have volunteered through a partnership with Teesside University and some members have become dementia-friendly mentors and assisted elderly residents with tasks like shopping, gardening and clearing paths in the winter. Participants have reported that their social lives have improved and they felt a great deal of satisfaction in what they have achieved.

The project has also invited in local employers to speak to the group and meet with people. As a result, many of the participants have had the opportunity to go on and complete contract work with them on an ongoing basis.

The key outcomes for the programme are to increase social connection/reduce social isolation (a significant issue for older men previously employed by the steel works) and gaining greater control through collective activity, both of which are evidenced to support greater health equity as critical social determinants of health (144) (145). Eighty-five percent of participants reported feeling more connected within their community, having had the opportunity to form new friendships and expand their social network. Being in control has been at the heart of the success, with 75 percent of participants feeling encouraged to take a lead and ownership of the activities and contribute to the project's development. Together, they reviewed the project agenda and explored how to make improvements, with more than 90 percent feeling that they contributed towards the project and had ownership of it.

The group still meets every week, with some taking up full-time employment as a result of training and qualifications gained through the project. People's Health Trust has since approved extension funding to the project, to broaden its impact (141).

QUALITY OF WORK

While rates of employment have increased since 2010, work quality has not seen such improvements. In reality there have been several new types of poor quality work emerging, putting health equity at risk. In the 2010 Marmot Review, we said that “Getting people off benefits and into low paid, insecure and health-damaging work is not a desirable option” (3). Unfortunately, this seems to a large extent to be what has happened, with potentially damaging impacts on health (139). The economic impacts of workplace related injuries and ill health are high, and cost Great Britain approximately £15 billion in 2017/18 (146).

WHAT IS GOOD QUALITY WORK?

Good quality work is characterised by features including job security; adequate pay for a healthy life; strong working relationships and social support; promotion of health, safety and psychosocial wellbeing; support for employee voice and representation; inclusion of varied and interesting work; a fair workplace; promotion of learning development and skills use; a good effort-reward balance; support for autonomy, control and task discretion; and good work-life balance (136) (137) (138). Poor quality work is essentially work with the opposite of these features

Workload pressures, including tight deadlines, long hours, too much responsibility, a lack of managerial support and fear of losing the job were the main causes of work-related stress (146). Data from the Health and Safety Executive show that rates of self-reported work-related stress, depression and anxiety have been increasing since 2010, shown in Figure 3.16, and this is at least partly as a result of poor-quality work.

Figure 3.16. Estimated prevalence rates of self-reported stress, depression and anxiety caused or made worse by work, for people working in the last 12 months, Great Britain, 2009/10 to 2018/19



Source: Based on HSE report of Labour Force Survey data (146)

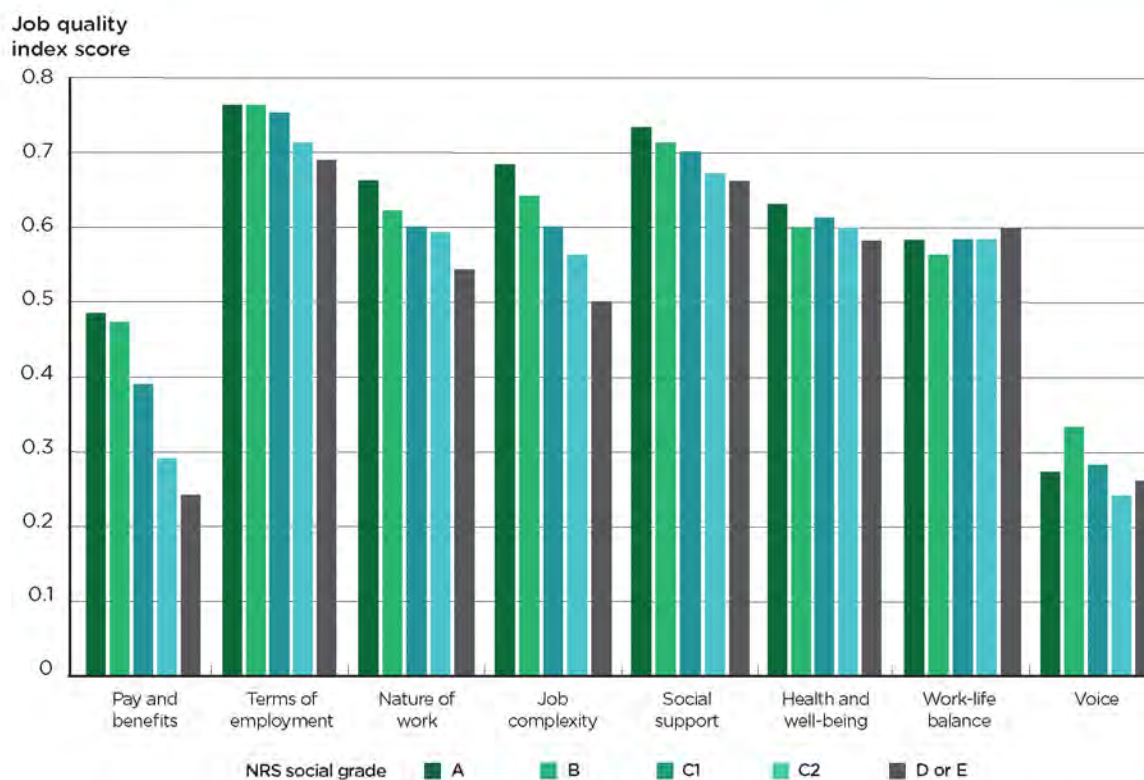
Young people are increasingly citing mental health problems as the reason for work absence: in 2009, 7.2 percent of young people attributed their sickness absence to mental health conditions rising to 9.6 percent in 2017 (147) (148) and there is also an association between work stress and ethnic background. The Bristol Stress and Health at Work Study found that 30 percent of non-white groups reported very high, or extremely high, levels of stress at work compared with 18 percent of white workers. A further study in East London found that there was a

significant association between work stress and ethnic group, even after controlling for demographic and work characteristics and that racial discrimination had a strong influence on work stress (149).

The inequality dimensions of poor-quality work will have a significant impact on health equity; notably, those with lower socioeconomic position, younger people, those in lower paid jobs and non-white people are all more likely to experience poor quality work with attendant impacts on health.

In its latest survey report on UK working lives published in 2018, the Chartered Institute of Personnel and Development (CIPD) created a composite index to assess and describe job quality in the UK. The index, illustrated in Figure 3.17 by occupational group in the UK, showed that in every aspect apart from work-life balance and voice, workers in the higher level occupations (A and B) are in higher quality jobs (150), whereas the lowest quality jobs are found to be held by casual and unskilled workers (151).

Figure 3.17. Mean scores for Job Quality Index, by occupational group (NRS* social grade), 2018



Source: CIPD Working Lives Survey, 2018 (151)

Note: The Index is based on seven dimensions of job quality: pay and benefits, terms of employment, job design and the nature of work, social support and cohesion, health and wellbeing, work-life balance, voice and representation. *NRS = National Readership Survey

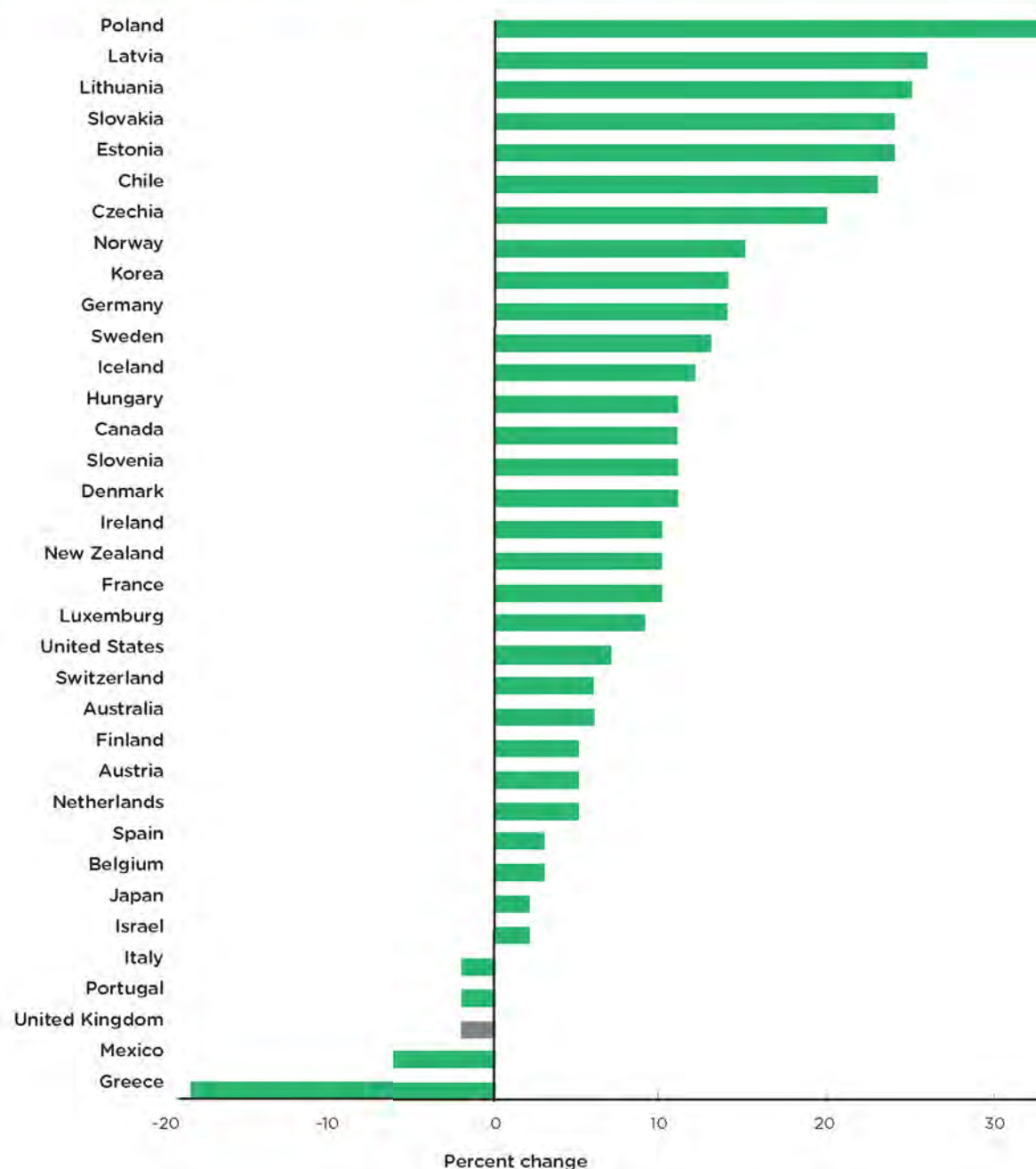


RATES OF PAY AND IN-WORK POVERTY

While more people are in work now than in 2010, average weekly wages have not recovered to the levels of 2010. Data from the Office for National Statistics (ONS) show that average weekly earnings at 2015 prices were £502 in September 2019, only £5 higher than in 2008 (152). The Resolution Foundation describes that since 2008 there has been a reduction in average real weekly earnings as well as a large reduction in benefits available for working age people and children (142).

Figure 3.18 shows average annual real wage changes between 2007 and 2018 for OECD countries, revealing that the UK experienced negative growth during this period.

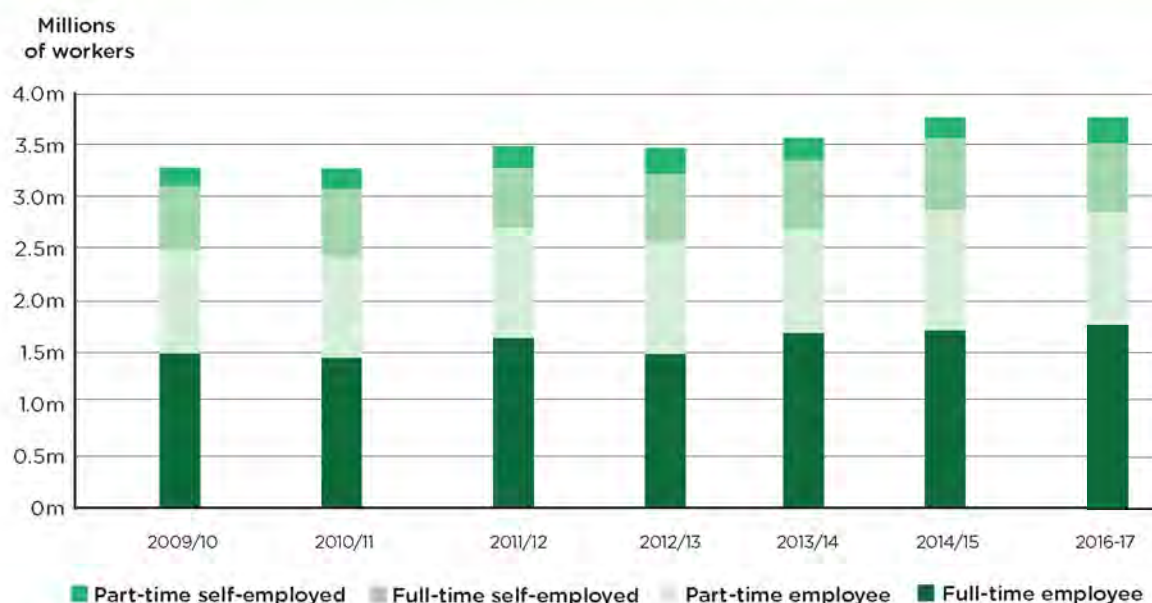
Figure 3.18. Percentage change of average annual real wages in 2018, constant prices at 2018 US dollars (purchasing power parity), in OECD countries between 2007 and 2018



Source: Based on OECD, 2019 (153)

As already stated, work is important for good health and wellbeing. It is, crucially, a source of money and should be a way out of poverty. Unfortunately, for too many this is not the case. The number of people in work and living in poverty increased from just over three million in 2010/11 to 3.7 million in 2015/16, with 2.4 million in full time employment (Figure 3.19) (154).

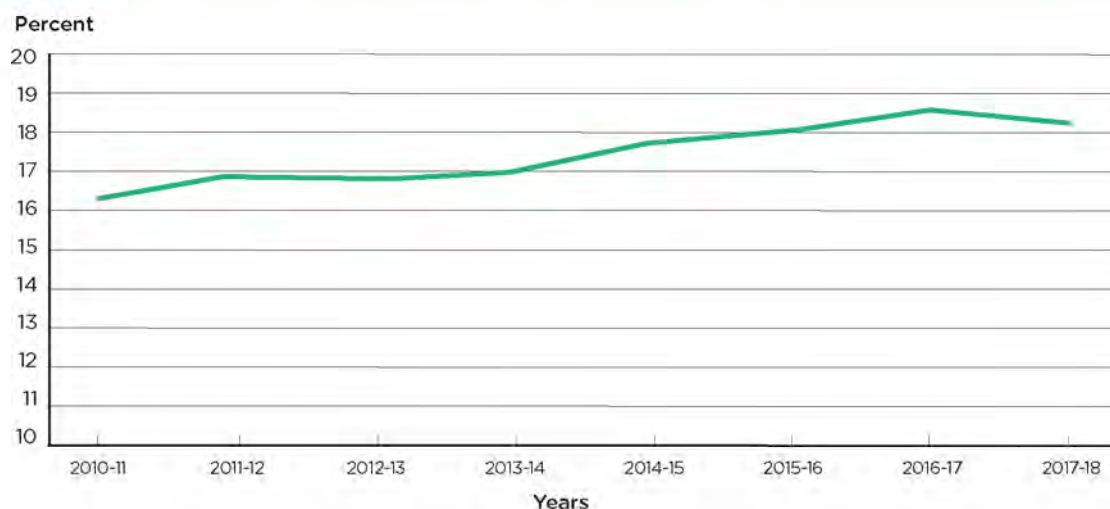
Figure 3.19. Number of workers in poverty by employment type, UK, 2017



Source: Joseph Rowntree Foundation, 2019 (154)

Families with children have been particularly hard-hit. In 2017-18, 66 percent of children living in working families with one or more parents in part time work, were growing up in poverty (155). Figure 3.20 shows that in-work poverty for working-age families after housing costs rose from 16 percent in 2010 to 18 percent in 2018 (156). Low pay, the high cost of living and the low level of benefits contribute to in-work poverty (156).

Figure 3.20. Relative poverty rate (after housing costs), working age adults in working families, UK, 2010/11 to 2017/18



Source: Based on IFS, 2019 (156)

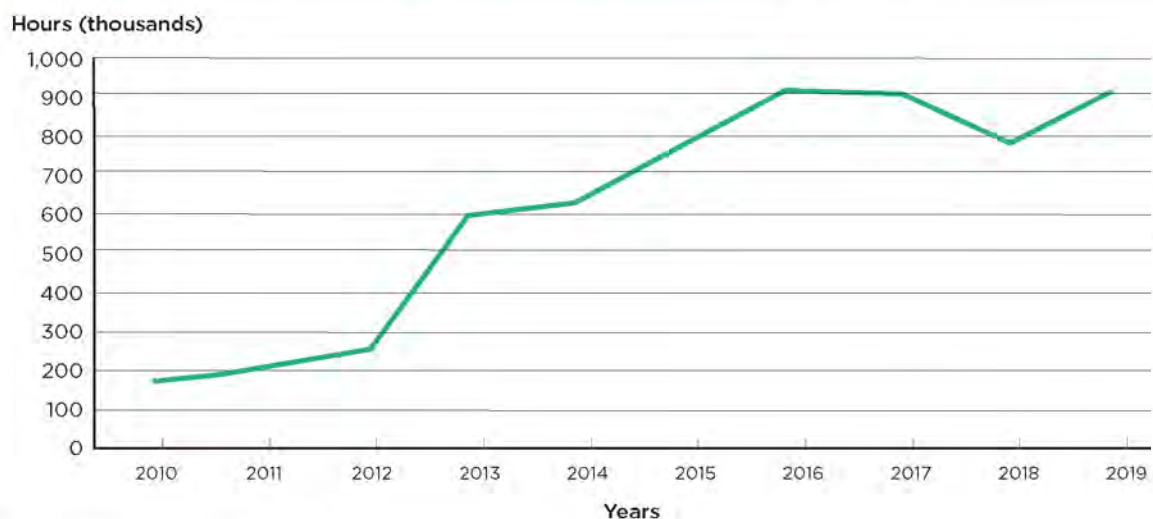
Increasingly, work is not a way out of poverty. Being in poverty and working in poor quality employment have marked effects on physical and mental health, including on children in the families concerned. Below we describe some of the negative mental and physical health impacts of poverty and poor quality work. If stress at work has been rising, it is reasonable to speculate that the stress of working and not being able to afford a decent standard of living has also been rising.

ZERO HOURS CONTRACTS

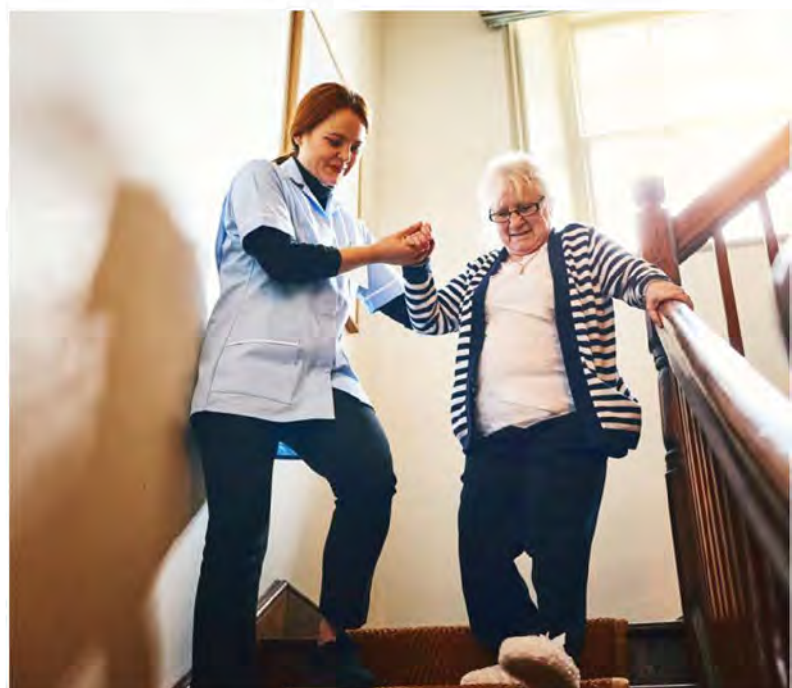
Zero hours contracts are contracts that do not guarantee a minimum number of paid hours. Thus they are a highly insecure form of work – and this insecurity is often harmful to health, particularly for those on low pay and with low socioeconomic status. An established evidence base has demonstrated that insecure work, characterised by short-term, or no, contracts and consequent high risk of losing the job and associated anxiety are harmful to health (136) (3).

Data from the ONS Labour Force Survey in 2019 show that the number of people on zero hours contracts has been increasing since 2010. In autumn 2018 there were nearly 900,000 people on zero hours contracts in the UK, compared with 168,000 in 2010 (151), described in Figure 3.21.

Figure 3.21. Numbers employed on zero hours contracts (thousands), UK, 2010-2019

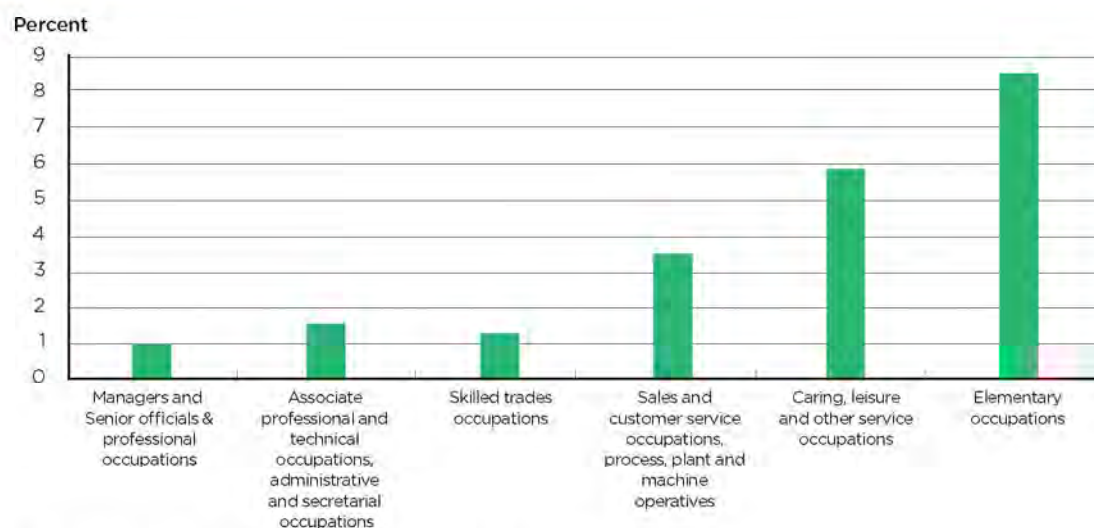


Source: Labour Force Survey, Office for National Statistics, 2019 (157)



While zero hours contracts are found in all types of employment, Figure 3.22 shows that there are higher percentages of people on this type of contract in lower skilled and lower paid occupations than in higher skilled, better paid jobs; therefore, the negative health impacts of zero hours contracts will be higher in routine and manual occupations and thus contribute to widening health inequalities. Our analyses of ONS labour market data show that there were 10 times more people employed in zero hour contracts working in routine and manual occupations such as process, plant and machine operatives and routine and semi-routine sales occupations, as there were in higher managerial and professional occupations in 2019 (157) (158).

Figure 3.22. Percentage of people aged 16 and over on zero hours contracts, by occupation, April to June 2019, UK



Source: Labour Force Survey, Office for National Statistics, 2019 (157)

Note: Not seasonally adjusted

Workers from minority ethnic groups are more likely to be on zero-hours contracts than White workers; 1 in 24 minority ethnic workers is on a zero hours contract compared with one in 42 White workers, and minority ethnic workers are more likely than White workers to be on agency contracts. There are age related differences too, larger number of 16–24 year olds and over-65s are on zero hours contracts compared with other age groups (159).

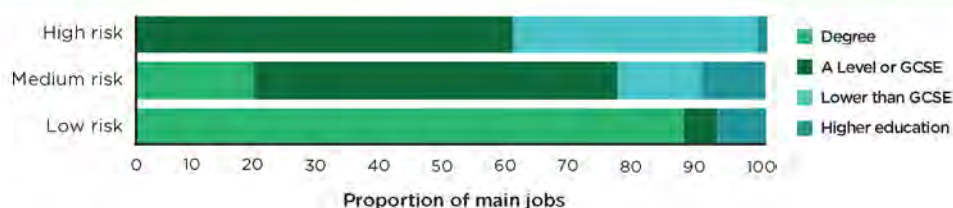
AUTOMATION

As with the rapid increase in zero hours contracts since 2010, there have been high levels of concern about the possible impacts of automation on the labour market. Unemployment and job insecurity are likely to follow automation and, as described above, unemployment and job insecurity are associated with harm to health and rising mortality. ONS analysis on the automation

of jobs in the UK since 2011 grouped jobs into three categories: jobs at low risk (probabilities lower than 30 percent), medium risk (30–70 percent probability) and high risk of automation (over 70 percent probability) (160). The analysis showed that jobs with higher rates of female employment were at highest risk of automation (184). This could partly be explained by the risk of automation to part-time workers, of whom women make up a greater number than men; 70 percent of people in jobs at high risk of automation are in part-time positions (160).

Data from ONS also describe the education status of employees whose jobs are at risk of automation. For the jobs at low risk of automation, 87 percent were held by employees with a degree (see Figure 3.23). Automation is likely to impact most on those with lower levels of education, and lower paid employment – and these are the people who are already at higher risk of worse physical and mental health.

Figure 3.23. Proportion of main jobs held by employees at risk of automation, by level of education, England: 2011 and 2017.



Source: ONS, 2019 (160)

The South East of England and London are relatively less likely to be impacted by automation than other regions. Given the types of jobs, the people and regions most at risk of automation – part-time, low-skilled, women, younger people and those outside the South East and London – it is likely that automation will carry further risks to equity and reinforce many existing patterns of inequalities in the labour force.

However, automation may also be an opportunity. Eliminating boring, repetitive jobs can be beneficial but only if the alternative is interesting, fulfilling work: achieving such a shift in the labour market entails investments in training as part of an overall approach to a changed economy. Labour market policy should be a key component of future automation strategy.

LABOUR MARKET POLICY SINCE 2010

This section explores some of the key approaches to unemployment and job quality since 2010. Further changes to work and employment policies will occur with the UK leaving the European Union as the UK no longer has to adhere to EU directives that influence many work and employment policies.

UNEMPLOYMENT POLICIES

The 2010 Marmot Review recommended an extension of active labour market programmes that were found to be effective in supporting unemployed people into work. However, these approaches have been scaled back. A major thrust of national policy on unemployment, low pay and part-time work since 2010 has been the extension of conditionalities and tougher sanctions for those who are unemployed or underemployed – requiring people to look for work for extended periods. The way the Universal Credit benefit works typifies this approach.

The Government introduced the Work Programme in June 2011, which was followed by the Work Health Programme in 2017. People who had been looking for work for nine months to a year, including some with health-related benefits, were placed on the programme (161). Sanctions reached a high in 2013 (at 920,000) and since then have fallen and the Work Programme has ended (162). The Work Programme was least successful in finding jobs for people with disabilities and people aged 50 and over, both groups that are at high risk of health harm from unemployment (163) (164). The evaluation of the Work Programme concluded that contractors selected the easier claimants to help and, “provide more intensive support [...] to those who are the most ‘job ready’”. Those assessed as hardest-to-help were often left with infrequent contact with advisers, and with little or no likelihood of referral to specialist (and possibly costly) support, which might help address their specific barriers to work” (165) (166).

Universal Credit (UC) requires job-seeking as a condition of receiving credit, including requiring evidence of 35 hours per week of job-seeking. Part-time workers are required to seek extra pay and additional hours or multiple jobs and to spend their

non-working time looking for work (167). People are sanctioned if they refuse a job, fail to prepare for work or fail to actively seek work (168).

Research has shown the majority of jobseekers are keen to work and do not require the threat of sanction. Instead, sanctions cause further poverty and, in some cases, destitution (manifested in increased debt and use of foodbanks) as well as worsening mental health (169) (170). A five-year study conducted by the University of York from 2013 to 2018 of welfare conditionality, which included consideration of UC, criticised the use of conditionality in England’s employment support system. The study found that the provision of good quality and targeted support, rather than sanction, is pivotal in triggering and sustaining paid employment (171).

CASE STUDY: COVENTRY CITY COUNCIL – ACTIVE LABOUR MARKET PROGRAMMES

Since 2013 Coventry City Council has developed a range of active labour market programmes to address barriers to employment across the city, working with partners in the public, private and community and voluntary sectors. The twin objectives have been to increase the numbers in employment and improve the quality of jobs. The programmes developed include strengths-based, personalised approaches to supporting people into training or employment.

One of the main vehicles for delivery of the programmes has been the Coventry Job Shop, run by one of the Marmot City partners and based in the city centre. This is a service that seeks to support job seekers by tailoring support to people’s personal ambitions, offering training and development opportunities, and supporting people to apply for positions. It also seeks to work with employers to improve the quality of the jobs offered via the Shop. Several programmes are delivered with the involvement of a wide network of local partners, including training providers, charities, housing associations, disability support, women’s only services, wellbeing and mental health organisations, enterprise start-ups, childcare providers, community radio and employer networks. One programme, Ambition Coventry, supports young people up to age 29, while Routes to Ambition targets 15–24 year olds who face barriers such as mental health issues or disability or are at risk of exclusion. Other programmes include Connect Me and Exceed, which serve people facing a range of recognised barriers to employment.

The Job Shop has received praise from partners, service users and the provider for its supportive and non-judgemental attitude to service users: an interviewee from the organisation said, “People want to come here, and the network of partners allows that community element to take place” (172).

Employment and Support Allowance (ESA) replaced Incapacity Benefit in 2008 and is paid to people who have limited capability to work as they are disabled or ill. In 2006–07, 2.7 million people were receiving sickness benefits at a cost of £12 billion. In 2015–16 the number had dropped to 2.4 million people receiving ESA but the cost had risen to £15 billion (173). The Work Capability Assessment (WCA), introduced in 2008, was designed to revise how eligibility for ESA was determined. Since its introduction, the WCA has encountered a number of problems with many labelled as 'fit for work' who clearly were not. Between October 2008 and July 2017, 5,690 people died within six months of being told they were 'fit for work' (174).

In addition to these problems, there have been substantial administrative errors. Between 2011 and 2018 the Department for Work and Pensions underpaid an estimated 70,000 people who transferred to ESA from other benefits (175). The National Audit Office found half of the doctors and nurses employed by private contractors to assess fitness for work had not completed the required training (175).

Apprenticeships have formed a key part of many governments' work and employment approach. The Conservative government aimed to have three million apprenticeships starting in England between 2015 and 2020. The 'Apprenticeship levy' was introduced in 2017, a 0.5 percent tax on an employer's pay bill above £3 million per year and introduced subsidies for employers training apprentices in England. However, the number of apprenticeships started dropped after the levy was introduced: 564,800 apprenticeships were started in the 12 months before the levy was

introduced, falling to 364,000 in the 12 months after (177). Ofsted and the IFS warned the aim for fast expansion risked increasing the number of apprentices "at the expense of quality" (178).

Lower-level apprenticeships have fallen in number since the levy was introduced and funding goes to training and development current staff and not providing future apprenticeships (177). Apprenticeships traditionally have been aimed at young people from deprived areas; however, more recently older and more well-off people have received apprenticeships. Indeed, since 2010 apprenticeships have become increasingly aimed at older workers. In 2018–19, nearly half, 46 percent, of starts went to apprentices age 25 and older. The Social Mobility Commission has reported that: "Level 2 and 3 apprenticeships (equivalent to GCSE and A Level), which are more likely to be taken up by those from disadvantaged backgrounds, decreased by 16 and 38 per cent in 2017/18. In contrast, the number of higher level apprenticeships, which are typically entered by more affluent people, grew by 32 percent" (179).

The shift in focus of apprenticeships offered away from deprived areas will not sufficiently reduce inequalities in training and labour market opportunities in those areas; in fact it is likely to widen them. In addition, inequalities are likely to widen as apprenticeships are more likely to be awarded to white people than to people from minority ethnic backgrounds. In 2016–17, 11 percent of apprenticeship starts in England were made by people from minority ethnic backgrounds, a drop from 14.5 percent in 2011 (180).



CASE STUDY: THE LONDON HEALTH INEQUALITIES STRATEGY - IMPROVING HEALTH AND WELLBEING AT WORK

In 2018 the Mayor of London, Sadiq Khan published The London Health Inequalities Strategy (LHIS) – a statutory strategy of that office. It outlines a vision for London to be a healthier, fairer city, where nobody's health suffers because of who they are or where they live. It highlights the importance of partnership working to achieve this, and of a 'health in all policies' approach, realising health through other Mayoral strategies, such as those for housing, economic development, transport, and the London Plan. The LHIS is framed around five aims and supporting objectives:

- **Healthy Children:** Every London child has a healthy start in life;
- **Healthy Minds:** All Londoners share in a city with the best mental health in the world;
- **Healthy Places:** All Londoners benefit from an environment and economy that promotes good mental and physical health;
- **Healthy Communities:** London's diverse communities are healthy and thriving;
- **Healthy Living:** The healthy choice is the easy choice for all Londoners.

Objective 3.5 is that 'More working Londoners have health promoting, well paid and secure jobs', and the Mayor has several tools to support delivery. The London Healthy Workplace Award (LHWA, formerly the Charter) is an evidence-based accreditation scheme, supporting London's employers to create healthier workplaces. A recent review has seen mental health placed at its centre and the development of a more agile award scheme for micro-businesses and communal workspaces. Over 1,000 employers have signed up to the LHWA, reaching over 350,000 Londoners. A work programme is progressing to drive engagement with employers in the low pay sector.

The Mayor's new Good Work Standard (GWS) brings together best employment practice and links to resources that are designed to support employers to improve their organisations and improve the quality of work. The GWS has four pillars, health and wellbeing (to which the LHWA is key); skills and progression; diversity and recruitment, and fair pay and conditions- of which promotion of the London Living Wage (which the Mayor of London has championed) is a key strand (181) (182). By gaining GWS accreditation, employers also demonstrate 'social value', an important factor when competing for public sector procurement opportunities with the GLA Group (e.g. Greater London Authority, Metropolitan Police, London Fire Brigade and Transport for London) (67). Since the launch in 2019, 49 employers have become fully accredited, covering 191,000 employees, while many more have started the process of accreditation.

The recent devolution of London's Adult Education Budget to the Mayor has offered new opportunities to support Londoners to gain new skills and access better work. The Mayor is working to improve access to adult education and skills training, for example, through a new £6.4m Skills for Londoners Innovation Fund, helping Londoners gain skills in areas such as English, maths and digital, and enabling more disabled Londoners and those who are vulnerable to serious youth violence to access learning. It also helps to tackle in-work poverty and exclusion by funding courses for adults earning below the London Living Wage (181).

Recommendations for creating fair employment and good work for all

- Invest in good quality active labour market policies and reduce conditionalities and sanctions in benefit entitlement, particularly for those with children.
- Reduce in-work poverty by increasing the National Living Wage, achieving a minimum income for healthy living for those in work.
- Increase the number of post-school apprenticeships and support in-work training throughout the life course.
- Reduce the high levels of poor quality work and precarious employment.

3D - Ensure a healthy standard of living for all

SUMMARY

- Wage growth has been low since 2010 and wage inequality persists.
- Rates of in-work poverty have increased.
- Incomes have risen slowly and inequalities persist.
- Wealth inequalities have increased.
- Regional inequalities in wealth have increased: London and the South of England have increased their share of national wealth compared with the North.
- The number of families with children who do not reach the minimum income standard has increased.
- Food insecurity has increased significantly.
- Social mobility in England has declined
- Tax and benefit reforms have widened income and wealth inequalities.

The thrust of the 2010 Marmot Review and this report is that social disadvantage is not only a lack of money: having control over one's life is critical to an individual's health and wellbeing, the ability to lead a dignified life is central to health (1). Each of the five domains covered in this report show that life is worse for people lower down the socioeconomic hierarchy and having resources to live a healthy life is central to improving health. Therefore, this report concludes, as did the 2010 Marmot Review, that having enough money to lead a healthy life is central to health and that poverty and low living standards are powerful determinants of ill health and health inequity. Insufficient income is associated with poor long-term physical and mental health and low life expectancy.

In Section 2 we described close associations between socioeconomic position and life expectancy and health and disability. Poverty has a cumulative negative effect on people's health throughout their life. During early childhood it influences cognitive and physical development. Children living in poverty are more likely to suffer from poor health and are over three times more likely to suffer from mental health problems than children who are not poor (183). Poverty has long-term implications for children's 'life chances' and health in adulthood. Unemployment, low-paid work, inadequate benefit entitlements, a lack of affordable and poor quality housing and living in deprived neighbourhoods have negative health impacts (183).

Poverty is stressful. Coping with day-to-day shortages, facing inconveniences and adversity all affect physical and mental health in negative ways (3) (184) (185) (186). A report from IHE, commissioned by Public Health England, on psychosocial pathways (social factors that affect the mind) to health provided an overview of the evidence about these associations. The report also describes how scarcity – having too little of anything, for example money, food or time – affects mental processes, in effect narrowing mental 'bandwidth', resulting in people making decisions that go against their long-term interests (184). As a result, those experiencing economic adversity are less likely than people who are better-off to adopt health-related behaviours, mainly because they are focusing their attention on coping in the short term rather than planning for the future.

Haushofer and Fehr identified 25 studies, which reported the effect of increases or decreases in poverty on psychological wellbeing (187). Overall, increases in poverty are found to be associated with negative emotional states and stress, while poverty alleviation leads to an increase in psychological wellbeing or reduction in stress. Stress results in production of the hormone cortisol, which has multiple negative health impacts (188) (189).

The Health Foundation have summarised how inadequate incomes cause poor health because it is more difficult to; 1, avoid stress and feel in control; 2, access experiences and material resources; 3, adopt and maintain healthy behaviours and 4, feel supported by a financial safety net (190).

In this section of the report we describe some of the most significant issues and changes related to wages, income, wealth and poverty since 2010. It is important to note that in 2010 the Government's Public Health White Paper endorsed five of the six Marmot domains. The one not included was this one: having sufficient income for a healthy life.

The priority objectives for this domain in the 2010 Marmot Review were:

1 Establish a minimum income for healthy living for people of all ages.

2 Reduce the social gradient in the standard of living through progressive taxation and other fiscal policies.

3 Reduce the cliff edges faced by people moving between benefits and work.

WAGE, INCOME AND WEALTH INEQUALITIES SINCE 2010

We have already set out that in-work poverty, has increased, mainly due to low wages, inflation, rising housing costs and the low level of benefits; benefits are meant to compensate for low wages but are currently too low to lift working people out of poverty. Here we describe the slow increases in wages and income over the decade, persisting inequalities and rapid growth in wealth for London and the south and for the wealthiest.

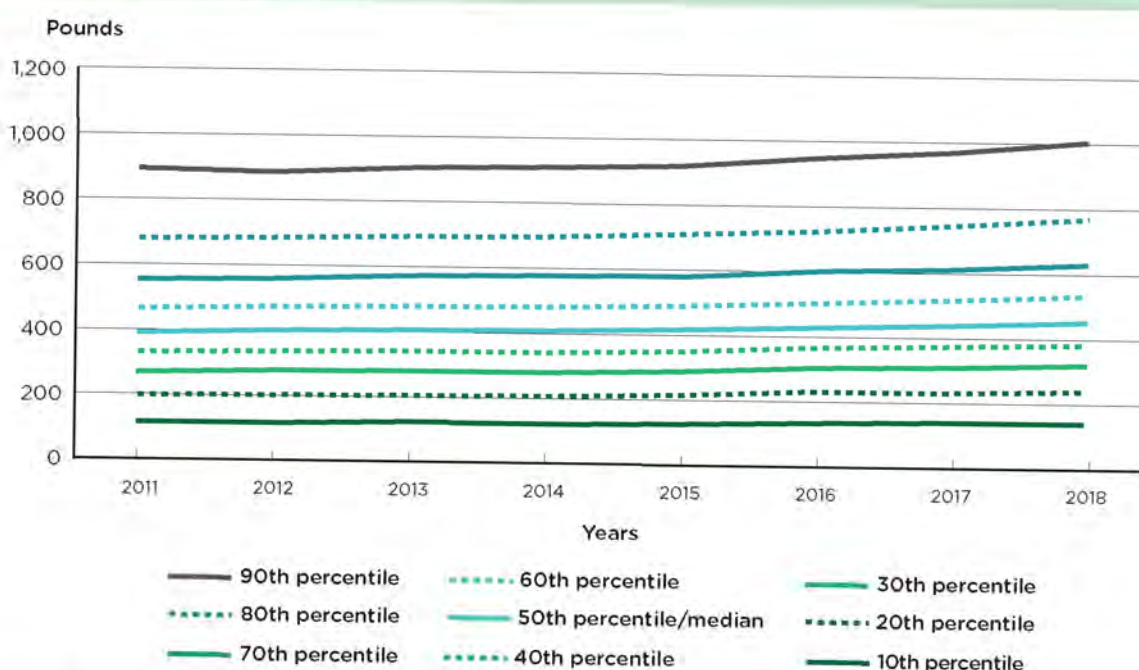
WAGES

Wages are a particularly important component of income; other components include revenue from benefits and from land (rent) and capital (dividends and interest from savings). Wages are usually the only

source of income for those towards the lower end of the socioeconomic distribution. For those towards the top, other sources of income also factor. Between 2008 and 2019 men's real wages (wages after taking inflation into account) fell by approximately seven percent and women's real wages increased by only two percent and, at the same time, housing costs increased (191).

Throughout the decade, inequalities in weekly earnings have increased slightly, as those in the top 10 percent of earnings wages have seen their wages increase the most while those in the 40 percent of lower wages have seen their wages increase at a lower rate. Figure 3.24 shows median gross weekly earnings of employees from 2011-18; since 2011 weekly earnings (wages) have increased fastest for the deciles with the highest earnings, slightly widening inequalities.

Figure 3.24. Median gross weekly earnings of full and part-time employees at selected percentile points in the income distribution, UK, 2011-18



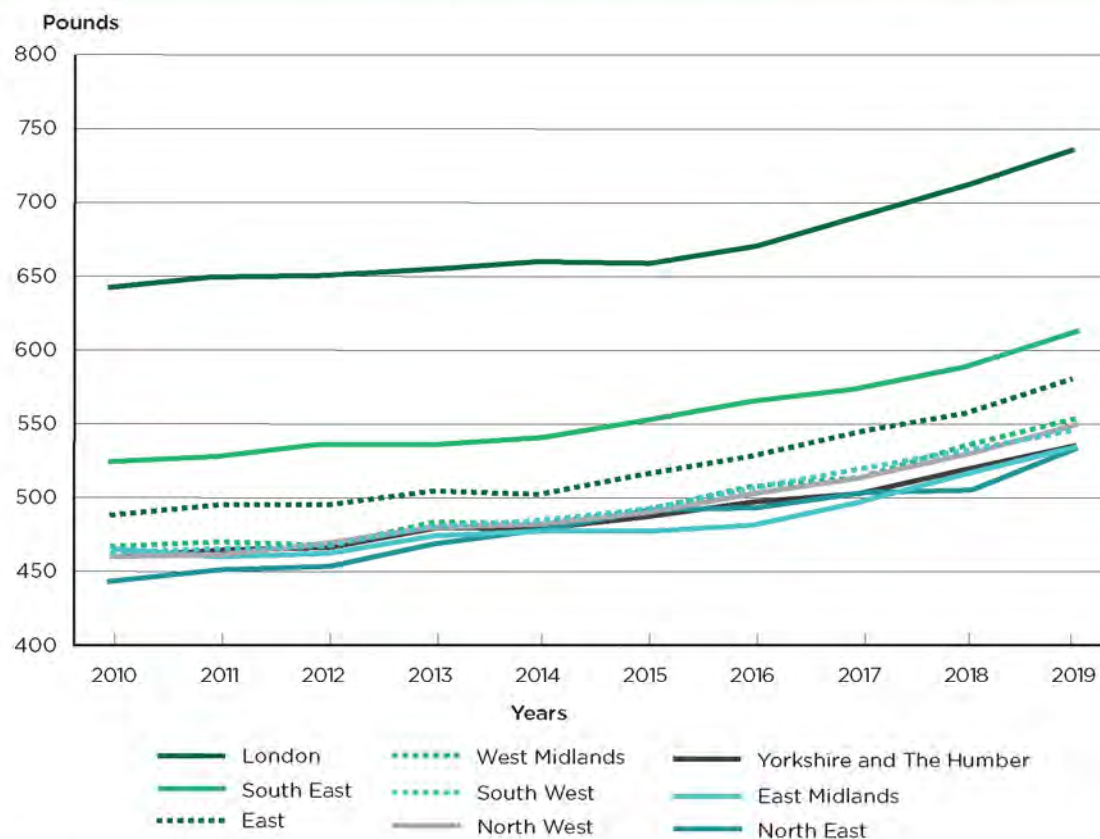
Source: PHE fingertips tool and the Annual Survey of Hours and Earnings (ASHE) data, 2019 (18) (192)

Note: Median gross (before tax, National Insurance and other deductions) weekly earnings in pounds (£) of full and part-time employees paid through the PAYE system, excluding over-time. Based upon employees resident location. Reference period is a point during April each year

ASHE does not cover the self-employed

Analysis of gross weekly earnings for those in full-time employment by region in England shows that median weekly earnings have increased in all regions, but earnings in London remain the highest by some margin (see Figure 3.25). The South East follows London, while the North East has the lowest weekly earnings.

Figure 3.25. Median gross weekly earnings for full-time employees, regions in England, 2010–19



Source: Based on analyses of Annual Survey of Hours and Earnings (ASHE) data, 2019 (192)

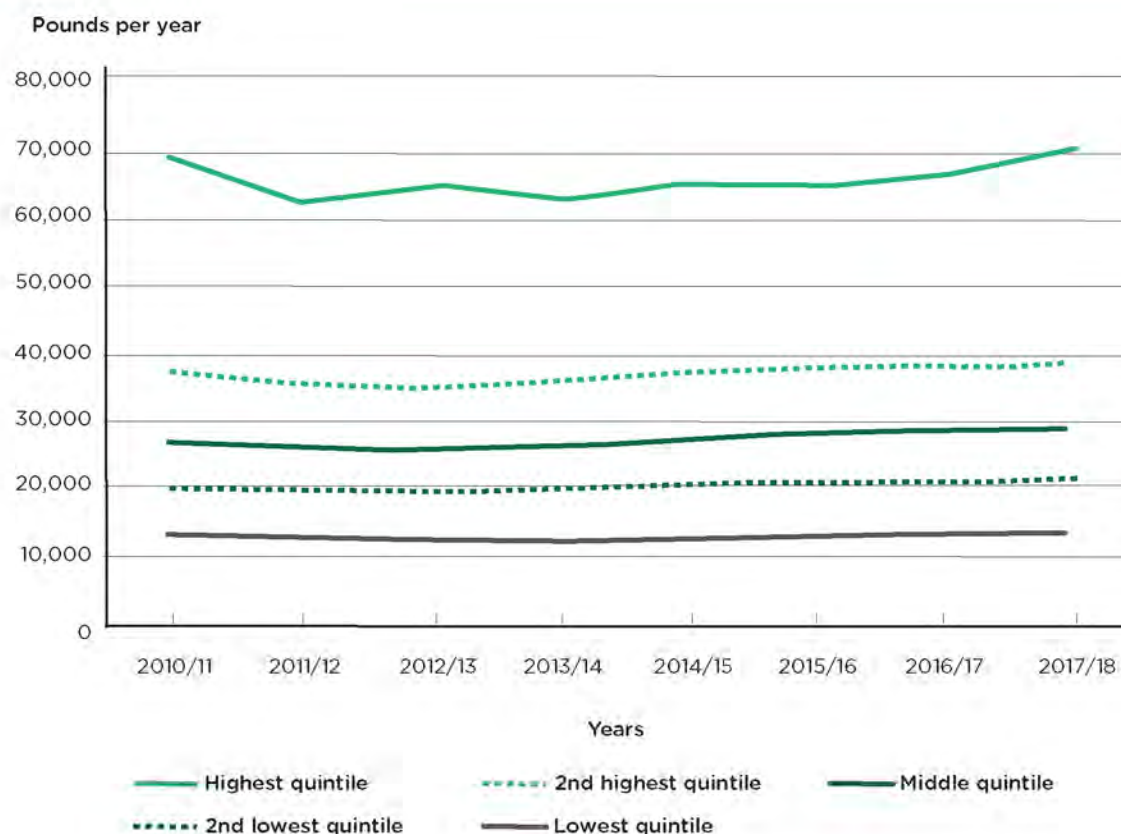
Note: ASHE does not cover the self-employed

The data in Figures 3.24 and 3.25 does not include part time work, which has become increasingly important over the decade. Between 2010 and 2018 the number of men in the UK working part-time increased by 12.5 percent and women by 5.5 percent (193).

INCOME

Average incomes have hardly increased since 2010, this is mainly the result of low wage growth and low levels of benefits (194). The wealthiest gain most of their income, on average 80 percent, from sources other than employment income, such as private pensions and investments (195). Inequalities in disposable income, that is income after direct tax have persisted since 2009/10 and there is a large difference between the level of the top of the income distribution and the rest, described in Figure 3.26.

Figure 3.26. Mean equivalised disposable household income of individuals by income quintile, UK, 2010/11-2017/18



Source: Source: Office for National Statistics (196)

Note: Disposable income is gross income (employment earnings, private pensions, income from investments and cash benefits) after deductions from direct taxes (for example, Income Tax), employee National Insurance contributions and Council Tax or Northern Ireland Rates

Income equivalised using modified-OECD scale

WEALTH

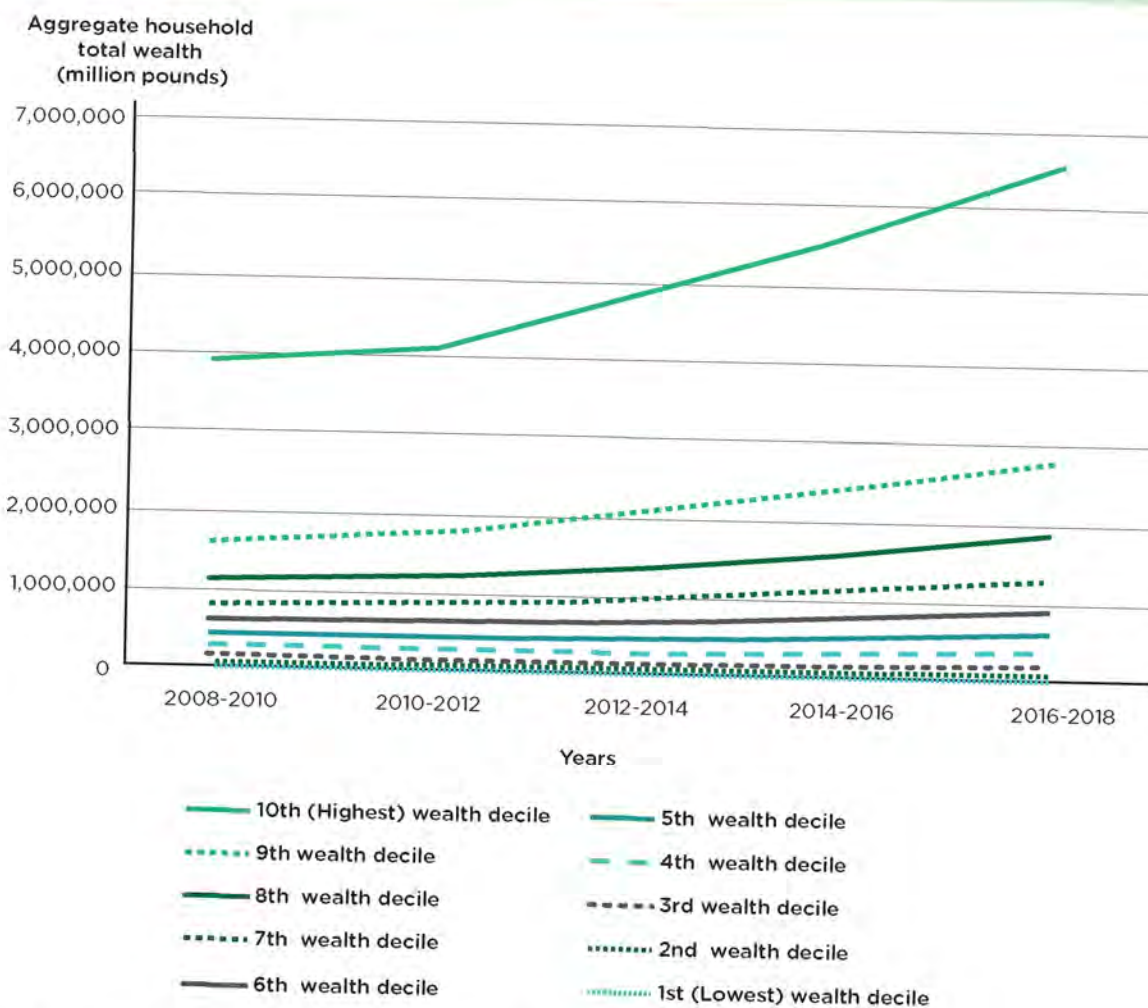
The material resources available to individuals and households depends as much on the wealth they have accumulated as it does on their current income (14). The ONS definition of wealth includes four components: property, financial wealth, private pensions and physical wealth (e.g. valuable household contents and vehicles) (197). Wealth is associated with good health directly and indirectly – it provides a buffer from economic shocks and insecure work and it gives a sense of security, which is hugely beneficial to mental and physical health. The English Longitudinal Study of Ageing has shown the strong association between disability-free life expectancy and wealth, poorer individuals could expect to live seven to nine years less without disability than those with more wealth, at age 50 (198).

Inequalities in wealth in England are higher even than wage and income inequalities. In the decade 2010–20, as in the decades that preceded it, the wealthy have become wealthier as capital growth has risen much faster than faltering wage growth (199). Put simply, the wealthy have got wealthier – and therefore healthier.

In Great Britain, total net wealth including net property, net financial wealth, private pensions and physical wealth increased by 13 percent between 2014 and 2018, and in 2016–18 the top three wealth deciles held 76 percent of all wealth, while the bottom three wealth deciles held two percent (200).

Figure 3.27 shows aggregate household total wealth in Great Britain by deciles between 2008-2010 to 2016-18. Inequalities are wide at the start of the period and wider still in 2016-18 as the wealth of the highest decile has increased markedly. For the lowest thirty percent wealth has hardly increased over the period.

Figure 3.27. Aggregate household total wealth by total wealth (million pounds) deciles, Great Britain, 2008-2010 to 2016-2018

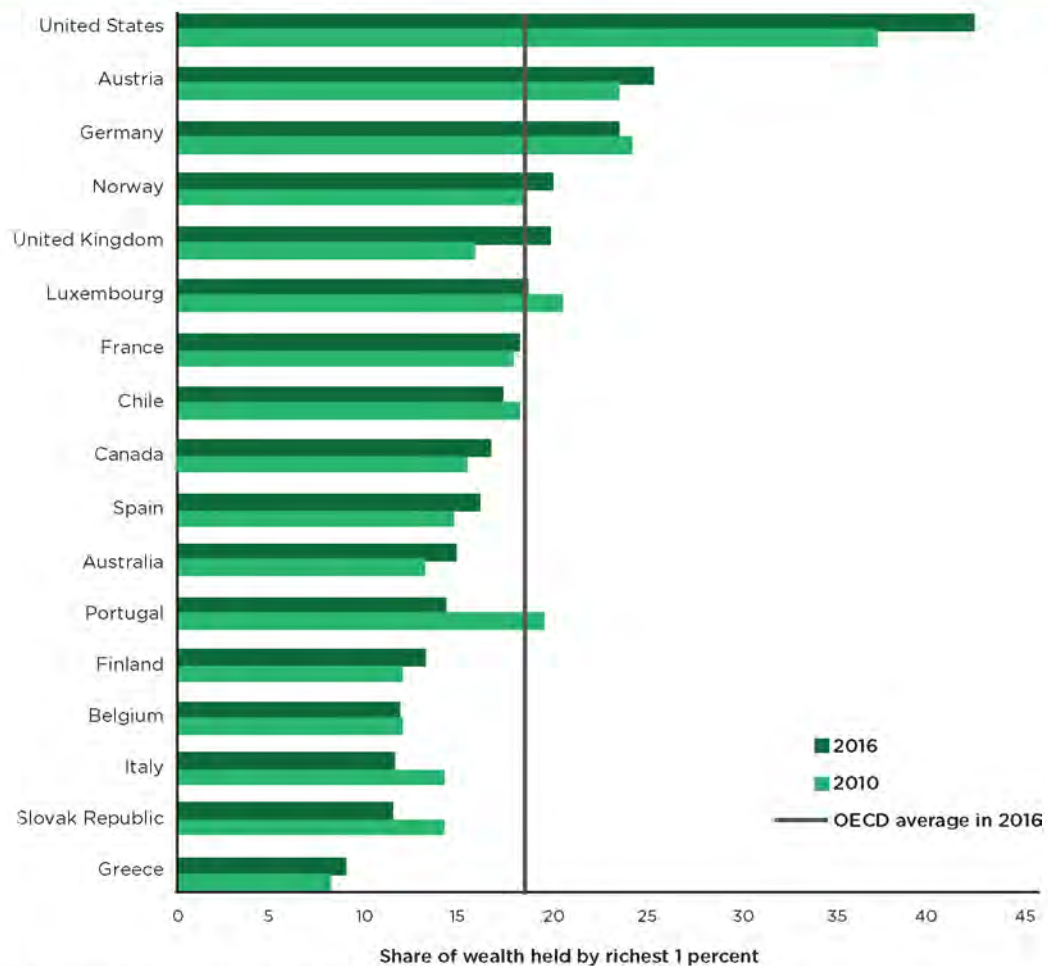


Source: Based on data from the Office for National Statistics – Wealth and Assets Survey (200)

Note: Aggregate household total wealth includes: property wealth, financial wealth, physical wealth and private pension wealth.

The UK is slightly more unequal in terms of wealth distribution than the OECD average, but wealth inequality increased faster in the UK than in any other country described in Figure 3.28 between 2010 and 2016, except the USA. The richest one percent of the population had 20 percent of the wealth in the UK in 2016, compared with 16 percent in 2010.

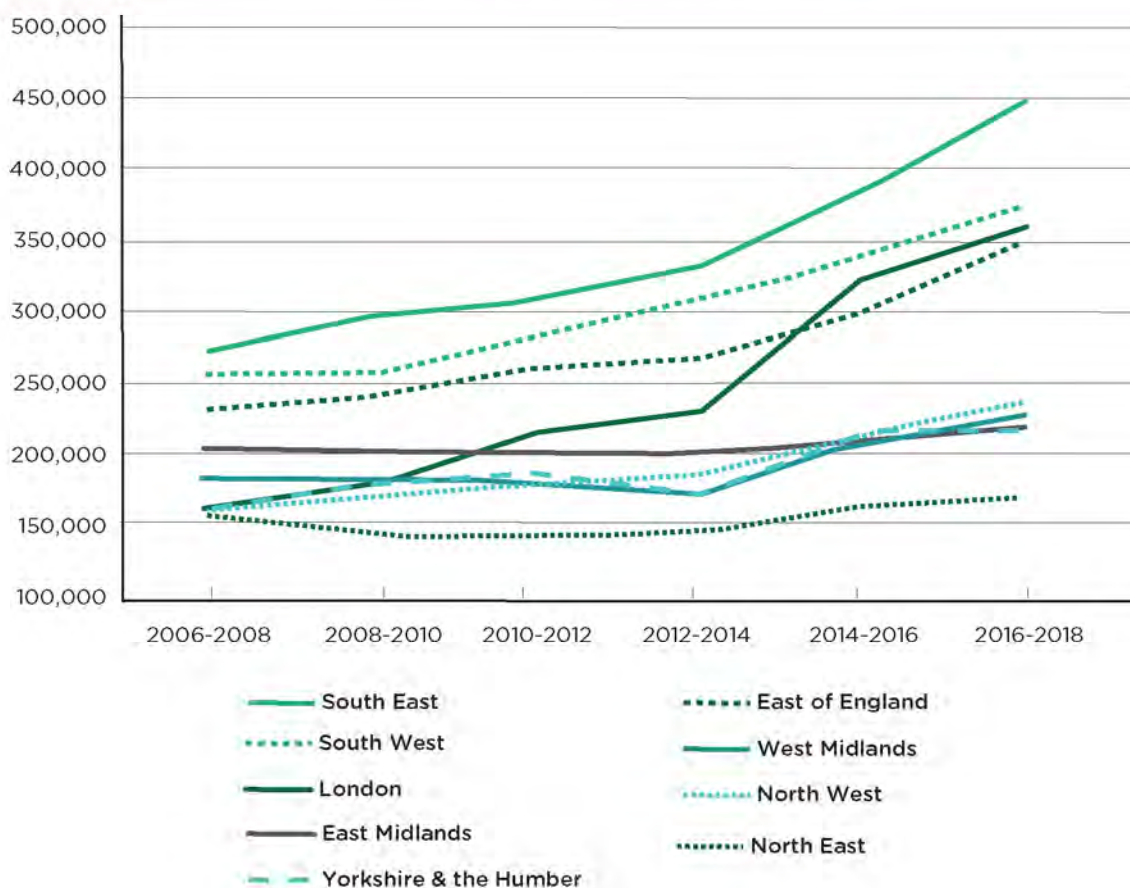
Figure 3.28. Share of wealth held by the richest 1 percent of the population, OECD countries with comparable data available, 2010 and 2016 or latest available data



Source: Based on OECD database 2020 (201)

Figure 3.29 shows changes in median total wealth by region in England between 2006 and 2018. Over that period, and particularly from 2010 onwards, households in London rapidly increased their wealth; this was followed by the South East and South West where wealth increased at the next greatest rates. Regional inequalities in wealth have risen rapidly.

Figure 3.29. Median household total wealth by region, England, 2006-08 to 2016-18



Average household wealth in South East England was 2.6 times the wealth of households in the North East of England in 2017/18. In the years since 2010 London has become the richest region in northern Europe but the UK also contains six of the 10 poorest regions, making the UK Europe's most geographically unequal economy (202) (203) (204).

POVERTY IN ENGLAND

There are a range of measures of poverty in use in England; in this report we use the current standard relative measure of poverty used by government, with poverty defined as households with less than 60 percent of contemporary median income. Persistent poverty is defined as being in poverty for three or more years.

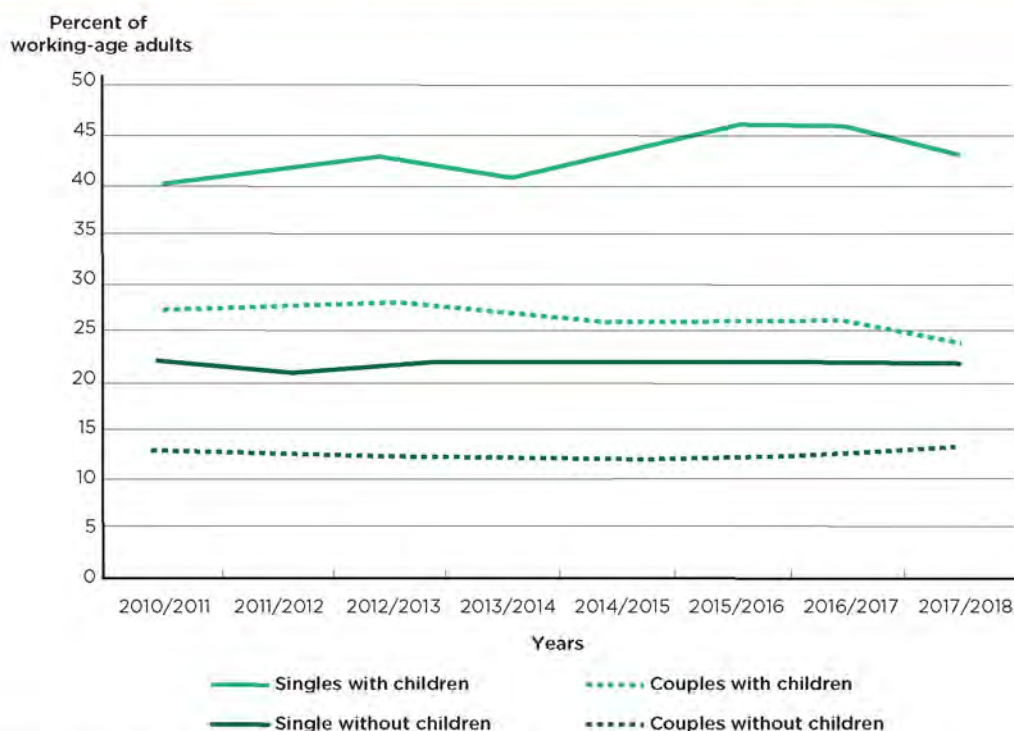
In the 2010 Marmot Review we set out the need for a Minimum Income for Healthy Living (MIHL), the minimum income needed to be able to meet needs relating to nutrition, physical activity, housing, psychosocial interactions, transport, medical care and hygiene (3). We showed that for many types of

family, net income, after wages, benefits and taxes, fell short of the MIHL and proposed that the MIHL should be used as the basis for benefit and Minimum Wage payments. The MIHL is higher than the 60 percent of median income used as the measure of poverty by the Government.

The minimum income standard, developed in 2008 by the Joseph Rowntree Foundation (JRF) and Loughborough University, fulfils a similar function and is a useful measure of the income needed to live a healthy life (205). It includes clothes and shelter as well as cost calculations for social participation.

Low wages, as well as benefit cuts and the growth of part-time and insecure work, have increased rates of in-work poverty, as shown in Figure 3.30. Rates of single working-age adults with children, living in poverty, increased by six percentage points between 2010/11 and 2015/16, declining slightly to 43 percent in 2017/18. The percentage of single working-age adults with children in poverty was nearly double that of couples without children in 2017/18.

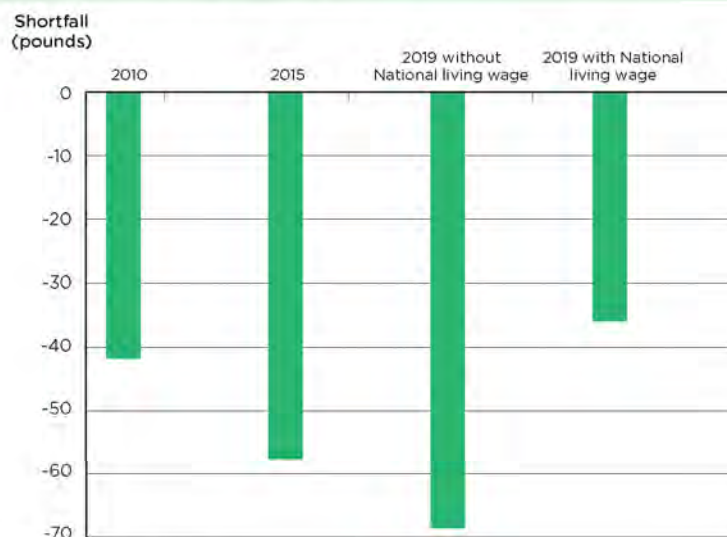
Figure 3.30. Percent of working-age adults living in households with less than 60 per cent of contemporary median household income, after housing costs, by family type, UK, 2010/11 to 2017/18



Source: Source: Department for Work and Pensions, 2019 (80)

In 2016 the National 'Living' Wage was introduced for workers aged 25 years and over. This increased wages for those on low incomes by 26 percent; 17 percent after adjusting for inflation (231). The National Living Wage is still lower than the minimum income standard, defined in detail below. Figure 3.31 shows that the National Living Wage has brought people closer to reaching the minimum income standard, comparing figures for 2019 with and without the National Living Wage. However, there is still a shortfall of £36 each week below what is required to reach the minimum income standard for a single person working full-time (231).

Figure 3.31. Shortfall per week for a single person working full-time to reach minimum income standard (2019 prices), with and without National Living Wage (NLW)



Source: Joseph Rowntree Foundation (206)

CASE STUDY: SALFORD LIVING WAGE CITY – IMPROVING INCOMES FOR PEOPLE ON THE MINIMUM WAGE

In 2019 Salford put forward a plan to become the first 'living wage city' in England. The Government's National Living Wage is calculated based on a target to reach 60 percent of median earnings by 2020, whereas the 'Real' Living Wage is based on the best evidence about living standards and on what people need to get by. In 2019/20 the Government's National Living Wage was £8.21 per hour while the UK Living Wage was £9.30 and the London Living Wage £10.75. Employers choose to pay the Real Living Wage and to become accredited by the Living Wage Foundation.

The Salford Living Wage City Action Group aims to double the number of Real Living Wage employers and increase the number of people working for a living wage employer in Salford from 9,000 to close to 20,000. Currently there are 38 accredited living wage employers in Salford paying more than 1,700 people the Real Living Wage. Oldham Council and Manchester City Council are accredited Living Wage Employers. The group will work with typically low-paying sectors, such as social care, retail, hospitality and the charitable sector, to help them become accredited and is promoting the living wage to small and medium enterprises based in the city.

The targets of the campaign are to:

- Increase the number of accredited Living Wage Employers from 38 in 2019 to 76 by the end of 2022.
- Lift above the Real Living Wage people employed or contracted by accredited Living Wage employers from 1,744 in 2019 to 2,800 by the end of 2022.
- Increase the proportion of jobs employed by accredited Living Wage employers from seven percent in 2019 to 15 percent by the end of 2022.
- Increase the proportion of Salford residents paid the Real Living Wage or above from 59 percent in 2019 to 65 percent by the end of 2022 (233).

The commitment is part of Salford's Social Value Alliance, which states that businesses based in Salford should consider the following alongside profits, customer service and quality: happiness, wellbeing, health, inclusion, empowerment, growth and the environment (207).

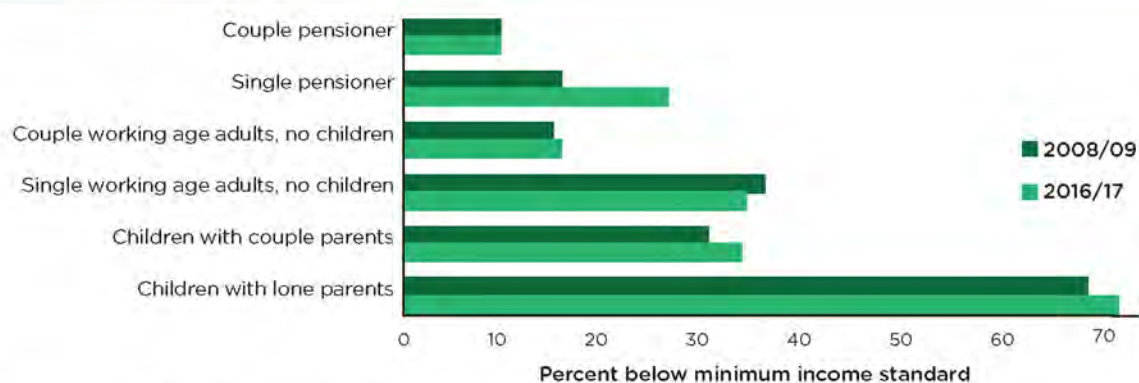


Analysis by JRF shows that both state benefits and the National Living Wage did not meet the minimum income standard in 2019, despite recent increases to the Minimum Wage and the National Living Wage (205). JRF reports that rising costs of childcare, housing transport and energy and continuing cuts to in-work benefits have meant that an increasing number of families continue to live below the minimum income standard (205).

In 2017/18 approximately 18.7 million individuals, 28.9 percent of all people in the UK lived in households below the minimum income standard, an increase

from 16.2 million, 26.8 percent, in 2008/09 and higher numbers than the relative measure of poverty used by the Government (208). Figure 3.32 shows increases in the proportion of children of lone parents living in households with income below the minimum income standard, from 68.5 percent to 71.8 percent between 2008/09 and 2017/18. The proportion of couple working-age adults without children with income below the minimum income standard increased by 0.8 percentage points and the proportion of single pensioners below the minimum income standard increased by 10.6 percentage points.

Figure 3.32. Proportion of individuals in households with income below the minimum income standard, 2008/10 and 2017/18

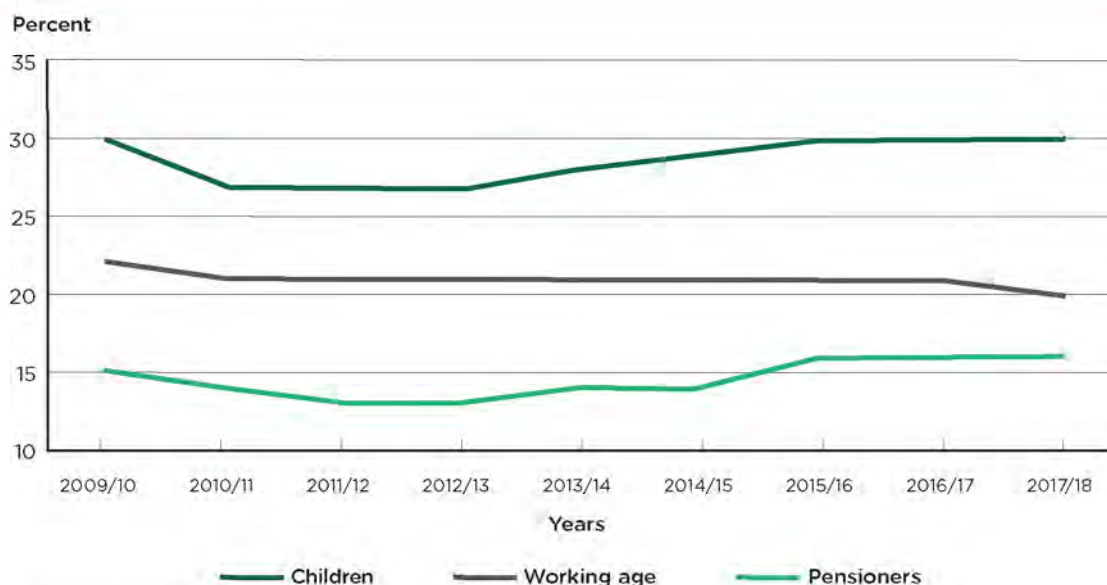


Source: Joseph Rowntree Foundation (208)

Housing costs push many families into poverty. In 2015/16-2017/18 nearly nine million people in England were living in households in relative poverty before housing costs. After housing costs were taken into account 12 million people in England, 22 percent of the population, were living in poverty in 2017/18 (72). Figure

3.33 describes poverty rates for children, working age adults and pensioners and shows the highest rate is for children which has increased recently after slight declines in 2010-2012. There have been slight increases for pensioners.

Figure 3.33. Relative poverty rate, after housing costs, by demographic group, UK, 2009/10-2017/18

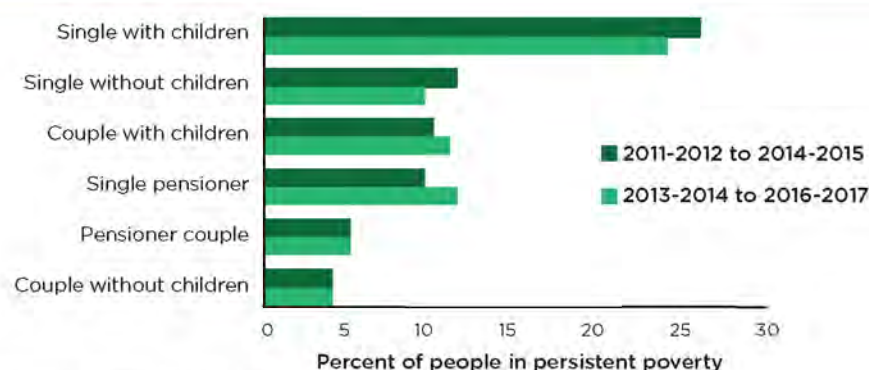


Source: Department for Work and Pensions (72)

People in persistent poverty are at particularly high risk of having poor physical or mental health and children in persistent poverty are at increased risk of mental health problems, obesity and longstanding illness (238). Between 2013 and 2017, 13 percent of people were living in persistent poverty (AHC), in England with the rate staying roughly the same between 2010-2017 (239).

Lone parents with children have the highest risk of being in persistent poverty, although rates for this group have slightly declined recently, while couples without children have the lowest risk (Figure 3.34).

Figure 3.34. Percentage of population in persistent poverty by family type, England, 2011/12 to 2014/15 and 2013/14 to 2016/17



Source: Joseph Rowntree Foundation (236)

POVERTY AND DISABILITY

Disabled adults face some of the highest risks of poverty (52) (54). Nearly half of those in poverty in the UK in 2018 – 6.9 million people – were from families in which someone had a disability (213) (214). In 2019, SCOPE, the disability equality charity, estimated the extra living costs for people with disabilities to be, on average, £583 per month (for expenses related to their impairment or condition) and one in five has costs of more than £1,000 per month (215). Disabled people, at every level of qualification, are more likely than non-disabled people to receive lower pay (216).

Disability assessments for benefits have been reported to be superficial, dismissive, and to contradict the advice of doctors (217). Those with disabilities are also experiencing the effects of cuts in local government services, particularly within social care, which has

increased the burden of the costs of care for people with disabilities and their families. Changes to benefits and taxes since 2010 have resulted in reductions in income for disabled people and families since 2010 (242) (246).

POVERTY AND ETHNICITY

There are wide variations in poverty rates by ethnic group. In 2018, 33 percent of people living in households headed by someone of Bangladeshi ethnic origin were in the most deprived quintile compared with 15 percent of the White population (219) (220). Table 3.3 describes high rates of poverty for Bangladeshi, Pakistani and Black people in particular, but all minority ethnic groups had higher rates of poverty than white, with housing costs raising poverty rates considerably.

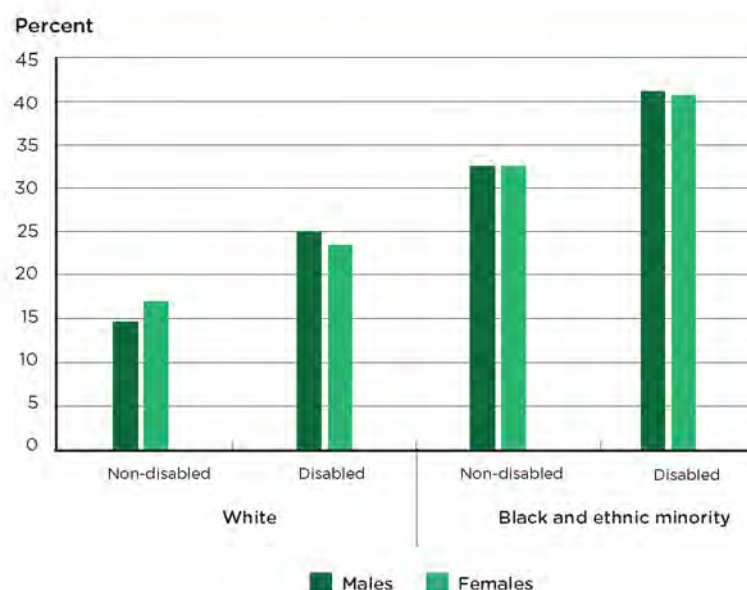
Table 3.3. Percentage of individuals living with less than 60 percent of contemporary median household income, by ethnic background of household head, UK, 2018 (three year average)

	Before housing costs	After housing costs
White	15	20
Asian/Asian British	26	36
Indian	17	23
Pakistani	39	46
Bangladeshi	33	50
Chinese	26	33
Black/African/Caribbean/Black British	27	42

Source: Department for Work and Pensions (72)

Figure 3.35 shows that intersections between ethnicity, gender and disability result in higher risks of poverty for disabled minority ethnic adults than White people, with more than 40 percent living in poverty.

Figure 3.35. Poverty rates after housing costs by ethnic background, disability and sex, 2015–17, UK



Source: Family Resources Survey analysis by Resolution Foundation. (221)

PENSIONER POVERTY

In 2011 the Coalition Government introduced the 'triple lock', aimed at guaranteeing a minimum increase in the state pension. As a result, between 2010 and 2016 the value of the state pension increased by 22 percent, against declines in real earnings (222). Despite the protections of the triple lock, relative poverty rates among pensioners, after housing costs are taken into account, have risen slightly since 2010. Housing Benefit has failed to keep up with actual rents, which have risen, increasing poverty among pensioners who rent (214). Single pensioners are more likely to be living below the minimum income standard and in persistent poverty than couple pensioners and adult couples without children.

An abrupt change in the state pension age for women, which has risen from 60 to 66, has penalised women nearing the age of retirement (214). It is estimated that increasing the female retirement age leaves the incomes of women nearing retirement age on average £32 per week worse-off and the effect has been substantially larger for women in lower income households, increasing older women's poverty rate by six percent between 2010 and 2016 (223). Twenty-three percent of single female pensioners were living in poverty in 2016/17, compared with 18 percent of single male pensioners (66).

A further change in pension policy, introduced in January 2019, means pensioners with a partner below the retirement age of 65 would need to apply for Universal Credit instead of Pension Credit, which is estimated to create a potential loss of £7,000 per year for pensioners (214).

TAX AND BENEFITS

This report has highlighted the extent of cuts to local government and reduced support for babies, children and families. These cuts, combined with stagnating or reduced wages, have impacted more deprived families and regions significantly more than wealthier regions and families. Since 2010 changes to the benefit system, principally the introduction of Universal Credit (UC), the benefit freeze and changes to tax credits, have significantly and negatively affected low- and middle-income households and children and widened income inequalities penalising the poorest the most (224).

UC aimed to make the system less bureaucratic and complex, a way of simplifying the benefits system. However, the rollout of the system has led to increases in poverty, debt and stress and anxiety for many, worsening health. In 2019 9 out of 10 (92 percent) of NHS mental health trusts in England stated benefit changes had increased the number of people with anxiety, depression and other conditions and increased demand on mental health services (225) (226). The Government announced a 'Universal Services' contract with Citizens Advice, specifically to support people receiving UC, in 2019 (227).

In 2019, 2.5 million people were in receipt of UC, around 800,000 of whom were in work (186). The Institute for Fiscal Studies found UC reduced the income for those in the lowest decile by 1.9 percent, equivalent to £150 per year per adult (228).

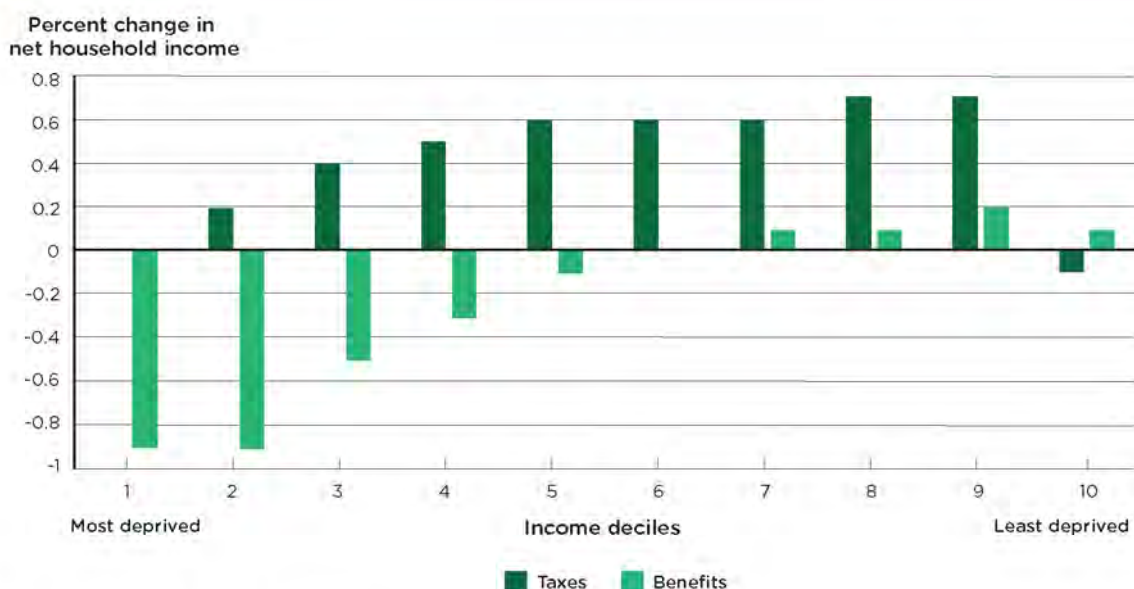
WELFARE REFORM IMPACTS IN COVENTRY

Some Coventry residents have been severely affected by welfare reform since 2013, with loss of income, growth of in-work poverty and increased reliance on foodbanks. The activities of the Steering Group and Marmot partners that relate to this objective have focused largely on mitigating the impacts of welfare reform and promoting access to entitlements, with some work by the Steering Group to promote the Real Living Wage.

Emerging challenges in this area include food insecurity and digital exclusion. The response has been characterised by formation of new partnerships and boards, shared efforts to mitigate the loss of benefits and services, and some difference of opinion about what the priorities should be. Although not part of the 2016 Action Plan, the Marmot Steering Group has recently formed a new Task and Finish Group on Benefits and Entitlements that brings together a sub-group of partners to identify actions that specifically address these issues (229).

Figures 3.36 from the IFS shows that between 2010 and 2015 tax and benefit reforms overall had negative impacts for the poorest 50 percent in the UK. The poorest 20 percent saw the most negative impacts. Meanwhile, the benefit changes were positive for the top 40 percent, which, combined with tax reforms (cuts), have been beneficial to the top 30 percent in particular.

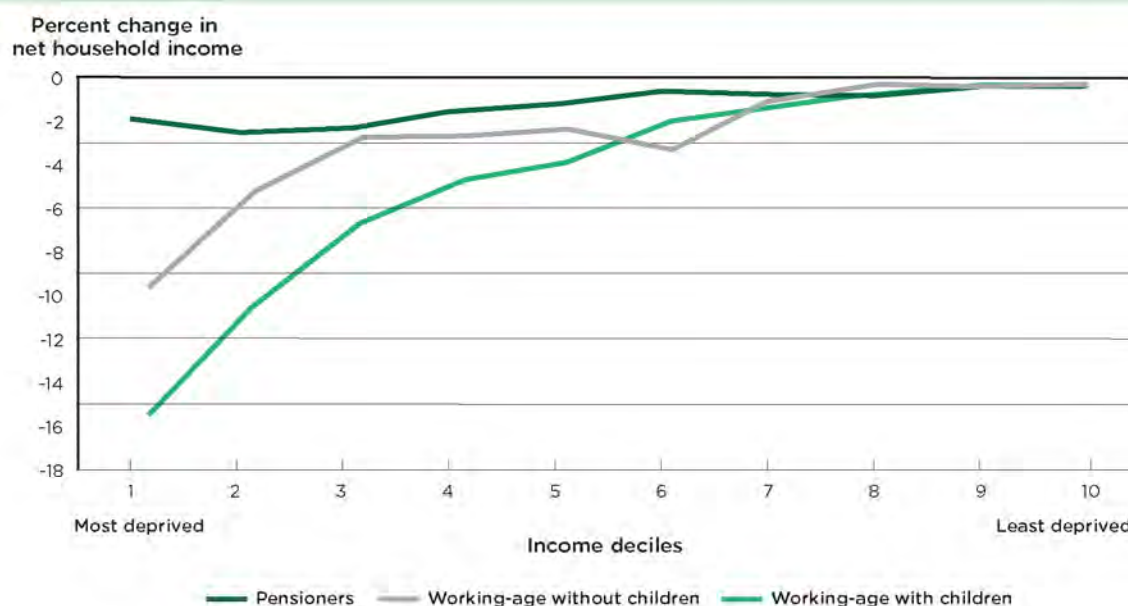
Figure 3.36. Impact on income of tax and benefit reforms implemented between May 2015 and June 2017, by income decile, UK



Source: Institute for Fiscal Studies (230)

Throughout the austerity of the last 10 years, choices have been made as to who most experiences the effects of tax and benefit system reforms. Figure 3.37 shows that working-age families with children within the five lower income deciles have experienced the most significant and negative impacts in the long term as a result of tax and welfare policies.

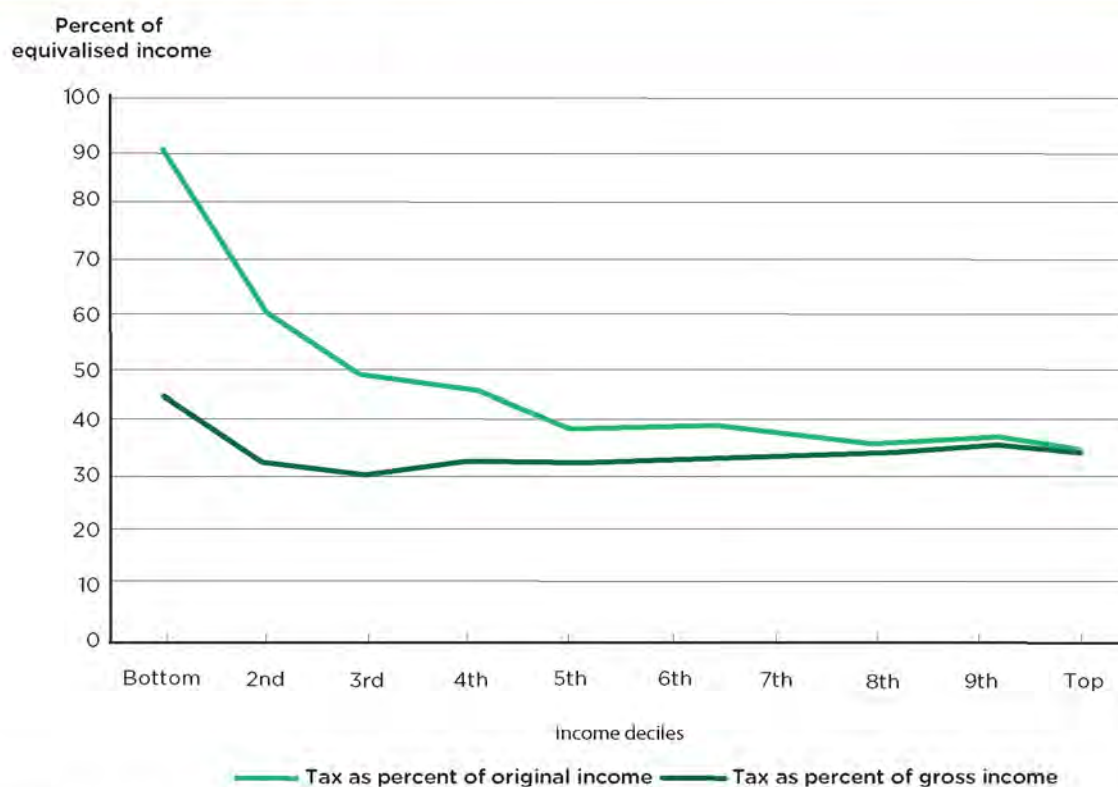
Figure 3.37. Long-run impact of planned tax and benefit reforms, by income decile and household type, UK, May 2015 – June 2017



Source: Institute for Fiscal Studies (230)

Households' gross income is made up of the original earnings that all household members earn and all forms of direct cash benefits. Figure 3.38 shows that the average effect of direct and indirect taxes on the bottom income decile is to take away 90 percent of the household's original income and 44 percent of its gross income (which includes cash benefits). The corresponding figures in the top decile are 34 percent in both cases. That is to say, effective tax rates are higher in the bottom decile than in the top decile.

Figure 3.38. Effective tax rates by average effective household income from earnings and direct cash benefits of all individuals by decile group, 2017/18



Source: ONS, 2020 (231)

Note: Decile groups are based on all individuals in households ranked by equivalised household disposable income

FUEL POVERTY

The impacts of poverty on households include reducing households' ability to heat homes to a sufficient standard to be healthy, which can have serious impacts on health. The report *The Health Impacts of Cold Homes and Fuel Poverty* published by IHE in 2011 showed that the effects of cold homes contribute to excess winter mortality and that 21.5 percent of excess winter deaths can be attributed to cold housing. It also showed a strong relationship between cold indoor temperatures and cardiovascular and respiratory diseases. Children living in cold homes are more than twice as likely to suffer from a variety of respiratory problems as children living in warm homes and mental health is negatively affected by fuel poverty and cold housing for all age groups. More than one in four adolescents living in cold housing are at risk of multiple mental health problems compared with a rate of one in 20 for adolescents who have always lived in warm housing. Cold housing increases the level of minor illnesses such as colds and flu and exacerbates existing conditions such as arthritis and rheumatism (232).

In England households are regarded as fuel-poor if they have fuel costs that are above the national median level, and, were they to spend that amount, they would be left with a residual income below the poverty line (233). In 2017, close to 11 percent of households in England (2.5 million households) were classed as fuel-poor.

FOOD INSECURITY

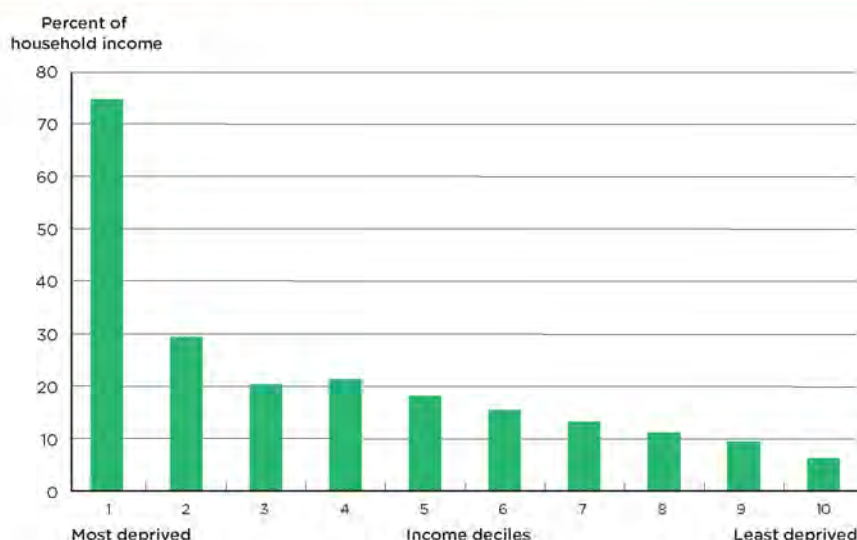
One of the clearest and most immediate impacts of being in poverty is an inability to buy nutritious food. The 2010 Marmot Review discussed the relationship between food and health but the common use of food banks and the term arose after the report was published. There is also widespread concern at food insecurity and poor nutritional intake and impacts on

health and wellbeing; likely contributing to inequalities in cancer, diabetes and coronary heart disease (8). Stress, depression and anxiety associated with food insecurity affect more than half of households who are referred to food banks and a quarter of households have a member with a long-term physical condition or illness in 2018 (234). Children who grow up in food-insecure homes are more likely to have poor health and worse educational outcomes compared with children growing up in food-secure homes (235).

Food insecurity is defined by the Trussell Trust, and academics working with them, as "a household-level economic and social condition of limited or uncertain access to adequate food" (234). Between 2004 and 2016 food insecurity among low-income adults rose from 28 percent in 2004 to 46 percent in 2016 (236). Between 8 and 10 percent of households in the UK were food-insecure between 2016 and 2018, experiencing poor physical and mental health as a result. As another consequence there has been a striking increase in the number of food banks (214). The Trussell Trust network of food banks, constituting around 61 percent of all food banks in the UK, had 65 food banks in early 2011 and 1,200 in 2019 (234).

Eating healthily is completely unaffordable for many families and individuals. In 2019 the Food Foundation analysed price data for 94 healthy and unhealthy foods and drinks (using categories developed by the Food Standards Agency). In each year between 2007 and 2017 the average price of healthy food was more expensive than unhealthy food (237). The poorest 10 percent of English households would need to spend close to three-quarters of their disposable income on food to meet the guidelines in the NHS's Eatwell Guide, compared with only six percent of income for households in the richest decile shown in Figure 3.39 (237). The exhortations and endeavours to eat healthily that figure in many public health approaches to health inequalities must be seen as rather ineffective, given these financial contexts.

Figure 3.39. Proportion of disposable income (after housing costs) used if the Eatwell Guide cost was spent by all households in England, by income decile 2016/17



Source: Food Foundation (237)

The main reasons for increased food insecurity and use of food banks since 2010 are the impact of low wages and increasing costs of other household necessities, and the freezing of benefit rates in 2016 and other changes to the benefit system, which reduced the value of benefits (238). In addition, rising housing costs have been linked to food bank use, with low-income renter households cutting back on food to meet their housing costs (59). The five-week wait for the first Universal Credit payment was identified by the majority (65 percent) of food bank referees (in April–September 2019) as the reason why they had to use the food bank. The impact of UC on food insecurity was also accepted by the Government in February 2019 (214) (239).

FOOD BANKS IN COVENTRY

The Trussell Trust reports that in 2018/19 22,000 people received food from 17 distribution centres in Coventry. The steepest rate of increase came in the second half of the financial year, with the rollout of UC reportedly contributing a 35 percent increase in demand for foodbanks in Coventry. The Trussell Trust reports that many service users were in employment but on low income, zero hour or Minimum Wage contracts (229).

Cuts to support programmes have also had an impact on the availability of food for poorer families. Between 2014/15 and 2017/18 the number of children eligible for Healthy Start, which provides vouchers for healthy food for those claiming benefits and who are pregnant or have young children, fell by 20 percent. In 2018 eligibility for free school meals was limited to families in receipt of UC earning less than £7,400 a year, which decreased the numbers who could receive free school meals (240) (241).

In addition, food welfare budgets, providing fruit and vegetables, milk in nurseries and healthy eating initiatives to poorer families, fell 26 percent in the same period (2014/15 to 2017/18), from £141.3 million to £104.7 million (88). While breakfast clubs have been introduced in some schools to try to provide healthy food to some children, particularly those who are eligible for free school meals, there is no good evaluation of their impact, and raising family income would clearly be a more effective strategy. The Institute for Fiscal Studies evaluated the Magic Breakfast scheme, which funds breakfasts in schools with high proportion of low income children, and found the intervention was more likely to raise the attainment of pupils from less disadvantaged backgrounds (242) (243).

HOUSEHOLD DEBT

Being in unsustainable household debt is associated with harm to physical and mental health and with deepening poverty for those on low incomes. Keeping up with repayments on debts places significant financial and psychological burdens on households and debt has been linked to poorer self-rated physical health, disability, chronic fatigue and obesity, presence of a mental disorder, suicide completion, suicide attempt, problem drinking, drug dependence, depression, OCD, panic disorder, generalised anxiety disorder and psychotic disorders (244) (245). Research shows that 45 percent of adults who are struggling with debt also have a mental health issue (246). Those with lowest socioeconomic position, who are most likely to have to fund essential living costs through debt, will be most affected by the health impacts of debt (247).

Low-income households are much less likely to hold debt than medium- or high-income households, as higher-income households are more likely to hold mortgage debt. However, being in arrears with debt repayments is highly concentrated among the lowest-income households in the UK – 16 percent of those in the lowest income decile are in arrears compared with just 1 percent of those in the highest decile (278).

Figure 3.40 shows trends in the percentage of households with financial debt by region. In 2018, the North East, East Midlands, Yorkshire and the Humber and the North West had the highest rates of households with financial debt, while levels of debt in London declined throughout the period described.

Figure 3.40. Percentage of households with financial debt, by region, 2010–18, England



Source: Office for National Statistics – Wealth and Assets Survey, 2019 (248)

Note: Figures are deflated to April 2016 to March 2018 average prices using the Consumer Prices Index, including owner occupiers' housing costs (CPIH), to reflect the change in the value of money over time

The introduction of Universal Credit has increased the risk of debt for low-income households. The UC system is designed with a delay between filing a claim and receiving benefits. This waiting period can take up to 12 weeks and it pushes many families who may already be in crisis into debt, rent arrears and serious hardship (214). Any advance payments loans, and debt to third parties including for rent, gas and electricity arrears, can be deducted to up to 60 percent of the UC before the payment is even disbursed (214), potentially rendering people destitute, even after their claim is awarded.

CASE STUDY: CAP DEBT SUPPORT GROUP, PETERBOROUGH

The CAP Debt Support Group, run by Open Door Community Action Trust, support residents living in disadvantaged neighbourhoods of Peterborough to get together for weekly coffee mornings to discuss their situations, support one another and build connections while engaging with the debt service.

The project is funded by People's Health Trust through its Active Communities programme, which takes a resident-led approach to addressing health inequalities. The key outcomes for the programme have been increased social connection and greater control through collective activity, both of which are evidenced to support greater health equity (144) (145).

Project membership varies by design. Some who attend are new to debt support, others are at varying stages of progress in resolving debt, and some members are now debt-free. This ensures residents are learning from and inspiring one another, interacting closely, sharing and socialising.

Open Door Community Action Trust works to reduce barriers to ensure that those who need the service can access it. It offers to collect members and take them to the coffee mornings because anxiety, geographical distance and the costs of public transport or petrol are too often barriers to overcoming isolation (249). For those who do attend, the difference is enormous. Ninety-five percent of members have reported feeling less isolated than they did at the start of the project, and all said they enjoyed attending and had made new friends (250).

The project offers substantial practical benefits as members work through the debts that Open Door addresses. The debts often relate to utilities, with many participants unable to pay water, gas or electricity bills, and many have council tax or rent arrears. Residents choose to work through their financial paperwork together, and often share tips on where to shop most cost-effectively.

Participants' wellbeing is strengthened by being able to develop and shape the project. Ninety-eight percent of members feel able to input into the planning and running of project activities, and all report having control over the decisions made about the project, leading to 80 percent of members reporting growing in confidence as a result of taking part (250).

The combination of social connection with opportunities to build confidence and control has been hugely beneficial for participants, helping them to overcome debt and the associated issues in a supportive environment. The project's success has led to attendees reporting feeling like they are part of a small community or family and they now regularly meet socially outside of the sessions to sustain the benefits (141) (250).

Short-term credit loans peaked in 2013, when 1.6 million people took out 10 million loans amounting to a value of £2.5 billion (250). In 2015 new regulations limited the interest rates and fees that so-called 'payday lenders' could charge and introduced enhanced affordability checks. As a result of these changes and claims of mis-selling, many payday loan companies have gone out of business and widespread irresponsible lending and aggressive debt collection practices have been reduced since 2015 (252) (253). Payday loans are still available, however, and lending has again risen since a low in 2015. In the year to 30 June 2018, over 5.4 million high-cost, short-term credit loans (payday loans) were made. While the rules aimed to provide the public with better information, there is evidence that they are still opaque and it is difficult for many to understand the implications of non-payment (253).

CASE STUDY: ACCESSIBLE DEBT ADVICE

Since 2010, welfare and debt advice services situated in GP surgeries have become more common. A joint report from the Royal College of GPs and Citizens Advice found GPs who had advice services in their surgery were more positive about advice services than those who signposted people to support. They also found two-thirds of people who used the advice services within the GP surgery would not have accessed it otherwise. The survey of over 1,000 GPs found close to one-fifth (19 percent) of their consultation time was spent on non-clinical issues. Almost all GP practices in Derbyshire have a service and in Liverpool Advice on Prescription operates across 400 GPs (254). Individual practices across England, from Blackpool to Bradford, also host advice sessions within their surgeries. There is room for improvement; there are approximately 6,990 GPs and in 2015 it was estimated 640 GP surgeries operated welfare and debt advice sessions (255).

In terms of other locations, Sure Start Children's Centres also offer welfare and debt advice. Advice Nottingham offers Money Matters courses, covering issues such as budgeting, dealing with debt and lowering fuel costs (290). A smaller number of hospitals also provide similar support. Northumbria Foundation Trust's Welfare Rights team is funded by the NHS as part of its adult social care provision. It provides advice, training and support, mainly to staff in health and social care (257).

CASE STUDY: IMPROVING FINANCIAL FUTURES IN LEFT-BEHIND PLACES

North West Ipswich is an area that has had problems with illegal loan sharks. The community worked with Eastern Savings & Loans Credit Union to provide advice on saving and budgeting. The union helped nearly 100 residents to open new savings accounts, including 16 children, and provided 22 loans per year over two years, delivering a reduction in interest paid of up to £14,000 per year. It provides loans up to £7,500 to help customers clear overdrafts and rebuild their credit rating. It also ran workshops and recruited and trained local volunteer credit union champions to raise general awareness of the credit union.

As a result, Eastern Savings & Loans Credit Union reports an increase in savers and the total value of savings held by people in the area and it estimates the amount saved by residents in borrowing from the Union, as opposed to other lenders, is between £6,500 and £10,000. It works in partnership with churches, community associations and schools. The project is part of 'Small Change', a Big Local programme, funded by the National Lottery Community Fund (258).

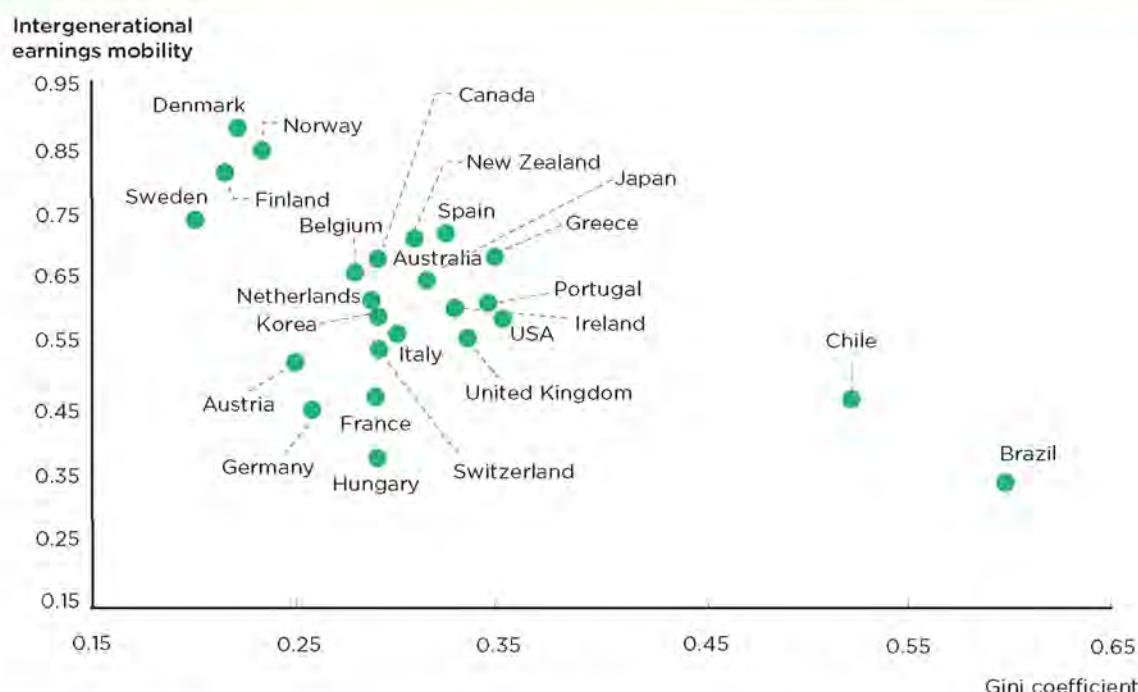
SOCIAL MOBILITY

Social mobility in England has stalled. This is partly a result of stagnating wages, increases in poverty for some and increasing inequalities in wealth, as we have described. It is also a result of the profound and persistent socioeconomic inequalities in experiences in early years, education and the labour market. The OECD stated in 2018 that social mobility had been stagnating in the UK, and that social mobility was "so frozen that it would take five generations for a poorer family in the UK to reach the average income" (259). It found just under one-fifth of the children of low-income families go on to become high earners (259). In more socially mobile countries such as Denmark, Finland, Norway and Sweden, people's economic status is less strongly related to their parent's than in most OECD countries (259). In Denmark it can take individuals born to a low income family two generations to reach the average national income, and in other Scandinavian countries it may take three generations in contrast with five generations in the US and the UK (293).

Social mobility is even less likely to occur in many Northern cities and coastal towns, due to higher rates of unemployment and poverty, low incomes, lower rates of home ownership, and lower levels of educational attainment in these places (260). Education, housing, income, taxation and social protection policies have undermined, not supported, social mobility. This means that unfair and widening inequalities in health, which are related to social and economic status, are stuck and persistent and are transmitted down through generations. This is what was referred to in the European Review for EURO as the "intergenerational transmission of inequity" (261).

Figure 3.41 shows how in countries across the world, high levels of income inequality (illustrated by the Gini coefficient) are associated with lower levels of social mobility. Britain has higher income inequality and lower social mobility rates than many other European and OECD countries.

Figure 3.41. Intergenerational earnings mobility and income inequality (Gini coefficient), OECD countries, 2017



Source: OECD data, 2020 (262)

Note: The Gini coefficient measures compares the cumulative proportions of the population against cumulative proportions of income they receive. A score of 0 is perfect equality and 1 in perfect inequality. It is a measure of the extent to which the distribution of income (either among individuals or households) within an economy deviates from a perfectly equal distribution.

PROPOSALS FOR ACTION

This section has highlighted some of the critical issues that have impacted on health inequalities since 2010: stagnating and declining wages, rising inequalities in wealth and between regions, rising inequalities in wealth between those at the top and bottom of the income distribution, increasing rates of poverty, particularly for those in work, and low levels of social mobility. The impacts on health of these changes will be profound and will at least partly driven the rising health inequalities and deteriorations in health described in Section 2. The inequalities described here are largely the result of national tax and benefit policy responses since 2010, principally through benefit and taxation policies. As the Government's stated objective is to roll back austerity here we briefly describe options for doing this in a way that benefits health and reduces health inequalities (263).

INCLUSIVE ECONOMIES

Since 2010 inclusive economy approaches, which place social, health and wellbeing considerations and reducing inequalities at the heart of economic and welfare policy, have increased. The All-Party Parliamentary Group on Inclusive Growth defines inclusive growth in its broadest terms, encompassing society, economy and health and redefining what is central in creating value – people (264). The OECD defines inclusive growth as incorporating "economic growth that is distributed fairly across society... [and] creates opportunities for all" (264) (265). Inclusive growth and inclusive economies put communities at the centre of economic success (266) (267). These types of approach hold promise for reducing inequalities in social determinants and in health, and for redefining notions of progress as more than just unequal economic growth.

CASE STUDY: BUILDING AND SUSTAINING COMMUNITIES IN NORTHERN IRELAND

The Resurgam Trust is based in Lisburn, an affluent city masking pockets of deprivation. These deprived areas constitute the Resurgam Communities. The Resurgam Trust was formed in 2011 following a journey of community transformation from conflict to peace spanning two decades. Resurgam brought together several smaller community organisations and is a membership organisation with 1,000 individual members, 32 member groups, six social enterprises and more than 500 volunteers.

A key aspect of the holistic model of regeneration delivered by the Resurgam Trust is creating and sustaining social enterprises. The commitment to social enterprise business was to create employment for local people. Redistribution of profits shared the benefit for all in the community and was a key strand of the regeneration component. The initial development of social enterprise businesses was generally based on minimal financial investment, extensive community fundraising and heavily supported by volunteers.

The community-led social enterprise businesses include:

- Premier Taxi company, set up in 2005 and started with five drivers using one car with a pool of volunteers/radio operators. At present Premier Taxi company is one of the largest companies in Lisburn with two paid staff, core volunteer operators and approximately 50 self-employed drivers. The company operates within strict taxi operator licensing legislation and is the first fully licensed taxi company in Lisburn City. The service is 24 hour which has enabled the taxi depot to become a 'Safe Zone' for Lisburn City, supported by Lisburn Policing and Community Safety Partnership, the Police Service of Northern Ireland and Northern Ireland Ambulance Service. The staff have been trained to support anyone who is feeling threatened, vulnerable or unwell. Partnerships have been possible to ensure they can contribute to alcohol awareness programmes, training the staff and drivers and promoting safer drinking messages within promotional materials and other relevant health promotion messages. Premier Taxi company in 2016/17 had an annual turnover of £120,000, from which it was able to donate a £3,000 surplus to the Resurgam Trust to support community development activity.
- Lisburn Community Inns Ltd, created in 2007 when the local community approached a membership group of Resurgam Trust to explore options to purchase the local pub rather than have it sold and the land converted to private housing. In 2007 Lisburn Community Inn Ltd was established as a community-based social enterprise. The premises consist of a bar, off-licence sales, café and outside catering services and the venue hosts weddings, parties and other private events. Resurgam raised £380,000 to purchase the building and develop a new community-owned pub trading as the Highway Inn. In 2017/18 the Highway Inn Bar and Kitchen, which now employs eight members of staff, had an annual turnover of nearly £472,000, with a £15,000 of surplus funds donated to the Resurgam Trust. The space is also a hub of activity for the entire community including a weight loss club, book club, men's health programmes, pain management programmes, health checks, summer lunch clubs for children addressing food insecurity, a hub for distribution of food waste from supermarkets, 'come dine with me' cookery competitions, volunteers trained as drug and alcohol responders and many more social programmes.

Resurgam strives to be a supportive workplace and operates a health and wellbeing plan for all staff and volunteers, which is reviewed annually. The plan ensures staff are not only provided with employment but that the employment is good quality, staff receive the living wage, have a pension schemes, holiday club, private health insurance and support for a cycle to work scheme (268).

Social value approaches offer opportunities in supporting approaches to contracting that build in social value, as well as economic value, as a criterion for awarding contracts and spending public money (269). Social value contracting is appropriate for public and private sector spending and there are excellent examples of positive action from both sectors. Social Value Legislation, in place since 2013, requires that public sector consider social value criteria in the procurement of services. Many local areas have beneficially developed social value approaches to ensure that public sector spending benefits the local economy and people, including protecting and supporting better health (270).

Community wealth building projects have generated £75m worth of contracts awarded to local businesses, and saw 4,000 new people receiving the Real Living Wages in 2017 (271). The example of a project run between the Centre for Local Economic Strategies (CLES) and Preston and Lancashire Councils shows that community wealth building works and it succeeds when it is a shared process, where areas work together in partnerships, and that progressive procurement places social value at the centre, which means buying local is not always the best choice. Community wealth building requires consideration of geographical, social and environmental factors (271). Manchester City Council was one of the first areas to adopt social value and began thinking about progressive procurement in 2008, before the Social Value Act was introduced. MCC have both increased the proportion of their budget spent in the local economy and have sought to produce better social and economic outcomes in the community such as providing good local employment, training and development. The proportion of MCC's spending going to local organisations increased by 22 percent between 2008/09 and 2015/16 (306).

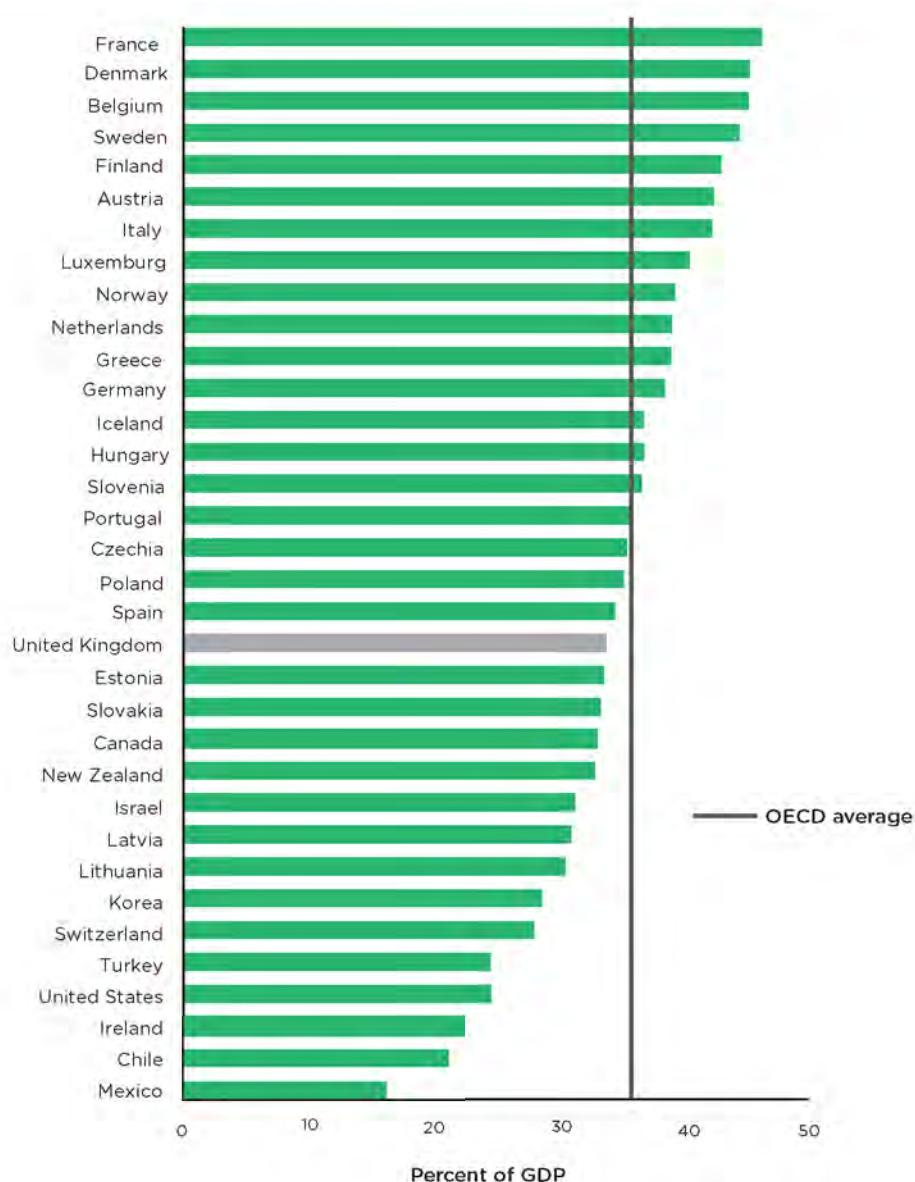
Wales has also adopted a progressive approach through strong procurement policies. Wales was able to increase public spending to Wales-based businesses from 35 percent in 2005 to 55 percent in 2015 (273). These concrete changes can be pivotal in addressing socioeconomic inequalities and health disparities, and encourage citizen-led initiatives, which are central to creating local cohesion and a sense of community.



As government spending increases again it is vitally important that such reinvestment recompenses for the cuts of the past decade, so that those hit the hardest benefit most and first. Spending must therefore be more proportionate to need than it is currently. This proportionate resource allocation approach is now even more critical.

One option is to implement progressive taxation systems, to increase spending, and reduce need. It is assumed that the public would not countenance increases in taxation. However, opinion polls repeatedly show the public are willing to pay more taxes, particularly if the money raised is used to fund the NHS. In 2018 the British Social Attitudes survey found 60 percent of the UK public were in favour of the Government increasing tax to spend more, an increase from 49 percent of the public who responded in this way in 2016 and 31 percent in 2010 (308) (309). In any case, taxation levels are not particularly high compared with other European and OECD countries. Figure 3.42 shows that tax revenues in the UK were at 34 percent of GDP in 2018, placing the UK below the OECD average and below EU countries.

Figure 3.42. Tax revenue as a percentage of GDP, OECD countries with latest data available for 2018



Source: OECD, 2020 (276)

Recommendations for ensuring a healthy standard of living for all

- Ensure everyone has a minimum income for healthy living through increases to the National Living Wage and redesign of Universal Credit.
- Remove sanctions and reduce conditionalities in welfare payments.
- Put health equity and wellbeing at the heart of local, regional and national economic planning and strategy.
- Adopt inclusive growth and social value approaches nationally and locally to value health and wellbeing as well as, or more than, economic efficiency.
- Review the taxation and benefit system to ensure it achieves greater equity and is not regressive.

3E - Create and develop healthy and sustainable places and communities

SUMMARY

- There are more areas of intense deprivation in the North, Midlands and in southern coastal towns than in the rest of England, whilst other parts of England have thrived in the last ten years, these areas have been left ignored.
- Since 2010 government spending has decreased most in the most deprived places and cuts in services outside health and social care have hit more deprived communities the hardest.
- The costs of housing, including social housing, have increased, pushing many people into poverty, and ill health.
- The number of non-decent homes has decreased, even in the private rental sector, but this sector still has high levels of cold, damp and poor conditions, and insecure tenures which harm health.
- Homelessness and rough sleeping has risen significantly, by 165 percent between 2010 and 2017. In 2018 there were 69 percent more children in homeless families living in temporary accommodation than in 2010.
- Harm to health from climate change is increasing and will affect more deprived communities the most in future.
- In London 46 percent of the most deprived areas have concentrations above the EU limit for nitrogen dioxide, compared to two percent in the least deprived areas.

Empowering and sustaining communities was central to the 2010 Marmot Review: an overarching theme was to "create an enabling society that maximises individual and community potential". The Marmot Review assessed the importance of communities in shaping physical and mental health and wellbeing and described how inequalities among communities are related to inequalities in health. Since 2010 these community inequalities have, in many ways, widened.

The 2010 Marmot Review had two objectives in relation to communities and places:

1 Develop common policies to reduce the scale and impact of climate change and health inequalities.

2 Improve community capital and reduce social isolation across the social gradient (3)

So far, Section 3 has described inequalities in key social determinants, outlining how they have changed since 2010. All these changes and impacts accumulate and are situated in places and communities, which together shape the lives and health of people. Since 2010, many already deprived communities have faced even greater hardship and loss of assets and resources. This section begins with a focus on communities that have seen deteriorations in the years since the 2010 Marmot Review.

Housing affects health, and health inequalities, in many ways too – particularly through cost, housing conditions and security of tenure. The 2010 Marmot Review touched on housing, but at the time it was considered less of a health issue than in the years that have followed. This section reviews how housing impacts on health and drives many health inequalities.

Finally, this section discusses climate change, which has become even more of a critical issue since 2010. We point out ways in which climate change will negatively impact health and further widen health inequalities and suggest ways in which climate change mitigation and adaptation efforts can support equity.

IGNORED PLACES

The cumulative experiences of multiple forms of disadvantage interact with and are exacerbated by features of the communities in which people live (277). Communities and places drive and shape health in direct and indirect ways. Directly, communities can positively affect health through the services they provide and the resources they have – this includes provision of good quality early years, mental health, community and health services, a sense of safety, green spaces for activities, sports facilities, active travel initiatives, healthy high streets and good education facilities. Indirectly, communities can positively influence health through supporting the development of social capital and cohesion and feelings of safety, low levels of which are associated with higher stress and worse physical and mental health (278) (279).

Since 2010, in many places, levels of deprivation and exclusion have intensified. Throughout England there are communities and places that have been labelled 'left behind', where multiple forms of deprivation intersect and where deprivation has persisted for many years with little prospect of alleviation. We call them ignored communities. Over the last 10 years, these ignored communities and areas have seen vital physical and community assets lost, resources and funding reduced, community and voluntary sector services decimated and public services cut, all of which have damaged health and widened inequalities (280) (281) (282). These lost assets and services compound the multiple economic and social deprivations, including high rates of persistent poverty and low income, high levels of debt, poor health and poor housing that are already faced by many residents.

In 2019 the Local Trust, which delivers programmes funded by the National Lottery Community Fund, used the Index of Multiple Deprivation (IMD) and multiple national data sources to identify areas in England at the ward level that have been 'left behind': that is, experiencing both disadvantage from high levels of deprivation and a lack of community and civic assets, infrastructure and investment (283). The analysis identified 206 left-behind wards in England, accounting for four percent of the population. The main concentration of left-behind areas was found in post-industrial areas in northern England and in coastal areas in southern England. There were also large concentrations in housing estates in big towns and cities, including Manchester, Merseyside, Birmingham, Middlesbrough, Hull and Stoke-on-Trent.

Compared with other deprived areas, left-behind wards were more likely to:

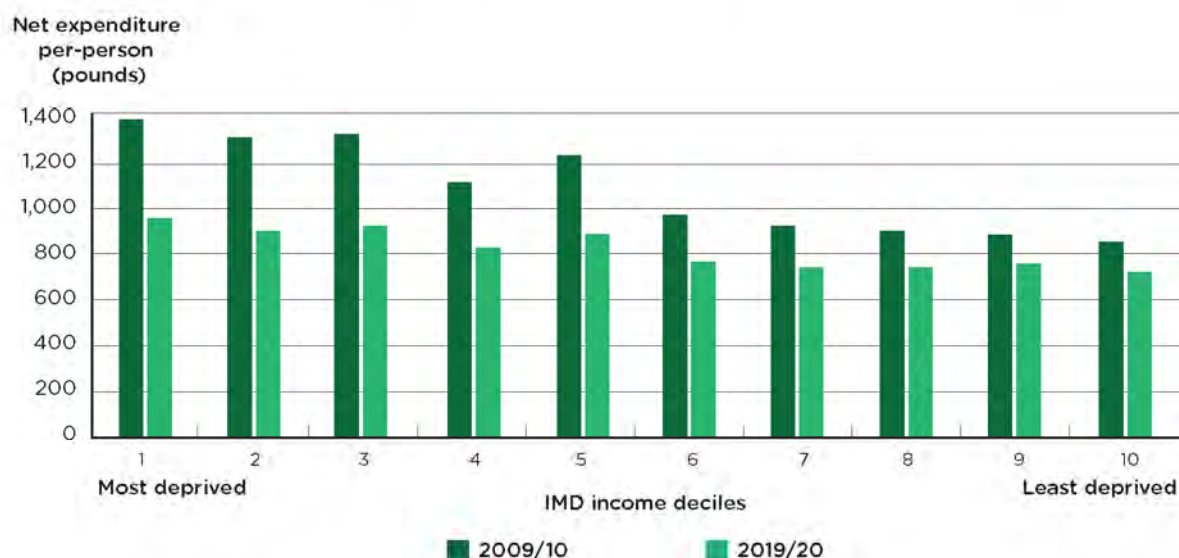
- Have higher rates of unemployment (more than double the national average), child poverty and lone parent families
- Be in worse health (with worse rates of work-limiting illnesses, lung cancer, worse prevalence of coronary heart disease, diabetes, high blood pressure, obesity and kidney disease)
- Have a smaller working-age population, lower population growth, lower levels of skills and formal qualifications, and be less likely to have residents pursuing further education
- Have lower levels of home ownership, with residents more likely to live in social rented housing
- Be of White British background
- Have lower average levels of funding per head for local government services, despite higher levels of need (283)



FUNDING CUTS

Since the 2010 Marmot Review, the most deprived communities and places have lost more funding than less deprived communities (280) (284). Poorer areas, where council tax receipts and business rates are already low, require a greater proportion of their funding from central government grants to local authorities yet it is in these areas, with the greatest need, where grants have been cut the most (285) (286) (287) (288). Figure 3.43 shows that since 2009/10 net expenditure per person in the most deprived local authorities has fallen by 31 percent, compared with a 16 percent decrease in the least deprived areas (289).

Figure 3.43. Local authority expenditure 2009/10–2019/20, IMD quintile (2019/20 real terms)

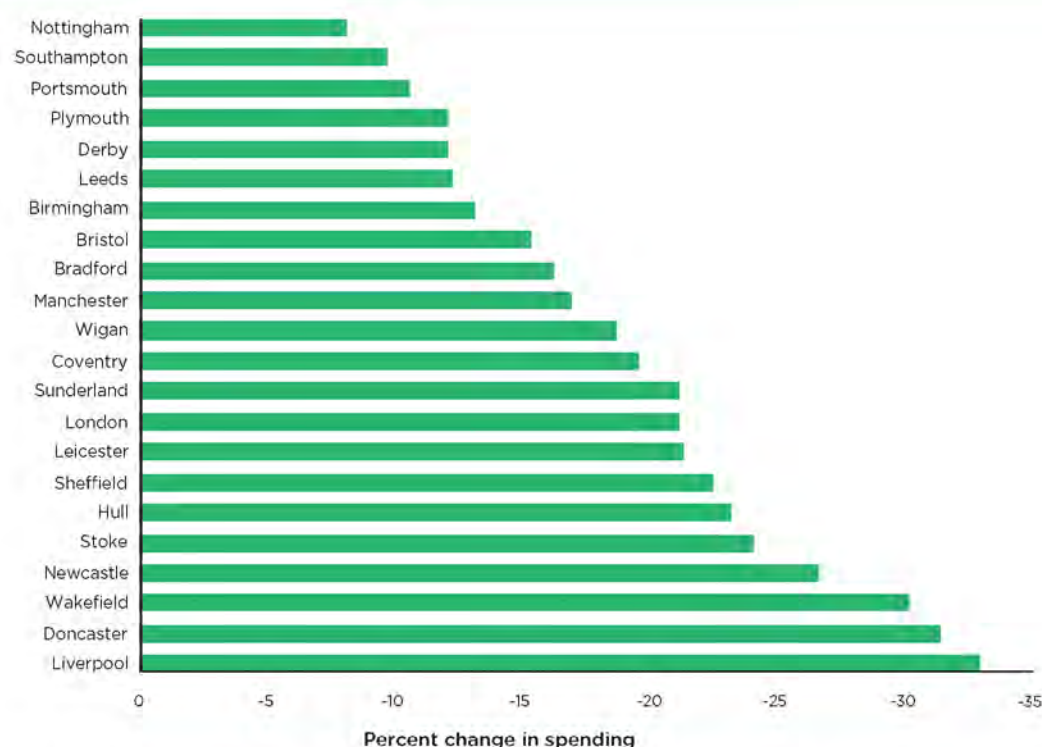


Source: IFS analysis of Ministry of Housing, Communities and Local Government (323)

Analysis by the Institute for Fiscal Studies (IFS) provides further evidence of the regressive nature of the cuts (290). Between 2009/10 and 2019/20 the most deprived tenth of councils had their fiscal revenues per person decline by just under 30 percent, or £453 per person. In comparison, the least deprived tenth of councils saw their fiscal revenues decline by 16 percent, £166 per person (290). Cuts have also been more substantial in different regions: in the North East spending per person fell by 30 percent, compared with cuts of 15 percent in the South West (290). Neighbourhoods in the North of England, including the North West and Teesside (within the North East), and in the West and East Midlands, make up the majority of the most deprived neighbourhoods that are dealing with the largest cuts. At the neighbourhood level these cuts are substantial. For example, in Sheffield the ward with the deepest cuts, Firth Park, is estimated to have lost five times as much per working age adult as the least affected ward, Broomhill (291); Firth Park has the highest levels of child poverty in Sheffield (291) (292).

Figure 3.44 shows the scale of the cuts to towns and cities with more than 250,000 people. The cuts have been hardest on Liverpool, where they equate to decrease of £816 for every resident between 2009/10 to 2017/18 (327).

Figure 3.44 Changes in total spending, towns and cities in England with >250,000 population, 2009/10 to 2017/18 (2017/18 prices)



Source: Centre for Cities (293)

Note: Total spending – day-to-day total expenditure in areas local government has responsibility for (excluding education, fire, police) since 2009/10. Excludes public health as became responsibility of local government in 2013.

In response to the cuts, councils have used reserves, sold assets and reduced spending on the non-statutory services they are not legally required to deliver (294). The Local Government Association calculated that councils in England are facing a funding gap of £3.1 billion in 2020/21, increasing to £8 billion in 2024/25 (295). There will need to be substantial and long-term increases to local authority funding, which provides the bulk of essential services that make communities and places thrive, to restore services to previous levels. These reinvestments must be made first and most to those areas that have lost the most, and where need is highest.

Table 3.4 shows the level of cuts to statutory and non-statutory services, with planning, housing and culture experiencing the largest cuts.

Table 3.4. Net spending per person by local authority service 2009/10 and 2019/20, England (2019/20 pounds per person)

Service	2009/10 (Pounds per person)	2019/20 (Pounds per person)	Percent change
Planning	52	21	-59
Housing	62	30	-52
Culture	78	37	-52
Transport	148	86	-42
Central and other services*	80	57	-29
Environment and regulation	120	92	-24
Adult social care	359	333	-7
Child social care	145	148	2

Source: IFS calculations of Ministry of Housing, Communities and Local Government data (290)

* Services such as council tax administration and corporate services

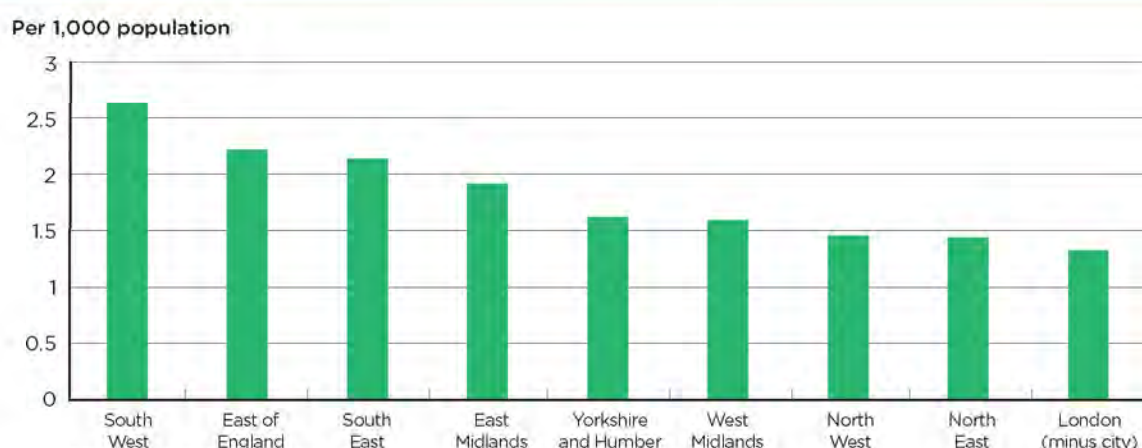
The impact of cuts equates to more than just an absence of jobs or decline in services: the cuts have deeply affected the sense of identity and control in these communities and places. An analysis by Civil Society Futures, an independent inquiry into the future of civil society in England, asked people to determine why they had lost faith in institutions that are supposed to help and represent them. The inquiry determined that people lose confidence in their communities and institutions when they feel their voices no longer matter, and when they feel cut off from other places because of the economic inequality and precariousness in their own communities (281).

IMPACTS OF CUTS ON COMMUNITY AND VOLUNTARY SECTOR AND OTHER SERVICES

Community and voluntary groups and organisations play a vital role in supporting community resources and health and wellbeing at the local level. Cuts to local authorities have led to significant cuts to the community and voluntary sector, which have compromised many organisations and threatened their ability to deliver services. Between 2010/11 and 2015/16 £802 million was cut from the voluntary sector by local government and according to Local Giving's survey of over 680 UK charities in 2017/18, fewer than one in two local charities are confident they will still be operating in 2021 (287) (296). Despite the reductions in budgets, the number of charities is increasing, however, the location of charities does not necessarily correspond to areas with highest need (297). In 2016/17 the largest density of charities was registered in the South West and the lowest in the North East, North West and London. Eight of the 10 most deprived neighbourhoods are in Blackpool, yet the town had the smallest number of charities operating relative to local population size (298) (Figure 3.45).



Figure 3.45. Charity density by region (number of registered local general charities per 1,000 population), England, 2016/17



Source: National Council of Voluntary Organisations (297)

There have also been severe cuts in specific policies and interventions that contribute to empowering communities and ensuring services are available to all. With reductions in legal aid budgets and strict means testing, the availability of legal aid providers has declined in many parts of England. Between 2005 and 2018, more than half (56 percent) of all legal aid providers across England and Wales were lost (299). The head of justice at the Law Society declared there were “legal aid deserts” in England and Wales as half of legal aid providers were based in London while in more than half of local authorities in England and Wales there is no publicly funded legal advice for housing. The Law Society president concludes, “legal rights are meaningless if people can’t enforce them” (297) (301).

Legal problems have an impact on health services. In England, in the absence of legal advice, the NHS deals with increased stress levels and more people turn to their GPs as the only form of free advice they have access to (302). Many GP surgeries have Citizens Advice in the surgery to support patients, as Citizens Advice often intervened before the problems in clients’ lives led to serious mental or physical health problems (303). The advice on offer from Citizens Advice often involves securing benefits people are entitled to but unaware of and their financial advisors. In 2015 it was estimated there were 640 financial advisors in GP surgeries (255).

COMMUNITY CONTROL AND EMPOWERMENT

“The central ambition of this Review is to create the conditions for people to take control over their own lives” (3). This quote from the 2010 Marmot Review shows the priority the Review gave to empowering people and communities. A feeling of sense of control over one’s own life is a key factor for wellbeing and health (304). Low control is associated with poorer health outcomes, greater levels of stress and anxiety and lower engagement in health-promoting behaviours (305) (306). A sense of community control is also important to overall community health (209). Social cohesion and a sense of trust and belonging are all components of a sense of control (184).

Differences in individuals’ level of control over life are related to income and education. In general, those in lower income groups perceive themselves to have lower levels of control than higher income groups, and those with lower educational attainment have lower levels of perceived control than those with higher levels of education (48).

CASE STUDY: THE LOCAL CONVERSATION, LONGBENTON, NORTH TYNESIDE

The Local Conversation in Longbenton is supported by Justice Prince CIC, a community organisation with longstanding roots in this socioeconomically disadvantaged district of North Tyneside. It is funded by People’s Health Trust. Residents are leading a range of activities, mapping local sources of power and charting how they can bring about change for themselves, their families and the wider community.

The residents of Longbenton’s priorities are: local environment; the availability and affordability of fresh fruit and vegetables; employability; and the isolation of older residents. They are building community connections, working to combat social isolation and bring people together. Ninety-eight percent of residents in Longbenton are satisfied with the local area as a place to live, in contrast with an average of 76 percent in England, and an average 64 percent in similarly disadvantaged neighbourhoods (307).

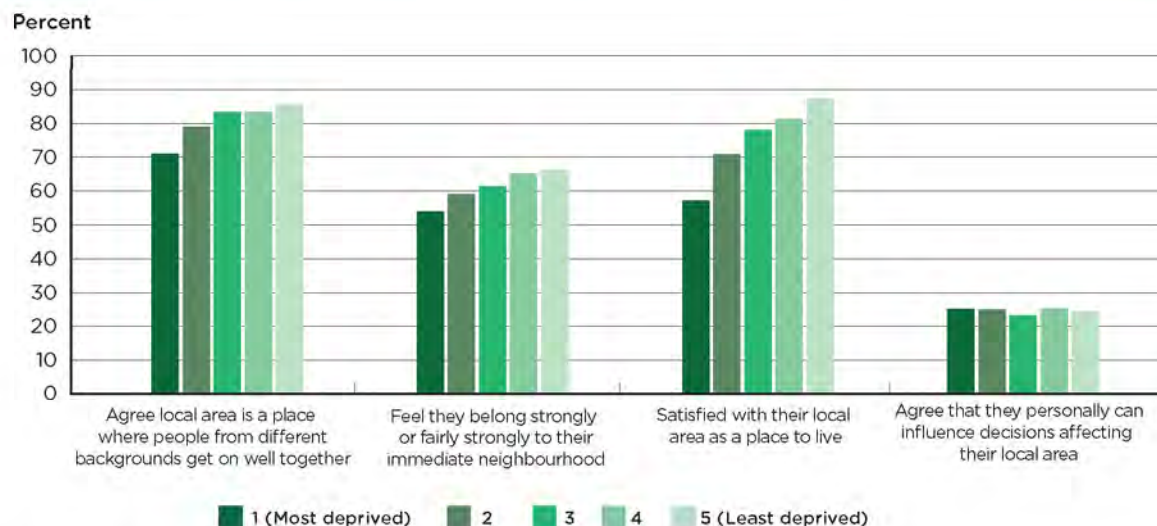
All residents involved report a growth in confidence through the project and 95 percent have learnt or developed new skills. Many have qualified as Community Development Practitioners, and see clearly how their actions impact against the social determinants of health and how they can start to address health inequalities. Those first engaged in the project in 2014 remain closely involved and deeply passionate.

The project’s delivery model includes a range of decision-making mechanisms, ensuring residents can influence decisions and get involved in ways that are the most meaningful to them. This non-prescriptive approach supports the spread of control across the neighbourhood and underlies the success, with 85 percent of residents reporting having the power to make important decisions that can change the course of their lives.

As Justice Prince has grown in size and experience, so too has it grown in influence. The community organisation now holds strong relationships with the Mayor of North Tyneside and the local MP, both vital as it seeks to influence the decisions that directly impact on the health of the residents of Longbenton (141).

In England, levels of trust in local neighbourhoods have declined recently, with 48 percent agreeing in 2013–14 that people who lived in their neighbourhood could be trusted, falling to 40 percent in 2018–19 (308). There is a social gradient in measures of community cohesion, described in Figure 3.46.

Figure 3.46. Community cohesion and inequalities measures, England 2018/19



Source: National Council of Voluntary Organisations (297)

CASE STUDY: ENGLISH FOR ACTION

English for Action (EFA) provides participatory English for Speakers of Other Languages (ESOL) classes for adult migrants who live in Bow, London Borough of Tower Hamlets. The project is helping local people to feel more confident and build stronger networks in their community by enhancing their English language skills. The project is funded by People's Health Trust through its Active Communities programme.

The aim of EFA is to support participants to create and participate in an equal and fair society by providing free English classes to those who might not have had the opportunity or funding to learn. Participants are in control of the learning process, which has a strong practical and people-led focus. Participants run the project through a planning committee. This means that the English language skills they focus on developing are specifically oriented towards their practical goals, whether around health and wellbeing, work or something else, which enhances commitment and engagement with the project.

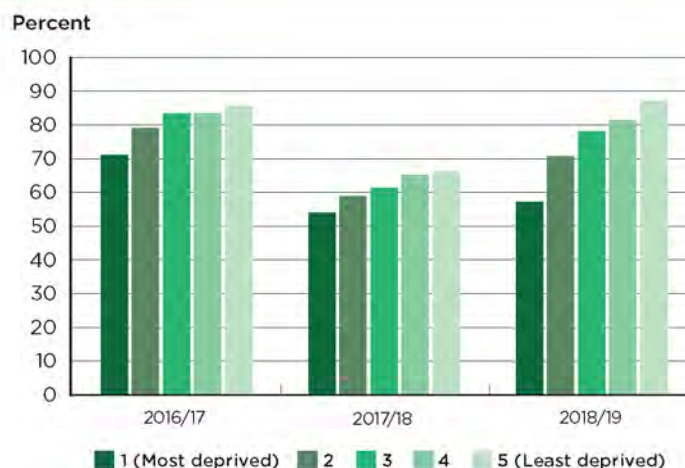
More than 30 members attend weekly, and they are all keen to enhance their life circumstances and support one another. In time, EFA aims to build the participants' capacity to take collective action on problems they face around key social determinants, such as poor housing and working conditions, hate crime and migrants' rights.

Some project members who did not speak any English previously are now fluent. Others have been equipped to develop a business or social enterprise, while many more have equipped themselves for employment through CV workshops and practice interviews, which build confidence. Formal examinations and accreditation are on offer and support people to continue their progress. All of these skills support participants to have the confidence to begin addressing other social determinants of health in their neighbourhood.

Eighty percent of EFA participants report feeling more connected within their community, and have had the opportunity to form new friendships with other participants as a result of taking part. Eighty percent also report that their social networks have expanded through their involvement in the project. As one participant stated: "I think so many doors can be opened for you if you know English. This country is full of opportunities and you need to find the right way to take them" (141).

Resident satisfaction with their local area has also declined since 2010 and is related to income level. In 2018-19, 76 percent of people were either very or fairly satisfied with their local area as a place to live, a decrease from 80 percent in 2013-14. From 2016-17 the results of this question in the Community Life Survey from the Department for Digital, Culture, Media and Sport have been examined by income quintile and Figure 3.47 shows that deprivation affects levels of satisfaction: as incomes increase, so too do levels of satisfaction.

Figure 3.47. Percentage of adults who are satisfied with their local area as a place to live, 2016/17 to 2018/9, by IMD quintile



Source: Ministry of Housing, Communities and Local Government (319)

CASE STUDY: SHIFTING COMMUNITY OUTCOMES IN GREATER MANCHESTER

Holts and Lees are areas of high deprivation in Oldham, Greater Manchester. In Oldham more than one in three children live in poverty after housing costs. In the 2019 Index of Multiple Deprivation there was an increase, since 2015, in Oldham in the proportion of neighbourhoods in the most deprived 10 percent in England. Holts and Lees have adopted a 'Place Based' approach and it is one of four sites in Greater Manchester that was selected to establish a new way of working across more than 10 partner organisations focusing on a small area. This involved shifting from higher cost targeted services to universal services and to encouraging residents to help themselves to solve problems. Services provide a supportive brokerage role, asking what residents can do for themselves.

The project began in 2016 and the team has nine full- and part-time officers from housing, police, the council, health, probation and the community and voluntary sector. The aim is to improve outcomes for people as well as making systems more efficient. Outcomes in the first two years included 400 children taking part in a holiday activity and 60 residents participating in a community clean-up (311). The project is part of the Oldham Model 2017-2022, which has 'Thriving Communities' as one of its three key ambitions. Thriving Communities aims to reduce social isolation, encourage participation in community events, actions and volunteering and improve the built environment (312).

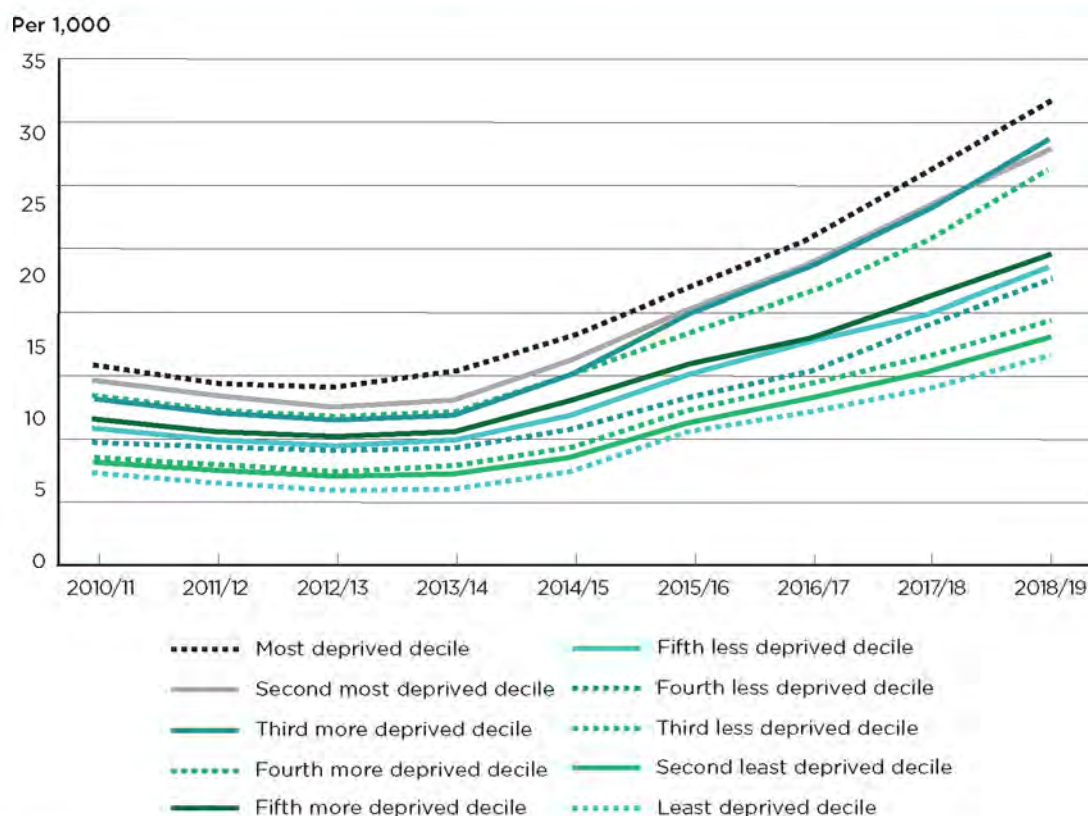
CRIME

Crime and the fear of crime have physical and psychological effects such as whether or not people feel safe and in control in their communities. These, in turn, influence health inequalities. Victims of crime and offenders are more likely to live in England's most deprived areas than in better-off areas (313). People living on lower incomes are much more likely than wealthier people to fear crime and to be the victims of crime (314). Compared with households on incomes above £50,000, households on incomes below £10,000 are:

- Twice as likely to suffer violence with injury
- Twice as likely to be burgled
- Three times as likely to be robbed or mugged
- Three times as likely to suffer rape or attempted rape
- Six times as likely to be a victim of domestic violence (314)

Since 2010, crime rates have declined in England but violence against the person is increasing and the gap in terms of the likelihood of being a victim of this type of crime is widening between people living in the most and least deprived local authorities. In 2016/17 the rate of violence against the person was 26.2 per 1,000 people in the most deprived areas compared with 15.3 per 1,000 in the least deprived areas (313). The rise in violent youth crime for young males in deprived areas was discussed in Section 3B.

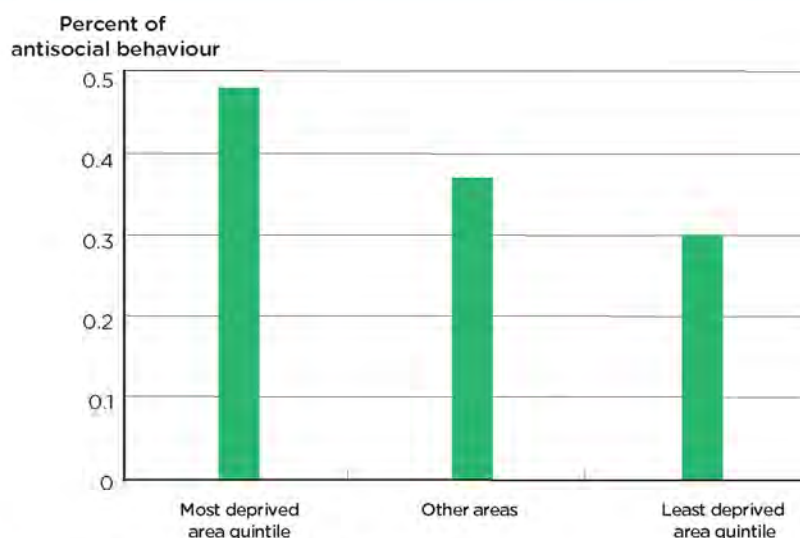
Figure 3.48. Trends in violence against the person offences recorded by the police, rate per 1,000 population, deprivation deciles England, 2010/11 to 2018/19



Source: PHE Fingertips tool, 2020 (315)

The rate of anti-social behaviour and being a victim of this behaviour is also more common in the most deprived areas in England and Wales compared with better-off areas (Figure 3.49). Anti-social behaviour undermines social cohesion and community function and increases community dissatisfaction and feeling unsafe in the community, all of which undermine health (316).

Figure 3.49. Experience of anti-social behaviour in local areas, by Indices of Deprivation, England, year ending March 2019



Source: Ministry of Housing, Communities and Local Government (354)

CASE STUDY: EDBERTS HOUSE, GATESHEAD - REDUCING ANTI-SOCIAL BEHAVIOUR AND BUILDING COMMUNITY

Edberts House was established in 2009, when residents in East Gateshead applied to the council for a lease to enable them to make their community a happier, healthier and friendlier place to live. In 2009 the anti-social behaviour rate in the area was 14.6 incidents per 100 tenants, against an average in Gateshead of 4.2. Today, the anti-social behaviour rate in the neighbourhood stands at 0.7 incidents per 100 tenants, a powerful indicator of the initiative's success (318).

People's Health Trust started funding Edberts House in January 2015 through its Local Conversations programme, which contributes to its overall aim of reducing health inequalities. The local residents' identified priorities included: activities for young people, employability, money management, health, and bringing the community together. They operate in the most disadvantaged decile in England, and the most disadvantaged lower super output area in Gateshead (319).

At the heart of change is the encouragement of participants to take control of the decisions that affect them while having the opportunity to access a huge diversity of activities, training and developments within the neighbourhood that are tailored for them. Residents in East Gateshead have gained more than 250 qualifications, and new and better jobs, and many have volunteered to increase their involvement, leading new activities.

The Local Conversation on the Old Fold and Nest Estates has taken a systems approach to its work, mapping out local power-holders, decision-makers and access routes to better health outcomes (320). After identifying gaps in delivery, the participants have launched a men's group, a refugee support group, and a school readiness project in partnership with local schools. They have also formed flourishing partnerships with local schools, universities, Gateshead Council and, importantly, local GPs, a scheme expanded to all 29 GP surgeries in the borough.

Through the Local Conversation, Edberts House has pioneered a nationally-influential Community Linking project, which places community development workers in GPs' surgeries for patients with non-clinical issues. They listen to these patients and outline opportunities available through Edberts House's work. Community Linking supports more than 700 residents across Gateshead, and residents accessing the scheme have reduced how often they visit the doctor by over 25 per cent (318).

Edberts House is supporting residents to narrow health inequalities, form relationships with groups of people they would not usually interact with, and take pride in their neighbourhood. The impact is already clear and still growing: those involved report life satisfaction levels on a par with the English national average, and outperform English national averages for levels of trust, sense of belonging and levels of anxiety (141).

BUILT ENVIRONMENT AND AIR POLLUTION

The built and natural environment is a key determinant of inequalities in health and wellbeing and the environment in which we live is inextricably linked to our health across the life course. The 2010 Marmot Review recommended integrating health with planning, transport, environment and housing departments at the local level in order to address the social determinants of health. Since 2010 evidence of the relationships between health and built and natural environments has grown and the role the environment plays in influencing health is now better understood (358). Research shows that the unequal distribution of poor-quality built environments contributes to health inequalities in England (313).

Neighbourhoods and the built environment affect how individuals and communities interact with each other; they influence physical access to family and friends, health services, community centres, shops and the places and spaces that enable individuals to build and maintain their social relationships, facilitate social contacts and strengthen social ties (359).

CASE STUDY: MALMÖ, SWEDEN - REGENERATING COMMUNITIES AND PLACES

The Swedish Government appointed a national Commission for Equity in Health in 2015. However, two years before this in 2013, the city of Malmö in southern Sweden published an independent review about creating a socially sustainable Malmö. The commission set 24 objectives and 72 actions and advocated proportionate universalism. Since the review was published Malmö has become a leading centre in addressing inequalities and building sustainable communities and places. The commission completed its work in 2013 but actions continue and a 20-year Comprehensive Plan for Malmö was published in 2014.

Some time before the Malmö Commission was set up, Augustenborg, a neighbourhood of 3,000 residents in Malmö built in 1948, began working with residents to regenerate the area. The project began in 1998 and continues today. In initial meetings residents were asked what they liked about the area, what needed to be changed, what they could do and what the city could do to improve the area. The most common desire of residents was to lower the costs of living. As such, one of the actions the city took was to help reduce household energy consumption. In later conversations, residents and key stakeholders together identified other issues to be addressed, including unemployment, degeneration, low income/status, traffic and flooding. To improve the area measures were implemented to reduce waste, improve green spaces and mobility, provide renewable energy and energy saving and address flooding issues. Green roofs were installed, flooding problems resolved, and sustainable buildings created, including a school and a home for elderly residents. The effects of the multiple interventions saw education results improve, employment rates increase and outmigration decrease. The long-term investment and actions into Augustenborg is an example of how one-off and short-term regeneration projects are of limited value. Real and effective change happens when communities are provided with long-term and co-created investments (324).

AIR QUALITY

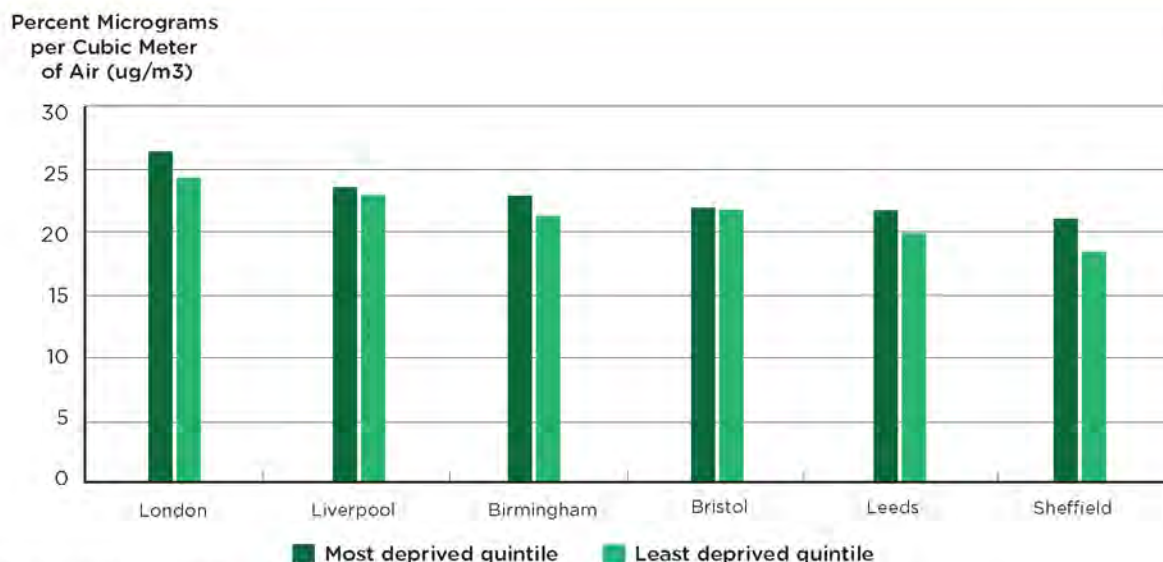
Air quality has emerged as a major equity issue in the years since the 2010 Marmot Review. Poor air quality harms health, including raising risks of mortality and morbidity. Most deaths related to air pollution are due to heart disease, stroke and chronic obstructive pulmonary disease, and air pollution has also been linked to cancer and childhood and adult asthma (279) (323).

Pollution levels are, on average, worse in areas of highest deprivation compared with areas of lowest deprivation. In 2017 the Chief Medical Officer for England's annual report was based on the risks of air pollution and described a "triple jeopardy" for deprived communities and places, showing these places faced higher risks from, "social and behavioural determinants of health...higher risks from ambient air pollution exposure...[and] greater susceptibility to the impact of pollution" (325). In London forty-six

percent of lower super output areas (LSOAs – small neighbourhood areas) in the most deprived decile have concentrations above the EU limit value for nitrogen dioxide, compared with two percent in decile 10 (the least deprived) (326). The highest air pollution levels occur in ethnically diverse neighbourhoods (defined as those where more than 20 percent of the population are non-White), and the link stands even after allowing for the fact that some of these neighbourhoods are more deprived (327).

In 2016 the air of the closest play space for 14 percent of children under 16 years old in Greater London exceeded the legal limit for nitrogen dioxide; two-thirds of these children lived in areas in the most or second-most deprived quintile (365). Figure 3.50 describes differences in concentrations of PM₁₀ (harmful particulate matter 10 micrometres or less in diameter) by deprivation level for selected cities in England. In each city concentrations are higher in the more deprived areas.

Figure 3.50. Mean PM₁₀ concentrations (Micrograms per Cubic Meter of Air), by deprivation quintile at city level, selected English cities, based on 2001 data



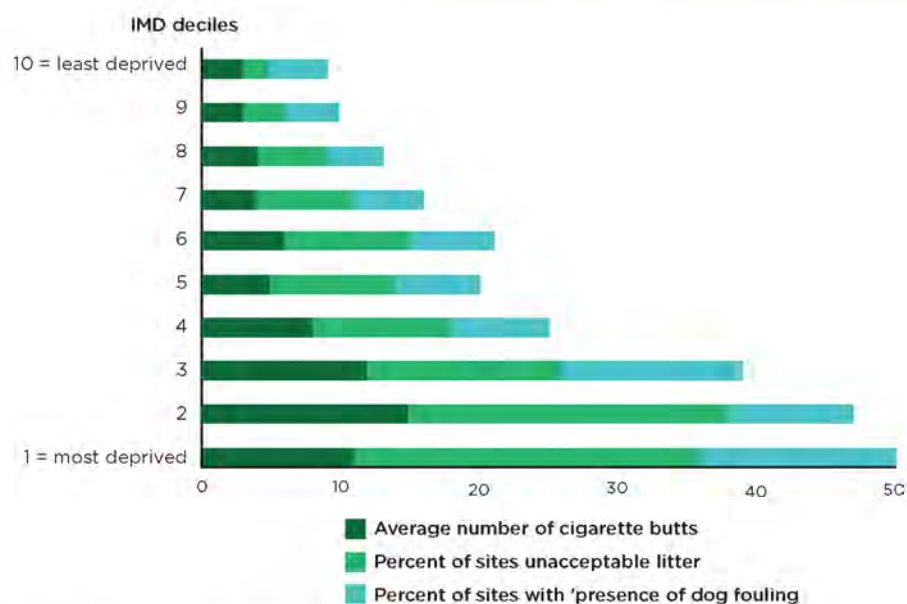
Source: Fecht et al. (327)

Note: 2001 data are the most recent year with high resolution air pollution data available for England and Netherlands that correspond to the time period under analysis.

ENVIRONMENTAL QUALITY AND HIGH STREETS

Since 2010, cuts to local authority budgets have had an impact on policies and services that influence the built environment and inequalities exist between areas in levels of street cleanliness and environments, including higher levels of graffiti, fly-tipped waste and litter (279). Spending on street cleaning in cities decreased by 30 per cent between 2009/10 and 2017/18; those areas already suffering before budget cuts were made will have fared worse (293). Figure 3.51 shows how poor environmental conditions accumulate in more deprived areas; higher rates of dog fouling, litter and cigarette butts are far more likely in the three most deprived deciles in England (329) (316).

Figure 3.51. Key local environmental quality indicators, by IMD deciles, England, 2014/15



Source: Department for Environment, Food and Rural Affairs (330)

Since 2010, a focus for the public health community has been the equity, community and health impacts of high streets (331). In a report published in 2018, IHE described how healthy high streets relate closely to levels of deprivation and drive and exacerbate health inequalities directly and indirectly, summarised in Table 3.5.

Table 3.5. Features of an unhealthy high street

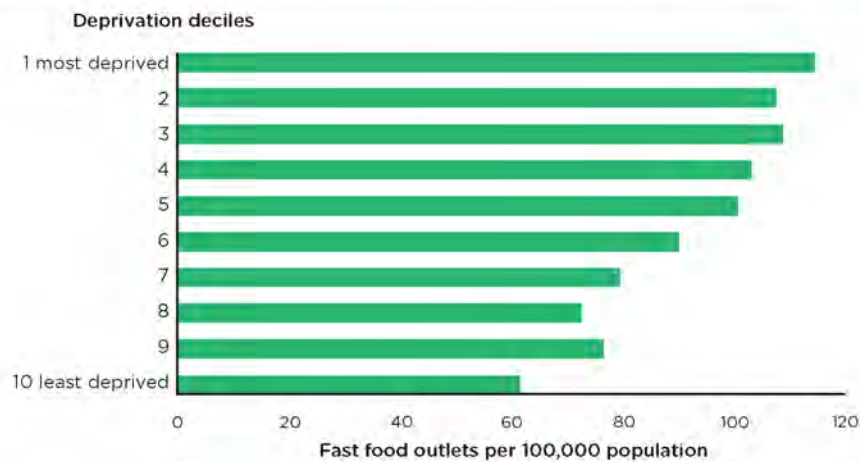
High street feature	Inequalities	Direct impacts on health	Indirect impacts on health
Lack of diversity in retail offer	Higher density of payday loan, alcohol, gambling and fast food outlets in areas of deprivation. Impacts on less mobile populations disproportionately.	Increased risk of obesity, diabetes, cardiovascular disease and certain cancers. Higher levels of alcohol addiction and alcohol-related harm and an increased risk of depression, trauma, heart disease and stroke.	Increased likelihood of poor mental health, including depression, cognitive impairment and dementia linked to social isolation. Increased levels of stress and poor mental health associated with financial insecurity. Poor mental health of family members, associated with alcohol addiction and gambling addiction.
Lack of green infrastructure	Deprived inner-city areas have five times less the amount of good-quality green space and higher levels of pollution than other urban areas.	Increased vulnerability to heat island effects. Increased risk of cancer, childhood and adult asthma, heart disease and dementia. Lower levels of physical exercise leading to higher risk of obesity, diabetes and cardiovascular disease.	Poorer levels of social interaction, impacting on mental health.
Noise and air pollution	Areas of deprivation have a greater exposure to air pollution and noise than wealthier areas.	Noise pollution: increased stress hormones linked to cardiovascular disease, and increased blood pressure; impaired cognitive function in children; disrupted sleep. Air pollution: increased risk of cancer, childhood and adult asthma, heart disease and dementia; increased mortality and hospital admissions.	Noise pollution: impaired quality of life leading to poor mental health, physical stress, physical inactivity and behavioural and psychological effects.
Litter and area degradation	Deprived areas experience poorer local environments overall, including higher levels of graffiti, fly-tipped waste and litter, associated with low level crime and anti-social behaviour.	Poor mental health and stress-related illness from increased levels of anti-social behaviour, crime and fear of crime. Lower levels of physical activity linked to obesity, diabetes, cardiovascular disease and some cancers.	Poor mental health associated with increased risk of social isolation, including depression, cognitive impairment and dementia.

High street feature	Inequalities	Direct impacts on health	Indirect impacts on health
Road traffic collisions	Rates of fatal and serious injuries for 5–9 year olds are nine times higher than average in the 20 percent most deprived areas than in the least deprived areas. Cycling fatalities are higher in the 20 percent most deprived wards than in others. Risk of injury varies depending on employment status and ethnicity of parents, creating inequalities	Death and physical injury.	Poor mental health including post-traumatic stress disorder.
Crime and fear of crime	Higher levels of crime are found in poorer areas and greater fear of crime in inner city areas. Greater fear of crime is also found in Black and minority ethnic communities, young people, older people and women. Disproportionate victimisation is experienced by young Black men, people with disabilities, and LGBT people.	Substantial and long-lasting physical injury and psychological distress. Depression, anxiety and toxic stress associated with hypertension, cardiovascular disease, stroke, asthma, overweight and obesity. Increase in poor health behaviours linked to cancer, depressive disorders, heart disease, stroke and physical trauma.	All-cause mortality, coronary heart disease, pre-term birth, low birth weight and poorer health behaviours such as lower levels of physical activity mediated through psychosocial pathways.
Cluttered pavements and non-inclusive design	Older people, people with physical disabilities, people with reduced mobility and parents with young children are affected the most by cluttered pavements and non-inclusive design reducing opportunities for physical exercise, social interaction and access to health-promoting goods and services.	Increased risk of obesity-related diseases including diabetes, cardiovascular disease and some cancers. Poor mental health including loneliness, increasing the risk of depression, cognitive impairment and dementia, poor health behaviours, coronary heart disease and mortality. Increased risk of trips and falls, and road traffic injury or mortality.	Anxiety, depression and low self-esteem associated with childhood overweight and obesity linked to low levels of physical exercise.

Source: Institute of Health Equity (279)

One aspect of unhealthy high streets is fast food outlets. The poorest areas in England have five times more fast food outlets than the most affluent areas (Figure 3.52). The number of fast food shops increased between 2014 and 2017 by eight percent (331).

Figure 3.52. Density of fast food outlets per 100,000 population, by IMD deciles, England, 2014



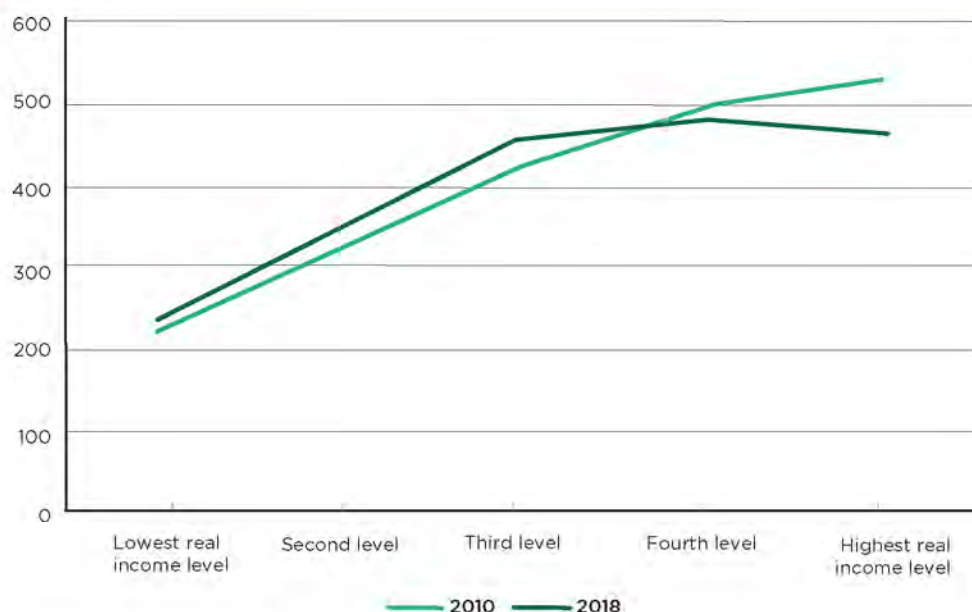
Source: Public Health England (18)

TRANSPORT

The 2010 Marmot Review described how having access to transport enables access to work, education, social networks and services that improve people's opportunities and overall community functioning (340); conversely, not having good transport access increases inequalities in a range of the social determinants of health (279).

The Centre for Policy Studies in 2019 stated that decades of under-investment in transport, as well as underinvestment in other infrastructure factors, has led to many areas of the country being "unable to keep up economically" and has "shape(d) the regional imbalances" in the UK (284). In addition to regional inequalities in spending on transport, the Government's prioritisation of road and train travel over buses since 2010 has also affected inequalities, as road and rail services are used less by those on low incomes, who rely more on buses (332) (333). Thus current travel policies benefit those on higher incomes, who are more likely to use cars and trains, more (334). Figure 3.53 shows the gradient in number of car trips per year with higher rates for those with higher incomes, although numbers of trips have declined since 2010 for higher income households.

Figure 3.53. Number of trips per person per year (car and van owners), by household income quintile, England, 2010 and 2018



Source: Department for Transport (335)

In England the wealthiest 10 percent of the population receive almost four times as much public spending on their transport needs as the poorest 10 percent (334). Between 2010 and 2017 funding for bus travel reduced by 45 percent. In a single year, 2017/18, £20.2 million was cut from bus service funding, a nine percent reduction (336).

Since 2009/10 there has been a reduction in the number of bus journeys and funding for bus services; national funding in England in 2019/20 is £234 million a year less than it was in 2009/10 (377). Funding cuts in bus services affect those on low incomes the most.

HOUSING

Since the 2010 Marmot Review reported on housing and health inequalities, research on the relationship between poor housing conditions and health has expanded (338).

Poor-quality housing harms health and evidence shows that exposure to poor housing conditions (including damp, cold, mould, noise) is strongly associated with poor health, both physical and mental (339). The longer the exposure to poor conditions, including cold, the greater the impact on mental and physical health (340). Specific physical effects are morbidity including respiratory conditions, cardiovascular disease and communicable disease transmission, and increased mortality (341) (342). In terms of

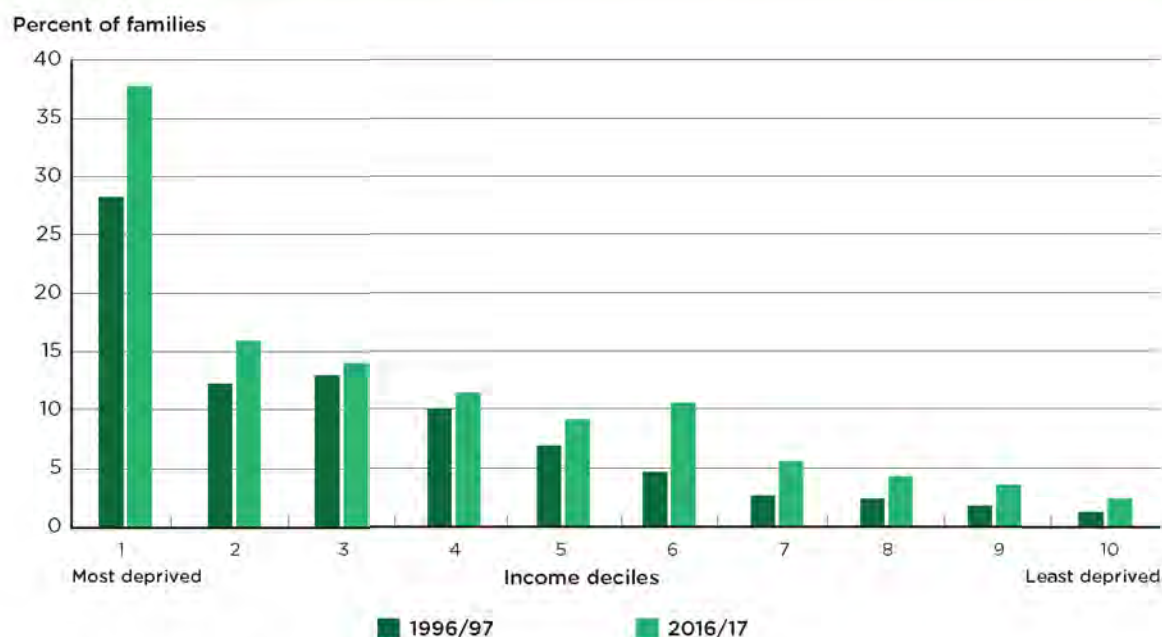
mental health impacts, living in non-decent, cold or overcrowded housing and in unaffordable housing has been associated with increased stress and a reduction in a sense of empowerment and control over one's life and with depression and anxiety (343) (344). Children living in overcrowded homes are more likely to be stressed, anxious and depressed, have poorer physical health, attain less well at school and have a greater risk of behavioural problems than those in uncrowded homes (342) (345).

AFFORDABILITY

In 2017, 21 percent of adults in England said a housing issue had negatively impacted their mental health, even when they had no previous mental health issues, and housing affordability was most frequently stated as the reason (346). The stress levels resulting from falling into arrears with housing payments are comparable to those caused by unemployment (347). Not being able to afford decent housing increases blood pressure and hypertension, depression and anxiety (348). Cuts in housing benefit, introduced in 2011, have been found to be associated with a statistically significant increase in mental health problems among those affected by the policy change (349).

Housing costs have significantly increased in England since 2010 and the impacts are clearly greater for lower income households compared with higher income households, described in Figure 3.54.

Figure 3.54. Percent of families spending more than a one-third of their income on housing costs, by income decile, UK, 1996/97 and 2016/17

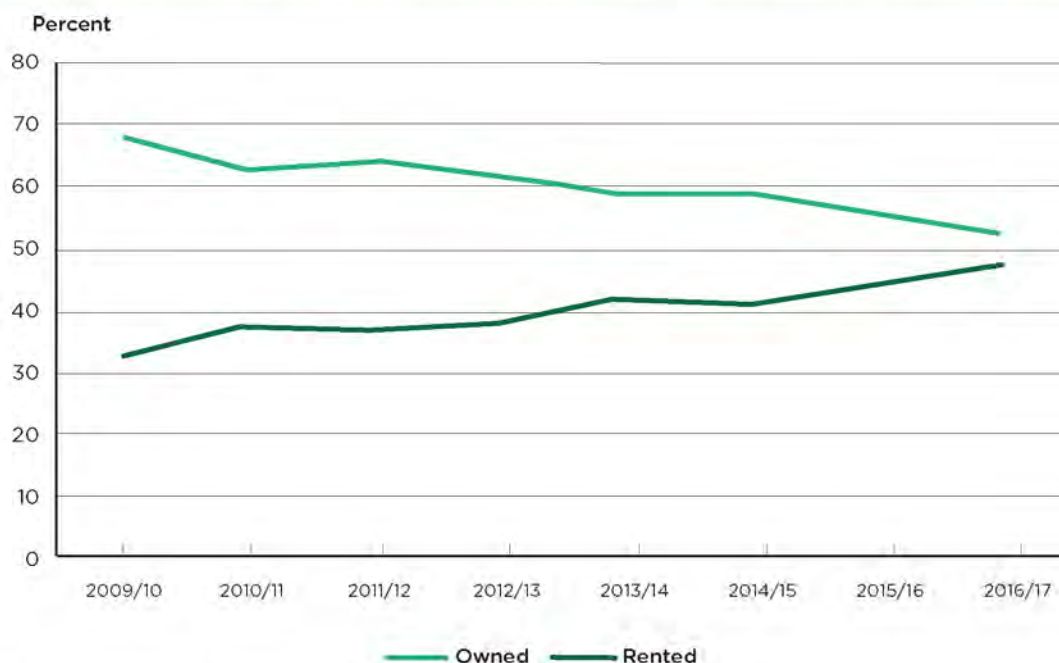


Source: Resolution Foundation (350)

Note: Housing costs and incomes net of housing benefit

In 2018 the average home in England cost eight times more than the average annual pay (351). Since 2006–07 the proportion of 35–44 year olds who own their homes has fallen by 20 percentage points (from 72 to 52 percent) and the proportion of private renters has more than doubled (from 11 to 29 percent) (342). Adding the number in the social rented sector to the private rented sector shows close to half of all 35–44 year olds (48 percent) rented in 2016/17, compared to a third renting in 2009/10, Figure 3.55.

Figure 3.55. Ownership and rental trends among adults aged 35–44, 2009/10 to 2016/17, England



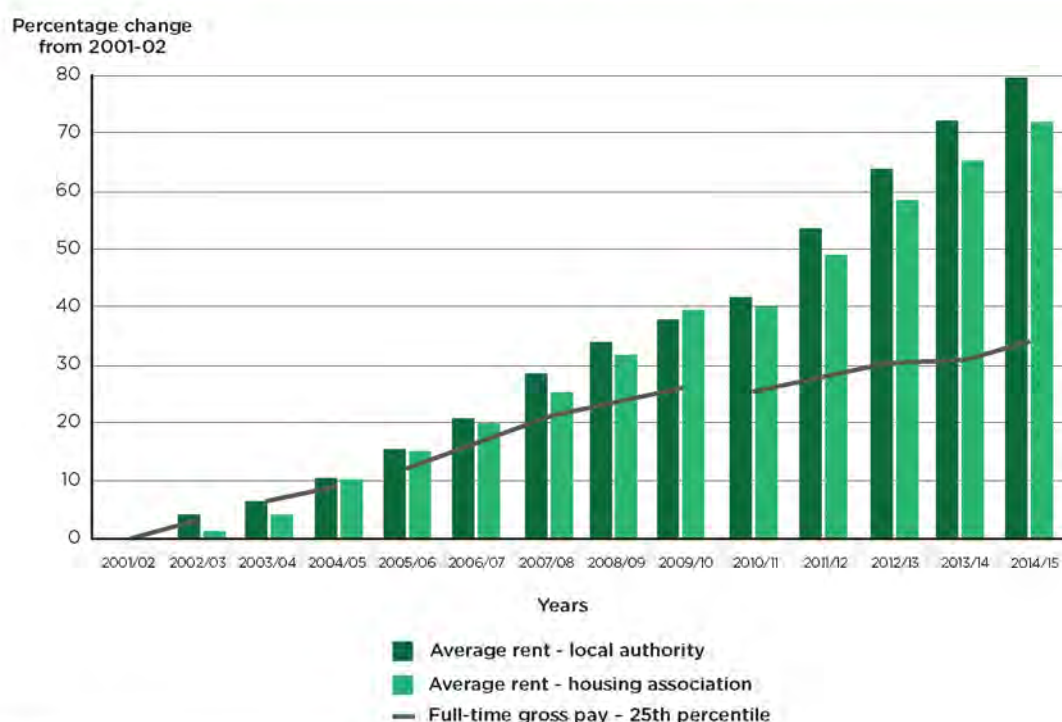
Source: Ministry of Housing, Communities and Local Government (342)

Note: rental includes the private and social rented sector

While the cost of both renting and buying has increased since 2010, renters have been proportionately the hardest hit, both because incomes have declined and the cost of renting has increased. On average, in 2016/17, mortgagors spent close to one-fifth (19 percent) of their income on their mortgage while privately renting households spent close to half (46 percent) on their rent (352). The cost of social renting in England increased by 40 percent from 2008 to 2016 (353). As described, these increasing costs will be pushing many people into poverty, or into further poverty – further worsening mental and physical health. Around one-third (35 percent) of households in the private rental sector were living in poverty as a result of their housing costs in 2017/18 and close to half (47 percent) of people in the social rented sector were on relative low incomes after housing costs were taken into account (354).

Figure 3.56 describes increases in the costs of social housing since 2001 in relation to gross pay, showing that for both housing association and local authority social housing, rents have increased at a far greater rate than pay. It is becoming more unaffordable and rent for local authority social housing is substantially more expensive than rent for housing association properties (355).

Figure 3.56. Affordability of social housing since 2001, England, 2001/02 to 2014/15*



Source: Office for National Statistics (355)

Note Percentage change from 2001/01

Universal Credit is slow to respond to changing circumstances and when people lose work, rent arrears can build up (356) (357). In 2018/19 it is estimated one-fifth of people who were reliant on benefits fell into arrears (on either rent or mortgage repayments) (358).

The increasing costs of private renting have not only led to increased arrears for renters, but also to record incomes for private landlords, fuelled by a growing number of private renters receiving Housing Benefit. In 2018/19 private landlords were estimated to have received £6.9 billion in rent from Housing Benefit recipients, a fall from its highest spending of £10.2 billion in 2012/13 (359).

Allocation of council housing is controlled by local authorities and each has its own rules and controls its own waiting lists. There are long waiting lists for socially rented homes in all local authorities. In 2017 York University calculated there were 1.2 million households on waiting lists for social housing, while 33 percent of local authority tenants who had been successful in their application for social housing waited more than a year for their home (360). For example, North Somerset council had a waiting list of more than 3,370 families in 2019 while on average 600 homes are made available each year; no new homes at social rents have been built in North Somerset since 2015 (361).

Despite the Government's repeated commitment to build new housing since 2010, expenditure on new house building was cut by 44 percent in real terms between 2009-10 and 2012-13 (362) (363). In 2016-17 184,000 new homes were completed, below the 2007-08 pre-recession peak of 200,000 (364). It is estimated that more than three million social homes need to be built in England in the next 20 years (365). In 2019 Shelter estimated 1.2 million social homes were needed for young families that could not afford to buy (366) and the charity Crisis and the National Housing Federation estimate an annual requirement for 90,000 social rented houses (367).

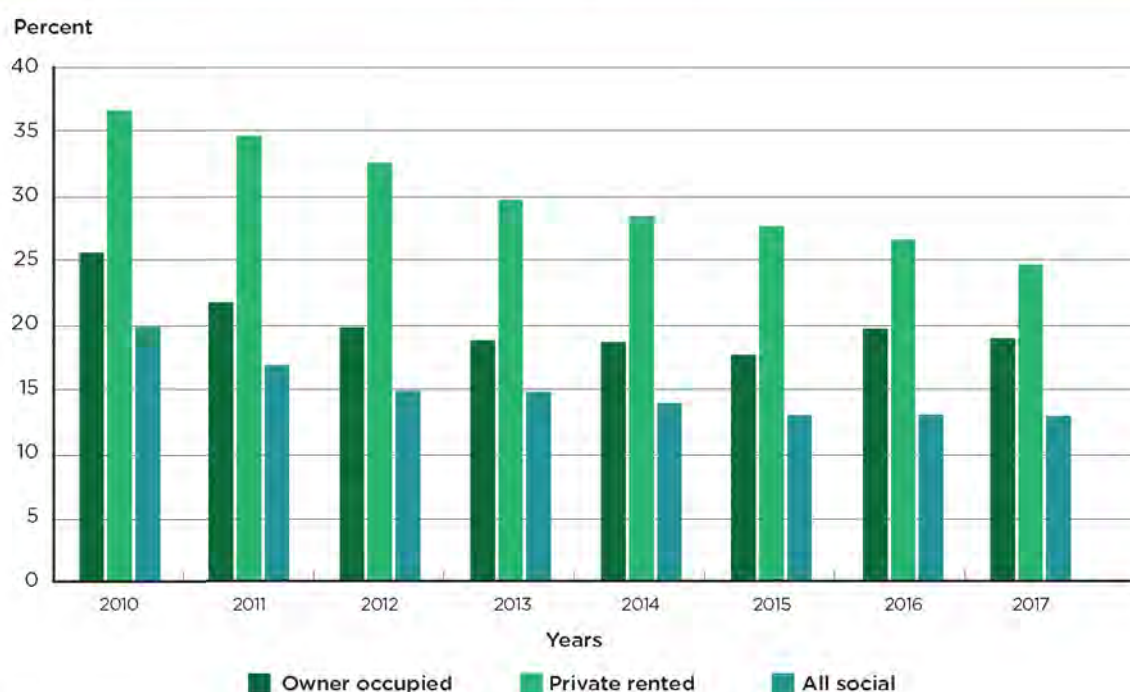
Other factors continue to compromise the social housing market. The number of new social houses has not increased to meet need, despite more than a million households being on social housing waiting lists for at least a decade. Construction rates of new social housing have fallen. Only 5,380 new homes for social rent were created in 2016/17, down from around 40,000 in 2010-11 (368). Since 2012-13, 78,271 council homes have been sold through the Right to Buy scheme (363). In 2016 Right to Buy was discontinued in Scotland and was abolished in Wales in January 2019. But it continues in England and Northern Ireland and was enhanced by the Coalition Government in 2012 (369). It allows public sector tenants to purchase their homes and councils to sell council homes to tenants; in 2016 this discount was extended to housing

association tenants. The Chartered Institute of Housing estimates that 122,000 existing social rented homes will be lost between 2017 to 2020 due to conversions to the Right to Buy scheme (which allows public sector tenants to purchase their homes and councils to sell council homes to tenants), and demolitions (370). As a result, councils have been forced to rely on ageing, less desirable social homes in areas with higher levels of deprivation for their social renting tenants (371). When social renters are asked what advantage their tenure has over private renting, the most common answer is the security of tenure offered by social housing (360) but this may be illusory, particularly as, since 2010, social landlords have been given the option to introduce shorter-term 'flexible' tenancies in place of secure tenancies.

HOUSING CONDITIONS

Overall, housing conditions have improved over the last decade, but there are still a large proportion of homes in England that are in poor condition, described in Figure 3.57. Non-decent homes (those not meeting the Decent Homes Standard – see below) are still most commonly found in the private rented sector and in 2017/18 around 1.9 million private renters reported an issue with condensation, damp or mould in their home (372).

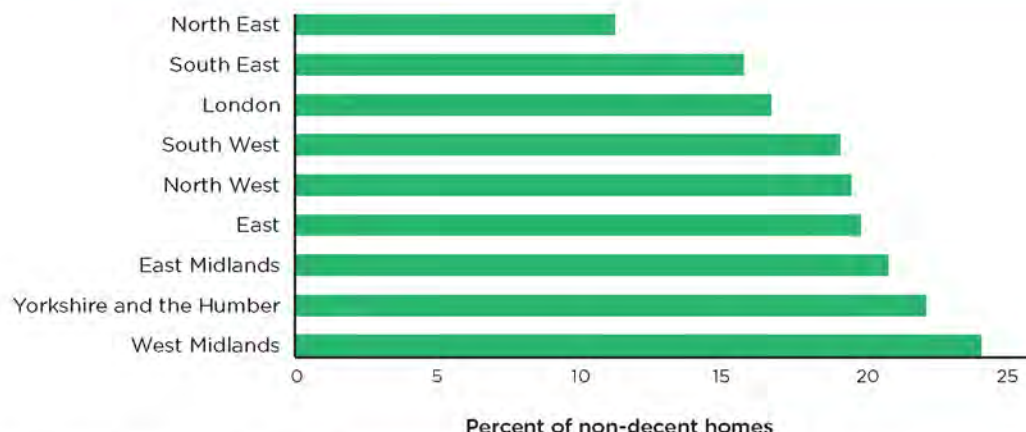
Figure 3.57. Percentage of non-decent homes, by tenure, England, 2010-17



Source: Ministry of Housing, Communities and Local Government (373)

There are clear regional differences in the proportion of non-decent homes, as shown in Figure 3.58. In the West and East Midlands, and Yorkshire and the Humber, more than one in five homes fails to meet the Decent Homes Standard dropping to 16 percent in the South East and 11 percent in the North East (373).

Figure 3.58. Percent of non-decent homes, by region of England, 2017



Source: Ministry of Housing, Communities and Local Government (373)

The Decent Homes Standard was introduced in 1999 and was accompanied by a substantial budget and programme of quality improvement for homes in the social-rented sector. In 2006 the definition was updated to include the 2004 Housing Act. A non-decent home lacks three or more of the following: a reasonably modern kitchen (20 years old or less); a kitchen with adequate space and layout; a reasonably modern bathroom (30 years or less); an appropriately located bathroom and flush toilet; adequate insulation against external noise and adequate size and layout of common areas (in blocks of flats) (374).

Post-2010, funding for this programme was substantially reduced (362). Between 2008 and 2012, there was an 11 percentage point reduction in the proportion of households in non-decent homes, but in the subsequent four years, between 2012 and 2017, when funding was significantly cut, there was a 3 percentage point reduction (375).

CASE STUDY: ACORN – EMPOWERING TENANTS IN BRISTOL AND BEYOND

The Association of Community Organisations for Reform Now (ACORN) was founded in Bristol in 2015. It ran an ethical lettings campaign from 2016 to 2017 that enabled members to build leadership and to influence local decision-makers. It was funded by People's Health Trust as part of its Active Communities programme.

In the Bristol area, one in three renters lives in low quality housing, affecting health and wellbeing, including respiratory conditions. The lack of action from landlords, plus costs, agency fees and eviction fears, often led people to feel powerless and isolated and prevented them from speaking out. The ethical lettings campaign was based in Easton, a neighbourhood in Bristol with a high proportion of private housing tenants. Members campaigned to implement the Ethical Lettings Charter, a code of conduct to raise rental standards and hold landlords to account.

Within the first six weeks of the campaign, three letting agents and six landlords, who dealt with more than 500 local private tenants, signed up and over £50,000 of repairs were completed. The Charter was soon incorporated into housing policies for Bristol City Council and various other local authorities. The project's scope broadened as members gained more knowledge, skills and confidence. ACORN ran a number of other successful campaigns to make rental housing more affordable, increase voter registration, and promote a ban on unfair agent fees. These achievements significantly improved living conditions for local tenants.

People's Health Trust has awarded a further grant to ACORN for projects using community organising to support renters' rights in Milton Keynes and Newcastle (141).

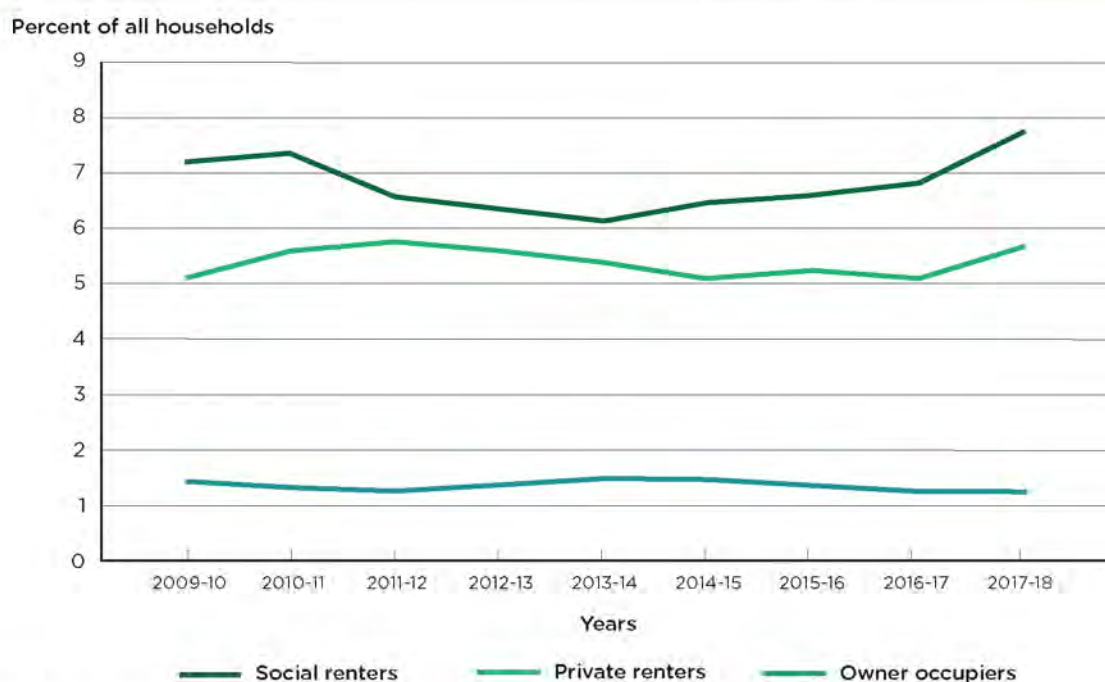
OVERCROWDING

Overcrowding has been shown to have an impact on physical and mental health (376) (377). In England, housing is legally overcrowded if it meets either or both of the two standards of overcrowding set out in the Housing Act 1985 (378). The 'room standard' states one room should be allocated to:

- Each married or cohabiting couple
- Any other person over the age of 21
- Each same sex pair aged 10 to 20
- Each pair of children under 10

Living rooms and bedrooms count as rooms, as do kitchens if they are big enough to accommodate a bed (379). Since 2010 rates of overcrowding have increased slightly in both the private and social rented sectors and have fallen slightly for owner occupiers (Figure 3.59).

Figure 3.59. Percentage of overcrowded households, by tenure, England, 2009–18



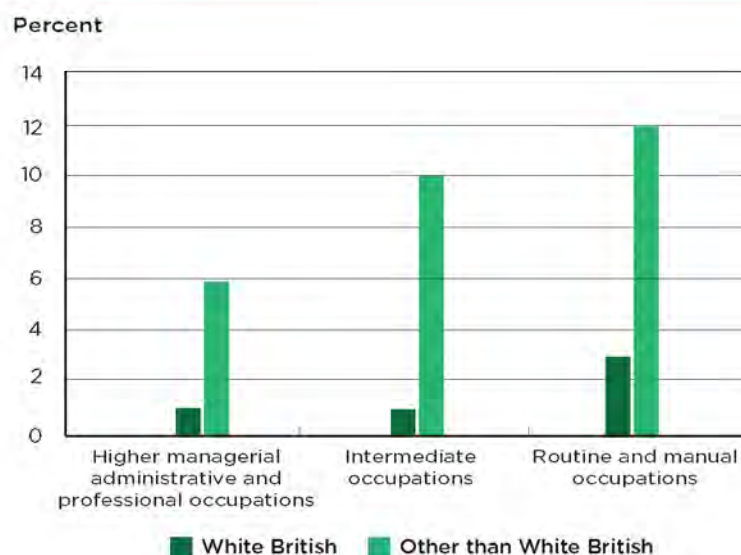
Source: Ministry of Housing, Communities & Local Government, 2019 (380)

Note: Data are based on three year averages, which are the average of the three years up to and including the labeled date.

Overcrowding is more likely to be experienced by minority ethnic groups in all socioeconomic groups (381): only two percent of White British households are overcrowded, compared with 30 percent of Bangladeshi households and 15 percent of Black African households (482). Overcrowding might occur as a result of multiple generations of a family residing in one home. While there are some health benefits to multi-generational households in terms of reduced social isolation, there are also health risks associated with overcrowding – including increased rates of intestinal and respiratory infection and risks to mental health from frequent sleep disturbance as adults share beds or bedrooms with children (383).

Overcrowded homes are most common in the most deprived households, however even in less deprived homes, many minority ethnic homes are overcrowded, as Figure 3.60 shows.

Figure 3.60. Percentage of overcrowded households, by ethnic background and socioeconomic group, England, 2014-2017



Source: English Housing Survey (382)

Many overcrowded households are not multi-generational but are associated with being unable to afford more space. Local authorities affected by high numbers of houses of multiple occupancy, often in coastal towns, reported to the House of Commons in 2019 they felt “limited in their ability to intervene to improve the quality of local housing stock, particularly in concentrations of poorly managed houses of multiple occupancy” (384) (385).

NEW HOMES EXACERBATING INEQUALITIES

In some areas of England, due to a lack of suitable premises, local authorities have tried to use creative ideas to address housing shortages, such as housing people in transport containers or former office blocks. Since 2015, 8 percent of new housing units in England have been created by converting offices into flats. In some areas three-quarters of new supply comes from converted offices (426). Many of these premises are located far from community amenities, public services and employment. As such, people housed in these places are forced to pay high transport costs, which are the second biggest expense to UK families after their housing costs (387).

In some areas landlords have been reported to be ‘taking advantage’ of permitted development when converting offices into flats, and making them as small as 13 square metres (140 square feet). Office-to-residential conversions are not subject to the normal planning regime and there is no minimum space standard. Councils can refuse such developments on limited grounds, which do not include the quality of the housing being built (388).

SECURITY OF TENURE

Insecurity of tenure is a major concern for many renters and adds to mental and physical risks to health. The private rental sector is the least stable form of housing, as private rental sector landlords can evict who they want and refuse to rent to others (389). This lack of stability affects the mental health and wellbeing of all householders in this situation, both adults and children.

Losing a private tenancy is one of the biggest causes of homelessness. The number of people made homeless from the private rented sector quadrupled between 2009/10 and 2016/17 (367). In addition to being able to evict tenants without reason, landlords

also ban certain people from renting. Four in 10 private landlords surveyed in 2017 said they banned renting to people in receipt of Housing Benefit and a further 18 percent stated they prefer not to rent to this group but do occasionally (390).

Discriminating against those in receipt of Housing Benefit has a disproportionate impact on women and disabled people as they are more likely than men and non-disabled people to be claiming Housing Benefit in the private rented sector. Also, close to one in five private landlords have an outright ban on families with children (371).

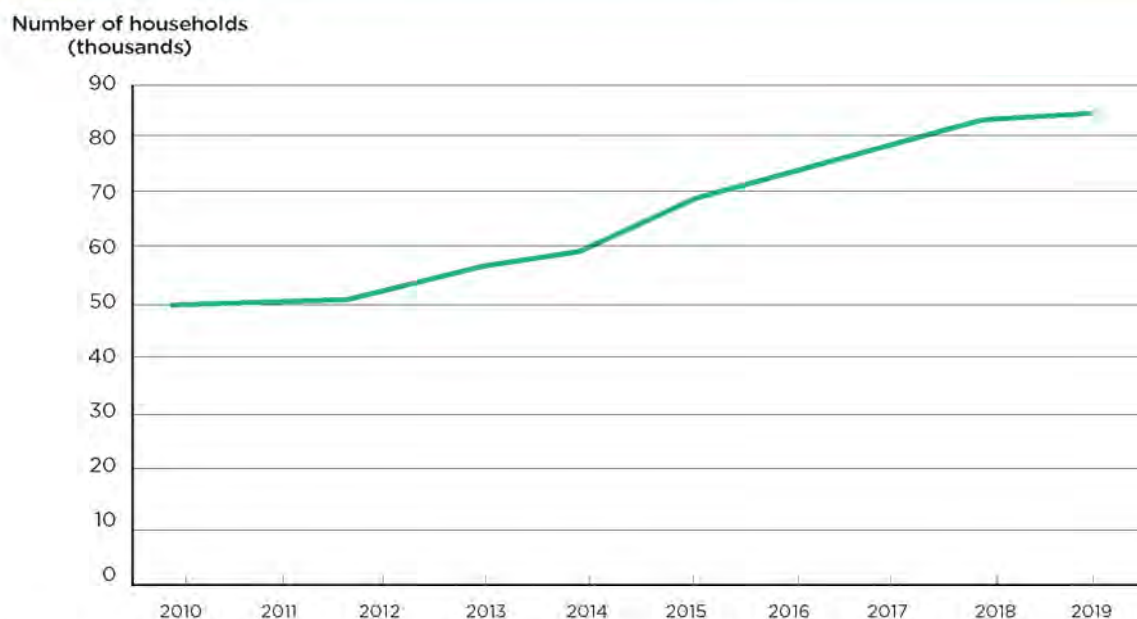
HOMELESSNESS

Homelessness and rough sleeping rates have increased substantially, rising by 165 percent in England between 2010 and 2017 (381). Most people who are considered 'homeless' are accommodated in emergency or temporary accommodation and are not sleeping rough on the street. The total number of households in temporary accommodation increased by 74 percent

between 2010 and 2018 and the number of children living in temporary accommodation increased by 69 percent. At the end of 2018, 83,600 households were homeless, including 125,020 children as shown in Figure 3.61 (392).

In 2016 the housing charity Shelter found that one in three working families were a single paycheque away from homelessness (393).

Figure 3.61. Households in temporary accommodation, England, 2010-19



Source: Ministry of Housing, Communities and Local Government (391)

The number of households in temporary accommodation continued to increase in 2019. At the end of March 2019 there were 84,740 households in temporary accommodation, up five percent from 80,720 on the same day in 2018 (394). The real number of those homeless/in temporary accommodation is higher than official statistics, as official numbers do not include the 'hidden homeless', people who have arranged their own temporary accommodation and are staying with friends or family. In London alone it is estimated there are 225,000 'hidden homeless' people just in the 16-25 age bracket (347) and the Children's Commissioner estimated there were 92,000 children living in 'sofa-surfing' families in 2016/17 (395).

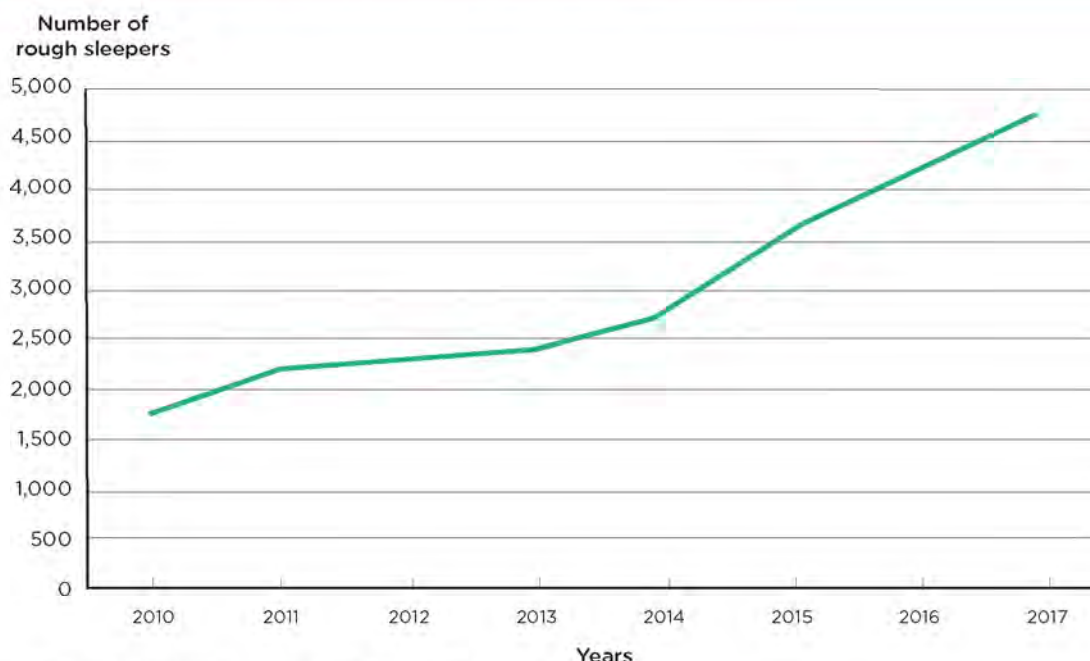
Many women and children are made homeless as a result of abusive partners. Close to half (46 percent) of women in London in 2019 said leaving secure tenancies because of abuse had stopped them from leaving their abusive partner, and had been a barrier

to leaving their abuser sooner. 30 percent of women looking for safe accommodation after leaving an abusive home are turned away from prospective homes an average of six or more times (396).

Rough sleeping is associated with tri-morbidity (physical and mental ill-health combined with substance misuse). On average, rough sleepers die 30 years earlier than the general population (52) (397). There were an estimated 726 deaths of people sleeping rough in England and Wales in 2018, the highest year-to-year increase (22 percent) since records began in 2013.

Figure 3.62 shows the increase of people rough sleeping across England; estimated rates have tripled since 2010. Charities estimate the true figure of rough sleepers to be more than double the officially recorded numbers (347) and in 2015 the UK Statistics Authority found homelessness and rough sleeping statistics 'do not currently meet the standard to be National Statistics' (398).

Figure 3.62. Estimated number of people rough sleeping, England, 2010-17



Source: Ministry of Housing, Communities and Local Government (399)

CASE STUDY: WIGAN'S HOUSING AND HEALTH APPROACH - IMPROVING HOUSING FOR ALL

Wigan's approach to housing and health is based on its Health and Wellbeing Strategy, which has four action areas:

- To make health a shared value
- To foster cross-sector collaboration to improve wellbeing
- To create healthier, more equitable communities
- To strengthen integration of the health service and systems

Wigan is one of just a few authorities in England increasing its social housing stock and it has integrated health improvement into the design of new build social and shared ownership housing. It has a range of services to improve housing and reduce homelessness, including rough sleeping, to deliver a multi-agency response to homelessness that involves community workers, health (nurses) and police working together. The Brick project in Wigan captures people falling through the cracks between services, and supports people who are homeless, in poverty or facing debt crisis, providing a safe 'building block' for people to rebuild their lives. The project includes a food bank, a charity shop selling donated goods and giving clothes free of charge to those in need, training programmes to increase employment opportunities, and a recycling and reusing project that increases awareness about reducing waste and turning unwanted goods into restored furniture for those in need.

Between 2017 and 2018 the number of rough sleepers in Wigan reduced by 43 percent and it is calculated that for every £1 invested, £2 is saved through cost and demand reduction to care, health and criminal justice services (400) (401).

While poor-quality and unaffordable housing damages health and worsens health inequalities, good-quality and affordable housing contributes to improving health and wellbeing and reducing inequalities. Interventions such as improving heating and warmth, rehousing, retrofitting and neighbourhood renewal have all been shown to positively influence physical and mental health and wellbeing (402) (403) (404), and many housing improvement initiatives have been shown to be cost-effective (405) (406). To be most effective in protecting and improving health and wellbeing, housing services must be preventative – that is, they must intervene before problems such as poor conditions, unaffordability and insecure tenures damage health.

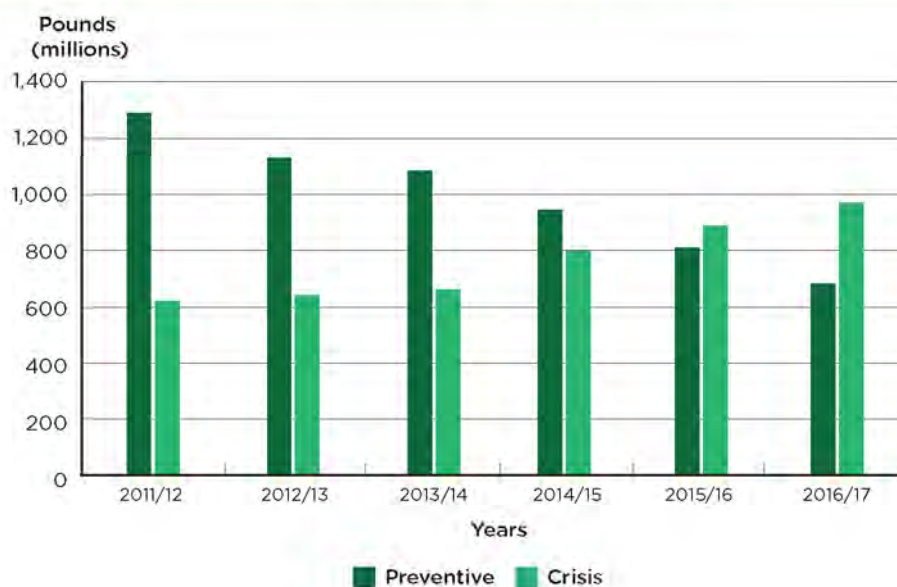
The departmental budget for the Ministry of Housing, Communities and Local Government (named the Department of Communities and Local Government until January 2018) fell nearly 70 percent between 2010–11 and 2016–17, and has risen slightly for 2019–20 (407). The majority of the new funding supports programmes to build and purchase new homes, with smaller amounts to “deliver new affordable homes” (408). At the local level, local authority spending on homelessness services has increased while overall

spending on housing services has decreased (409). Funding available to support vulnerable people with their housing was cut by 59 percent in real terms from 2010 to 2018 in England (347).

In the North of England, real-term housing spend (which includes administering home improvement grants, licensing private sector landlords and reducing homelessness) fell by 84 percent between 2010–11 and 2017–18, compared with 43 percent in the rest of England (410). Funding for renovating private sector housing and delivering housing advice fell by 87 percent and 60 percent respectively between 2010–11 and 2017–18 (294). This is despite the fact that spending on improvements to housing is known to reduce the cost of housing (405) (406).

From 2011 to 2017 spending on housing has prioritised interventions at the point of crisis and preventative services have been cut. Funding for prevention, e.g. spending on discretionary payments, welfare services and the Supporting People programme, has declined, while funding for crisis services, e.g. temporary accommodation and homelessness support, has increased, as shown by Figure 3.63 (286).

Figure 3.63. Preventive and crisis spending in housing services, England, 2011–17



Source: Ministry of Housing, Communities and Local Government (286)

There have been some efforts made to form partnerships between the NHS and housing sectors and housing is an area that has been prioritised by the NHS. In 2018 a Memorandum of Understanding was made between a range of housing and health organisations, government departments, NHS England and Public Health England (411). The MOU details areas of improvement and an action plan to ensure organisations work together to:

- Establish and support national and local dialogue
- Conduct information exchange and decision-making across government, health, social care and housing sectors
- Coordinate health, social care and housing policy
- Enable improved collaboration and integration of healthcare and housing in the planning, commissioning and delivery of homes and services
- Promote the housing sector's contribution to addressing the wider determinants of health, health equity and improvements to patient experience
- Develop the workforce across sectors so that they are confident and skilled in understanding the relationship between where people live and their health and wellbeing and are able to identify suitable solutions to improve outcomes (412)

NHS England has been involved in developing and supporting partnerships with the housing sector, and building the evidence base. For example, the Healthy Towns initiative, launched in 2015, was a national programme run in 10 communities in England to design and build healthier communities, improve governance and partnership structures and deliver healthy place-making policies (413) (414). The Healthy Towns initiative identified ten key principles to implement a successful 'whole systems' approach;

- planning ahead collectively
- assessing local health and care and assets
- connecting and involving local people and communities
- creating compact and connected neighbourhoods
- maximising active travel
- inspiring and enabling healthy eating
- fostering health in homes and all buildings
- enabling healthy play and leisure spaces for everyone
- providing health services helping people to stay well and integrate out-of-hospital care
- creating integrated health and wellbeing centres

PUBLIC HEALTH AND HOUSING IN COVENTRY

Public health has played a key role in helping the city council in Coventry gain leverage over the new-build and private rental housing sectors. The public health department developed a Health Inequalities Supplementary Planning Document for developers. Where a development may have an impact on health, developers are asked to provide information and mitigation plans in relation to a wide range of determinants, including access to green space, air quality, community safety and cohesion, active travel and climate change, among others (229).

CLIMATE CHANGE AND HEALTH INEQUALITIES

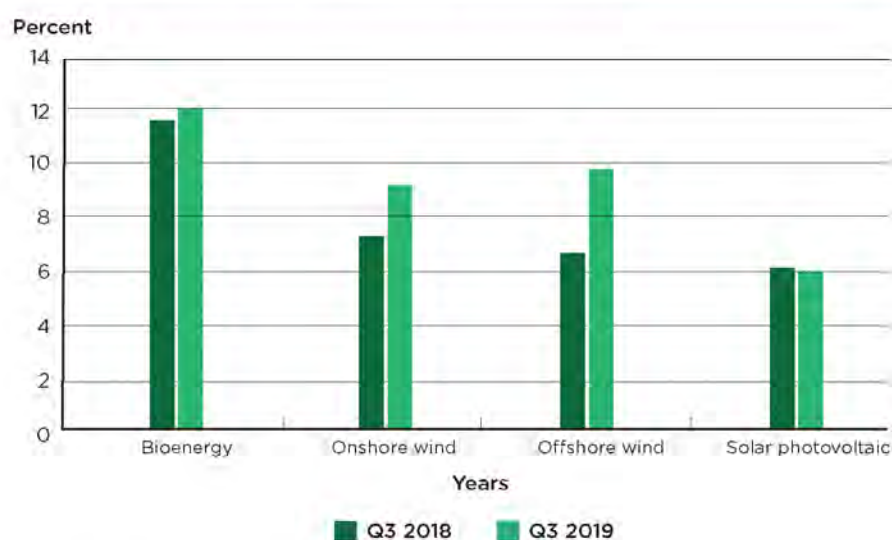
The 2010 Marmot Review labelled climate change as a fundamental threat to health and stated that mitigating climate change would also help mitigate health inequalities. We discussed the direct and indirect risks to the population from extreme temperature and weather conditions, heatwaves, floods and air pollution, and the increased risks to people living in the most deprived areas and communities. We recommended policies to reduce both health inequalities and mitigate climate change, by improving: active travel, green spaces, the food environment, transport and the energy efficiency of housing, across the social gradient. We said "climate change presents unprecedented and potentially catastrophic risks to health and wellbeing".

The risks arising from climate breakdown are better understood in 2019. Climate change is already contributing to the global burden of disease and poses "an unacceptably high and potentially catastrophic risk to human health" (415). Climate change affects health and worsens inequalities; older people are at most risk of extremes of heat and cold; lower income groups are disproportionately impacted by extreme weather by virtue of living in poorer quality housing in vulnerable locations and conditions and not being able to afford to move, and tenants are more vulnerable than owner-occupiers as they have less ability to modify their homes and to prepare for and recover from climate events (416).

In the UK close to 2 million people live homes in areas of significant river, surface water or coastal flood risk and people living in properties in the UK's most deprived communities face even higher increases in risk from flooding (308). Met Office analysis shows that in England milder, wetter winters and hotter, drier summers will increase, with the number of intense hot days and heavy rainfall events also likely to increase (417). Without action, annual UK heat-related mortality is projected to increase from a current baseline of approximately 2,000 heat-related deaths (in the 2000s) to more than 7,000 per year in the 2050s (418).

In May 2019 the UK Parliament declared an environment and climate emergency and in 2019 more than half of all UK councils also declared a climate emergency (419). Since 2010 the UK has reduced its greenhouse gas (GHG) emissions. Between 1990 and 2017 GHG emissions fell by 43 percent, the shift from coal to gas in the 1990s and a decline in fuel consumption by business and industry as a result of improved energy efficiency are the key reasons for this reduction (420) (421). Replacing fossil fuels with renewable energy (wind, solar, biofuels) is one of the main ways to reduce GHG emissions. In England, renewable energy capacity has increased significantly in recent years. In quarter 3 (Q3) of 2019 renewable energy contributed 37 percent of the total share of electricity generated in the UK, the largest contribution on record (Figure 3.64).

Figure 3.64. Renewable energy share of electricity generation, UK, Q3 2018 and Q3 2019



Source: Department for Business, Energy and Industrial Strategy (422)

While carbon emissions from domestic sources have fallen, net imports continue to impact on the UK's total emissions and in the G7 group the UK is one of the largest net importers of carbon emissions per capita (423). Industrialised countries tend to be net importers of carbon dioxide and net imports are responsible for half of the UK's carbon footprint (424). GHG emissions are calculated on all goods consumed in a country, regardless of where they are produced, and importing countries need to take responsibility for these emissions.

EMISSIONS FROM HOMES

Adapting homes to make them more energy-efficient is crucial to meeting climate change targets and will also reduce fuel poverty and health inequalities. In 2018, 18 percent of the UK's total greenhouse gas emissions came from housing (425). Energy use in homes and finding alternatives to gas for heating need to fall by at least 24 percent by 2030 from 1990 levels, but currently the UK is off track, and in 2017 greenhouse gas emissions from homes and buildings increased by around one percent (426). Three-quarters of homes that will be inhabited in 2050 were already built in 2010 and improving the energy efficiency of existing properties and finding alternatives to gas for heating are crucial to reducing emissions.

Current strategies and policies to reduce emissions from the UK housing stock lack of ambition. An example of this is the expectation of private landlords to improve the energy efficiency in the homes they rent out. Efforts to improve thermal insulation stalled in the wake of austerity after 2012. Between 2010 and 2012, more than one million homes per year had additional loft insulation installed. In the following five years there were fewer than one million loft insulations altogether and 70 percent of homes remain poorly insulated (Energy Performance Certificates rate a property's energy efficiency from A-G; a poorly insulated home is rated D or worse) (426). Currently there are few policies to incentivise private rented sector landlords to improve properties and many landlords refuse tenant requests for energy efficiency improvements. In terms of social housing, there are no long-term strategies to make homes carbon-neutral by 2050, (to meet the UK's legal target) all of which has led the independent statutory body, the Committee on Climate Change, to conclude "cost-effective adaptation measures are not being taken up at anywhere near the levels they can or should be" (425).

CASE STUDY: IMPROVING HOUSING AND REDUCING THE IMPACT OF CLIMATE CHANGE

Beat the Cold (BtC) is a fuel poverty charity working across Stoke-on-Trent, Staffordshire and in surrounding areas. BtC provides information, advice and support to those at risk from cold homes.

BtC has worked with University Hospitals of North Midlands (UHNM) and Southern Staffordshire Community Energy (SSCE) and is entirely funded by the public, who raised over £345,000 via a share issue to fund eight installations of solar PV on hospital roofs. The scheme installed more than 1,000 panels producing enough energy to power an operating theatre for nearly 2,300 hours, and saving over 2,300 tonnes of carbon dioxide. The electricity generated by the panels receives a guaranteed 20-year 'Feed in Tariff' income from the Government, which accumulates into a community fund. The community fund is directed to BtC to reduce fuel poverty in the area (427).

BtC has also delivered Changes4Warmth, a Big Lottery-funded project that addresses the fuel poverty of people with mental health needs. It was evaluated by the University of Salford, which found that service users saved money and as a result had reduced levels of stress and anxiety. Service users were visited in their homes by project workers who contacted utility companies to discuss tariffs on speakerphones so the service user could learn from the experience. Many interviewees received the Government's Warm Home Discount, which they had been previously unaware of. Overall, service users had a positive reception to the intervention, though some interviewees living in private rented accommodation stated they were reliant on landlords to fix mould and damp problems and there was a limit to what the programme could achieve (428).

The Committee has also identified policy gaps related to housing in: property-level flood resilience, water efficiency devices and appropriate ventilation, and it has labelled requirements to minimise overheating risk as "inadequate". Related to reducing per capita water consumption, the Committee states that policy "lacks ambition" and it has labelled building standards as "deficient" and compliance as "weak" (426).

CASE STUDY: USING TECHNOLOGY TO REDUCE HEALTH INEQUALITIES AND REDUCE EMISSIONS

The role of technology in reducing health inequalities is a growing field. Switchee is a smart thermostat used to control heating for social housing tenants. It works without the need for wifi or a mobile phone app and is thus an affordable option. The technology was created by a team with many years' experience working in social housing.

Switchee automatically adjusts a household's heating with little action needed by residents. The dashboard can identify properties at risk of fuel poverty, enabling housing associations to better target actions to improve energy efficiency. It prompts actions before serious problems arise (e.g. identifying maintenance issues, mould growth, poor insulation), acting as a preventative measure. Switchee can help to cut energy use by up to 15 percent and provides data to housing associations to monitor the state of their housing stock and deliver better outcomes for their tenants. For example, if a property is consistently heated below 18°C (the NHS's recommended minimum temperature), an alert is sent to the landlord suggesting a resident might be suffering from fuel poverty.

It is estimated that each Switchee device saves an average of 1.14 MWh of energy and 210kg of CO₂ per year (429).

In 2013 the Government stated that every new home in the UK would be built to a 'Zero Carbon Standard' (ZCS) by 2016. The policy has not been followed and in 2015 the Government announced 100,000 starter homes were to be made exempt from the ZCS, as adhering to the standard was deemed too expensive (430). In 2015 it was announced the ZCS would be scrapped and the Government committed instead to "keeping energy efficiency standards under review, recognising that existing measures to increase energy efficiency of new buildings should be allowed time to become established" (431). The independent Committee on Climate Change stated: "the technology and knowledge to create high quality, low-carbon and resilient homes exists, but current policies and standards are failing to drive either the scale or the pace of change needed" (426). Only one percent of new homes in 2018 qualified for EPC band A, the most energy-efficient standard (426).

CASE STUDY: LOCAL AUTHORITIES TAKING ACTION ON CLIMATE CHANGE

Nottingham is one of the leading councils in England in its ambition and actions to address climate change. In 2000 the city council signed the 'Nottingham Declaration on Climate Change', an early signal of its commitment to tackle climate change and in 2019 it stated its aim to be a carbon-neutral city by 2028. It has experience of reducing carbon dioxide emissions, having met the city's target to cut emissions by a quarter by 2020 two years early. Its integrated approach to improve air quality and reduce carbon dioxide emissions includes actions for the council, employers, employees and individuals.

Nottingham has one of the largest fleets of electric buses in the UK and is extending its electric tram network; 20 of the 30 largest employers in Nottingham are within 800 metres of a tram stop. Nottingham City Transport, which is locally owned, has won 'UK bus operator of the year' five times and in Nottingham, in contrast to the rest of England, bus travel is increasing. Since 2002 car use in Nottingham has decreased by seven percent while public transport use has increased by the same amount (432) (433). The city has improved cycling facilities, invested in cycle corridors (connecting the city centre with the Queen's Medical Centre and the University of Nottingham), and trained 300 taxi and private hire drivers in cyclist awareness, helping them to understand what it is like to be a cyclist on the road to improve safety.

Nottingham was the first local authority in Europe to implement the Workplace Parking Levy, which places a small charge on employers that provide 11 or more parking places. The levy, which raises £9 million annually, is reinvested into local sustainable transport measures, including electric buses, new tram routes and cycling. The council also offers grants to local businesses to reduce their carbon dioxide emissions. Its waste collection has a number of initiatives to reduce its impact, including solar panels on the waste depot, which charge their trucks and street sweepers (434).

ACTIVE TRAVEL

In the UK transport is the largest contributor of greenhouse gas emissions. In 2018, 33 percent of total UK greenhouse gas emissions were from transport, the vast majority from road transport (435). The provision of policies for equitable active travel such as cycling and walking is highly important for reducing the emissions that contribute to climate change and local air pollution, and to reduce health inequalities. One quarter of the UK's greenhouse gas emissions come from transport and road transport is the largest contributor to poor air quality (436) (437); active travel reduces carbon emissions which is important for climate change mitigation and active travel also reduces air pollution and improves physical health and mental health as a result of the physical activity (438).

In 2016 the Government set a target to double cycling rates and increase the number of children aged 5–10 walking to school by 6 percent by 2025 (439). However, between 2010 and 2018 the percentage of children in England aged 5–16 years who walked to school did not change, staying at 44 percent. The number who cycle to school increased by 1 percent (333). The Transport Committee (a cross-party Select Committee) has pointed out that in the two years after this commitment the Government had not provided any detail on progress against delivering these outcomes (440).

CASE STUDY: LOCAL ACTIONS INCREASING ACTIVE TRAVEL

Many local authorities have prioritised active travel policies despite the lack of sustainable funding. Bristol invested in upgrading to streets, improving cycle lanes, adding new crossings and refurbishing a pedestrian and cyclist bridge, and between 2011 and 2015 cycling increased by 52 percent and the proportion of secondary school pupils usually cycling to school doubled, rising from about 4 percent to close to eight percent (441).

In London the Mayor's Healthy Streets initiative included the Mini-Holland programme, which aims to transform the cycling infrastructure in three outer London boroughs. The aim is to make London's boroughs as cycle-friendly as those in the Netherlands where more than half of all journeys are made by bicycle in some cities. In Waltham Forest the mini-Holland scheme included slowing vehicles on residential streets, adding protected spaces to cycle. An analysis over one year found of people living in areas with the mini-Holland initiative, 24 percent more were likely to have cycled in the previous week compared to non mini-Holland areas. Importantly, increases in cycling were consistent across socioeconomic groups (442) (443).

Adult active travel rates have increased, however: between 2010 and 2018 there was a 12 percent increase overall in the number of walking trips made each year, a 5 percent increase for those on the lowest incomes and a 14 percent increase for those on the highest incomes (333). However, the number of bicycle trips only increased from 15 per year in 2010 to 17 per year in 2018 (333). In 2017 two-thirds of the UK population rarely used a bike, with 66 percent stating they cycled less than once a year or 'never' (333). These low cycling rates are also accompanied by low physical activity rates overall, and regional inequalities in the amount of physical exercise adults do. The North West and North East of England have the highest number of adults who are physically inactive, almost half; 47 percent of adults in the North West are physically inactive compared with 35 percent in the South West and 34 percent in the South East (444).

With 42 percent of all journeys made being less than two miles in distance (in 2017), there is an opportunity to encourage and enable active modes of travel (446). However, active travel policies can potentially widen inequalities. For example, initially the London Bike Sharing Scheme increased cycling among more affluent people more than among the less affluent; it was only after placing bikes in more deprived areas that

cycling began to increase among poorer people (446). Focussing on equity is clearly critical when designing these kinds of schemes (447); active travel policies should apply an equality impact assessment to ensure that interventions are equitable and do not worsen inequalities. For example, a number of cities and towns have introduced 20 miles per hour (mph) speed limits as part of their active travel strategies (to make walking and cycling safer and more attractive).

Adequate funding is a key factor in the success of equitable active travel plans. The Government committed £1.2 billion to active travel between 2016/17 and 2020/21, but only £348 million was ring-fenced for cycling and walking schemes. With the high level of cuts to local authorities, it is unclear how much of the budget was spent on active travel, as the only stipulation was to spend on local "transport priorities" (448). The Transport Committee has criticised the funding, stating that it is "too piecemeal and complex, and the Government has not given local authorities the certainty they need to prioritise active travel and make long-term funding commitments" (440). Budgets for cycling and walking have declined, from £95 million in 2016/17 to £33 million in 2020/21. In the same five-year period, the budget for the roads investment strategy increased from £1.83 billion in 2016/17 to £3.86 billion in 2020/21 (449).

CASE STUDY: ACTIVE TRAVEL INITIATIVES

The higher the income of a household, the more likely its members are to cycle. Most cycle share schemes in England are run for profit and require smartphone access, which are both barriers to equitable access (3). The Bikes for All project in Glasgow reduced the cost of membership from £60 to just £3 and organised activities such as group rides, family rides and road safety sessions to encourage all residents to cycle. Over a 13-month period cycling among under-represented and minority population groups increased. Almost half, 49 percent, of participants came from a minority ethnic background; more than a quarter, 28 percent, were unemployed; and 61 percent were from the most deprived 20 percent of communities in Scotland (3).

Bike kitchens are another initiative that aims to improve accessibility in cycling. Bike Kitchens offer free or low cost help fixing bikes and a number exist in England. Jaywick and Clacton in Essex, two of the most deprived areas in England, run two separate bike kitchens, both set up by a local resident, a youth police officer. They are funded by a local charity and run bike maintenance sessions and organise rides (3) (19).

POLICY TO MITIGATE OR REDUCE GREENHOUSE GAS EMISSIONS

In 2015 the UK, by signing the Paris Agreement, agreed alongside most other countries to reduce its greenhouse gas emissions to limit temperature increase to 1.5°C above pre-industrial levels. The Climate Change Act of 2008 is the main legislation driving government actions to reduce UK emissions and in 2019 the Government announced the UK's emissions target would be increased in ambition from the 80 percent cut on 1990 levels stipulated in the Act to reducing emissions to net zero by 2050. This is the deadline recommended by the United Nations to meet the target to limit global warming to 1.5°C (450). The announcement involved some actions to change behaviour in the UK but focussed heavily on buying international credits to balance UK emissions. A few months after this target was set research for the Committee on Climate Change found the UK would likely miss the target unless urgent action was taken. It also found that the UK was not on course to meet its legally binding targets to reduce emissions by 51 percent by 2025 and by 57 percent by 2030.

The Committee on Climate Change has warned that not enough is being done to reduce household energy consumption (451) (452), which is one part of meeting the net zero target. Since 2014 there has been no progress in reducing energy use per household and per person, and energy use in homes increased between 2016 and 2017 (426). A number of short-term policies have sought to address domestic energy use but have had little effect. For example, the Green Deal in the Energy Act 2011 came into force in 2012. It was a loan for energy efficiency improvements in homes and aimed to install energy efficiency measures in 1 million homes by 2015. It was criticised for failing to address fuel poverty and reduce carbon emissions and was felt to undermine small businesses. The policy ended in 2014, suffering from low awareness and a perception that its interest rates were high, plus a failure to reduce energy bills (426).

Universal taxes on harmful products (e.g. carbon or petrol) have also been suggested as 'solutions' to climate change, but these can be regressive. The UK government's current approach has been labelled as highly regressive as the poorest households pay a higher proportion of their disposable income on energy costs compared to the wealthiest households (420). However, the IMF continues to recommend increasing carbon taxes to reduce greenhouse gas emissions. One potential problem related to inequalities is that the estimated increase in household electricity bills of over 40 percent in the next decade would be especially hard on people on low incomes (453). Policies mitigating emissions from transport via use of fuel duty and vehicle excise duty (VED) can also be regressive. Fuel duties account for a larger share of low-income households' budgets. The full impact is difficult to assess as fewer low-income households own cars (454). Alternatives to car use such as better public and active transport and electric cars are central to any future climate change policies. The declining investment in buses in recent years is contrary to mitigating climate change and protecting equity (454). Mitigation policies can be designed to avoid increasing inequalities. For example, in British Columbia, Canada, revenues from the provincial carbon tax were used to counterbalance potential regressive effects by supporting tax cuts and transfers to low-income households and vulnerable industries (456).

There are also 'co-benefits' or positive side-effects of addressing climate change (420). In terms of housing-related co-benefits, research finds that the most effective policies are not only focussed on energy efficiency policies, as in England, but take the form of 'whole-house' approaches. These include changes to housing behaviours and lifestyles as well as changes throughout a property (e.g. insulation, heating and ventilation).

Recommendations for creating healthy and sustainable places and communities

- Invest in the development of economic, social and cultural resources in the most deprived communities.
- Ensure 100 percent of new housing is carbon neutral by 2030, with an increased proportion being either affordable or in the social housing sector
- Aim for net zero greenhouse gas emissions by 2030, ensuring inequalities do not widen as a result.



Chapter 4

Governance for health equity

Action on health inequalities has not been a priority for national government in England since 2010 and there has been no national strategy in the intervening period. This is despite stalling life expectancy and widening inequalities, as reflected in a steeper social gradient in health between socioeconomic groups and also widening health inequalities between regions.

We know about the challenges: the lack of national leadership and whole-of-government approaches, the large funding reductions in critical social determinants of health and the difficult economic and social contexts at a local level. However, as this section will show how some local authorities and communities in England have made progress in addressing health inequalities by developing whole system approaches and prioritising health inequalities in the work of health and non-health partners; even in the most difficult contexts. We show how other national governments have developed strong approaches to tackling health inequalities and that there is much for the Government in England and the UK to learn.

In this report we set out a new agenda for national government to reduce widening health inequalities in England. This section is concerned with the governance that is needed to fulfil the actions we propose.

In the Report of the Commission of the Pan American Health Organization on Equity and Health Inequalities in the Americas, published in 2019, we set out the requirements for effective governance systems for health equity:

Effective governance arrangements are a prerequisite for countries committed to developing action on social determinants: they are necessary for understanding the problem, and for developing appropriate and effective responses. [...] The overall aims of health equity approaches should be to improve the distribution of determinants affecting health; to redress current patterns and reduce the magnitude of health inequities; and to reduce the risks and consequences of disease and premature mortality across different population groups. These aims require governance arrangements that are capable of building and ensuring joint action and accountability by all key actors that have a strong political and public commitment to improving health equity, and equity in social determinants. These include health and non-health sectors, public and private sectors, civil society, and communities and citizens (457)

NATIONAL APPROACHES TO HEALTH INEQUALITIES IN ENGLAND SINCE 2010

The 2010 Marmot Review indicated that delivering on the six priority objectives it set out required action across central and local government, the NHS, the third sector, the private sector and community groups. Two policy mechanisms central to national action on reducing health inequalities were proposed:

- Considering equality and health equity in all policies, across the whole of government, not just the health sector.
- Effective evidence-based interventions and delivery systems (3).

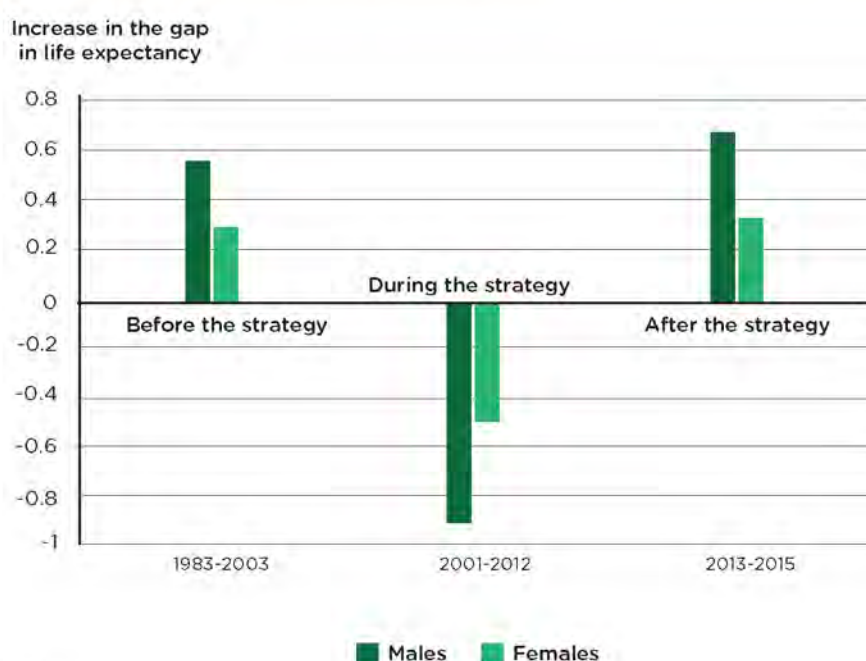
The initial government response to the 2010 Marmot Review was largely positive. The recommendations were welcomed by the Coalition Government, which accepted five of the six priority objectives. These formed the basis for the public health white paper in 2010, *Healthy Lives, Healthy People* (the objective that was omitted was number 4, 'Ensure a healthy standard of living for all') (458). The Government developed a new set of public health outcome indicators, which covered the social determinants of health and the current public health outcomes framework incorporates these (459).

However, there has been no new health inequality strategy – a crucial component of concerted national action to reduce health inequalities. The last national health inequality strategy, *Tackling Health Inequalities: A Programme for Action*, ran from 2003 to 2010 (460).

There were criticisms of this strategy, as the life expectancy target focussed only on the most deprived fifth of local authorities and so did not tackle the gradient in health outcomes, and only a small number of drivers of health inequalities were included (461). However, analysis from 2017 showed that during the life of the strategy, and for a while after, there were reductions in geographic inequalities in the life expectancy target, which may have been associated with the broad set of national and local policies that aimed to regenerate and invest in poorer areas (462). The author of that analysis suggested that a cross-government strategy that supports increased social investment proportionately in more deprived areas and population groups can reduce health inequalities and contended that there is much still to learn from the 2003–10 health inequalities strategy.

Figure 4.1 shows the positive changes up until 2013 and widening health inequalities between 2013 and 2015, when the analysis ended. However, as set out in Section 2 of this report, inequalities have continued to widen since 2015.

Figure 4.1. Trend in the gap in life expectancy between the most deprived local authorities in England and the rest of the country by sex, before, during and after the strategy



Source: Barr B, 2017 (462)

The 2010 public health white paper was followed by the Health and Social Care Act of 2012, which transferred many public health functions to local government. Overall, we welcomed this move. Local government is the right place for public health action on the social determinants. However, the move coincided with austerity and cuts to public health, which has limited local government's ability to take action on health inequalities and harmed outcomes in social determinants as well as putting increasing pressure on limited and diminishing public health budgets (463).

The Health and Social Care Act also included new health inequalities legislation. This legislation placed legal duties to address health inequalities on NHS England and Clinical Commissioning Groups (CCGs), and the Department of Health and Social Care, led by the Secretary of State. The duties mean that accountable organisations must "have regard to the need to reduce inequalities between patients in access to health services and the outcomes achieved". As NHS England explains, this means that "health inequalities must be properly and seriously taken into account when making decisions or exercising functions, including balancing that need against any countervailing factors" (464). While the duties hold promise for reducing inequalities in outcomes and holding national healthcare-related organisations to account for that, in practice the requirements have not led to effective actions on reducing inequalities. NHS England has established some reporting and accountability mechanisms to meet the legislative requirements, but other parts of the system, notably the Department of Health and Social Care, have not.

Since the white paper of 2010 there has been no further new public health white paper. The 2019 green paper from the Department of Health and Social Care, *Advancing our Health: Prevention in the 2020s*, clearly sets out the need for a much stronger focus on the prevention of ill health (514). However, most of the proposals put forward are more downstream than those advocated in the 2010 Marmot Review and will not, on their own, improve population health or reduce health inequalities. This is particularly true given the increasing challenges and worsening inequalities that have accumulated over the last decade (465) (466).

NHS England has acknowledged the extent of health inequalities and the further risks to equity if there is no effective action to reduce inequalities and invest more in prevention. In 2019 the Long Term Plan for the NHS outlined its vision for having a bigger role in contributing to prevention and reducing health inequalities. It set out specific plans to include measurable goals for health inequalities. Commissioning allocations for CCGs will ensure that a higher share of funding is targeted at areas with high inequalities and a review of the inequalities adjustment to funding formulae will be undertaken (468).

IHE was commissioned by NHS England to assess how local health systems can achieve greater improvements to population health and reducing inequalities. We advised that NHS organisations, particularly the place-based integrated care systems and associated workforce, are in strong positions to work more closely

with other sectors and with communities to improve local health and reduce health inequalities. There are significant challenges for health care organisations in developing the necessary partnerships and proactively working to improve population health and these types of approaches are slow to develop at scale (469). We proposed to NHS England the development of a broad health system approach for improving health and tackling health inequalities, which we summarise in Box 4.1.

Public Health England (PHE) sees its role as being to protect and improve the nation's health and reduce health inequalities, with an aim of working to narrow the health gap and reduce "unjust and avoidable inequalities in health outcomes" by "integrating the reduction of inequalities into everything we do" (470). In its 2025 vision, it focuses on inequalities, particularly in priorities for a "fairer society", and by 2025 it aims to achieve the following:

- Reduce inequalities in infant mortality, school readiness and childhood obesity.
- Reduce the gap in smoking rates between the least and most deprived communities.
- Lower rates of premature mortality among people with long-term and severe mental health problems.
- Reduce the cases of poor health among vulnerable populations caused by air pollution and outbreaks of infectious disease (470).

While these four areas capture some of our recommendations, as set out in Section 3, they do not reflect them all and our ambition is to lower rates of premature mortality and ill health across the whole social class gradient, which requires action across all the domains proposed in the Marmot Review. As we described in that review in 2010 and in many other publications, and as we continue to emphasise in this report, to achieve the reductions in inequalities in health, as outlined in PHE's vision, requires a strong focus on a whole of society and government strategy to reduce inequalities in the social determinants. This also requires a proportionate universalist approach to policies and interventions (470).

PHE also has a welcome focus on reducing the inequalities in harmful health behaviours, behaviours that are the causes of so much ill health and inequalities, that exist between different groups. However, this requires action on the causes of the causes of ill health; focussing only on the downstream effects will be less effective. Health behaviours are closely related to the conditions in which people are living. It is more difficult for individuals to change unhealthy behaviours such as smoking when they are under stress caused by factors such as debt or poor housing conditions. In addition, poverty limits options and makes it more difficult to make healthy choices. As we have assessed in this report, those on low incomes cannot afford to eat healthily or to live in warm, dry housing or live in safe neighbourhoods, for example.

It is imperative that the Government, NHS England, PHE and other organisations charged with reducing

health inequalities, work more effectively to improve the conditions in which people are living, and the structural drivers of these conditions, as well as positively influencing the choices that people make about health behaviours. The Government has the evidence about the overwhelming impacts of social determinants on health but it has largely not acted on it and certainly not at sufficient scale.

A report from the All Party Parliamentary Group (APPG) on Longevity has set out a programme to improve health and support the Government to achieve its ambition “for everyone to have five extra years of healthy, independent life by 2035 and to narrow the gap between the richest and poorest”. It makes a series of recommendations that complement the recommendations in this report – this report is concerned with the drivers of health behaviours, while the APPG report is more concerned with the behaviours themselves. Both are important (471) (472).

THE COSTS OF NOT ADDRESSING HEALTH INEQUALITIES

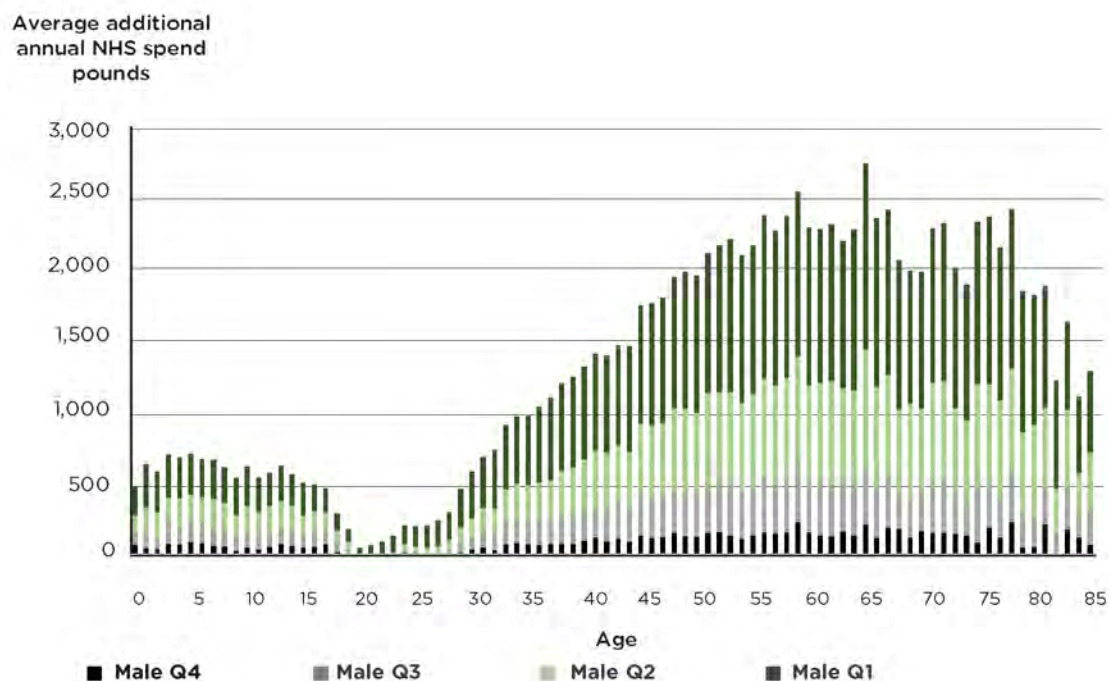
Health inequality takes an unnecessary and unjust toll on the health and length of life of much of the population, particularly those who are more deprived, as we have described. There is a strong moral case for intervening and this is reason enough to act but health inequalities are also financially costly. The 2010 Marmot Review, drawing on its own evaluation and other evidence, estimated the economic costs of health inequality per year as being: productivity losses of £31–33 billion, lost taxes and higher welfare payments in the range of £20–32 billion, and additional NHS health care costs in England in excess of £5.5 billion (3).

We are now in a position to provide updated costs to the NHS. A detailed analysis for the year 2011/12 of how average NHS costs varied by age, sex and neighbourhood deprivation quintile estimated that the total cost associated with inequality was £12.52 billion (473). Figure 4.2 shows average additional annual NHS spend in each neighbourhood deprivation quintile (compared with spend in the least deprived quintile, Q5). For both men and women there is increasing spend with increasing deprivation at every single year of age, the extra spend being greatest between the ages of 45 and 80.



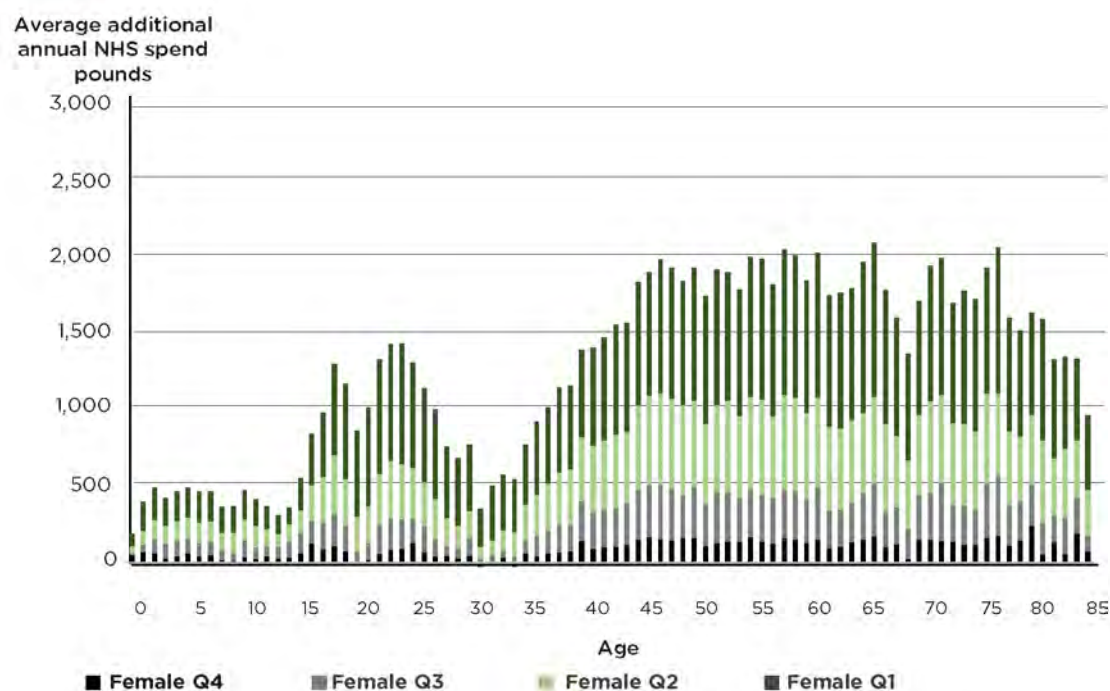
Figure 4.2. Average annual NHS spend, by age and neighbourhood deprivation quintile group, England, 2011/12

a) Males



Note: Q1 is the most deprived and Q5 (not featured in the graph), is the least deprived and the reference quintile

b) Females



Note: Q1 is the most deprived and Q5 (not featured in the graph), is the least deprived and the reference quintile

HEALTH AND SOCIAL CARE COSTS AND DEPRIVATION IN KENT

Recent analysis from Kent shows that per capita health and social care costs are 35 percent higher in the most deprived areas of the county and that there is a social gradient: cost per head increases with deprivation across each deprivation quintile. The analysis shows that if this cost gradient were eliminated in Kent, 15 percent of the overall costs would be avoided. The authors state that health inequalities in the population aged over 55 years in Kent are associated with health and social care costs of £109 million, or 15 percent of the estimated total expenditure in this age group. As such, appropriate interventions to reduce socioeconomic inequalities could reduce health inequalities and produce cost savings. The authors conclude that there may be an economic case for reducing health inequalities, as well as a moral one (474).

Although there is a strong cost and efficacy case for intervening to prevent unnecessary ill health and to reduce health inequalities, the long-term nature of investments to improve health, and the complexity of social determinants of health, means that cost/benefit evaluations are difficult.

As the APPG on Longevity's Healthier Lives for All report set out in 2020:

Very large increases in demand for the NHS and social care are happening now and will continue to 2035 from avoidable illnesses and our ageing population, roughly a doubling in the number of many illnesses. In 2035 there will be approximately 16 million cases of dementia, arthritis, type 2 diabetes and cancers in people aged 65+, twice as many as in 2015. These vast increases in demand are the wakeup call do what it takes to prevent illnesses (472).

Also stating the case for prevention, PHE writes in the summary of its 2020–25 strategy that:

Evidence shows that prevention and early intervention represent good value for money. Well-chosen interventions implemented at scale help people to avoid poor health, reduce the growth in demand on public services, and support economic growth (470).

PHE suggests that there are a range of interventions across a variety of health conditions and risk factors that offer a positive return on investment (470).

ROLE OF THE HEALTH SYSTEM

While the whole of government must be involved in the endeavour to reduce health inequalities, the health system has a particular and critical role, and health care organisations and workforces can support and in some cases lead systems to reduce health inequalities (see Box 4.1).

Box 4.1. A health system for reducing health inequalities

A health system based on prevention and health equity would involve:

- A focus on preventing ill health and supporting good health as well as treating ill health – a move away from reactive services that focus solely on treatment for people who are already ill towards services that work to improve the conditions in which people live, which in turn will improve their health.
- A focus on place – on small areas and on influencing the environment and social and economic conditions of places in order to improve the health of residents, especially for the most disadvantaged areas.
- Cross-sector collaboration – between multiple organisations and sectors, reaching beyond health care, public health and social care. These may include housing, early years services, training and education.
- Understanding local population health and health risks – this requires health assessments that include the broader social and economic drivers of health as well as a focus on and inclusion of particular communities that are at risk of poor health.
- Action on the social determinants of health as well as medical treatment – there is much that health professionals and health care organisations can do to take action on social, economic and environmental factors that would significantly drive improvements to health outcomes and health inequalities.
- Development of proportionate universalist approaches – additional resources and actions are needed for more deprived communities and areas. Approaches that focus on improving health equity may look quite different to those that focus only on improving average population health, as they are responsive to those with the greatest levels of need and the highest risks of poor health (469).

Further to the examples we provided in Section 3 in the boxes we describe the examples of the Deep End Practices and other models of general practice taking action on social determinants of health (527).

CASE STUDY: DEEP END NETWORK

The Deep End group is a network of GP surgeries in Scotland and England. In Scotland it covers the 100 most deprived patient populations. Developed by the Royal College of General Practitioners Scotland in 2009, it aimed to share experiences between GPs of the challenges they face in dealing with some of the most deprived parts of society and to improve services and professional development for GPs.

In England, Greater Manchester Deep End supports medical student placements and provides practical guidance for clinicians and primary care teams. In Yorkshire and the Humber the Deep End GP group promotes proportional universalism, placing GP nurses in practices to provide additional support and mentoring (475).

CASE STUDY: NEW MODELS OF GENERAL PRACTICE ADDRESSING HEALTH INEQUALITIES

Whitehawk, located on the South coast in the eastern part of Brighton, is an area of high economic deprivation. Its 7,705 residents live in wards that are the 294th and 434th most deprived out of 32,844 wards in England. Forty-five percent of children live in poverty.

In April 2018 three GPs and an advanced nurse practitioner launched Wellsbourne Health Care Community Interest Company (CIC). The CIC provides a new and, so far, highly successful approach to primary care and general practice. Alongside its regular clinical and administrative staff, the CIC employs a social prescriber, health engagement worker, mental health worker, community pharmacist and community projects manager, supplementing its NHS contract income with its own fundraising. With a former director of public health and head of adult social services among its non-executive directors, the CIC adopts primary and secondary prevention strategies, co-designed with the local population. It also finds the time to find the people in greatest ill-health who, in the past, have not found their own way to a GP. The CIC achieves additional social value by employing locally and entering into funding and partnership arrangements with local groups and charities. Since its launch in 2018, 70 women have attended for cervical smear tests for the first time in 10 years, 97 percent of under-2s have been immunised and it has achieved 98.7 percent of its Quality Outcomes Framework target (475).

Social prescribing is another example of an approach to tackle the social determinants of health. Most commonly, social prescribing has been used to identify community activities to improve health and wellbeing for adults. Many social prescribing schemes have the potential to support practical action, including changing the conditions in which people are living (476) (477) (see box for an example).

CASE STUDY: USING SOCIAL PRESCRIBING TO REDUCE LONELINESS

The charity StreetGames has led a social prescribing programme for young people aged 14–25 living in Brighton & Hove, Luton, Sheffield and Southampton. The programme was set up to address issues commonly faced by young people growing up in areas of deprivation, including loneliness, social isolation, poor mental health, debt and unemployment.

The project is run in partnership with local youth and community charities. Professionals such as teachers, police officers, health professionals and community workers identify young people who need help and refer them to a dedicated youth link worker (YLV) who meets with the young person up to eight times. Together, the YLV and the young person work to find answers to the young person's problems. At present, 20 percent of referrals to the YLV are made by GPs. The YLV refers young people to a range of social, cultural and sports activities, as well as advice and information providers.

The University of East London is evaluating the project and preliminary findings suggest this form of social prescribing has reduced GP appointments by 28 percent and A&E attendances by 24 percent (478) (479).

In October 2019 the Government announced the establishment of a national academy of social prescribing; this is welcome but it must include a strong focus on activities to improve the conditions of daily life – through housing and financial advice, for example – as well as supporting behaviour change. More research is needed into the possible impacts that social prescribing might have on inequalities.

4A - Effective action for health equity

Based on previous assessments of national government action, international action and, most importantly, local government and community actions over the last 10 years, we summarise in Boxes 4.2 and 4.3 interlinked principles for effective governance for health equity and for implementing the policies and actions needed to deliver this objective. These have developed in the decade since the original review and they form the basis for a new agenda for the Government to take forward in England.

Box 4.2. Principles for governance for health equity

1. Health equity is an indicator of societal wellbeing.
2. The whole of government is responsible for prioritising health equity in all policies.
3. Development of strategies and interventions must involve a wide range of stakeholders.
4. Accountability must be transparent with effective mechanisms.
5. Communities must be involved in decisions about programmes and policies for achieving health equity.

Box 4.3. Principles for implementing action on health inequalities and their social determinants

1. Develop a national strategy for action on the social determinants of health with the aim of reducing inequalities in health.
2. Ensure proportionate universal allocation of resources and implementation of policies.
3. Early intervention to prevent health inequalities.
4. Develop the social determinants of health workforce.
5. Engage the public.
6. Develop whole systems monitoring and strengthen accountability for health inequalities.

Each of these principles is discussed in more detail below.

GOVERNANCE FOR HEALTH EQUITY: PRINCIPLES

1. Health equity as an indicator of societal wellbeing

As we described in Sections 1 and 2, stalling life expectancy, declining health and widening health inequalities in England clearly indicate that society has not been functioning well over the last decade, and it has performed particularly poorly for those with lower socioeconomic position. While the financial impacts of austerity have been widely understood and even more widely felt, the impacts of austerity on health have largely been overlooked. In this review we have established that deteriorations in equity in the social determinants will likely have driven, and continue to drive, deteriorations in health and length of life for much of the population.

As we said in the 2010 Review, "avoidable health inequalities are unfair and putting them right is a matter of social justice". In 2010 we proposed ways to put health equity at the heart of government decision-making, and proposed that health equity should be used as an indicator of societal wellbeing. These actions have not happened in England. Political and economic considerations have been prioritised and they have harmed health.

At the time of the first Review we were asked to establish the evidence base about health and the social determinants. We and many other organisations have done that – lack of evidence is no longer a reason for inaction. Answering requests, we have also described how to take forward a social determinants of health approach, in practical ways, for a range of organisations. We and many other organisations have detailed this approach for a range of stakeholders and for national and local government.

We have been told that the proposals are too expensive – but inaction is costly, as we have described, for the people who experience health inequalities, communities and the public purse. How to achieve equity in health and wellbeing over the long term must now be at the forefront of decisions made by national government and used as a measure of how well society is progressing.

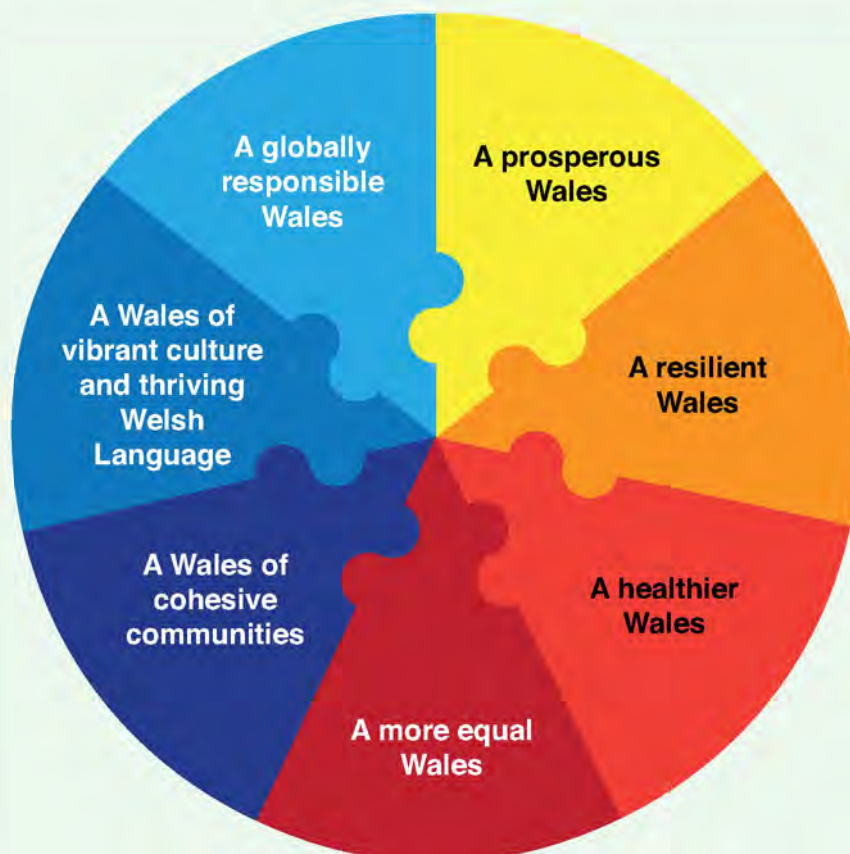
Wales has made progress in legislating for the prioritisation of wellbeing and future generations in development of policies – see box. A further example is provided of New Zealand's new wellbeing budget and strategy.

CASE STUDY: WELLBEING OF FUTURE GENERATIONS (WALES) ACT, 2015

The Wellbeing of Future Generations (Wales) Act of 2015 aims to make long-lasting and positive changes to the social, economic, environmental and cultural wellbeing of Wales. The Act requires every public body in Wales to consider the long-term impact of every decision, and for these to work with Welsh people to prevent persistent problems such as poverty, health inequalities and climate change.

The Act defines a healthier Wales as: “a society in which people’s physical and mental wellbeing is maximised and in which choices and behaviours that benefit future health are understood”.

Public bodies are expected to work towards achieving seven wellbeing goals, illustrated in the wheel



Source: Future Generations Commissioner for Wales (480).

Each public body is expected to set and publish wellbeing objectives to achieve each of the wellbeing goals. The Act also seeks to change the way public bodies work and recommends five ways of working to achieve the wellbeing goals: taking a long-term approach, integrating an organisation’s own objectives with other public bodies, involving people, collaboration and taking a preventative approach (480).

The Act requires each local authority to establish a statutory board, known as a Public Services Board (PSB), a group of public bodies working to improve the wellbeing in each local authority. Local health boards are statutory members of each of PSB, alongside local authorities, fire and rescue services and other partner organisations including Public Health Wales. Each PSB works in partnership to improve the economic, social, environmental and cultural wellbeing, which they assess, publishing the result, and they identify local objectives and plans to meet them.

One of the successes of the Future Generations Act is the actions from non-statutory organisations to adopt the seven goals and integrate them into their work programmes. For example, Wildlife Trusts Wales published a green infrastructure report, its contribution to making Wales a happier, healthier, more prosperous place to live. The report gave examples of green infrastructure, demonstrating how it is a cost-effective way to improve health and wellbeing and the quality of life of individuals and communities (481).

CASE STUDY: NEW ZEALAND'S NATIONAL WELLBEING BUDGET AND STRATEGY

In 2019 New Zealand announced the world's first 'wellbeing budget' (482). The Wellbeing Budget 2019 shifted New Zealand's economic goal from increasing gross domestic product (GDP) to improving the welfare of New Zealand's citizens. Similar to the seven wellbeing goals found in Wales's Future Generations Act, in New Zealand all new government spending is expected to work towards six priorities: taking mental health seriously, improving child wellbeing, supporting Maori and Pacific island people, building a productive nation, transforming the economy and investing in New Zealand. Wellbeing is the focus of each priority; for example, the key actions associated with 'Transforming the economy' involve investing in domestic affairs to achieve national benefits (e.g. train services, farmers, climate change, scientific research, sustainable land use and water).

The success of the budget is measured by the Treasury's Living Standards Framework. This framework is based on the OECD's 11 wellbeing measures (subjective wellbeing; civic engagement and governance; health; housing; income and consumption; knowledge and skills; safety; social connections; environment; jobs and earnings; time use). The New Zealand government added cultural identity and another four measures to influence the future wellbeing of its citizens, all of which require long-term investments to build the resilience of the New Zealand people (482).

Iceland and Scotland have also expressed support for shifting the goal of economic policy from GDP to collective wellbeing. In 2017 Scotland established the Group of Wellbeing Economy Governments network, which includes Iceland and New Zealand. In 2018 it published the National Performance Framework, based on the Sustainable Development Goals, and which stated Scotland's core values as being kindness, dignity and compassion (483). In 2019 Iceland initiated efforts to develop wellbeing measurements based on four factors: good health and access to health care; good relationships: family, friends, neighbourhoods; secure and affordable housing; and making a living: income and assets (484).

We repeat from the 2010 Marmot Review:

The health and wellbeing of today's children depend on us having the courage and imagination to rise to the challenge of doing things differently, to put sustainability and wellbeing before economic growth and bring about a more equal and fair society (3).

The rest of the principles set out below are all based on leading a new agenda on reducing health inequalities.

2. Whole of government responsibility for prioritising health equity in all policies

'Health-in-all-policy' approaches are intended to ensure that policies from a range of sectors support good population health and at worst do not harm it. Health-in-all-policy approaches have been adopted by many national governments and international organisations and they do hold potential to facilitate cross-sector working and create a focus on health (485) (486) (487) (488).

However, in many cases the mode of implementation has limited the approaches' usefulness and in some cases has undermined a focus on health and health equity. Firstly, the rather complex assessments of all policies required is cumbersome, time-consuming and can end up as a tick-box exercise with little real impact on the design and delivery of policies. Secondly, health is frequently equated with health care and health-in-all-policy approaches end up being about access to health care services. While this is important, it is not supportive of building better population health. Thirdly, without an explicit focus on equity, impacts on health inequalities are not assessed; in the worst cases, this can widen health inequalities.

Health-equity-in-all-policy approaches, with an explicit required assessment of health equity impacts, are more supportive of action on health inequalities than are standard health-in-all-policy approaches. Health equity assessments of policies and interventions can be used to ensure that individual policies do not create or widen inequities and, ideally, they are designed to narrow them. However, this in itself will not result in coherent actions across sectors to reduce inequalities.

CASE STUDY: TOOLS FOR ASSESSING HEALTH EQUITY IN ALL POLICIES

The Health Equity Assessment Toolkit (HEAT) is a tool provided by WHO to assess health inequalities within a country. The International Centre for Equity in Health, Brazil has used it to focus on assessing unequal health outcomes. The indicators used in assessment reflect multiple SDGs and their sub-targets. At present, the information available focuses on reproductive, maternal, new-born, and child health, using data from the WHO Health Equity Monitor database.

In Canada, the Health Equity Impact Assessment (HEIA) tool was developed in 2013 by the Ontario Ministry of Health and Long-Term Care in partnership with Public Health Ontario, public health units and local health integration networks. It can be used to help decision-makers consider equity issues in planning decisions. It incorporates international evidence as well as input gathered during regional pilots and conversations with health service providers.

The HEIA tool identifies five steps in conducting health equity impact assessments:

1. Scoping: identify affected populations and potential unintended health impacts on those groups of the planned policy, programme or initiative.
2. Potential impacts: use available data or evidence to prospectively assess the unintended impacts of the planned policy, programme or initiative on the identified groups in relation to the broader population.
3. Mitigation: develop evidence-based recommendations to minimise or eliminate negative impacts and maximise positive impacts on identified vulnerable groups.
4. Monitoring: determine how implementation of the initiative will be monitored to determine its impact on vulnerable groups related to other subpopulations or the broader target population.
5. Dissemination: share results and recommendations for addressing equity (457).

3. Involving a wide range of stakeholders in development of strategies and interventions

Given that most of the drivers of poor health lie outside the usual focus of health care, it is essential that all relevant stakeholders, nationally, locally and at community level, are involved in the endeavour to reduce health inequalities. Involvement and partnerships between many sectors, such as early years, education, work, social protection, environment, housing, social care and community, as well as health care, are needed to support action on health inequalities. The stakeholders involved must range from national governments to businesses, local authorities, community groups and voluntary sector organisations.

Developing the necessary partnerships and collaborations is challenging: different sectors have different priorities, budgets, workforce cultures, delivery systems and mechanisms, incentives and targets. Yet since 2010, there have been many examples of effective cross-sector working to focus on health inequalities or the social determinants of health locally in England and also internationally, some of which we describe below and were also described in Section 3.

It is important to add that this is not an example of 'health' trying to dominate a whole-government agenda. Actions taken to address health inequalities will create a fairer, more just society, with more social engagement, less crime and a more educated, engaged population. Acting on health inequalities is also crucial to the Sustainable Development Goals. While one Sustainable Development Goal (SDG 3) directly references health – "Ensure healthy lives and promote wellbeing for all at all ages" – at least 11 of the 17 Sustainable Development Goals can be seen as driving the social determinants of health.

Throughout this report we have mentioned examples of activities in Coventry, which as a city has focused strongly on health inequalities by attempting to reduce inequalities in the social determinants. The council has developed strong cross-sector and whole-of-city approaches to do this, calling Coventry a 'Marmot City' since 2013, which has helped establish the system-wide approach to reducing inequality across the council. In collaboration with PHE and Coventry City Council we are, as a companion to this Review, publishing an assessment of what Coventry has achieved in its years as a Marmot City (229). A flavour of this is provided in the box.

CASE STUDY: COVENTRY AS A MARMOT CITY – SYSTEM-WIDE APPROACHES

Coventry is an ethnically diverse and growing city in the West Midlands with a rate of deprivation that is higher than the average for England. Close to one-third of Coventry's 195 neighbourhoods (lower super output areas or LSOAs) are among the 20 percent most deprived in England. As such, the city has significant health inequalities and differences in life expectancy. There was a 11.7 year gap in male life expectancy at birth between the highest and lowest income deciles and a 7.9 year gap in life expectancy at birth in 2012. Recognition of the gap in both life expectancy and disability-free life expectancy led to a decision by the Council to pursue becoming a 'Marmot City' in 2013 and adopting a city-wide, whole-systems, assets-based approach to reducing the social gradient in health.

Coventry has worked with organisations from the public sector, the community and voluntary sector, and departments in the council, drawing on the strengths and assets of each partner and receiving no additional funding. Key to its success has been developing high levels of trust between partner organisations, developing shared values regarding fairness and social justice (based on the Marmot Principles). At the outset the governance and operational dimensions of the approach were loosely defined, allowing the approach to develop and become iterative and adaptable.

The challenge Coventry faced was significant, given that the approach was to be adopted locally without the support of a national policy framework for action. However, from the outset Coventry had a strong base of support among senior leaders that made it possible to communicate the approach, at least at managerial levels, across the council. The leadership included the leader of the council, the chief executive, the cabinet member for health and the director of public health. The commitment across political and corporate strands of leadership to taking a whole-systems approach allowed several levers to be used at once to galvanise action.

The steering group includes senior representation from across the council (public health, employment services, libraries and adult social care), Public Health England, Voluntary Action Coventry, Coventry and Rugby Clinical Commissioning Group, West Midlands Fire Service, West Midlands Police, Department of Work and Pensions, the Local Enterprise Partnership, Coventry Chamber of Commerce, Foleshill Women Training, Positive Youth Foundation, sexual violence services and local housing and welfare advice services.

In 2018, the steering group developed a new thematic area of work around poverty in response to the rollout of Universal Credit and its anticipated impacts on more vulnerable residents (489).

Greater Manchester has also been pioneering the development of system-wide, integrated public service approaches. In 2018 the city-region signalled its intention to develop as a 'Marmot Region', to focus on reducing health inequalities through system-wide approaches. The work is currently ongoing and we will publish a summary and recommendations for future developments later in 2020. To accompany this report we are publishing a separate case study highlighting Greater Manchester's approaches to date and an overview is given in the box (489).

CASE STUDY: INTEGRATED SERVICE IN GREATER MANCHESTER

Greater Manchester is a city-region of 2.8 million people with an economy bigger than that of Wales or Northern Ireland. Greater Manchester has ten district councils that come together with each other and the Mayor of Greater Manchester to form the Greater Manchester Combined Authority (GMCA). GMCA works with other local services, the devolved health and care system in GM, businesses, communities and other partners to improve the city-region. The ten GM councils (Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford and Wigan) have worked together voluntarily for many years on issues that affect everyone in the region, such as transport, regeneration, and attracting investment. In 2011, this led to the creation of the GMCA and then to the devolution deals which were announced from 2014 onwards.

Devolution has empowered Greater Manchester to further develop new ways of working which has included a new model for Unified Public Services. The ambition is that the integration of health and social care services is brought together with a range of other public services including education, policing, fire, housing, employment and benefits services. This will provide local teams of public servants that will be aligned to common population footprints of 30,000-50,000 residents. The freedoms permitted by devolution, such as integration of health and social care services and new opportunities for joint commissioning, have enabled the development of a truly place-based population health system across Greater Manchester appropriate for taking action on health inequalities. It means that local public services can together focus on upstream determinants of health while mitigating crises downstream with effective multidisciplinary care for those most in need.

Greater Manchester, highlights the opportunities of coterminous Clinical Commissioning Groups and Local Authorities aggregating to a single Integrated Care System and Combined Authority which significantly expands the opportunities for placed based action, population health focus and intervention across all social determinants. Challenges still remain as some boroughs are further along the transformation pathway than others. However the new model for unified public services is helping to spread best practice and create a shared set of principles which underpin service delivery across Greater Manchester (489).

CASE STUDY: A SYSTEMS-WIDE APPROACH TO REDUCING HEALTH INEQUALITIES IN WIGAN, GREATER MANCHESTER

Wigan, with a population of 320,000, is the second largest council in Greater Manchester. Close to one-third of its population live in the most deprived quintile and since 2010 it has had the third largest proportional reduction in local government funding in England. Wigan is one of six areas awarded 'Creative Council' status, creating a new relationship between residents and communities, with an approach characterised by doing 'with' instead of doing 'to'. The Healthy Wigan Partnership is driving reform; this is a partnership of primary care, community services, Start Well (early years), mental health and public health (490).

Wigan's Deal for Health and Wellness communicates the actions the NHS and residents can take across the life course. The approach has seen tangible outcomes, including: healthy life expectancy for women and men has increased faster than in surrounding areas, smoking rates are better than the England average and the proportion of adults who are physically active increased by 15 percent in five years (490).

The citizen-led, asset-based approach to health used in Wigan is regarded as an effective way to build and sustain communities and system-wide commitments (490).

4. Mechanisms for transparent accountability

Accountability is an essential part of a governance system for health equity. Any system that lacks clear accountability, particularly political accountability, will see action on health inequalities becoming lost as other priorities with clear and demanding accountability mechanisms take precedence. Since 2010 accountability for health inequality has been weak and there has been little focus or accountability for the widening health inequalities experienced over the decade.

We suggest that clear political accountability for improving population health and reducing health inequalities is established, with the Government taking responsibility for reducing health inequalities, under the leadership of the Prime Minister. New targets should be developed and these should include reducing regional and socioeconomic inequalities in health and inequalities in key social determinants. The health inequalities duties under the Health and Social Care Act, described earlier, should be enforced and relevant organisations held to account for their progress on reducing inequalities.

There should be high level and public reporting of actions and outcomes through regular monitoring of health inequalities and their social determinants, discussed further under implementation.

5. Communities involvement in decisions about programmes and policies for achieving health equity.

Community engagement and empowerment was a central theme of the 2010 Marmot Review. We said:

Our vision is of creating conditions for individuals to take control of their own lives. For some communities this will mean removing structural barriers to participation, for others facilitating and developing capacity and capability through personal and community development. [...] Effective local delivery requires effective participatory decision-making at local level. This can only happen by empowering individuals and local communities (3).

One of the impacts of the cuts to local authorities and national government spending has been reduced support and resources available for communities over the last decade. Many community and voluntary sector organisations have not had sufficient resources to continue their work and this will have impacted on health for more deprived communities in particular, as described in Section 3E (13).

IHE and the charity NPC provided an overview of the role that the community and voluntary sector can play in taking action on the social determinants of health, even when the sector may not be aware that it can have a role in shaping health. As the report stated:

The voluntary sector makes significant impacts on the social determinants of health, improving health and reducing health inequalities – even those charities whose primary purpose and remit may not be directly health-related. [...] Charities are often better situated, both in the services they deliver and proximity and engagement with communities, to work closely with communities, particularly those that have a history of non-engagement with statutory or mainstream services (49).

Community-based approaches to the social determinants have been developed over the last decade, at a time of hugely challenging decision-making over what services to prioritise and invest in. Developing the required cross-sectoral and social determinants approaches is a complex and long-term task; these approaches take time to show impacts, often on timescales way beyond the life of political cycles, and do not often generate significant political or public enthusiasm or support. Cuts in funding have severely limited the ability of local areas to invest in any parts of the system. Nonetheless, many local areas have prioritised reducing health inequalities and have made significant system-wide changes to enable this to happen. We advocate building community resources, starting with those deprived areas where the most resources have been lost, and at the fastest rate, in the past decade.

Throughout the report we have included examples of social determinants action from community groups which have been funded by the Peoples Health Trust. In the box we provide more details about the approach of the People's Health Trust which has developed the social determinants approach advocated by the 2010 Marmot Review for communities. The Trust has been building evidence of successful community actions to improve health and reduce health inequalities (14). Following that is an example of a community initiative, from Surrey, funded by the Trust.

THE APPROACH OF PEOPLE'S HEALTH TRUST

People's Health Trust believes that where you live should not unfairly reduce the length of your life or the quality of your health. The Trust was set up to address health inequalities in Great Britain and create fairer places in which to grow, live, work and age. Through funding and support, the Trust encourages resident-focused approaches as a means of addressing the underlying structural causes of health inequalities. The Trust is committed to supporting residents to come up with their own locally-determined ideas that tackle the social determinants of health across the life course.

People's Health Trust addresses social determinants of health by supporting locally determined initiatives that increase control through collective activity and building social connections. Encouraging collective control is described by the WHO as a wider social determinant of health and the 2010 Marmot Review recommends improving community capital to reduce social isolation, by removing barriers to community participation and action. The recent WHO European review on social determinants and the health divide states: "How people experience social relationships influences health inequities. Critical factors include how much control people have over resources and decision-making and how much access people have to social resources, including social networks, and communal capabilities and resilience (141)."

Initiatives that aim to promote collective control through co-production and community engagement have been shown to increase sense of control, self-esteem and self-confidence among individuals, and to increase social capital, social cohesion and social connectedness in communities. These outcomes, in turn, have been shown to have a positive influence on health, while providing a foundation for wider influencing activity and system change that can support a shift in the underlying structural causes of health inequalities.

The Trust targets its funds to the 30 percent most disadvantaged areas according to the Indices of Multiple Deprivation for England, Scotland and Wales, in order to focus its resources on those who experience the most severe health inequalities (141).

CASE STUDY: SURREY MINORITY ETHNIC FORUM

Surrey Minority Ethnic Forum (SMEF) is an advocacy organisation whose ethos is to engage, educate and empower local people from minority ethnic groups in Surrey to work together to find solutions to the common economic and social challenges they face living in Britain today.

Minority ethnic women in particular can experience isolation due to language and cultural barriers and a lack of culturally specific provision and resources in the community. SMEF address this, in part, by connecting more than 40 ethnically diverse community groups to work together to create a more integrated county.

With funding from People's Health Trust through its Active Communities programme, SMEF's Milan project supports two groups for BAME women aged over 50 in Surrey – Nepali women in Woking and Muslim women in Surrey Heath. The women are firmly in control of the development of the projects, with all proposed activities agreed by the group and consensus sought. Both groups play a lead role in the delivery of the sessions, setting up and hosting, while having distinct needs, and focus on what they want to achieve.

The Woking group were more cautious initially, but mixing with the Surrey Heath group gave them the confidence to try out new activities and the two Milan groups have interacted much more over time, making friendships and strengthening bonds between women of diverse ethnicities to support community cohesion. Participants have grown in confidence, increasing their social connections as well as their skills. The power of these bonds was demonstrated when one of the women in the group had a family tragedy in Nepal. Although the women are on low incomes or benefits, they raised money for her to go home to be with her family.

The women say they look forward to the weekly sessions and report that they feel happier within themselves and much more positive about dealing with their day-to-day issues as a result of the group. Through an increase in skills and confidence, participants' aspirations have grown, helping them have a louder voice to contribute to building a more integrated community.

The Milan project has become rooted in the two communities and both groups are helping to build community resilience in local neighbourhoods by creating valuable support networks. The Muslim women in the Surrey Heath group have made a concerted effort to invite women from the wider community to celebration events including the end of Ramadan, which is increasing social cohesion and strengthening community links. Feeling part of community life can in turn support members to reduce feelings of social isolation and develop a sense of purpose, supporting positive health and wellbeing outcomes (141).

4B - Principles for implementing action on health inequalities and their social determinants

While system-wide approaches based on cross-sector partnerships are a prerequisite for effective action on the social determinants and health inequalities, their development also requires strong leadership. From 2013, Coventry City Council's strong focus on health inequalities and greater equity in the social determinants was driven, at least initially, by the chief executive and director of public health, who both had a clear commitment to leading work on health inequalities over the long term (see case study on Coventry, a Marmot City, above). Similarly, national governments elsewhere in the United Kingdom and in other parts of the world that have prioritised action on health inequalities have had the support and leadership from the head of government. Leadership from the English national government is now essential for reducing health inequalities and must come from the Prime Minister.

Below we outline each of our recommended principles for implementing action on health inequalities and their social determinants.

Box 4.3. Principles for implementing action on health inequalities and their social determinants

1. Develop a national strategy for action on the social determinants of health with the aim of reducing inequalities in health.
2. Ensure proportionate universal allocation of resources and implementation of policies.
3. Early intervention to prevent health inequalities.
4. Develop the social determinants of health workforce.
5. Engage the public.
6. Develop whole systems monitoring and strengthen accountability for health inequalities.

1. Develop a strategic plan for action on the social determinants with the aim of reducing inequalities in health

In England, local and regional cross-sector work on health inequalities has developed over the last decade but national government cross-sector working on health inequalities has not been evident. Prior to 2010, there were some cross-departmental mechanisms established to support a focus and prioritisation on health inequalities but these were lost in the years after 2010 (492). To support the necessary cross-departmental focus on health inequalities, a new national strategy on health inequalities needs to set out the obligations of multiple government departments, including: the Prime Minister's Office, Department for Education, Cabinet Office, Department for Business, Energy and Industrial Strategy, Department for Digital, Culture, Media and Sport, Department for Environment, Food and Rural Affairs, Department for Transport, Department for Work and Pensions, HM Treasury, Home Office, Ministry of Housing, Communities and Local Government, and Ministry of Justice.

Individual countries in Europe have undertaken national reviews to prioritise action on social determinants and health inequalities; these countries include Slovenia, Italy, Denmark, Norway (see box) and Sweden (493) (494) (495) (496) (497). Some countries in the Americas have also started to take a social determinants approach (see subsequent box).

CASE STUDY: REDUCING HEALTH INEQUALITIES IN NORWAY – A NATIONAL AND LOCAL APPROACH

Norway is one of the wealthiest countries in the world with one of the most advanced welfare states. Most Norwegians live comfortable and secure lives. However, Norway has persistent health inequalities in mortality and morbidity (498). The Nordic health inequalities approach is based on universalist policies and includes policies related to child welfare, income and work. Addressing the social determinants of health has been integrated into the Norwegian political agenda since the early 2000s with the publication of *Prescription for a Healthier Norway. A Broad Policy for Public Health*. In 2007 the *National Strategy to Reduce Social Inequalities in Health* reiterated commitments to reduce social inequalities by redistribution, creating more equal living conditions and reducing poverty (499). In 2012 the Public Health Act formalised the legal responsibility of each administrative level to improve public health, including reducing social inequalities in health. This Act also introduced health-in-all-policies and the national government was expected to consider public health consequences in all its policies.

Local municipalities in Norway are key players in public health and health inequalities as they are responsible for delivering policies. Policy goals and programmes are formulated at the national level and local governments decide how to deliver and achieve these goals. Municipalities make their own decisions about funding and are the main providers of welfare services, deciding on health promotion and disease prevention (500). For example, Levanger and Verdal municipalities in Central Norway have a 15 year common plan, from 2015–30. The plan focuses on giving everyone an opportunity to participate in their community. The approach is proportionate universalist and it has four goals:

- To make communities good communities to live in for the entire life course, where everyone feels a valued part of the community.
- All children must be given the best possible start in life.
- All inhabitants feel secure and a sense of control over their everyday life and add several active years of life with good health and wellbeing.
- Every municipality is a force for development in a sustainable and robust part of Central Norway. (501)

Norway's approach is based on intersectoral action for health at different levels of governance. At the national level different ministries have worked together to create a common reporting system and indicators. This has been challenging but a high-level commitment has facilitated the approach (555). Also at the national level, the National Health Institute and Central Bureau of Statistics provide data and health profiles for municipalities to develop their own local plans to address health inequalities. There is some concern that national policies, such as tax and transfer reforms, are compromising the universalism approach that focuses on the socioeconomic gradient in health (503).

The persistence of health inequalities despite these integrated approaches has led some to suggest a more proportionate universalist approach might more effectively address the needs of those with fewer years of education (551).

CASE STUDY: NATIONAL PLANS IN THE AMERICAS

Several countries in the Americas have developed plans for acting on the social determinants of health.

For example, in 2006 a presidential act created the Brazilian National Commission on Social Determinants of Health (CNDSS), with a two-year mandate. The CNDSS was organised around production and dissemination of knowledge, strengthening the social determinants of health focus in policies and programmes, mobilisation of civil society, communication and international cooperation.

More recently, the Union of South American Nations (UNASUR) plan of action for 2010–15 included action on the social determinants of health among its five priorities, and the Southern Common Market (MERCOSUR) created an Intergovernmental Commission on Health Promotion and Social Determinants of Health. The Pan American Health Organization (PAHO) Strategic Plan for 2014–19 included, as one of its six broad categories, the determinants of health and promoting health throughout the life course (457).

2. Proportionate universalist allocation of resources and implementation of policies

The 2010 Marmot Review set out the central importance of proportionate universalist approaches to the design and delivery of policies and interventions for reducing health inequalities. This approach has become even more critical in the 10 years since the Review as resources have shrunk and inequalities widened. A proportionate universalist approach ensures that interventions and resources are universal and available for the whole population but are developed with an intensity proportionate to need, to raise and flatten the gradient. The NHS, at its best, is an excellent example of a universalist system with effort proportionate to need. Where it functions less well, there is equal spending per person, regardless of need.

As we have described, more deprived areas and communities, particularly in the North of England, have suffered the most from years of austerity. In some instances, more deprived areas have experienced greater funding cuts than less deprived areas – the opposite of a proportionate universalist approach. It is in these places that resources now need to be invested first and with greater intensity than elsewhere. Resource allocation formulae, across all sectors, must be changed to ensure that funding decisions are made on the basis of need and level of deprivation. This would initially stop further deterioration and subsequently begin to level up the social gradient in health and its social determinants.

COVENTRY'S APPROACH TO ADOPTING PROPORTIONATE UNIVERSALISM

Coventry has described its approach as being one of *positive selectivism* and particularism.

Positive selectivism offers additional services to particular groups based on their needs, as opposed to targeting. For example, Positive Youth Foundation provides open-access youth services in order not to stigmatise and concentrates activities in areas of high unemployment, deprivation and health inequalities.

Particularism is a form of empowerment that aims to give particular groups or individuals the capacity and/or resources to make their own decisions. For example, the charity Grapevine builds the capacity of groups and communities to use existing community assets to address local needs. Particularism was included in Coventry's successful proposal for the 2021 City of Culture, with plans to co-produce art and events with communities in some of the more deprived areas. Grapevine's recommendations for other local authorities include ensuring across-the-board support and leadership from politicians and at director and executive level and starting with multiple points to allow "some to grow, some to plateau", because "some won't take off".

CASE STUDY: ADOPTING A PROPORTIONATE UNIVERSALIST APPROACH IN GATESHEAD

Gateshead, in North East England, has high and increasing levels of deprivation, ranked 47th out of 317 local authorities in England in the Index of Multiple Deprivation, 2019 (where 1 is the most deprived). Population analysis revealed that more than half of people and families in Gateshead were either just managing or just coping, with around 30 percent either in need or in vulnerable situations. In 2017 the council worked with the director of public health and other partners to develop the Gateshead Partnership, in recognition that poverty and health inequalities were unfair and unjust and were leading to increasing demand for local services. The Gateshead Partnership brings representatives from the public sector, the business community, voluntary and community sectors and government agencies to develop shared future plans and co-ordinate activities.

In 2018 the council agreed the strategic vision of making Gateshead a place where everyone thrives. This vision provided a major policy framework to redress the imbalance of inequality, championing fairness and social justice. Using evidence from the first Marmot Review, Gateshead Council, with its partners, agreed to focus on ensuring resources were deployed in a way that is proportionate to need. This meant working differently, with partners and citizens, to achieve the right outcome for those people and families who require more support.

The council set out five pledges to underpin all future council policy, through the 'Gateshead Thrive' initiative:

- Put people and families at the heart of everything we do.
- Tackle inequality so people have a fair chance.
- Support our communities to support themselves and each other.
- Invest in our economy to provide opportunities for employment, innovation and growth.
- Work together and fight for a better future for Gateshead.

In response to the Gateshead Thrive pledges it was agreed that the Health and Wellbeing Strategy should be reviewed to ensure a strengthened vision for addressing inequalities. Professor Sir Michael Marmot led a session in Gateshead examining the available evidence to address inequalities. In response, Gateshead Council agreed the need to shift the focus from managing the burden of ill health to promoting actions that create the conditions for good health throughout life. The new Health and Wellbeing Strategy now has a vision of "Good jobs, homes, health and friends" for all Gateshead residents. The strategy has been re-written using the six policy themes from the Marmot Review as the framework to agree priorities for action (557).

3. Early intervention to prevent health inequalities

Health is dictated mostly by its social determinants, not health care systems, as we describe in the 2010 Marmot Review and in this report. Since 2010, many other organisations in England and across the world have continued to build the evidence about the centrality of social and economic and cultural factors in shaping health (505) (506).

The Commission on the Social Determinants and the Health Divide in Europe was commissioned by the WHO Regional Office for Europe and published in 2014 (507). It built on evidence, described in the 2010 Marmot Review, about the close associations between social determinants and health outcomes and made a number of proposals for action across the 53 countries in the WHO European Region. WHO Europe adopted much of the social determinants approach outlined in the report and in 2019 published a Health Equity Status Report, which outlined the significance of five critical factors contributing to health inequities across the WHO European Region: health services, income security and social protection, living conditions, social and human capital, and employment and working conditions (508).

Despite the growing consensus on the importance of the social determinants of health, England has given them much less focus than some other countries. Even more downstream prevention interventions have lost funding. Despite the strategic focus on prevention from NHS England, the Department of Health and Social Care and Public Health England, funding has not followed and over the last 10 years, prevention services have been cut more than treatment services in public health as well as in the wider arenas related to social determinants (509). This runs counter to the proposals made in the 2010 Marmot Review and elsewhere, which argued strongly that acting to prevent ill health improves population health and supports equity.

Analysis of the Government's 2015 Comprehensive Spending Review figures suggested that local authorities would face "a real terms reduction of 71 percent for early intervention services between 2010/11 and 2019/20" (510). These cuts came in the context of large overall cuts in Government spending, particularly local authority funding.

According to analyses published by the Institute for Public Policy Research (IPPR), there was an estimated £850 million decline in net expenditure on public health in England between 2014 and the end of 2019. Absolute cuts in the poorest places were six times larger than in the least deprived (511) and public health expenditure has been cut in an inequitable way (511). The 2010 Marmot Review recommended that spend on public health should increase from four percent of the NHS budget and reach seven percent of the NHS budget. These increases have not occurred; in fact, there have been declines and the ring-fenced public health budget has faced large reductions since 2014/15.

The King's Fund and Health Foundation describe that by the end of 2020/21, with population growth and inflation factored in, the ring fenced public health grant requires £1 billion per year extra funding just to restore it to 2015/16 levels (463). We restate here that the public health grant must increase and increase in a way that is proportionate to need – higher levels of expenditure in more deprived places. Without additional financial allocations for prevention services, particularly in more deprived areas, health will decline and the burden on health services will increase. We have also clearly set out the need for additional, and proportionate spending, on social determinants of health to prevent ill health.

4. Develop the social determinants of health workforce

Many of the recommendations made in the 2010 Marmot Review were aimed at sectors other than health. Action on the social determinants of health requires action across multiple arenas and domains and that requires commitment and know-how from a range of workforces outside health. Since 2010 there have been many promising developments that illustrate effective health equity in all policies, or in this case workforce approaches, from non-health care workforces. Police, fire fighters, social care, housing and early years workforces have all developed approaches to tackling health inequalities, by extending and adapting their day-to-day practices and procurement.

As Coventry City have said

We can't do it alone, though. Being a Marmot City has provided us with a platform from which to unite different organisations across the public and voluntary sector and to work together to address the conditions that determine health. We have brought together teams in procurement, education, jobs and libraries, as well as colleagues from West Midlands Police, West Midlands Fire Service, Voluntary Action Coventry, DWP, Chamber of Commerce, Local Economic Partnership and third sector organisations (512).

In recognition of the important role of workforces outside public health in improving population health, the Royal Society of Public Health has developed a set of resources and tools to support other sectors to improve health and reduce health inequalities. These are aimed at, for example, developing the potential of fire, police, welfare, housing, bar staff, cleaners, postal workers and hairdressers (513). In addition, the housing sector has been involved in several collaborative activities designed to improve health (514).

CASE STUDY: WEST MIDLANDS FIRE SERVICE – DEVELOPING A MARMOT APPROACH

The West Midlands Fire Service has shown that fire fighters have the potential to develop public health approaches by working on a Marmot approach with a focus on reducing health inequalities (515).

The Service is a large, relatively untapped public health resource, as it has the potential to impact on important issues affecting health and wellbeing. It plays a key role in terms of prevention and risk reduction strategy by targeting the vulnerable communities shown to be at highest risk of deprivation and ill health (516).

The health care workforce, rightly, is mainly focused on provision of treatment for ill health. But medical and health professions are also well placed to support and take action on the social determinants of health – they are trusted, expert, committed and powerful advocates. Health care organisations are large employers, often working in some of the poorest places and can do far more to support and encourage good health locally (517). Since 2013 IHE has worked with 19 organisations representing health care workforces to embed social determinants approaches into the day-to-day work of health care workers and health care organisations, including medical Royal Colleges, nurses, midwives, medical students and several allied health professions.

Recommendations from IHE's report *Working for Health Equity: the Role of Health Professionals*

IHE has set out the potential for the health care workforce to develop strong social determinants approaches (518). We made a series of recommendations in the following areas:

- Medical education and training must include stronger focus and practical experience of working on the social determinants of health.
- Health care professionals and organisations can develop approaches to improve the conditions of daily life for individuals and communities.
- NHS organisations can act as anchor institutions in their local communities, including activities and commissioning strategies to improve population health and the health of their own workforce (519).
- Health care organisations must work in close partnership with other organisations and sectors to support health equity.
- Health care professionals are powerful advocates for health, within their local community and at the level of national policy.
- Levers and incentives for improving health and reducing health inequalities need to be strengthened, including monitoring, legislation and financial incentives

IHE's report *Working for Health Equity* was followed by a report for the World Medical Association, describing and proposing a greater role for doctors in reducing health inequalities through practical action on social determinants. The report provides many examples of good practice (520).

5. Engage the public

The lack of public understanding of what drives health is a major obstacle to further progress in reducing health inequalities and increasing population health. Even though the health system and national government know the evidence that social determinants are largely responsible for the state of the nation's health and levels of health inequalities, they retain the focus on health care and continue to underfund action on social determinants. A 2017 survey by the British Social Attitudes Survey for the Health Foundation found that, "Consistent with political and media discourse, 96 percent of respondents considered 'free health care' to have a 'very large' or 'quite large' impact on health". 'Individual behaviours' were close behind (cited by 93 percent of respondents) (521).

We have frequently been told that unless the public pressures the Government, MPs and council leaders about health and the social determinants in the same way they do about health care services, the focus is unlikely to shift. Most of the pressure from the public and therefore political pressure relates to improving quality and access to health care services; while this is critical, on its own even much improved equitable service access and quality will not decrease health inequalities. The debate about health must change.

As the Health Foundation puts it:

While our health is not entirely down to the government, a focus on individual choice overlooks the role played by the environment in which we live. Many drivers of health are outside individual control and the choices we make are often constrained. Such strong public views on the importance of individual responsibility are therefore a concern, given the extent to which public opinion can drive policy choices – government's decision to prioritise spending on the NHS over other areas of provision being a clear example (521).



The FrameWorks Institute, commissioned by the Health Foundation, has reported on the low levels of understanding about social determinants of health among the public. FrameWorks' research into UK public thinking on poverty, health, homelessness, child development and the economy reveal three common common public beliefs:

- **Individualism.** The idea that success or failure in life is solely determined by each person's choices, hard work and determination.
- **Them and us thinking.** The idea that 'other' people and communities have problems and deficiencies that are built into their culture. And that 'we' lose out if 'they' gain something.
- **Fatalism.** The idea that certain challenges are too entrenched to ever be addressed. (576).
- Highlight the impact of health inequality on children – being clear that all children should have the opportunity to be healthy, no matter where they live.
- Include evidence and statistics that refer to contexts as well as the individual: access to services, access to the things that make us healthy.
- Make a moral case for addressing poverty, based on shared values of compassion and justice.
- Avoid talking about choices, lifestyles, physical activity. Instead talk about options, opportunities and places.
- Avoid talking about education and awareness campaigns – they perpetuate the idea that individuals should simply get educated to get healthy.

These beliefs are powerful and present significant challenges to those communicating health inequality and how it can be overcome.

Drawing on research and experience in communicating from other sectors, the FrameWorks Institute recommends that those wishing to shift the public focus away from health care and health behaviours and towards structural drivers of health inequalities should:

- Balance urgency with efficacy by talking about how things should and could be, as well as highlighting where and how major problems are not being addressed.
- Highlight and explain structural solutions. Talk about how systems can and must be redesigned to meet needs and tackle problems.

Repeated surveys and polls find that health is one of the top priorities for people in England. Since 2010, UK public opinion has consistently placed health as either the most or second most important issue facing the country (523). At the same time, satisfaction with 'the way the NHS runs' has declined year on year, though the rate of decline has slowed (524). A recent review of public opinion across the EU by WHO Europe found that 'health and social security' ranks as the second most important national issue for EU citizens overall, after unemployment. It ranks first in 10 EU countries (Netherlands, Sweden, Finland, Denmark, United Kingdom [in the EU at the time], Slovakia, Slovenia, Poland, Hungary and Latvia); and second in six EU countries (Romania, Portugal, Austria, Ireland, Estonia and Germany) (525).

Given that health is the highest priority for the population of the UK, it is essential that government and all stakeholders concerned with health communicate much more effectively with the public about what actually drives their health and inequalities in health. Blaming individual health behaviours, or gaps in NHS provision, is largely a distraction (522).

Effective and honest communication about social determinants is an essential component of garnering public support for the policies and investments in the social determinants of health that are required to once again improve health in England and reduce health inequalities. As the Health Foundation's *A Healthier Life for All* report sets out, "a change in public attitudes and cultural norms is critical to drive impact" (471).

6. Develop whole systems monitoring and strengthen accountability for health inequalities.

In the 2010 Marmot Review there was considerable focus on the development of appropriate national and local indicators and monitoring systems for health equity and social determinants, noting that there had been previously a considerable amount of work to develop indicators of health inequalities, social inequality, area inequality and for equality and human rights purposes.

The 2010 public health white paper *Healthy Lives, Healthy People* established a new set of indicators for public health, including monitoring for social determinants (526). Since then, important progress has been made through PHE's development of local area 'Fingertips' data, which provide a wide range of public health, health behaviour and social determinant indicators for local areas. The data are disaggregated by social economic indicators, where appropriate (527). The Fingertips data include the 'Marmot Indicators'. IHE worked with PHE to develop and report these indicators, which are attached to the six policy objectives of the Marmot Review and available at local authority level (528). These indicators provide a strong health inequalities monitoring system, NHS England have also been producing inequality indicators for use by CCGs (529).

There are still some weaknesses in the extent to which data can be appropriately disaggregated and outcomes followed through the life course. For instance, there needs to be far greater availability of health and social determinant data by ethnic group. A recent PHE/IHE report on local action on ethnicity and health highlighted significant challenges relating to completeness and consistency of data on ethnicity and health outcomes. They stated that there is an urgent need to improve the recording and analysis of ethnicity data at local and national level (530).

In this report we have provided some evidence on inequalities in health by ethnic group, but the availability and quality of data remain limited, affecting our understanding of how health inequalities might vary by ethnicity. Ethnicity is essentially a self-perceived characteristic and is therefore often of limited quality when recorded by the health system and cannot be collected at registration of death. Existing data therefore come from following up surveys and samples of Census records – which are often too small to separately identify different ethnic groups and often suffer from inadequate follow-up of some groups. However, the completeness of recording on health service records is improving and the quality of recording is currently being evaluated for analysis. In the future, the use of the Digital Economy Act may make it possible for the Office for National Statistics to make links to ethnic groups more comprehensively, by bringing together records on a whole-system basis. This would allow more appropriate disaggregation of data by social characteristics and, eventually, follow-up through the life course.

In East London, Tower Hamlets local authority recently developed a whole system data set that has great potential to facilitate the kinds of partnership action by health care, social care and local authority divisions that is essential to action on social determinants (see box).

CASE STUDY: SYSTEM-WIDE DATA IN TOWER HAMLETS, LONDON

The Whole System Data Project (WSDP) was established in Tower Hamlets to describe and understand the relationship between inequalities in health and service use and the impact of the wider determinants of health across the borough. It is intended to build the evidence, as identified in the Marmot Review, needed to support NHS England's New Models of Care. This ground-breaking project looked at service provision and population need in an integrated manner not only across health, social care and community care, but across wider local authority services such as education, benefits, crime, environment and housing. The dataset will be used to assist understanding about the relationship between the wider determinants of health – such as social isolation, housing, income – and the uptake of health and social care services. By including a more comprehensive and holistic list of public sector health and wellbeing activity for the whole Tower Hamlet's population, this project hopes to establish a more complete picture of cost and need, to inform strategic direction, commissioning and resource allocation.

The results of the work will provide a better picture of health and service variation, public sector costs of responding to at-risk groups and the factors that affect this, to inform targeted and preventative allocation of resources to those groups with the greatest need (531).

Finally, as we have noted, several governments (notably New Zealand) have a national focus on enhancing wellbeing rather than on achieving economic growth at all costs. These approaches are also in need of better data and the development of wellbeing indicators in order to monitor their progress successfully.

In this section we have set out analysis on a number of proposals for effective action and governance for health equity. These proposals are for leadership within the health system to take forward, particularly, but not exclusively, national government. While the recommendations we proposed in Section 3 are critical for reducing inequalities in key social determinants, without far-reaching changes by government and other organisations the measures required to stop health inequalities widening further and to reduce them will not take place.

Since 2010 in England, national political leadership on reducing inequalities in health and the social determinants has been weak. It needs to be strengthened urgently. At this stage, and with abundant evidence and experience about what to do and how to do it, PHE, NHS England and the Department for Health and Social Care have significant opportunities to further lead and influence action on the social determinants and become world leaders in this area. Turning around current health trajectories is challenging, but is of utmost priority.

Our main recommendation is to the Prime Minister: to initiate an ambitious and world-leading health inequalities strategy and lead a Cabinet-level cross-departmental committee charged with its development and implementation. We suggest that the new strategy is highly visible to the public and that clear targets are set.

Recommendations for taking action

- Develop a national strategy for action on the social determinants of health with the aim of reducing inequalities in health.
- Ensure proportionate universal allocation of resources and implementation of policies.
- Early intervention to prevent health inequalities.
- Develop the social determinants of health workforce.
- Engage the public.
- Develop whole systems monitoring and strengthen accountability for health inequalities.



Chapter 5

Conclusions and summary of recommendations

In 2008 the Commission on Social Determinants of Health, with Sir Michael Marmot as chair, published *Closing the Gap in a Generation*. The title was meant to reflect the fact that the Commission's assembled evidence showed that, if acted on, the health gap – inequalities in health within and between countries – could indeed be closed within a single generation. The cover of the report read: "Social injustice is killing on a grand scale". It was the Commission's firm view that not acting on the evidence was deeply unjust to the billions of people whose health was made worse by social conditions they had no part in creating.

It was in this spirit that the Marmot Review team approached the task of assembling the evidence to show how the conclusions of the Commission on Social Determinants of Health could lead to recommendations for reducing health inequalities in England. Because we judged that social justice should be at the heart of policies to improve health, we gave the 2010 Marmot Review the title, *Fair Society, Healthy Lives*. Put fairness – social justice – at the heart of all policy-making and health would improve and health inequalities diminish.

This '10 years on' report shows that, in England, health is getting worse for people living in more deprived districts and regions, health inequalities are increasing and, for the population as a whole, health is declining. The data that this report brings together also show that for almost of all the recommendations made in the original Marmot Review, the country has been moving in the wrong direction. In particular, lives for people towards the bottom of the social hierarchy have been made more difficult. Some of these difficulties have been the direct result of government policies, some have resulted from failure to counter adverse trends such as increased economic inequalities or market failures.

The purpose of this report is to show what can be done, in a spirit of social justice, to take action on the social determinants of health to reduce these avoidable health inequalities. It is not enough for the Government simply to declare that austerity is over. Actions are needed in the social determinants to improve the lives people are able to lead and hence achieve a greater degree of health equity and better health and wellbeing for all.

While our approach emphasises the social determinants of health, there is much that the NHS can do to address the social needs of patients. Similarly, Public Health England should be taking a lead not only in action on traditional public health concerns but on the causes of inequalities that we have highlighted in this report.

But efforts to reduce health inequalities will require more than the NHS and Public Health England. Experience shows that action, across the whole of society, will require the commitment of the Prime Minister and the whole of government. The justification for whole-of-government action is that it is the route to reduction of health inequalities. There are two further reasons for the whole of government to act. First, as we said at the outset, health and health inequalities are good measures of how well society is doing: how well it is creating the conditions for people to lead lives they have reason to value. Second, there will be other benefits from the actions we recommend here. Investment in improving early child development, and reducing exposure to adverse child experiences, will reduce antisocial behaviour and crime in addition to its beneficial effects on mental and physical health. Improving education will lead to more capable citizens as well as a more qualified workforce. Creating healthy environments will be good for meeting climate change targets. Reduction of poverty is a good thing in itself, quite apart from its beneficial effect on reducing health inequalities. A more equal, cohesive society is simply a better, healthier place to live.

Although we have had much to say on the increasing levels of poverty in England – in some areas of England more than one child in two is growing up in poverty – the social gradient in health must remain in focus. The gradient has become steeper. Action must be taken not only to improve living conditions for the worst off, but also for those who are relatively disadvantaged. The aim of all policies should be to level up, for everyone to enjoy the good health and wellbeing of those at the top of the social hierarchy – hence our reiteration of proportionate universalism: universalist policies with effort proportionate to need. We extend this to include investment – over the last decade government allocations of funding have declined most in poorer areas and this must be reversed. Funding should be allocated in a proportionate way – those areas that have lost the most and are more deprived must receive renewed investment first and at higher levels.

We repeat: we neither desire nor can envisage a society without social and economic inequalities. But the public thinks that inequalities have gone too far, and evidence from across the world suggests that the level of health inequality we see in England, is unnecessary. We welcome action from local and regional governments to tackle social determinants of health. More action of the type we have described here will be necessary. It is not, though, a matter of action by either central government or local government: we need both and we need leadership. If we leave this for another 10 years, we risk losing a generation.

Our main recommendation is to the Prime Minister – to initiate an ambitious and world-leading health inequalities strategy and lead a Cabinet-level cross-departmental committee charged with its development and implementation. We suggest that the new strategy is highly visible to the public and that clear targets are set.

As we write the final words of this report, the world is demanding urgent action on climate change. It is of grave concern that such actions to mitigate climate change should not lead to wider socioeconomic inequalities. We need to bring the agendas of climate change and of social determinants of health and health equity together.

In effect, this report is calling for a reordering of national priorities. Making wellbeing rather than straightforward economic performance the central goal of policy will create a better society with better health and greater health equity.

Summary of recommendations

Recommendations for Giving Every Child the Best Start in Life:

- Increase levels of spending on early years and as a minimum meet the OECD average and ensure allocation of funding is proportionately higher for more deprived areas.
- Reduce levels of child poverty to 10 percent – level with the lowest rates in Europe.
- Improve availability and quality of early years services, including Children's Centres, in all regions of England.
- Increase pay and qualification requirements for the childcare workforce.

Recommendations for Enabling all Children, Young People and Adults to Maximise their Capabilities and Have Control over their Lives

- Put equity at the heart of national decisions about education policy and funding.
- Increase attainment to match the best in Europe by reducing inequalities in attainment.
- Invest in preventative services to reduce exclusions and support schools to stop off-rolling pupils.
- Restore the per-pupil funding for secondary schools and especially sixth form, at least in line with 2010 levels and up to the level of London (excluding London weighting).

Recommendations for Creating Fair Employment and Good Work for All

- Invest in good quality active labour market policies and reduce conditionalities and sanctions in benefit entitlement, particularly for those with children.
- Reduce in-work poverty by increasing the National Living Wage, achieving a minimum income for healthy living for those in work.
- Increase the number of post-school apprenticeships and support in-work training throughout the life course.
- Reduce the high levels of poor quality work and precarious employment.

Recommendations for Ensuring a Healthy Standard of Living for All

- Ensure everyone has a minimum income for healthy living through increases to the National Living Wage and redesign of Universal Credit.
- Remove sanctions and reduce conditionalities in welfare payments.
- Put health equity and wellbeing at the heart of local, regional and national economic planning and strategy.
- Adopt inclusive growth and social value approaches nationally and locally to value health and wellbeing as well as, or more than, economic efficiency.
- Review the taxation and benefit system to ensure it achieves greater equity and ensure effective tax rates are not regressive.

Recommendations to Create Healthy and Sustainable Places and Communities

- Invest in the development of economic, social and cultural resources in the most deprived communities
- 100 percent of new housing is carbon neutral by 2030, with an increased proportion being either affordable or in the social housing sector
- Aim for net zero carbon emissions by 2030 ensuring inequalities do not widen as a result

Recommendations for taking action

- Develop a national strategy for action on the social determinants of health with the aim of reducing inequalities in health.
- Ensure proportionate universal allocation of resources and implementation of policies.
- Early intervention to prevent health inequalities.
- Develop the social determinants of health workforce.
- Engage the public.
- Develop whole systems monitoring and strengthen accountability for health inequalities

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**Royal Commission into
Victoria's Mental Health System**



ATTACHMENT MM-2

This is the attachment marked 'MM-2' referred to in the witness statement of Sir Michael Gideon Marmot dated 26 June 2020.

Professor Sir Michael G. Marmot MBBS, MPH, PhD, FRCP, FFPHM, FMedSci, FBA

Director of the Institute of Health Equity (UCL Department of Epidemiology & Public Health).

Sir Michael Marmot has been Professor of Epidemiology at University College London since 1985. He is the author of *The Health Gap: the challenge of an unequal world* (Bloomsbury: 2015), and *Status Syndrome: how your place on the social gradient directly affects your health* (Bloomsbury: 2004). Professor Marmot is the Advisor to the WHO Director-General, on social determinants of health, in the new WHO Division of Healthier Populations. He takes up a Distinguished Visiting Professorship at Chinese University of Hong Kong in 2019, and is the recipient of the WHO Global Hero Award. Professor Marmot held the Harvard Lown Professorship for 2014-2017 and received Prince Mahidol Award for Public Health 2015. He has accepted honorary doctorates from 18 universities. Marmot has led research groups on health inequalities for nearly 50 years. He chaired the Commission on Equity and Health Inequalities in the Americas, set up in 2015 by the World Health Organization's Pan-American Health Organization (PAHO/ WHO). He was Chair of the Commission on Social Determinants of Health (CSDH), which was set up by the World Health Organization in 2005, and produced the report entitled: '*Closing the Gap in a Generation*' in August 2008. At the request of the British Government, he conducted the Strategic Review of Health Inequalities in England post 2010, which published its report '*Fair Society, Healthy Lives*' in February 2010. This was followed by the *European Review of Social Determinants of Health and the Health Divide*, for WHO EURO in 2014, and in 2020 *Health Equity in England: Marmot Review 10 Years On*. Professor Marmot chaired the Expert Panel for the WCRF/AICR 2007 Second Expert Report on *Food, Nutrition, Physical Activity and the Prevention of Cancer: a Global Perspective*. He chaired the Breast Screening Review for the NHS National Cancer Action Team and was a member of The Lancet-University of Oslo Commission on Global Governance for Health. He set up and led a number of longitudinal cohort studies on the social gradient in health in the UCL Department of Epidemiology & Public Health (where he was head of department for 25 years): the Whitehall II Studies of British Civil Servants, investigating explanations for the striking inverse social gradient in morbidity and mortality; the English Longitudinal Study of Ageing (ELSA), and several international research efforts on the social determinants of health. He served as President of the British Medical Association (BMA) in 2010-2011, and as President of the World Medical Association in 2015. He is President of the British Lung Foundation. He is an Honorary Fellow of the American College of Epidemiology; a Fellow of the Academy of Medical Sciences; an Honorary Fellow of the British Academy, and an Honorary Fellow of the Faculty of Public Health of the Royal College of Physicians. He was a member of the Royal Commission on Environmental Pollution for six years and in 2000 he was knighted by Her Majesty The Queen, for services to epidemiology and the understanding of health inequalities. Professor Marmot is a Member of the National Academy of Medicine.

<http://www.instituteofhealthequity.org/>

[@MichaelMarmot](#)

See: <https://iris.ucl.ac.uk/iris/browse/profile?upi=MGMAR64>

Professor Sir Michael G. Marmot

MBBS (1969 University of Sydney), MPH, PhD (1975 Berkeley), Honorary Consultant in Public Health Medicine (since 1980) FRCP (1989), FFPHM (1989); Knighted 2000, FMedSci, FBA (2008), Hon Fellow RSPH 2008, Hon Fellow RCPsych 2013

Director, UCL Institute of Health Equity (since 2011)

Professor in Epidemiology & Public Health, University College London, since 1985 (Head of Department 1985-2011)

MRC Research Professor in Epidemiology 1995 – 2013

Honours and distinctions

2020 Visiting Professor, University of Tokyo
 2019 Special advisor, Royal College of Physicians advisory group on reducing health inequalities
 2019 Visiting Professor, University of Manchester
 2019 Advisor to WHO Director-General on social determinants of health
 2019 Global Hero Award, World Health Organization
 2019 Distinguished Visiting Professorship, Chinese University of Hong Kong
 2019 Campanile Excellence in Achievement Award, University of California Berkeley
 2019 169th Cutter Lecturer on Preventive Medicine, Harvard Chan School of Public Health
 2019 John Hunt Lecture and Medal, Royal College of General Practitioners
 2018 Gary Andrews International Fellow, Australian Association of Gerontology
 2018 German Cardiac Society Honorary Award Lecture on Epidemiology/ Prevention
 2017 Doctor *honoris causa*, University of Miami
 2017 Gold Medal of the Royal Society of Medicine
 2017 British Medical Association Award: Distinguished Merit gold medal
 2016 Honorary Fellow, Royal Statistical Society
 2016 Doctor *honoris causa*, Norwegian University of Science and Technology
 2016 Honorary Fellowship, Royal College of Paediatrics and Child Health
 2016 İhsan Dogramacı Family Health Prize, World Health Organization
 2016 Doctor *honoris causa*, University of Ghent
 2015 Member, National Academy of Medicine (formerly Institute of Medicine)
 2015 Prince Mahidol Award for public health
 2015 Honorary Fellow, American College of Epidemiology
 2016 Immediate Past President, World Medical Association
 2015 Fellow *honoris causa*, Royal College of Obstetricians & Gynaecologists
 2015 Milton J. Rosenau Inaugural Lecture, Harvard TH Chan School of Public Health
 2015 Member of British Heart Foundation Alumni
 2015 Centennial Winslow Medal, Yale School of Public Health
 2015 Félix Restrepo, SJ, Medal of Honor, Pontificia Universidad Javeriana award
 2015-2016 President, World Medical Association
 2015 Doctor *Honoris Causa* Lund University
 2014 President-Elect, World Medical Association
 2015-2016 Bernard Lown Visiting Professor of Social & Behavioral Sciences, Harvard
 2014 New York Academy of Medicine, Fellow of the Academy
 2014 Commendador de la Orden Daniel A Carrion, Peru
 2014 Chair, International Advisory Board, Cancer Research UK/Bupa Foundation Cancer Prevention Initiative
 2014 Doctorate *Honoris Causa* KU Leuven
 2013 Honorary Doctor of Civil Law, University of Newcastle
 2013 Geoffrey Rose Memorial Lecture, Imperial College

2013 Doctor *Honoris Causa* Middlesex University
 2013 Irish Cancer Society, Charles Cully Lecture & Memorial Award
 2013 Honorary Fellow, Royal College of Psychiatrists
 2013 Honorary Member, Swiss Academy of Humanities & Social Sciences
 2013 President, British Lung Foundation
 2012 Doctor *Honoris Causa* Malmo University
 2012 Annual Balzan Lecture
 2012 Doctor of Science *Honoris Causa* Northumbria University
 2012 Trustee, Early Intervention Foundation
 2012 Ferguson-Glass Oration, Australasian Fac. Occupational & Environ. Med.
 2012 Priscilla Kincaid Smith Oration, Royal Australasian College of Physicians
 2012 Lifetime Award Fellowship Eur Academy of Occupational Health Psychology
 2012 Founder member, Council for Defence of British Universities
 2012 Patron of Medsin-UK
 2012 European Academy of Occupational Health Psychology Fellowship
 2011 Green Templeton College Foundation Dinner, guest speaker
 2011 Ambuj Nath Bose Prize, Royal College of Physicians
 2011 Doctor *Honoris Causa*, Ghent University - nominated
 2011 Doctor *Honoris Causa*, Universidad Peruana Cayetano
 2011 Medal of City of Lima, awarded by Mayor of Lima
 2011 The Glasgow Lecture, University of Glasgow
 2011 Sir Liam Donaldson Lecture and Medal, Health Protection Agency
 2011 Ernestine Henry Lecture, Faculty of Occupational Medicine, UK
 2011 Malcolm Peterson Honor Lecture, Society of General Internal Medicine, USA
 2011 Doctor *Honoris Causa*, Trinity College Dublin
 2011 Fellow, Association for Psychological Medicine
 2011 Honorary Fellow, Faculty of Public Health of the Royal College of Physicians
 2011 Honorary Member, International Association for Dental Research
 2011 Corresponding Member, Belgian Royal Academy of Science (KAGB)
 2011 Avedis Donabedian International Foundation Award
 2010 Manchester Doubleday Award, Manchester School of Medicine
 2010 Jenner Medal, Royal Society of Medicine
 2010 Doctor *Honoris Causa*, University of Stockholm
 2010 Doctor *Honoris Causa*, University of Helsinki
 2010 Disting. H. Lyman Hooker Visiting Professor, McMasters University
 2010-11 President, British Medical Association
 2009 Doctor *Honoris Causa*, University of Montreal
 2009 Doctor *Honoris Causa*, University of Athens
 2009 Sir George Pickering Lecture, British Hypertension Society
 2009 Francisco Balmis Lecture, National Inst. of Public Health, Mexico
 2008 Honorary Fellow, British Academy
 2008 Honorary Fellow, Royal Society for Public Health
 2008 Tore Andersson Award in Epidemiological Research, Karolinska Institutet,
 2008 Doctor *Honoris Causa*, Université Libre de Bruxelles
 2008 Honorary Fellow, British Academy
 2008 William B. Graham Prize for Health Services Research
 2008 Royal College of Physicians & Surgeons of Canada McLaughlin-Gallie Visiting Professor
 2007 Lewis A. Conner Memorial Lecture, American Heart Association
 2007 Centre for Disease Control (CDC) Foundation Hero Award
 2007 Charles C. Shepard Science Awards Ceremony (CDC, Atlanta)
 2007 Royal College of Physicians DARE lecture
 2007 R. C. Geary Lecture, Economic and Social Research Inst, Dublin
 2007 John F Wilkinson Memorial Lecture, Manchester Medical Society
 2006 Guest Lecturer The College of Physicians of Philadelphia

2006 Winner BMA Book Awards 2006 (Public Health)
 2006 Jorma Rantanen Lecture and Award, Helsinki
 2006 Harveian Oration, Royal College of Physicians
 2006 Harold Hatch Lecture, International Longevity Centre
 2006 Doctor of Medicine *honoris causa*, University of Sydney
 2005 Visiting professorship, Case University, Ohio
 2005 Marjorie Coote lecture, University of Sheffield
 2005 Honorary Member, British Cardiac Society
 2004 Balzan Prize for Epidemiology
 2004 Alwyn Smith Prize Medal for distinguished service to public health, Faculty of Public Health
 2004 St Cyres Lecture, British Cardiac Society
 2004 Bisset Hawkins Trust Medal, Royal College of Physicians
 2003 Visiting Fellow Commoner, Trinity College, Cambridge
 2003 Beveridge Lecture, Royal Statistical Society
 2003 Frederick H. Epstein Memorial Lecture, 43rd American Heart Association Conference, Miami
 2002 Decade of Behaviour Distinguished Speaker, Gerontological Society of America
 2002 Foreign Associate Membership, IOM, National Academy of Sciences
 2002 Visiting Fellow, National Centre for Social Research
 2002 Patricia B Barchas Award, American Psychosomatic Society
 2002 The Charles M. & Martha Hitchcock Professorship, University of California, Berkeley
 2001 29th Annual Thomas Francis Jr Memorial Lecture
 2000 Samuel Their Lecture, Yale School of Medicine
 2000 Knighted by Her Majesty The Queen for services to epidemiology
 2000 Lord Rayner Lectureship
 2000 Alumnus of the Year Award, School of Public Health, University of California, Berkeley
 2000 Medal of the European Society of Cardiology, for contribution to cardiovascular science and Population Science Lecture
 2000 Redfern Oration, Royal Australasian College of Physicians
 1999 Sol Levine Lecture, Harvard School of Public Health
 1998 Distinguished Lecturer, Kansas Health Institute
 1998 Foundation Fellow, Academy of Medical Sciences
 1998 Fellowship, Academia Europaea
 1997 First Geoffrey Rose Memorial Lecture
 1995 Awarded Medical Research Council Research Professor
 1989 Duncan Lectureship, University of Liverpool

Major Reports (chaired)

2019: Chair, Commission of the Pan American Health Organization on Equity and Health Inequalities in the Americas. (2019). *Just societies: health equity and dignified lives. Report of the Commission of the Pan American Health Organization on equity and health inequalities in the Americas*. PAHO: Washington DC.

2013: MARMOT MG, consortium lead. Health inequalities in the EU - Final report of a consortium. European Commission Directorate-General for Health and Consumers. 2013. doi:10.2772/34426.

2012: European Review [MARMOT MG, Allen J, Bell R, Bloomer E, Goldblatt P, on behalf of the Consortium for the European Review of Social Determinants of Health and the Health Divide.

WHO European Review of social determinants of health and the health divide. Commissioned by the World Health Organization.]

2012: Breast Screening Review. [MARMOT MG, Altman D, Cameron D, Dewar J, Thompson S, Wilcox M: the Independent Panel on Breast Cancer Screening. A report jointly commissioned by Cancer Research UK and the Department of Health (England) October 2012.]

2010: Marmot Review [MARMOT MG, Allen J, Goldblatt P, Boyce T, McNeish D, Grady M, Geddes I on behalf of the Marmot Review (2010). *Fair Society, Healthy Lives. Strategic review of health inequalities in England post-2010*. The Marmot Review: London. Commissioned by the Department of Health.]

2009: Diet Cancer Policy Recommendations [MARMOT MG et al, on behalf of World Cancer Research Fund/ American Institute for Cancer Research (2009). *Policy and action for cancer prevention. Food, nutrition, physical activity, and the prevention of cancer: a global perspective*. Washington DC: AICR. 203p.]

2008: Commission on Social Determinants of Health [MARMOT MG on behalf of the Commission on Social Determinants of Health (2008). *Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health*. Final report of the Commission on Social Determinants of Health. Geneva: World Health Organization.]

2007: Diet Cancer Report [MARMOT MG et al, on behalf of World Cancer Research Fund/ American Institute for Cancer Research (2007). *Food, nutrition, physical activity, and the prevention of cancer: a global perspective*. Washington DC: AICR. 517p.]

2004: Alcohol Review [MARMOT MG (Chair of Academy of Medical Sciences Working Group) et al. Calling time: the nation's drinking as a major health issue. Academy of Medical Sciences 2004.]

1995: Sensible Drinking [Alcohol and the heart in perspective: sensible limits reaffirmed. Report of a joint working group of the Royal Colleges of Physicians, Psychiatrists and General Practitioners (Chair: MG MARMOT). London, June 1995]

1994: COMA Report [Nutritional Aspects of Cardiovascular Disease. Report of the Cardiovascular Review Group (Chair: MG MARMOT), Committee on Medical Aspects of Food Policy. Report on Health and Social Subjects No.46, Dept of Health. HMSO, London, 1994]

Education

1966		BSc(Hons)	University of Sydney, Australia
1968	Medicine	MB BS	University of Sydney, Australia
1972	Epidemiology	MPH	University of California, Berkeley
1975	Epidemiology	PhD	University of California, Berkeley

1965-66: Student Fellowship - Cardiovascular pharmacology, University of Sydney, Australia

1969: General Medicine residency, Royal Prince Alfred Hospital, University of Sydney

1970: Clinical Research Fellow, Thoracic medicine, University of Sydney, Australia

1971-1972: Postgraduate Medical Federation Travelling Fellowship, Epidemiology & Public Health, University of California Berkeley

1972-1974: Bay Area Heart Association Fellowship, Cardiovascular Epidemiology, University of California, Berkeley

1974-1976: Project Director, Acculturation and Epidemiology of coronary heart disease in Japanese Americans, University of California Berkeley.

Learned Bodies

- 1984 Member of the Faculty of Community Medicine, Royal College of Physicians
- 1989 Fellow of the Faculty of Public Health Medicine, Royal College of Physicians
- 1989 Fellow of the Royal College of Physicians
- 1998 Foundation Fellow, Academy of Medical Sciences
- 2008 Honorary Fellow, British Academy
- 2008 Honorary Fellow, Royal Society for Public Health
- 2013 Honorary Fellow, Royal College of Psychiatry

Academic Appointments

2017-: Harvard T.H. Chan School of Public Health
Adjunct Professor, Department of Social and Behavioral Sciences

2015-2016: Harvard T.H. Chan School of Public Health
Bernard Lown Visiting Professor of Social & Behavioral Sciences

2011 - University College London
Director, Institute of Health Equity

2007-8: Johns Hopkins
Associate, Health Policy & Management

2005 - 2011: University College London
Director, International Institute for Society and Health

2000-2015: Harvard T.H. Chan School of Public Health
Adjunct Professor, Department of Social and Behavioral Sciences

1994-2005: University College London
Director, International Centre for Health and Society

1995-2013: MRC Research Professor in Epidemiology

1990-92: London School of Hygiene & Tropical Medicine
Professor Epidemiology and Public Health

1985-present: University College London
Professor in Epidemiology and Public Health

1985- 2011: University College London
Head of Department, Epidemiology & Public Health

1976-85: London School of Hygiene and Tropical Medicine
Lecturer/ Hon. Senior Lecturer

1976: University of Texas
Adjunct Associate Professor, School of Health

Public Health Appointments

1980-84: Hon. Consultant in Division of Medicine, University College Hospital, Bloomsbury Health Authority

1985-2004: Honorary Consultant in Public Health Medicine, Camden & Islington Health Authority

2004 -2006: Honorary Consultant in Public Health Medicine, North Central London Strategic Health Authority

2006- : Honorary Consultant in Public Health Medicine, Strategic Health Authority for London.

Major Professional Service:-

National (UK) Service

Independent chair North East & N. Cumbria Applied Research Collaboration (ARC) Stakeholder Board
Special advisor, Royal College of Physicians advisory group on reducing health inequalities
Trustee, The Food Foundation
Member, British Heart Foundation Alumni
President, British Lung Foundation
President British Medical Association
Trustee, Early Intervention Foundation
Chair, Breast Screening Review, Cancer Research UK
Chair, Department of Health Global Health Leaders Council
Chair, Strategic Review of Health Inequalities for England post-2010 (Marmot Review)
Chair, Dept of Health Scientific Reference Group: Tackling Health Inequalities
Member, Dept of Health Reference Group on Commission on Social Determinants of Health
Trustee, British Heart Foundation
Member, British Heart Foundation Prevention and Care Committee
Chair, Research and Development Committee, National Institute for Health and Clinical Excellence (NICE)
Member, Royal Commission on Environmental Pollution
Member, HM Treasury Inter-Departmental Group on Cross Cutting Spending Review
Member, HM Treasury Inter-Departmental Group on Sure Start
Member, National Service Framework for Coronary Heart Disease
Member, Scientific Advisory Group of Independent Inquiry into Inequalities in Health
Member, Department of Health/Medical Research Council Nutrition Programme Committee
Member, Civil Service Occupational Health Service Advisory Board
Member, Chief Medical Officer's Group for CHMU and CHOU (Advisory Group on Health of the Nation)
Member, Chief Medical Officer's 'Our Healthier Nation' Working Group

Member, Chief Medical Officer's 'Our Healthier Nation' Technical Subgroup
 Member, Cardiovascular Disease and Stroke Research and Development Committee, Advisory Group on Setting Priorities
 Chair, Higher Education Funding Council for England, Panel of Community-based Clinical Subjects
 Member, Central Health Monitoring Unit, Steering Committee
 Member, National Mental Health Peer Review Group
 Member, Expert Advisory Group Foresight Project on Mental Capacity and Wellbeing, Department of Trade and Industry, Office of Science and Technology

Committee on Medical Aspects of Food Policy (COMA)

Member Panel on the Ongoing Review on Diet and Cardiovascular Disease
 Member RDA Working Group on Fat, Fibre and Carbohydrate
 Member Standing Medical Advisory Committee, Working Party on Cholesterol Testing
 Chair Cardiovascular Review Group
 Member Committee on Medical Aspects of Food and Nutrition Policy (COMA)
 Member World Action on Salt and Health (WASH)

World Health Organization

Advisor to WHO Director-General on social determinants of health
 Chair, Commission on Equity and Health Inequalities in the Americas for Pan American Health Organization (PAHO)
 Member, Expert Advisory Group on Noncommunicable Diseases and Mental Health (NMH)
 Special Advisor, Pan American Health Organisation (PAHO) – for social determinants of health and Health in the Americas 2012-2017.
 Chair of Advisory Group, Urban Health Equity Assessment and Response Tool (Urban HEART), WHO Centre for Health and Development, Kobe
 Social Determinants of Health
 Chair of Commission on Social Determinants of Health set up by Director-General – report *Closing the Gap in a Generation* – August 2008

European Office for Investment for Health and Development, Venice
 Member Scientific Advisory Board

European Union Prevention of Obesity in Europe
 Member Expert Roster

Cardiovascular Disease, Geneva

Commissioned review on prevention of cardiovascular disease
 Member Global Advisory Committee for Cardiovascular Disease
 Chair Scientific Group on New Risk Factors for Cardiovascular Disease
 Member Advisory Committee on Cardiovascular Disease
 Adviser Programme on Inequalities in Health
 Member Planning Group on New WHO-Rockefeller Research Programme on Inequalities in Health
 Member Expert Advisory Panel on Cardiovascular Diseases.

Special Programme in Human Reproduction

Member Steering Committee Task Force on Oral Contraceptives
 Principal Investigator Multicentre Case Control Study of Steroid Hormone Contraceptives and Cardiovascular Disease
 Adviser on blood pressure studies

Western Pacific Region:

Consultant in community control of cardiovascular disease in Philippines and China

Director First Regional Seminar on Epidemiology and Control of Cardiovascular Disease

Eastern Mediterranean Region

Consultant in cardiovascular disease control, Pakistan

European Union

Member Concerted Action on Breakdown in Human Adaptation

Member Working Group on Research into Type A Behaviour

Chair Coronary Heart Disease in East and West Europe network (CHEWE)

Chair Heart at Work network

Member European Science Foundation Programme on Inequalities in Health, Planning Committee

Other international service

Chief Scientific Advisory on health inequalities, Istituto Superiore di Sanità [The National Institute of Health, Italy]

Chair: Advisory Board, South Asia Self Harm Initiative (SASHI)

Member: National Academies of Sciences, Engineering, and Medicine's Board on Global Health

Member, The Lancet-University of Oslo Commission: Global Governance for Health

Chair: World Medical Association (WMA) Socio-Medical Affairs Committee

Chair: World Medical Association (WMA) Working Group on Social Determinants of Health

Member: Advisory Board: Gulbenkian Global Mental Health Platform

Panel Chair: 2nd World Cancer Research Fund/ American Institute for Cancer Research

Expert Report on Food, Nutrition, Physical Activity and the Prevention of Cancer

Member: RAND Health Board of Advisors

Member: RAND Health Board International Sub-Committee

Member: RAND Advisory Board Global Pharmaceutical Project

Member: RAND Health Successful Countries Project

National Academy of Sciences, Institute of Medicine

Member, Committee on the Health and Safety Needs of Older Workers

Member, Committee for Guidance in Designing a National Health Care Disparities Report

Member, Panel on Divergent Trends in Longevity.

International Society and Federation of Cardiology

Member of Seminar Committee

Member of Council, section on epidemiology and prevention

Planning committee

Member: MacArthur Foundation Research Network on Successful Midlife Development

Member and Member Emeritus: MacArthur Foundation Research Network on Socio-Economic Status and Health

Chair: Research Advisory Committee, Ontario Institute of Work and Health

Secretary : Steering Committee, International Study of Electrolytes and Blood Pressure (INTERSALT)

Member: National Academy of Sciences Panel Study on Aging

Vice President: Academia Europaea

Member: Swiss Etiological Study of Adjustment and Mental Health Advisory Board

Member: French Institute for Health Promotion and Health Education (INPES), Paris

Member: Project Advisory Group of Union for Health Promotion and Education (IUHPE) and Canadian Consortium for Health Promotion Research (CCHPR)
 Member: Chronic Disease Prevention Evaluation Panel of the Finnish National Public Health Institute
 Member: Scientific Advisory Board Heidelberg Graduate School of Public Health
 Member: Israel National Institute for Health Policy Research International Advisory Committee
 Member: Advisory Board, Associazione per la Dieta Mediterranea.
 Inaugural Chair: International Advisory Board, Southgate Inst for Health, Society & Equity, Flinders University

Professional Societies

Academy of Medical Sciences
 Academia Europaea
 Royal Society and Association of British Science Writers
 Society for Social Medicine
 European Science Foundation
 Society for Epidemiological Research
 International Epidemiology Association
 European Society of Cardiology, Working Group on Epidemiology
 International Society and Federation of Cardiology, Section on Epidemiology and Prevention
 British Cardiac Society
 British Hypertension Society
 National Heart Forum
 British Academy
 British Atherosclerosis Society

Other public service

Evidence to House of Commons Health Committee 2016
 Evidence to House of Lords Committee on Non-Communicable Diseases March 2008
 Evidence to House of Commons Health Committee on Health Inequalities 2007-08
 Adviser on inequalities: Royal College of Physicians
 Adviser on inequalities: Dept of Health Advisory Group on UK Presidency of EU
 Chair Research and Development Committee, NICE
 Member Royal Commission on Environmental Pollution
 Chair Wellcome Trust Committee on Epidemiology and Health Services Research
 Chair Working group of the Royal Colleges of Physicians, Psychiatrists and General Practitioners on “Alcohol and the Heart in Perspective”
 Vice President Academia Europaea
 Chair Behavioural Sciences Section, Academia Europaea
 Chair Coronary Prevention Group, Statistics and Epidemiology Advisory Committee
 Chair Coronary Prevention Group, Workplace Advisory Committee
 Fellow European Society of Cardiology
 Member Scientific Advisory Group, Independent Inquiry into Inequalities in Health (Acheson Inquiry)
 Member British Heart Foundation, Research Funds Committee
 Member British Heart Foundation, Board of Trustees
 Chair British Heart Foundation, Primary Prevention Committee
 Member British Heart Foundation, Epidemiology Research Group
 Member Executive Committee, Society for Social Medicine
 Member Parke-Davis Cardiovascular Advisory Board
 Member Society for Social Medicine

Member Joint Centre for Longitudinal Research
 Member Longview
 Member Social Dimensions of Health Institute Advisory Committee, Universities of Dundee & St Andrews
 Member Swiss Etiological Study of Adjustment and Mental Health Advisory Board
 Member French Institute for Health Promotion and Health Education (INPES), Paris
 Member Project Advisory Group of Union for Health Promotion and Education (IUHPE) & Canadian Consortium for Health Promotion Research (CCHPR)
 Foundation Member Society for Longitudinal and Life Course Studies

Editorial

Editorial Advisory Board *Central European Journal of Epidemiology*
 Editorial Board, *Epidemiologic Review*
 Editorial Board, *Journal of Cardiovascular Risk*
 Editorial Board, *British Heart Journal*
 Editorial Board, *Psychological Medicine*
 Editorial Board, *Holistic Medicine*
 Editorial Board, *Addiction*
 Editorial Board, *Bulletin of the World Health Organization*
 Advisory Editor for Social Epidemiology, *Social Science & Medicine*
 Review writer for *The Lancet*
 Scientific Board, *Acta Cardiologica*
 International Advisory Board, *Perspectives in Public Health*
 Editorial Board, *Journal of Epidemiology (Japan)*
 Editorial Advisory Board, *Revista Peruana de Medicina Experimental y Salud Pública*

Major research interests

Science

Original observation (1978) from the Whitehall studies of British Civil servants that health follows a social gradient – the lower the status, the worse the health – has led to a lifetime of research understanding how the social environment generates health inequalities. Compiled evidence relating the conditions in which people are born, grow, live, work, and age to health and inequalities in health. His work has also emphasised the psychological impact of social conditions. Based on his research, the UCL Institute of Health Equity is the world's leading centre on social determinants of health.

The interdisciplinary nature of his research has meant developing depth and breadth – going deeply into questions of causation but also spanning all the key areas of the social and physical environment, and psychological processes, relevant to health inequalities.

Four objective markers of scientific achievement are relevant:

- 1 Individual research: over 1000 scientific publications, 800 of which are listed in the ISI web of science (i.e. in cited scientific journals), 104 of which have been cited at least 104 times. A study from Stanford University reported him as one of the world's 400 most cited biomedical scientists.
- 2 Appointed to prestigious MRC Research Professorship 1995 – 2013
- 3 Chair of UCL Department of Epidemiology and Public Health from 1985 to 2011. During that time he built the department from 7 people to 170 through attracting research grants and university investment
- 4 Knighted in 2000 for services to epidemiology and understanding health inequalities

Policy and Practice

-Chaired the WHO Commission on Social Determinants of Health, 2005-2008. This Commission's report has now been accepted as WHO policy and by a UN platform to take

forward its recommendations. Many countries now have implementation plans on Social Determinants of Health, advised by Sir Michael, among them: Brazil, Chile, Costa Rica, India, Sweden, Norway, Finland, Slovenia.

- Chaired the Marmot Review, *Fair Society Healthy Lives*, which produced evidence based recommendations to reduce inequalities in health. Set up by the last Labour government and endorsed in the Coalition Government's Public Health White Paper on Public Health. The recommendations of the Marmot Review are now being implemented by three quarters of local authorities in England.

- Chaired the European Review of Social Determinants of Health and the Health Divide – its recommendations have been incorporated into new European health policy, Health 2020, and adopted by European member states of WHO.

- Member of Royal Commission of Environmental Pollution for 6 years.

- Chaired:

- 1 World Cancer Research Fund Panel on Diet, Nutrition, and Cancer;
- 2 The Independent Breast Screening Review;
- 3 Academy of Medical Sciences Report, *Calling Time*, the recommendations of which, on alcohol policy, form the basis of the alcohol health alliance's recommendations.
- 4 Committee on Medical Aspects of Food Policy Committee on Diet and Cardiovascular Disease – the recommendation on 6g salt a day is now national policy.

In all of these activities the abiding principle was basing policy recommendations on best science.

The Marmot Review on health inequalities made recommendations in six domains: early child development, education, employment and working conditions, minimum income for healthy living, healthy and sustainable environments, social determinants of health behaviours.

Research Support

1990, Department of Employment, PI Alcohol and civil servants
 1991, Department of Health, PI, Adult nutrition study
 1991, The Leverhulme Trust, PI, Health care in developing countries
 1992, National Institutes of Health, PI, Stress and health study
 1992, World Health Organization, Co-PI, Oral contraceptives & CVD, III
 1992, Cancer Research Campaign, PI, Cancer mortality in migrants in England and Wales
 1992, National Institutes of Health, PI, Stress and health study
 1990-90, Department of Health, PI, Diet and diet related diseases
 1990-93, National Institutes of Health, PI, Social factors influencing medical
 1990-93, Health and Safety Executive, PI, Occupational factors as predictors of CHD
 1991-93, Ministry of Agriculture Fisheries and Food, PI, Dietary assessment
 1991-94, New England Medical Centre, PI, Whitehall II study
 1991-93, Health and Safety Executive, PI, Sick building syndrome
 1991-93, Ontario Workers Compensation Institute, PI, Whitehall sickness absenteeism
 1992-93, MacArthur Foundation, PI, Job loss among British civil servants
 1992-2012, British Heart Foundation, PI, Psychosocial and biological factors in CVD
 1992-93, World Health Organization, Co-PI, Oral contraceptive and CVD study
 1992-94, The Wellcome Trust, PI, The effects of social and working conditions on the predictors of myocardial infarction
 1993-93, Chest Heart & Stroke Association, PI, Investigation of stroke deaths
 1993-94, Health and Safety Executive, PI, Occupational factors as predictors
 1993-95, The Baring Foundation, PI, Centre for Health and Society
 1993-95 London School of Hygiene & Tropical Medicine, PI, Health gain project
 1993-96, European Commission, PI, Explaining socioeconomic variations in CHD
 1993-96, Volvo Research Foundation, PI, Risk factors for back pain and sickness absence

1993-96, National Institutes of Health, PI, Social and occupational influences on health and illness

1993-95, Ministry of Agriculture, Fisheries & Food/SCPR, PI, National Diet & Nutrition Survey

1993-96, Department of Health/SCPR, PI, Health Survey for England 1994

1993-94, Life Trends, PI, Midlife development amongst British civil servants

1994-96, National Institutes of Health, PI, Whitehall II study outcome measures

1994-95, World Health Organization, Co-PI, Oral contraceptives and CVD

1994-97, European Commission, PI, Socioeconomic variations in CVD in Europe

1994-96, Scottish Office/SCPR, PI, Scottish Health Survey

1994-96, Department of Health/SCPR, PI, Health Survey for England 1995

1994-96 Wellcome Trust, PI, Cardiovascular risk factors in the Czech Republic and Bavaria: an ecological study.

1994-94, Department of Health/SCPR, PI, Development of Health Survey for England 1995

1994-96, Economic & Social Research Council, PI, Job insecurity, change and non-employment in civil servants

1994-96, Department of Health/Medical Nutrition, psychosocial factors and Research Council, PI, coronary heart diseases in the Whitehall II study

1994-99, Medical Research Council PI Social influences on health

1995-99, Medical Research Council Clinical Research Professorship award

1995-97, Medical Research Council, PI, Nutrition, psychosocial factors and coronary heart disease

1995-95, Department of Health/SCPR, PI, Development of Health Survey for England 1996

1995-98, Department of Health, PI, Mental health in the workplace

1995-97, MacArthur Foundation, PI, Midlife development in the British civil service

1995-97, Department of Health/SCPR, PI, Health Survey for England 1996

1995-97, National Centre for Social Research, PI, Health Survey for England 1996

1995-96, MacArthur Foundation, PI, Social and psychological wellbeing in Central and East Europe

1995-98, Lord Ashdown's Charitable Trust, PI, Centre for Health and Society

1995-96, World Health Organization, Co-PI, Cardiovascular disease and steroid hormone contraceptives

1996-96, Medical Research Council, Co-PI, Analysis of blood lead measurement

1996-98, Paul Hamlyn Foundation, PI, Centre for Health and Society outcome measures

1996-98, MacArthur Foundation, PI, Social and psychological determinants of health in Hungary

1996-99, National Institutes of Health, PI, Changes in Health: socioeconomic status and pathways

1996-99, National Centre for Social Research, PI, Health Survey for England 1997

1996-96 National Centre for Social Research, PI, Health Survey for England 1997

1996-98, MacArthur Foundation, PI Social and psychosocial determinants in health (Phase 2)

1996-99 British Heart Foundation, PI, Whitehall I resurvey

1997-98 MacArthur Foundation, PI, Reactive responding and allostatic load markers in Whitehall

1997-2002 British Heart Foundation, PI, Psychosocial and biological factors in occurrence of cardiovascular disease

1997-97 European Foundation, PI, Employment and health consultancy

1997-2010, National Centre for Social Research, PI, Health Survey for England (renewed annually)

1997-2010 National Centre for Social Research, PI, Health Survey for Scotland (renewed annually)

1997-2002, National Heart, Lung & Blood Institute, PI, Social and occupational influences on health and illness

1998-99, MacArthur Foundation, PI, Social capital in the Whitehall II study

1998-2000 Economic and Social Research Council, PI, The contribution of job insecurity to socioeconomic inequalities
 1998-99 Health Education Authority, PI, Type of alcohol and risk factors for coronary heart disease
 1999, National Health Service, PI, Working group on cardiovascular disease/stroke
 1999-1999, Commonwealth of Australia, PI, Australian Government consultancy
 1999-2004 National Institutes of Aging, PI, Socioeconomic status and pathways
 1999-2001 Health and Safety Executive, PI, Contribution of work environment and alcohol abuse to ill health
 1999-2002 Health Education Authority, PI, Links between social capital and health
 1999-2002 MacArthur Foundation, PI, Perceptions of social status, reactive responding and allostatic load
 1999-2000 National Centre for Social Research, PI, Health Survey for England 1999 (Chinese subsidiary study)
 1999-2001, Wellcome Trust, Cardiovascular diseases in Eastern Europe: a validation study. PI
 1999-2004 Medical Research Council, PI, Social influences on health
 1999-1999 Department of Education & Employment, PI, Sure Start Development Project
 1999-2004, Medical Research Council, PI, Professorship
 2000-2003, Medical Research Council, PI, Material and social characteristics of areas
 2000-2002, National Health Service, PI, Profiling health in London
 2000-2002, National Health Service, PI, Coordination of Health Action Zones
 2000-2000 Health Education Authority, PI, Outcome evaluation of HEA's Social Action Research Projects
 2000-2001, MacArthur Foundation, PI, Societal changes and health
 2001-2003, Joseph Rowntree Foundation, PI, Evaluation of implementation measures following Independent Inquiry
 2002-2005, MacArthur Foundation, PI, Social upheaval and health.
 2002-2007, Wellcome Trust, PI, Determinants of cardiovascular diseases in Eastern Europe: a multi-centre cohort study, Co-applicant.NIA
 2004-2009, Medical Research Council, PI, Clinical Research Professorship
 2004-2009, Medical Research Council, PI, Social influences on health (The Whitehall II Study)
 2001-2006, Medical Research Council, PI, Assessment of biomedical risk factors
 2002-2007, Medical Research Council, PI, Co-operative Group: social determinants of health
 2002-2007, National Heart Lung & Blood Inst, PI, Social and occupational infl on health
 2002-2007, British Heart Foundation, PI, Psycho-social + biological factors cvd
 2002-2007, Determinants of cardiovascular diseases in Eastern Europe: a multi-center cohort study. Co-applicant. The Wellcome Trust.
 2002-2005, MacArthur Foundation, Social upheaval and health. PI.
 2003-2006, NCSR, PI, Low income diet and nutrition survey 2
 2003-2007, Medical Research Council, PI, Poor growth, social deprivation
 2004-2009, National Institutes of Health NIH, PI, Socioeconomic status and pathways
 2004-2009, National Institutes of Health NIH, PI Health disparities societies in transition
 2004-2006, National Institutes of Health NIH, PI, ELSA Supplement
 2004-2007, Medical Research Council, PI, DTA 2004-2008
 2004-2012, Health disparities & ageing in transition. Co-PI, NIH
 2005-2007, Purpleville, PI, Commission on social determinants of health CSDH
 2005-2007, Department of Health DH, PI, Global commission social determinants of health
 2005-2008, Department of Health DH, PI, Commission on social determinants health
 2005-2010, National Institutes of Health NIH, PI, English Longitudinal Study of Ageing
 2005-2008, Medical Research Council MRC, PI, DTA 2005-2008
 2005-2012, National Institute of Aging NIA, Determinants of healthy ageing in Eastern Europe, PI.
 2005-2010, Office of National Statistics ONS, PI, English Longitudinal Study of Ageing ELSA

2006-2008, National Institutes of Health NIH, PI, Socio-Economic Status and pathway
 2004-2009, Medical Research Council MRC Clinical Research Fellowship Social influences on health (The Whitehall II Study)
 2006-2009, Economic and Social Research Council, ESRC Postgraduate Award
 2007-2011, The Balzan Foundation: Marmot Balzan Fellowship Programme
 2007-2011, Medical Research Council, PI, MRC DTA 2007-2011
 2007-2012, British Heart Foundation BHF, PI, Psycho-social factors and biological factors in the occurrence of cardiovascular disease: The Whitehall II Study
 2007-2012, Wellcome Trust, Determinants of cardiovascular diseases in Eastern Europe: longitudinal follow-up of a multi-centre cohort study (the HAPIEE Project). Co-applicant.
 2008-2010, Proposal to conceptually integrate social determinants of health research and capabilities approach to development and social justice (S Venkatapuram), PI, Economic and Social Research Council ESRC
 2008-2012, Medical Research Council MRC, PI, MRC DTA 2008-2012
 2008-2010, Department of Health DH, PI, Strategic Review of Health Inequalities in England post 2010 – report February 2010 *Fair Society, Healthy Lives*
 2009-2014, Socio-economic status and heterogeneity NIH PI
 2009-2012, S/ship LSHTM (T Chandola), PI
 2009-2013, Socioeconomic gradient in CHD in early old age (the Whitehall II Study) PI, NIH NHLBI
 2009-2012, English Longitudinal Study of Ageing, NIH, PI
 2009-2014 Psychosocial and biological factors in CVD: the Whitehall II Study
 2010-2013, Alcohol Education and Research Council (AERC) Understanding and promoting sensible drinking. PI.
 2010-2013, F/ship (A Aitsi-Selmi) Reversing the social gradient in obesity in Edypt, Wellcome
 2010-2013, Causes of heterogeneity in ageing – the Whitehall II Study, MRC, PI
 2004-2011, English Longitudinal Study of Ageing NIH PI
 2004-2011, Health disparities & Ageing in Societies NIH PI
 2010-2014, English Longitudinal Study of Ageing ONS
 2010-2014, English Longitudinal Study of Ageing NIH
 2010-2013, MRC Professorship Award
 2010-2015, European Union EU 7th Framework Programme, Consortium on health and ageing: network of cohorts in Europe and the United States. Large scale integrative collaborative project. PI
 2010-, Health inequalities in the EU, EU EACH
 2011-2012, ESRC DTG
 2011-2013, ESRC DTG
 2011-2014, DH, Institute of Health Equity, PI
 2011-2014, UCL Provost, Institute of Health Equity, PI
 2012-2013, DH, Institute of Health Equity, DH health inclusion programme
 2011-, Brazilian Ageing Study, PI, NIH
 2011-2013, British Medical Association, Institute of Health Equity
 2011-2014, European Research Council, The Impact of Privatization on the Mortality Crisis in Eastern Europe, member, co-PI.
 2010-2013, Greater London Authority, Institute of Health Equity, implementation of the mayor's health inequalities strategy
 2010-2013, WHO European Health Divide Review, Institute of Health Equity
 2011, Health policies and the social determinants of health, Australian Research Council
 2012-2013, EU PROGRESS, Institute of Health Equity
 2012-2013, UCL Children's Centres Outcomes Framework, Institute of Health, PI Equity
 2013, UNICEF, Institute of Health Equity, tackling structural and social issues to reduce children's outcomes in low to middle income countries
 2012-2013, DH, Institute of Health Equity, CVD and the social determinants of health
 2012-2013, WHO Euro – social determinants of mental health

2014-2017, DH Institute of Health Equity
 2014-2017, BMA Institute of Health Equity
 2011-2017, European Commission
 2007-2019, International Balzan Foundation
 2016-2019, European Commission Horizon 2020 INHERIT (Inter-Sectoral Health Environment Research for Innovations)
 2014-2020, English Longitudinal Study of Ageing (PI now Professor Andrew Steptoe)
 2014-2017, Public Health England
 2015-2017, DFID
 2016-2017, University of Manchester
 2016-2017, Pan-American Health Organization/WHO
 2016-2017, NHS England
 2016-2018, NHS England
 2015-2017, UNDP
 2007-present, International Balzan Foundation, Marmot Balzan Fellowship Programme
 2017-2019, Prince Mahidol Foundation
 2017-2020, European Commission, Cities for People
 2015-2020, European Commission, Horizon 2020, ATHLOS
 2015-2019, PAHO Commission on Equity and Health in the Americas
 2019-2020, UCL Institute of Health Equity & Greater Manchester
 2019-2020, UCLA-UCL-PAHO collaboration Health Equity Network of the Americas
 2019-2020, WHO EMRO Review of health inequalities
 2018-2020, Health Foundation, Marmot Review Ten Years On
 2019-2020, Robert Wood Johnson Foundation with UCLA (HENA)
 2019-2024, Swiss Development Corporation

Teaching

1975-76 Epidemiology of non-communicable disease, University of California, Berkeley - carried the teaching load of a full professor who had sabbatical leave

1976-84 MSc Epidemiology, London School of Hygiene and Tropical Medicine -one of a small group who developed a new Masters course in Epidemiology

1977-86 Teacher, and member of International Society and Federation of Cardiology Planning Committee, Planning of 10-day international seminar on cardiology and prevention of CVD

1984-2011 Head of Department, Epidemiology and Public Health, Royal Free and University College Medical School, Responsible for successive revisions of medical school teaching in

1984-present PhD Supervisor Royal Free and University College Medical School Supervisor of numerous PhDs in Dept of Epidemiology & Public Health

2004-present, MSc Health and Society: Social Epidemiology, Social determinants of global health module

2011-present, BASc, Health inequality: the social disease module

2011-present , UCL MBBS Social Determinants of Health module

2015-present, UCL BSc Population Health lecture on social determinants of health

2018- , UCL MSc Mental Health in Social and Global Context module

Publication List M. G. Marmot

1. Jackson DM, Temple DM, Cassimatis N, Horne M, MARMOT MG, Snow D. The distribution of a Cardiotonic factor, splenitransin, in mammalian tissues. *Comp Biochem Physiol.* 1969; 30 419-432
2. MARMOT MG, Harvey HPH. Rhinoscleroma - 3 cases and clinical perspective. *Proceedings of Thoracic Society of Australia*, August 1970
3. Read JR, MARMOT MG, Hamilton J, Forster AR. Planning the requirements of a hospital ward. *Med J Aust* 1971; 1: 516
4. MARMOT MG, Syme SL, Kagan A, Kato H. The use of a standard questionnaire to diagnose angina pectoris in international studies. *Proceedings of the 6th Annual Meeting of Society for Epidemiological Research*, Winnipeg, Canada, June 1973
5. MARMOT MG, Winkelstein W. Health and technology. *Science* 1973; 181: 1973. Letter.
6. Marmot AN, MARMOT MG. Society, health and the individual. *Futures Conditional* 1974; 2: 12
7. MARMOT MG, Winkelstein W. Epidemiologic Observations on Intervention trials for prevention of CHD. *Am J Epidemiol* 1975; 101: 177-181
8. Syme SL, MARMOT MG, Kagan H, Rhoads G. Epidemiologic studies of CHD and stroke in Japanese men living in Japan, Hawaii and California: Introduction. *Am J Epidemiol* 1975; 102: 477-480
9. MARMOT MG, Syme SL, Kagan A et al. Epidemiologic studies of CHD and stroke in Japanese men living in Japan, Hawaii and California: Prevalence of Coronary and hypertensive heart disease and associated risk factors. *Am J Epidemiol* 1975; 102: 514-525
10. MARMOT MG. Acculturation and CHD in Japanese-Americans, PhD dissertation. University of California, Berkeley, 1975.
11. Brown SM, MARMOT MG, Sacks ST, Kwok LW. Effect on mortality of the 1974 fuel crisis. *Nature* 1975;257: 306
12. MARMOT MG. Review and commentary. *Proceedings of Second International Seminar on Migration and Health*. I Prior, ed, Wellington, New Zealand, 1975
13. MARMOT MG, Brown SM, Sacks ST, Kwok LW. Mortality and the 1974 fuel crisis - Reply. *Nature* 1976; 259: 560-561
14. MARMOT MG, Syme SL. Acculturation and CHD in Japanese-Americans. *Am J Epidemiol* 1976; 104: 225-247
15. MARMOT MG. Facts, opinions and affaires du coeur. *Am J Epidemiol* 1976; 103: 519-526.
16. MARMOT MG. Epidemiology of hypertension. In: *Hypertension assessment and management*. Fisher JM, Crouch M, McCombs, eds., Drew Medical Centre, Inc 1976
17. MARMOT MG, Syme SL, Sacks ST, Kwok L. A multivariate analysis of the relationship of cultural and other coronary risk factors to CHD prevalence in Japanese-Americans. *Am J Epidemiol* 1976; 104: 348-349 (Abstract)
18. Robertson TL, Kato H, Rhoads GG, Kagan A, MARMOT MG, Syme SL, Gordon T, Worth RM, Belsky JL, Dock DS, Miyamishi M, Kawamoto S. Epidemiologic studies of coronary heart disease and stroke in Japanese men living in Japan, Hawaii and California. Incidence of myocardial infarction and death from coronary heart disease. *Am J Cardiol.* 1977, Feb; 39 (2): 239-43
19. MARMOT MG, Adelstein AM, Robinson N, Rose G. The changing social class distribution of heart disease. *BMJ* 1978; 2:1109-1112
20. MARMOT MG, Rose G, Shipley M, Hamilton PJS. Employment grade and CHD in British civil

- servants. *J Epid & Comm Health* 1978; 32: 244-249
21. MARMOT MG. Prevention of IHD - the WHO approach. Proceedings of the VIII World Congress of Cardiology. Tokyo 1978. Hayase S and Murao S eds. Amsterdam, Excerpta Medica 1979; 163-168
 22. MARMOT MG. Epidemiological basis for the prevention of CHD. *Bull of WHO* 1979; 57: 331-347
 23. MARMOT MG, Syme SL, Sacks ST, Kwok LW. Japanese culture and CHD. In: Recent advances in gerontology. Orim OH and others eds. Amsterdam. Excerpta Medica 1979; 476-479
 24. Yano K, Blackwelder WC, Kagan A, Rhoads GG, Cohen JB, MARMOT MG. Childhood cultural experience and the incidence of CHD in Hawaii Japanese men. *Am J Epidemiol* 1979; 109: 440-450
 25. MARMOT MG. Controlling high blood pressure in the community. *Philippine J of Cardiol* 1979; 7: 249-258
 26. MARMOT MG, Patel C, Terry D. Risk factor reduction by biofeedback in the factory. *J Psychosom Res.* 1979; 23 (6): 433
 27. MARMOT MG (editorial) Why the American decline in CHD? *Lancet* 1980;i: 183-184
 28. MARMOT MG. Social factors in health 3, 4 *Gen Pract* 1980; 48-49, 50-51
 29. MARMOT MG, Page CM, Atkins E, Douglas JWB. Effect of breast-feeding on plasma cholesterol and weight in young adults. *J Epid & Comm Health* 1980; 34: 164-167
 30. MARMOT MG. Parkinson's disease and encephalitis; the cohort hypothesis re-examined. In: Clinical Neuroepidemiology. Clifford Rose F ed. Pitman Medical UK 1980
 31. MARMOT MG. Affluence, urbanization and CHD. In: Disease and Urbanization. Clegg EJ and Garlick JP eds. Taylor & Francis London 1980: 127-143
 32. MARMOT MG (editorial) Lowering blood pressure without drugs. *Lancet* 1980; i: 459-461
 33. Kagan A, MARMOT MG, Kato H. The Ni-Hon-San study of cardiovascular disease epidemiology: population characteristics and epidemiology of stroke. In: Epidemiology of arterial blood pressure. Kesteloot H and Joossens JV eds. Martinus Nijhoff 1980: 423-436
 34. MARMOT MG, Kagan A, Kato H. Hypertension and heart disease in the Ni-Hon-San study. In: Epidemiology of arterial blood pressure. Kesteloot H and Joossens JV eds Martinus Nijhoff 1980: 437-454
 35. MARMOT MG, Type A behaviour and ischaemic heart disease. *Psychol. Med* 1980; 10: 603-606
 36. Rose G, MARMOT MG. Social class and coronary heart disease. *Brit. Heart J.* 1981; 45: 13-19
 37. MARMOT MG, Rose G, Shipley MJ, Thomas BJ. Alcohol and mortality - a U-shaped curve. *Lancet* 1981; i: 581-583
 38. MARMOT MG, Booth M, Beral V. Changes in heart disease mortality in England and Wales and other countries. *Health Trends* 1981; 13: 33-42
 39. MARMOT MG. Mortality and Parkinson's disease. In: Research Progress in Parkinson's Disease. Clifford Fose F, Capildeo F eds. Progress in Neurology Series. Pitman Medical; 9-16
 40. Patel C, MARMOT MG, Terry DG. Controlled trial of biofeedback-aided behavioural methods in reducing mild hypertension. *BMJ* 1981; 282: 2005-2007
 41. Winkelstein W, MARMOT MG. Primary prevention of ischaemic heart disease: evaluation of community interventions. *Ann Rev Pub Health* 1981; 2: 253-276
 42. MARMOT MG, Rose G, Shipley MJ, Thomas BJ. Alcool et mortalite: une courbe en U. *Le Journal*

- International de Medecine 1981; 4: 205-210
43. MARMOT MG, Soft fat - harder evidence. *Lancet* 1981; i: 597-598
 44. MARMOT MG, Self care - self blame. *Lancet* 1981; ii: 846-847
 45. MARMOT MG, Rose G, Shipley MJ (letter). Alcohol and mortality. *Lancet* 1981; i: 1159
 46. MARMOT MG, Adelstein AM, Bulusu L. Cardiovascular mortality among immigrants to England and Wales. *Postgraduate Medical Journal* 1981; 57: 760-762.
 47. Vizcayno JS and others, MARMOT MG. Rheumatic fever-rheumatic heart disease control program in a rural community. *Philippine Heart J* 1981; IX: 103-110
 48. MARMOT MG. Culture and illness: epidemiological evidence. In: *Foundations of psychosomatics*. Christie MJ, Mellet P eds. Chichester: John Wiley & Sons 1981
 49. MARMOT MG, Khaw K-T. Implications for population studies of the age trend in blood pressure. In: *Stress and hypertension*. Bahlmann J and Leibau H eds. Basel: Karger 1982; 101-107
 50. MARMOT MG. Socio-economic and cultural factors in ischaemic heart disease. In: *Psychological problems before and after myocardial infarction*. Denolin H ed (*Advances in Cardiology* vol 29). Basel: S Karger 1982
 51. MARMOT MG, Booth M, Beral V. International trends in heart disease mortality. In: *Atherosclerosis reviews*. Gotto AM and Paoletti R eds. Raven Press, New York 1982; 9: 19-27
 52. MARMOT MG. Hypothesis-testing and the study of psychosocial factors. In: *Psychological problems before and after myocardial infarction*. Denolin H ed (*Advances in Cardiology* vol 29). Basel: S Karger 1982
 53. MARMOT MG, Theorell T. Conclusions. In: *Psychological problems before and after myocardial infarction*. Denolin H ed (*Advances in Cardiology* vol 29). Basel: S Karger 1982
 54. MARMOT MG. Diet, hypertension and stroke. In: *Nutrition and Health*. Turner MR ed. Lancaster: MTP Press Limited 1982; 243-254
 55. Godwin-Austen RB, Lee PN, MARMOT MG, Stern GM. Smoking and Parkinson's disease. *J Neurol, Neurosurgery and Psychiatry* 1982; 45: 477-581
 56. Mann JJ, MARMOT MG. Epidemiology of ischaemic heart disease. In: *The Oxford Textbook of Medicine* Ledingham JGG, Warrell DA, Weatherall DJ. Oxford: Oxford University Press 1983
 57. MARMOT MG When are risk factors causes? *J Royal Col of Phys* 1983;17: 66-67
 58. Hetzel BS, Dwyer T, MARMOT MG Decline in coronary heart disease in the USA and Australia: role of polyunsaturated fat. *Int J Epidemiol* 1983; 12: 246-7
 59. MARMOT MG, Why has stroke mortality declined? *Lancet* 1983; i: 1195-96
 60. MARMOT MG Epidemiology of cardiovascular disease in different countries in relation to smoking. In: *Atherosclerosis VI* Eds Schettler FG, Gotto AM, Middelhoff G, Habeniicht AJR, Jurutka KR Berlin: Springer Verlag 1983: 888-892
 61. Khaw Kay-Tee, MARMOT MG Blood pressure in 15- to 16-year old adolescents of different ethnic groups in two London schools. *Postgraduate Med J* 1983; 59: 14-15
 62. MARMOT MG, The influence of psychosocial stresses on sudden death. In: Raineri A, Kellermann JJ (eds) *Selected Topics in Preventive Cardiology*. Plenum 1983: 99-115
 63. MARMOT MG, Adelstein AM, Bulusu L Immigrant mortality in England and Wales 1970-78. *Population Trends OPCS* 1983: 1-4

64. MARMOT MG Stress, social and cultural variations in heart disease. *J Psychosomatic Research* 1983; 27: 377-384
65. MARMOT MG The relation of social to pathophysiological processes: evidence from epidemiological studies. In Cullen J Siegrist J (eds) *Psychological and sociological parameters for studies of breakdown in human adaptation*. Boston/The Hague: Martinus Nijhoff Publishers, for The Commission of the European Communities, 1984; 144-158
66. MARMOT MG Life style and national and international trends in coronary heart disease mortality. *Postgraduate Med J* 1984; 60: 3-8
67. MARMOT MG, Rose G Epidemiology of hypertension. In: Sleight P, Vann Jones J (eds) *Scientific Foundations of Cardiology* London: Heinemann 1984
68. MARMOT MG Alcohol and coronary heart disease. *Int J Epidemiol* 1984;**13**: 160-167. Reprinted *Int J. Epidemiol* 2001;**30**:729-734.
69. MARMOT MG, Shipley MJ, Rose G . Inequalities in death - specific explanations of a general pattern? *Lancet* 1984; i: 1003-6.
70. MARMOT MG, Adelstein AM, Bulusu L Mortality of immigrants to England and Wales. *Studies of Medical and Population Subjects* no 47. OPCS, HMSO, 1984
71. MARMOT MG Epidemiology of coronary artery disease. In Hugenholtz P, Julian D, Sobel B, Fox K (eds) *Cardiovascular Medicine - Annual*. London: Current Medical Literature, 1984
72. MARMOT MG Body Tone Maintenance Programme Review *Lancet* 1984; i: 1104
73. MARMOT MG Changing habits of the community to prevent coronary heart disease. Ferguson A ed *Advanced Medicine* 20 Tunbridge Wells: Pitman 1984
74. Curtis L, Lees AJ, Stern GM, MARMOT MG Effect of L-dopa on course of Parkinson's disease. *Lancet* 1984; ii: 211-212
75. MARMOT MG, Adelstein AM, Bulusu L Lessons from the study of immigrant mortality. *Lancet* 1984; i: 1455-1457
76. MARMOT MG, A message for Britain's Health and Safety Executive? *Lancet* 1984; ii: 455
77. Adelstein AM, MARMOT MG, Bulusu L Migrant studies in Britain. *B Med Bulletin* 1984; 40 4: 315-319
78. MARMOT MG Geography of blood pressure and hypertension. *B Med Bulletin* 1984; 40 4: 380-386
79. MARMOT MG Type A behaviour and ischaemic heart disease. In: Shepherd M (ed) *The spectrum of psychiatric research* Cambridge University Press 1984; 237-240
80. MARMOT MG, Morris JN The social environment. In: Holland WW, Detels R, Knox G (eds) *Oxford Textbook of Public Health Vol 1* Oxford: Oxford University Press 1984, pp 97-118
81. MARMOT MG Psychosocial factors and blood pressure. In: Bulpitt CJ (ed). *The epidemiology of hypertension*, Vol 6: Epidemiology of hypertension, 89-104 Amsterdam: Elsevier Science Publishers 1985
82. Patel C, MARMOT MG, Terry DJ, Carruthers M, Hunt B, Patel M. Trial of relaxation in reducing coronary risk: four year follow up. *BMJ* 1985; 290: 1103-1106
83. Patel C, MARMOT MG Trial of relaxation in reducing coronary risk (letter) *BMJ* 1985; 290: 1746-7
84. MARMOT MG Interpretation of trends in coronary heart disease mortality. *Acta Med Scand (Suppl)* 1985; 701: 58-65

85. Elliott P and MARMOT MG. International studies of salt and blood pressure. *Annals of Clinical Research* 1985; 16 suppl 43: 670-71
86. Markowe HLJ, MARMOT MG, Shipley MJ, Bulpitt CJ, Meade TM, Stirling Y, Vickers MV, Semmence A. Fibrinogen: a possible link between social class and coronary heart disease. *BMJ* 1985; 291: 1312-1314
87. MARMOT MG. Psychosocial Factors and Blood Pressure. *Preventive Medicine* 1985; 14: 451-465
88. McKeigue PM, MARMOT MG, Adelstein AM, Hunt SP, Shipley MJ, Butler SM, Riemersma RA, Turner PR. Diet and risk factors for coronary heart disease in Asians in Northwest London. *Lancet* 1985; ii: 1086-1090
89. MARMOT, MG. Plenary Session: Proposals for action. *Complementary Medical Research* 1986; 1(1): 70-87
90. Bulpitt CJ, Broughton PMG, Markowe HLJ, MARMOT MG, Rose G, Semmence A, Shipley MJ. The relationship between both sodium and potassium intake and blood pressure in London civil servants. *J Chron Dis* 1986; 39: 211-219
91. MARMOT MG. Epidemiology and the art of the soluble. *Lancet* 1986; i:897-900
92. MARMOT MG. Does stress cause heart attacks? *Postgraduate Medical Journal* 1986; 62: 683-686
93. MARMOT MG, McDowall ME. Mortality decline and widening social inequalities. *Lancet* 1986; ii: 274-276
94. Adelstein AM, MARMOT MG, Dean G, Bradshaw J. Comparison of mortality of Irish immigrants in England and Wales with that of Irish and British nationals. *Irish Medical Journal* 1986; 79: 186-189
95. MARMOT MG, Social inequalities in mortality: the social environment. In: Wilkinson RG, ed., *Class and Health*. London: Tavistock Publications 1986; 21-34
96. MARMOT MG, Social patterns in relation to social networks in cardiovascular disease. In: Isacson SO, Janzon L, eds., *Social Support - Health and Disease*, Stockholm: Almqvist & Wiksell International 1986; 59-71
97. MARMOT MG, Madge Nicola. An Epidemiological Perspective on Stress and Health. In: Kasl SV & Cooper CL, eds., *Stress and Health: Issues in Research Methodology*. Chichester: John Wiley & Sons Ltd, 1987
98. MARMOT MG, Mann JJ. Epidemiology of Ischaemic Heart Disease. In: Fox KM (Ed); *Ischaemic Heart Disease. Current Status of Clinical Cardiology Series*. Lancaster: MTP Press Ltd, 1987; 1-33
99. Patel C, MARMOT MG. Stress management, blood pressure and quality of life. *J Hypertension* 1987; 5(Suppl 1): S21-28
100. MARMOT MG. The patient as individual and statistics: Chairman's summing up. *Complementary Medical Research* 1987; 2: 117-121
101. MG MARMOT, M Kogevinas, MA Elston. Social/economic status and disease. *An Rev Public Health* 1987; 8: 111-137
102. Steptoe A, Patel C, MARMOT MG, Hunt B. Frequency of relaxation practice, blood pressure reduction and the general effects of relaxation following a controlled trial of behavioural modification for reducing coronary risk. *Stress Medicine* 1987; 3: 101-107
103. Madge N, MARMOT, MG. Psychosocial factors and health. *Quarterly J of Social Affairs* 1987; 3:(2)81-134
104. MARMOT, MG. Look after your heart: Stress and cardiovascular disease - A studiable case? *Health*

Trends 1987; 19: 21-25

105. MARMOT MG. Community intervention to control plasma lipids. *European Heart J* 1987; 8 (Suppl E): 71-77
106. Sheiham A, MARMOT M, Rawson D, Ruck N. Food values: health and diet. In: Jowell R, Witherspoon S, Brook L (eds) *British Social Attitudes - the 1987 report*. Gower Publishing Company 1987;95-119
107. MARMOT MG. Evidence from prospective studies. In: *Infant Nutrition and Cardiovascular Disease. Proceedings of meeting on 29th October 1986 at the MRC Environmental Epidemiology Unit. Scientific Report No 8*, 1987; 35-37.
108. Patel C, MARMOT MG. Can general practitioners use training in relaxation and management of stress to reduce mild hypertension? *BMJ* 1988; 296: 21-24
109. MARMOT MG, Heinemann L. Orale Kontrazeptiva - Risikofaktor für Herz-Kreislauf-Ereignisse - zufällige Assoziation oder kausale Beziehung? *Z arztl Fortbild* 1988;82:57-63.
110. Kogevinas M, MARMOT MG, Fox AJ. Socio-economic status and cancer: results from the OPCS longitudinal study. Working Paper No 56, February 1988
111. MARMOT MG. Hypercholesterolemia: A public health problem. In: Stokes J III, Mancini M (eds) *Atherosclerosis Reviews*, 1988;18: 95-109.
112. Mattock C, MARMOT MG, Stern G. Could Parkinson's disease follow intra-uterine influenza?: a speculative hypothesis. *J of Neurology, Neurosurgery and Psychiatry* 1988; 51:753-756
113. MARMOT MG. The rise and fall of coronary heart disease. *Mims Magazine*. August 1988; 40-41.
114. MARMOT MG. Psychosocial factors and cardiovascular disease: epidemiology approaches. *European Heart J*, 1988;9:690-697.
115. Poulter NR, Shipley MJ, Bulpitt CJ, Markowe HJ, MARMOT MG. Pulse rate and twenty-four hour urinary sodium content interact to determine blood pressure levels of male London civil servants. *Journal of Hypertension* 1988; 6(S4):S611-S613.
116. McKeigue PM, MARMOT MG. Mortality from coronary heart disease in Asian communities in London. *BMJ*, 1988; 299: 903.
117. MARMOT MG. Social and psychosocial factors in coronary heart disease. *Lipid Review*, 1988; 2(8):57-64.
118. MARMOT MG. Understanding trends in coronary heart disease. In: *Perspectives in Cardiology*. Sobel BE, Julian DG, Hugenholz PG (eds.) *Current Medical Literature*, 1988; 1-12.
119. McKeigue PM, MARMOT MG, Syndercombe Court YD, Cottier DE, Rahman S, Riemersma RA. Diabetes, hyperinsulinaemia, and coronary risk factors in Bangladeshis in East London. *British Heart J*, 1988; 60: 390-6.
120. MARMOT MG, Theorell T. Social class and cardiovascular disease: the contribution of work. *Int J of Health Services* 1988; 18(4):659-674.
121. INTERSALT Cooperative Research Group. Intersalt: an international study of electrolyte excretion and blood pressure. Results for 24 hour urinary sodium and potassium excretion. *BMJ* 1988; 297: 319-328.
122. Patel C, MARMOT MG. Efficacy versus effectiveness of relaxation therapy in hypertension. *Stress Medicine*, 1988; 4: 283-289.
123. MARMOT MG. Social class and mortality. Trends and explanations. *T.Soc. Gezondheidsz* 1988; 66:

315-320.

124. National Heart Forum, Coronary Heart Disease Prevention Action in the UK 1984-1977. Contribution by MARMOT MG, 1988
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